Table 8. DXH024 full load cooling performance (continued)

EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp power kW	Reject Mbtuh	LWT	Feet Head
105	4.5	24.7	18.4	0.74	1.78	30.8	118.7	3.9
105	5.0	24.8	18.5	0.75	1.76	30.8	117.3	4.7
105	5.6	24.8	18.5	0.75	1.74	30.7	116.0	5.8
105	5.9	24.8	18.5	0.75	1.74	30.7	115.4	6.3
105	6.2	24.8	18.5	0.75	1.73	30.7	114.9	6.9
105	6.7	24.8	18.5	0.75	1.72	30.7	114.2	7.9
115	3.6	23.1	17.8	0.77	2.04	30.1	131.7	2.6
115	4.5	23.2	17.9	0.77	1.99	30.0	128.3	3.9
115	5.0	23.3	18.0	0.77	1.97	30.0	127.0	4.7
115	5.6	23.3	18.0	0.77	1.96	30.0	125.7	5.7
115	5.9	23.3	18.0	0.77	1.95	30.0	125.2	6.3
115	6.2	23.3	18.0	0.77	1.94	29.9	124.6	6.8
115	6.7	23.4	18.0	0.77	1.93	30.0	124.0	7.8
120	3.6	22.3	17.5	0.78	2.16	29.7	136.5	2.6
120	4.5	22.4	17.6	0.79	2.12	29.6	133.2	3.9
120	5.0	22.4	17.6	0.79	2.10	29.6	131.8	4.7
120	5.6	22.4	17.6	0.79	2.08	29.5	130.5	5.7
120	5.9	22.5	17.7	0.79	2.07	29.6	130.0	6.3
120	6.2	22.5	17.7	0.79	2.07	29.5	129.5	6.8
120	6.7	22.5	17.7	0.79	2.05	29.5	128.8	7.8

Notes: Cooling performance data is tabulated at 80°F DB/67°F WB entering air at AHRI/ISO 13256-1 rated CFM. For AHRI/ISO 13256-1 certified ratings, see Table 6. See Performance correction tables to correct performance at conditions other than those tabulated. Interpolation of data is permissible, extrapolation is not. Rated GPM 5.6, Rated CFM 760, Minimum CFM 608, Maximum CFM 836.

Table 9. DXH024 full load heating performance

EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp power kW	LWT	Feet head
25	5.0	14.9	10.6	1.27	20.8	9.5
25	5.6	15.0	10.7	1.27	21.2	11.6
25	5.9	15.0	10.7	1.27	21.4	12.7
25	6.2	15.0	10.7	1.27	21.5	13.8
25	6.7	14.9	10.6	1.27	21.8	15.8
35	3.6	18.9	14.2	1.36	27.1	4.3
35	4.5	19.3	14.6	1.37	28.5	6.3
35	5.0	19.5	14.8	1.38	29.1	7.6
35	5.6	19.6	14.9	1.38	29.7	9.3
35	5.9	19.7	15.0	1.38	29.9	10.2
35	6.2	19.7	15.0	1.38	30.2	11.1
35	6.7	19.8	15.1	1.38	30.5	12.8
45	3.6	22.7	17.7	1.46	35.2	3.7
45	4.5	23.3	18.3	1.47	36.9	5.4
45	5.0	23.6	18.6	1.48	37.6	6.5
45	5.6	23.8	18.7	1.48	38.3	8.0
45	5.9	23.9	18.8	1.48	38.6	8.8

Table 9. DXH024 full load heating performance (continued)

EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp power kW	LWT	Feet head
45	6.2	24.0	18.9	1.49	38.9	9.6
45	6.7	24.1	19.0	1.49	39.3	11.0
55	3.6	26.2	20.9	1.54	43.4	3.3
55	4.5	26.9	21.6	1.56	45.4	4.9
55	5.0	27.3	21.9	1.57	46.2	5.8
55	5.6	27.6	22.2	1.58	47.1	7.1
55	5.9	27.7	22.3	1.58	47.4	7.8
55	6.2	27.9	22.5	1.58	47.7	8.6
55	6.7	28.0	22.6	1.59	48.3	9.8
65	3.6	29.5	24.0	1.62	51.7	3.0
65	4.5	30.3	24.7	1.65	54.0	4.5
65	5.0	30.8	25.1	1.66	55.0	5.4
65	5.6	31.2	25.5	1.67	55.9	6.6
65	5.9	31.3	25.6	1.67	56.3	7.2
65	6.2	31.5	25.8	1.67	56.7	7.9
65	6.7	31.7	26.0	1.68	57.2	9.1
75	3.6	32.7	26.9	1.71	60.1	2.9
75	4.5	33.6	27.7	1.73	62.7	4.2
75	5.0	34.2	28.2	1.74	63.7	5.1
75	5.6	34.6	28.6	1.75	64.8	6.2
75	5.9	34.7	28.7	1.76	65.3	6.8
75	6.2	34.9	28.9	1.76	65.7	7.5
75	6.7	35.2	29.2	1.77	66.3	8.6
85	3.6	35.9	29.8	1.79	68.4	2.7
85	4.5	36.9	30.7	1.82	71.4	4.1
85	5.0	37.5	31.2	1.83	72.5	4.9
85	5.6	37.9	31.6	1.84	73.7	6.0
85	5.9	38.1	31.8	1.85	74.2	6.6
85	6.2	38.3	32.0	1.85	74.7	7.2
85	6.7	38.6	32.3	1.86	75.4	8.2

Notes: Heating performance data is tabulated at 68°F DB entering air at AHRI/ISO 13256-1 rated CFM. For AHRI/ISO 13256-1 certified ratings, see Table 6. See Performance correction tables to correct performance at conditions other than those tabulated. Interpolation of data is permissible, extrapolation is not. Rated GPM 5.6, Rated CFM 760, Minimum CFM 608, Maximum CFM 836.

Table 10. DXH024 fan correction factors

Entering CFM	Cooling capacity	Sensible capacity	Cooling comp watts	Heating capacity	Heating comp watts
608	0.954	0.887	0.997	0.973	1.099
684	0.979	0.945	0.999	0.989	1.044
760	**1.000**	**1.000**	**1.000**	**1.000**	**1.000**
836	1.018	1.056	1.001	1.009	0.965

Table 11. DXH036 full load cooling performance

EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp power kW	Reject Mbtuh	LWT	Feet Head
45	5.5	44.6	29.3	0.66	1.46	49.6	63.0	3.4
45	6.7	44.8	29.4	0.66	1.42	49.6	59.8	4.7
45	7.6	44.9	29.5	0.66	1.40	49.7	58.1	5.7
45	8.4	45.0	29.6	0.66	1.39	49.7	56.8	6.6
45	8.8	45.0	29.6	0.66	1.38	49.7	56.3	7.2
45	9.2	45.1	29.6	0.66	1.38	49.8	55.8	7.7
45	10.1	45.1	29.6	0.66	1.37	49.8	54.9	8.8
55	5.5	44.3	29.8	0.67	1.61	49.8	73.1	2.9
55	6.7	44.5	29.9	0.67	1.56	49.8	69.9	4.1
55	7.6	44.6	30.0	0.67	1.54	49.9	68.1	5.1
55	8.4	44.6	30.0	0.67	1.53	49.8	66.9	6.1
55	8.8	44.7	30.0	0.67	1.52	49.9	66.3	6.6
55	9.2	44.7	30.0	0.67	1.52	49.9	65.8	7.2
55	10.1	44.7	30.0	0.67	1.51	49.8	64.9	8.3
65	5.5	42.9	29.4	0.69	1.79	49.0	82.8	2.6
65	6.7	43.1	29.6	0.69	1.74	49.0	79.6	3.8
65	7.6	43.2	29.6	0.69	1.71	49.0	77.9	4.8
65	8.4	43.3	29.7	0.69	1.69	49.1	76.7	5.8
65	8.8	43.3	29.7	0.69	1.69	49.1	76.2	6.3
65	9.2	43.4	29.8	0.69	1.68	49.1	75.7	6.8
65	10.1	43.4	29.8	0.69	1.67	49.1	74.7	7.9
75	5.5	41.2	28.8	0.70	1.99	48.0	92.5	2.4
75	6.7	41.4	29.0	0.70	1.93	48.0	89.3	3.6
75	7.6	41.5	29.1	0.70	1.91	48.0	87.6	4.6
75	8.4	41.6	29.1	0.70	1.89	48.0	86.4	5.6
75	8.8	41.6	29.1	0.70	1.88	48.0	85.9	6.1
75	9.2	41.6	29.1	0.70	1.87	48.0	85.4	6.6
75	10.1	41.7	29.2	0.70	1.86	48.0	84.5	7.7
85	5.5	39.3	28.1	0.72	2.23	46.9	102.1	2.2
85	6.7	39.5	28.2	0.71	2.16	46.9	99.0	3.5
85	7.6	39.6	28.3	0.71	2.13	46.9	97.3	4.5
85	8.4	39.7	28.4	0.72	2.11	46.9	96.2	5.4
85	8.8	39.8	28.5	0.72	2.10	47.0	95.7	6.0
85	9.2	39.8	28.5	0.72	2.09	46.9	95.2	6.5
85	10.1	39.8	28.5	0.72	2.08	46.9	94.3	7.6
95	5.5	37.4	27.4	0.73	2.49	45.9	111.7	2.1
95	6.7	37.6	27.5	0.73	2.42	45.9	108.7	3.4
95	7.6	37.7	27.6	0.73	2.39	45.9	107.1	4.4
95	8.4	37.8	27.7	0.73	2.37	45.9	105.9	5.4
95	8.8	37.8	27.7	0.73	2.36	45.8	105.4	5.9
95	9.2	37.8	27.7	0.73	2.35	45.8	105.0	6.4
95	10.1	37.9	27.7	0.73	2.33	45.9	104.1	7.5
105	5.5	35.3	26.6	0.75	2.78	44.8	121.3	2.1

Table 11. DXH036 full load cooling performance (continued)

EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp power kW	Reject Mbtuh	LWT	Feet Head
105	6.7	35.5	26.7	0.75	2.72	44.8	118.4	3.3
105	7.6	35.6	26.8	0.75	2.68	44.8	116.8	4.3
105	8.4	35.7	26.9	0.75	2.66	44.8	115.7	5.3
105	8.8	35.7	26.9	0.75	2.65	44.7	115.2	5.8
105	9.2	35.7	26.9	0.75	2.64	44.7	114.7	6.3
105	10.1	35.8	27.0	0.75	2.62	44.7	113.9	7.4
115	5.5	33.0	25.7	0.78	3.12	43.6	130.9	2.1
115	6.7	33.2	25.9	0.78	3.05	43.6	128.0	3.3
115	7.6	33.3	25.9	0.78	3.01	43.6	126.5	4.3
115	8.4	33.3	25.9	0.78	2.99	43.5	125.4	5.3
115	8.8	33.4	26.0	0.78	2.97	43.6	124.9	5.8
115	9.2	33.4	26.0	0.78	2.96	43.5	124.5	6.3
115	10.1	33.4	26.0	0.78	2.95	43.5	123.6	7.4
120	5.5	31.7	25.2	0.79	3.30	42.9	135.6	2.0
120	6.7	31.9	25.3	0.79	3.23	42.9	132.8	3.3
120	7.6	32.0	25.4	0.79	3.19	42.9	131.3	4.3
120	8.4	32.1	25.5	0.79	3.16	42.9	130.2	5.2
120	8.8	32.1	25.5	0.79	3.15	42.9	129.8	5.8
120	9.2	32.2	25.6	0.80	3.14	42.9	129.3	6.3
120	10.1	32.2	25.6	0.80	3.12	42.9	128.5	7.4

Notes: Cooling performance data is tabulated at 80°F DB/67°F WB entering air at AHRI/ISO 13256-1 rated CFM. For AHRI/ISO 13256-1 certified ratings, see Table 6. See Performance correction tables to correct performance at conditions other than those tabulated. Interpolation of data is permissible, extrapolation is not. Rated GPM 8.4, Rated CFM 1140, Minimum CFM 912, Maximum CFM 1254.

Table 12. DXH036 full load heating performance

EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp power kW	LWT	Feet head
25	8.4	26.1	19.3	1.99	20.4	8.6
25	8.8	26.3	19.5	2.00	20.6	9.1
25	9.2	26.5	19.7	2.00	20.7	9.7
25	10.1	27.0	20.1	2.02	21.0	10.8
35	5.5	28.7	21.6	2.09	27.1	4.3
35	6.7	30.0	22.7	2.14	28.2	5.5
35	7.6	30.6	23.3	2.15	28.9	6.5
35	8.4	31.1	23.7	2.17	29.4	7.5
35	8.8	31.3	23.9	2.18	29.6	8.0
35	9.2	31.5	24.0	2.18	29.8	8.6
35	10.1	31.9	24.4	2.20	30.2	9.7
45	5.5	35.3	27.8	2.20	34.9	3.4
45	6.7	36.6	28.9	2.25	36.4	4.7
45	7.6	37.2	29.5	2.27	37.2	5.7
45	8.4	37.7	29.9	2.28	37.9	6.6
45	8.8	37.9	30.1	2.29	38.2	7.2

Table 12. DXH036 full load heating performance (continued)

EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp power kW	LWT	Feet head
45	9.2	38.1	30.3	2.29	38.4	7.7
45	10.1	38.6	30.7	2.31	38.9	8.8
55	5.5	40.2	32.1	2.37	43.3	2.9
55	6.7	41.5	33.3	2.41	45.1	4.1
55	7.6	42.1	33.8	2.43	46.1	5.1
55	8.4	42.6	34.3	2.45	46.8	6.1
55	8.8	42.8	34.4	2.45	47.2	6.6
55	9.2	43.0	34.6	2.46	47.5	7.2
55	10.1	43.5	35.0	2.48	48.1	8.3
65	5.5	44.2	35.5	2.55	52.1	2.6
65	6.7	45.5	36.6	2.60	54.1	3.8
65	7.6	46.1	37.2	2.61	55.2	4.8
65	8.4	46.6	37.6	2.63	56.0	5.8
65	8.8	46.8	37.8	2.64	56.4	6.3
65	9.2	47.0	38.0	2.64	56.7	6.8
65	10.1	47.5	38.4	2.66	57.4	7.9
75	5.5	49.2	40.0	2.71	60.5	2.4
75	6.7	50.5	41.1	2.75	62.7	3.6
75	7.6	51.1	41.7	2.77	64.0	4.6
75	8.4	51.6	42.1	2.79	65.0	5.6
75	8.8	51.8	42.3	2.79	65.4	6.1
75	9.2	52.0	42.5	2.80	65.8	6.6
75	10.1	52.4	42.8	2.82	66.5	7.7
85	5.5	54.6	44.8	2.87	68.7	2.2
85	6.7	55.9	46.0	2.91	71.3	3.5
85	7.6	56.5	46.5	2.93	72.8	4.5
85	8.4	57.0	46.9	2.95	73.8	5.4
85	8.8	57.2	47.1	2.95	74.3	6.0
85	9.2	57.4	47.3	2.96	74.7	6.5
85	10.1	57.9	47.7	2.98	75.6	7.6

Notes: Heating performance data is tabulated at 68°F DB entering air at AHRI/ISO 13256-1 rated CFM. For AHRI/ISO 13256-1 certified ratings, see Table 6. See Performance correction tables to correct performance at conditions other than those tabulated. Interpolation of data is permissible, extrapolation is not. Rated GPM 8.4, Rated CFM 1140, Minimum CFM 912, Maximum CFM 1254.

Table 13. DXH036 fan correction factors

Entering CFM	Cooling capacity	Sensible capacity	Cooling comp watts	Heating capacity	Heating comp watts
912	0.958	0.884	0.996	0.986	1.105
1026	0.981	0.943	0.998	0.994	1.045
1140	**1.000**	**1.000**	**1.000**	**1.000**	**1.000**
1254	1.016	1.054	1.002	1.005	0.962

Table 14. DXH048 full load cooling performance

EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp power kW	Reject Mbtuh	LWT	Feet Head
45	7.3	62.5	41.6	0.67	1.86	68.9	63.9	4.8
45	9.0	62.5	41.6	0.67	1.79	68.6	60.2	6.9
45	10.1	62.4	41.5	0.67	1.76	68.4	58.5	8.7
45	11.2	62.2	41.4	0.67	1.74	68.1	57.2	10.4
45	11.8	62.1	41.3	0.67	1.73	68.0	56.5	11.3
45	12.3	61.9	41.2	0.67	1.72	67.8	56.0	12.1
45	13.4	61.7	41.0	0.66	1.70	67.5	55.1	13.6
55	7.3	60.4	41.0	0.68	2.05	67.4	73.5	4.5
55	9.0	60.6	41.1	0.68	1.98	67.4	70.0	6.3
55	10.1	60.6	41.1	0.68	1.95	67.2	68.3	8.0
55	11.2	60.5	41.0	0.68	1.92	67.0	67.0	9.6
55	11.8	60.5	41.0	0.68	1.91	67.0	66.4	10.5
55	12.3	60.4	41.0	0.68	1.90	66.9	65.9	11.2
55	13.4	60.3	40.9	0.68	1.88	66.7	65.0	12.7
65	7.3	58.4	40.2	0.69	2.27	66.2	83.1	4.2
65	9.0	58.7	40.4	0.69	2.20	66.2	79.7	5.9
65	10.1	58.7	40.4	0.69	2.16	66.1	78.1	7.4
65	11.2	58.8	40.5	0.69	2.13	66.1	76.8	9.0
65	11.8	58.8	40.5	0.69	2.12	66.0	76.2	9.9
65	12.3	58.8	40.5	0.69	2.11	66.0	75.7	10.6
65	13.4	58.7	40.4	0.69	2.09	65.8	74.8	12.0
75	7.3	56.3	39.5	0.70	2.53	64.9	92.8	4.1
75	9.0	56.5	39.7	0.70	2.45	64.9	89.4	5.6
75	10.1	56.7	39.8	0.70	2.41	64.9	87.9	7.1
75	11.2	56.7	39.8	0.70	2.38	64.8	86.6	8.6
75	11.8	56.8	39.9	0.70	2.37	64.9	86.0	9.4
75	12.3	56.8	39.9	0.70	2.36	64.8	85.5	10.1
75	13.4	56.8	39.9	0.70	2.34	64.8	84.7	11.5
85	7.3	53.8	38.5	0.72	2.83	63.5	102.4	3.9
85	9.0	54.1	38.7	0.72	2.75	63.5	99.1	5.3
85	10.1	54.3	38.9	0.72	2.71	63.5	97.6	6.8
85	11.2	54.4	39.0	0.72	2.67	63.5	96.3	8.3
85	11.8	54.4	39.0	0.72	2.66	63.5	95.8	9.1
85	12.3	54.4	39.0	0.72	2.65	63.4	95.3	9.7
85	13.4	54.5	39.0	0.72	2.63	63.5	94.5	11.1
95	7.3	51.1	37.5	0.73	3.18	61.9	112.0	3.8
95	9.0	51.4	37.7	0.73	3.09	61.9	108.8	5.2
95	10.1	51.6	37.8	0.73	3.04	62.0	107.3	6.5
95	11.2	51.7	37.9	0.73	3.01	62.0	106.1	8.0
95	11.8	51.7	37.9	0.73	3.00	61.9	105.5	8.8
95	12.3	51.7	37.9	0.73	2.98	61.9	105.1	9.4
95	13.4	51.8	38.0	0.73	2.96	61.9	104.2	10.8
105	7.3	48.2	36.3	0.75	3.57	60.4	121.5	3.7

Table 14. DXH048 full load cooling performance (continued)

EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp power kW	Reject Mbtuh	LWT	Feet Head
105	9.0	48.4	36.5	0.75	3.48	60.3	118.4	5.0
105	10.1	48.6	36.6	0.75	3.43	60.3	116.9	6.4
105	11.2	48.7	36.7	0.75	3.40	60.3	115.8	7.8
105	11.8	48.7	36.7	0.75	3.38	60.2	115.2	8.6
105	12.3	48.7	36.7	0.75	3.37	60.2	114.8	9.2
105	13.4	48.8	36.8	0.75	3.35	60.2	114.0	10.6
115	7.3	45.0	35.1	0.78	4.03	58.7	131.1	3.6
115	9.0	45.2	35.3	0.78	3.93	58.6	128.0	4.9
115	10.1	45.3	35.3	0.78	3.88	58.5	126.6	6.2
115	11.2	45.4	35.4	0.78	3.84	58.5	125.4	7.6
115	11.8	45.5	35.5	0.78	3.83	58.6	124.9	8.4
115	12.3	45.5	35.5	0.78	3.81	58.5	124.5	9.0
115	13.4	45.5	35.5	0.78	3.79	58.4	123.7	10.3
120	7.3	43.3	34.4	0.79	4.27	57.9	135.9	3.6
120	9.0	43.6	34.7	0.80	4.17	57.8	132.8	4.8
120	10.1	43.7	34.7	0.79	4.12	57.8	131.4	6.1
120	11.2	43.7	34.7	0.79	4.08	57.6	130.3	7.5
120	11.8	43.7	34.7	0.79	4.07	57.6	129.8	8.3
120	12.3	43.8	34.8	0.79	4.05	57.6	129.4	8.9
120	13.4	43.8	34.8	0.79	4.03	57.5	128.6	10.3

Notes: Cooling performance data is tabulated at 80°F DB/67°F WB entering air at AHRI/ISO 13256-1 rated CFM. For AHRI/ISO 13256-1 certified ratings, see Table 6. See Performance correction tables to correct performance at conditions other than those tabulated. Interpolation of data is permissible, extrapolation is not. Rated GPM 5.6, Rated CFM 760, Minimum CFM 608, Maximum CFM 836.

Table 15. DXH048 full load heating performance

EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp power kW	LWT	Feet head
25	11.2	34.3	25.6	2.54	20.4	13.7
25	11.8	34.6	25.9	2.55	20.6	14.8
25	12.3	34.8	26.1	2.56	20.8	15.7
25	13.4	35.2	26.4	2.57	21.1	17.5
35	7.3	38.0	29.0	2.65	27.1	5.3
35	9.0	39.3	30.2	2.67	28.3	7.8
35	10.1	40.1	30.9	2.69	28.9	9.7
35	11.2	40.7	31.5	2.70	29.4	11.6
35	11.8	40.9	31.7	2.70	29.6	12.6
35	12.3	41.1	31.9	2.71	29.8	13.4
35	13.4	41.5	32.2	2.71	30.2	15.1
45	7.3	45.3	35.8	2.80	35.2	4.8
45	9.0	46.7	37.1	2.82	36.8	6.9
45	10.1	47.4	37.7	2.83	37.5	8.7
45	11.2	48.0	38.3	2.84	38.2	10.4
45	11.8	48.2	38.5	2.84	38.5	11.3
45	12.3	48.5	38.8	2.85	38.7	12.1

Table 15. DXH048 full load heating performance (continued)

EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp power kW	LWT	Feet head
45	13.4	48.9	39.2	2.85	39.1	13.6
55	7.3	51.1	41.1	2.94	43.7	4.5
55	9.0	52.5	42.4	2.96	45.6	6.3
55	10.1	53.2	43.0	2.98	46.5	8.0
55	11.2	53.8	43.6	2.99	47.2	9.6
55	11.8	54.0	43.8	2.99	47.6	10.5
55	12.3	54.3	44.1	3.00	47.8	11.2
55	13.4	54.7	44.5	3.00	48.4	12.7
65	7.3	57.2	46.6	3.10	52.2	4.2
65	9.0	58.6	47.9	3.14	54.4	5.9
65	10.1	59.3	48.5	3.16	55.4	7.4
65	11.2	59.9	49.1	3.17	56.2	9.0
65	11.8	60.1	49.3	3.18	56.6	9.9
65	12.3	60.3	49.4	3.18	57.0	10.6
65	13.4	60.7	49.8	3.19	57.6	12.0
75	7.3	65.5	54.2	3.31	60.2	4.1
75	9.0	66.9	55.4	3.36	62.7	5.6
75	10.1	67.6	56.0	3.39	63.9	7.1
75	11.2	68.2	56.6	3.41	64.9	8.6
75	11.8	68.4	56.7	3.42	65.4	9.4
75	12.3	68.6	56.9	3.43	65.7	10.1
75	13.4	69.0	57.3	3.44	66.4	11.5
85	7.3	73.7	61.5	3.59	68.2	3.9
85	9.0	75.1	62.6	3.66	71.1	5.3
85	10.1	75.8	63.2	3.70	72.5	6.8
85	11.2	76.4	63.7	3.73	73.6	8.3
85	11.8	76.6	63.8	3.74	74.2	9.1
85	12.3	76.9	64.1	3.75	74.6	9.7
85	13.4	77.3	64.4	3.77	75.4	11.1

Notes: Heating performance data is tabulated at 68°F DB entering air at AHRI/ISO 13256-1 rated CFM. For AHRI/ISO 13256-1 certified ratings, see Table 6. See Performance correction tables to correct performance at conditions other than those tabulated. Interpolation of data is permissible, extrapolation is not. Rated GPM 11.2, Rated CFM 1520, Minimum CFM 1216, Maximum CFM 1672.

Table 16. DXH048 fan correction factors

Entering CFM	Cooling capacity	Sensible capacity	Cooling comp watts	Heating capacity	Heating comp watts
1216	0.958	0.883	0.997	0.971	1.105
1368	0.981	0.941	0.999	0.987	1.047
1520	**1.000**	**0.997**	**1.000**	**1.000**	**1.000**
1672	1.016	1.050	1.001	1.011	0.963

Table 17. DXH060 full load cooling performance

EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp power kW	Reject Mbtuh	LWT	Feet Head
45	9.1	73.5	46.1	0.63	2.27	81.2	62.8	3.6
45	11.2	73.5	46.1	0.63	2.21	81.0	59.5	5.2
45	12.6	73.5	46.1	0.63	2.18	81.0	57.9	6.4
45	14.0	73.5	46.1	0.63	2.16	80.9	56.6	7.7
45	14.7	73.5	46.1	0.63	2.16	80.9	56.0	8.4
45	15.4	73.5	46.1	0.63	2.15	80.8	55.5	9.1
45	16.8	73.6	46.1	0.63	2.14	80.9	54.6	10.6
55	9.1	70.5	45.5	0.65	2.54	79.2	72.4	3.5
55	11.2	70.7	45.7	0.65	2.47	79.1	69.1	5.1
55	12.6	70.7	45.7	0.65	2.44	79.0	67.5	6.3
55	14.0	70.7	45.7	0.65	2.42	78.9	66.3	7.5
55	14.7	70.7	45.7	0.65	2.41	78.9	65.7	8.2
55	15.4	70.8	45.7	0.65	2.40	79.0	65.3	8.9
55	16.8	70.9	45.8	0.65	2.38	79.0	64.4	10.4
65	9.1	67.6	44.6	0.66	2.83	77.3	82.0	3.5
65	11.2	67.8	44.7	0.66	2.75	77.2	78.8	5.0
65	12.6	67.9	44.8	0.66	2.72	77.2	77.3	6.1
65	14.0	68.0	44.9	0.66	2.69	77.2	76.0	7.4
65	14.7	68.0	44.9	0.66	2.68	77.1	75.5	8.1
65	15.4	68.0	44.9	0.66	2.67	77.1	75.0	8.7
65	16.8	68.2	45.0	0.66	2.65	77.3	74.2	10.2
75	9.1	64.8	43.5	0.67	3.15	75.6	91.6	3.4
75	11.2	65.0	43.7	0.67	3.07	75.5	88.5	4.9
75	12.6	65.1	43.7	0.67	3.03	75.4	87.0	6.0
75	14.0	65.2	43.8	0.67	3.00	75.4	85.8	7.3
75	14.7	65.3	43.9	0.67	2.98	75.5	85.3	7.9
75	15.4	65.3	43.9	0.67	2.97	75.4	84.8	8.6
75	16.8	65.4	43.9	0.67	2.95	75.5	84.0	10.0
85	9.1	61.8	42.3	0.68	3.51	73.8	101.2	3.3
85	11.2	62.2	42.5	0.68	3.42	73.9	98.2	4.8
85	12.6	62.3	42.6	0.68	3.37	73.8	96.7	5.9
85	14.0	62.4	42.7	0.68	3.34	73.8	95.5	7.1
85	14.7	62.4	42.7	0.68	3.33	73.7	95.0	7.8
85	15.4	62.5	42.8	0.68	3.31	73.8	94.6	8.4
85	16.8	62.6	42.8	0.68	3.29	73.8	93.8	9.8
95	9.1	58.8	41.0	0.70	3.91	72.1	110.8	3.3
95	11.2	59.2	41.3	0.70	3.81	72.2	107.9	4.7
95	12.6	59.3	41.4	0.70	3.77	72.2	106.5	5.8
95	14.0	59.4	41.5	0.70	3.73	72.1	105.3	7.0
95	14.7	59.5	41.5	0.70	3.71	72.2	104.8	7.6
95	15.4	59.5	41.5	0.70	3.70	72.1	104.4	8.3
95	16.8	59.7	41.7	0.70	3.68	72.2	103.6	9.6
105	9.1	55.7	39.9	0.72	4.36	70.6	120.5	3.2

Table 17. DXH060 full load cooling performance (continued)

EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp power kW	Reject Mbtuh	LWT	Feet Head
105	11.2	56.0	40.2	0.72	4.26	70.5	117.6	4.6
105	12.6	56.2	40.3	0.72	4.21	70.6	116.2	5.7
105	14.0	56.3	40.4	0.72	4.18	70.5	115.1	6.8
105	14.7	56.4	40.4	0.72	4.16	70.6	114.6	7.5
105	15.4	56.4	40.4	0.72	4.14	70.5	114.2	8.1
105	16.8	56.5	40.5	0.72	4.12	70.6	113.4	9.4
115	9.1	52.3	38.8	0.74	4.87	68.9	130.1	3.2
115	11.2	52.7	39.1	0.74	4.77	69.0	127.3	4.5
115	12.6	52.9	39.2	0.74	4.72	69.0	126.0	5.6
115	14.0	53.0	39.3	0.74	4.68	69.0	124.9	6.7
115	14.7	53.0	39.3	0.74	4.67	68.9	124.4	7.3
115	15.4	53.0	39.3	0.74	4.65	68.9	123.9	7.9
115	16.8	53.1	39.3	0.74	4.62	68.9	123.2	9.3
120	9.1	50.5	38.2	0.76	5.15	68.1	135.0	3.1
120	11.2	50.9	38.5	0.76	5.05	68.1	132.2	4.5
120	12.6	51.1	38.6	0.76	5.00	68.2	130.8	5.5
120	14.0	51.2	38.7	0.76	4.96	68.1	129.7	6.7
120	14.7	51.2	38.7	0.76	4.95	68.1	129.3	7.2
120	15.4	51.3	38.8	0.76	4.93	68.1	128.8	7.9
120	16.8	51.3	38.8	0.76	4.90	68.0	128.1	9.2

Notes: Cooling performance data is tabulated at 80°F DB/67°F WB entering air at AHRI/ISO 13256-1 rated CFM. For AHRI/ISO 13256-1 certified ratings, see Table 6. See Performance correction tables to correct performance at conditions other than those tabulated. Interpolation of data is permissible, extrapolation is not. Rated GPM 14, Rated CFM 1700, Minimum CFM 1360, Maximum CFM 1870.

Table 18. DXH060 full load heating performance

EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp power kW	LWT	Feet head
25	14.0	44.1	32.1	3.52	20.4	8.0
25	14.7	44.9	32.9	3.51	20.5	8.7
25	15.4	45.5	33.6	3.49	20.6	9.4
25	16.8	46.1	34.3	3.46	20.9	11.0
35	9.1	52.2	39.8	3.62	26.3	3.7
35	11.2	52.3	39.9	3.64	27.9	5.3
35	12.6	53.1	40.6	3.66	28.6	6.5
35	14.0	53.9	41.4	3.66	29.1	7.8
35	14.7	54.2	41.7	3.65	29.3	8.5
35	15.4	54.4	42.0	3.65	29.5	9.3
35	16.8	54.1	41.7	3.62	30.0	10.8
45	9.1	60.9	48.0	3.79	34.5	3.6
45	11.2	60.9	47.8	3.83	36.5	5.2
45	12.6	61.6	48.4	3.86	37.3	6.4
45	14.0	62.3	49.1	3.87	38.0	7.7
45	14.7	62.5	49.3	3.87	38.3	8.4

Table 18. DXH060 full load heating performance (continued)

EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp power kW	LWT	Feet head
45	15.4	62.6	49.4	3.87	38.6	9.1
45	16.8	62.0	48.8	3.86	39.2	10.6
55	9.1	68.7	55.0	4.03	42.9	3.5
55	11.2	69.1	55.2	4.08	45.1	5.1
55	12.6	69.9	55.8	4.12	46.1	6.3
55	14.0	70.8	56.6	4.15	46.9	7.5
55	14.7	71.1	56.9	4.16	47.3	8.2
55	15.4	71.2	57.0	4.16	47.6	8.9
55	16.8	70.7	56.5	4.16	48.3	10.4
65	9.1	76.3	61.6	4.31	51.5	3.5
65	11.2	77.2	62.2	4.39	53.9	5.0
65	12.6	78.4	63.2	4.44	55.0	6.1
65	14.0	79.6	64.3	4.48	55.8	7.4
65	14.7	80.0	64.6	4.50	56.2	8.1
65	15.4	80.3	64.9	4.51	56.6	8.7
65	16.8	80.0	64.6	4.52	57.3	10.2
75	9.1	84.0	68.1	4.65	60.0	3.4
75	11.2	85.6	69.4	4.74	62.6	4.9
75	12.6	87.2	70.8	4.81	63.8	6.0
75	14.0	88.8	72.2	4.86	64.7	7.3
75	14.7	89.4	72.7	4.89	65.1	7.9
75	15.4	89.8	73.1	4.90	65.5	8.6
75	16.8	89.9	73.1	4.93	66.3	10.0
85	9.1	91.7	74.6	5.02	68.6	3.3
85	11.2	94.1	76.6	5.13	71.3	4.8
85	12.6	96.2	78.4	5.21	72.6	5.9
85	14.0	98.2	80.2	5.28	73.5	7.1
85	14.7	99.1	81.0	5.31	74.0	7.8
85	15.4	99.7	81.5	5.33	74.4	8.4
85	16.8	100.2	81.9	5.37	75.3	9.8

Notes: Heating performance data is tabulated at 68°F DB entering air at AHRI/ISO 13256-1 rated CFM. For AHRI/ISO 13256-1 certified ratings, see Table 6. See Performance correction tables to correct performance at conditions other than those tabulated. Interpolation of data is permissible, extrapolation is not. Rated GPM 14, Rated CFM 1700, Minimum CFM 1360, Maximum CFM 1870.

Table 19. DXH060 fan correction factors

Entering CFM	Cooling capacity	Sensible capacity	Cooling comp watts	Heating capacity	Heating comp watts
1360	0.957	0.892	0.995	0.985	1.121
1530	0.980	0.946	0.998	0.994	1.053
1700	**1.000**	**1.000**	**1.000**	**1.000**	**1.000**
1870	1.018	1.054	1.002	1.008	0.963

Table 20. DXH070 full load cooling performance

EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp power kW	Reject Mbtuh	LWT	Feet Head
45	10.0	80.6	50.2	0.62	2.63	89.6	62.9	3.5
45	12.3	80.9	50.4	0.62	2.52	89.5	59.6	5.0
45	13.9	81.0	50.5	0.62	2.47	89.4	57.9	6.3
45	15.4	81.1	50.5	0.62	2.43	89.4	56.6	7.6
45	16.2	81.2	50.6	0.62	2.41	89.4	56.0	8.4
45	16.9	81.2	50.6	0.62	2.39	89.4	55.6	9.0
45	18.5	81.3	50.6	0.62	2.36	89.4	54.7	10.6
55	10.0	78.1	50.3	0.64	2.98	88.3	72.7	3.2
55	12.3	78.4	50.5	0.64	2.86	88.2	69.3	4.6
55	13.9	78.5	50.6	0.64	2.81	88.1	67.7	5.8
55	15.4	78.6	50.6	0.64	2.77	88.0	66.4	7.0
55	16.2	78.7	50.7	0.64	2.75	88.1	65.9	7.7
55	16.9	78.7	50.7	0.64	2.73	88.0	65.4	8.3
55	18.5	78.8	50.7	0.64	2.70	88.0	64.5	9.8
65	10.0	76.3	50.6	0.66	3.31	87.6	82.5	3.0
65	12.3	76.5	50.7	0.66	3.20	87.4	79.2	4.4
65	13.9	76.7	50.9	0.66	3.15	87.4	77.6	5.4
65	15.4	76.8	50.9	0.66	3.11	87.4	76.4	6.6
65	16.2	76.8	50.9	0.66	3.09	87.3	75.8	7.2
65	16.9	76.9	51.0	0.66	3.07	87.4	75.3	7.8
65	18.5	76.9	51.0	0.66	3.04	87.3	74.4	9.2
75	10.0	73.9	50.0	0.68	3.69	86.5	92.3	3.0
75	12.3	74.1	50.2	0.68	3.57	86.3	89.0	4.2
75	13.9	74.3	50.3	0.68	3.52	86.3	87.4	5.3
75	15.4	74.4	50.4	0.68	3.48	86.3	86.2	6.3
75	16.2	74.4	50.4	0.68	3.46	86.2	85.6	6.9
75	16.9	74.4	50.4	0.68	3.44	86.2	85.2	7.5
75	18.5	74.5	50.4	0.68	3.42	86.2	84.3	8.8
85	10.0	70.7	48.9	0.69	4.11	84.7	101.9	3.0
85	12.3	71.0	49.1	0.69	3.99	84.6	98.8	4.2
85	13.9	71.1	49.1	0.69	3.94	84.5	97.2	5.2
85	15.4	71.2	49.2	0.69	3.90	84.5	96.0	6.2
85	16.2	71.3	49.3	0.69	3.88	84.5	95.4	6.8
85	16.9	71.3	49.3	0.69	3.86	84.5	95.0	7.3
85	18.5	71.4	49.3	0.69	3.84	84.5	94.1	8.6
95	10.0	67.2	47.6	0.71	4.58	82.8	111.6	3.0
95	12.3	67.4	47.7	0.71	4.46	82.6	108.4	4.2
95	13.9	67.6	47.9	0.71	4.41	82.7	106.9	5.1
95	15.4	67.7	47.9	0.71	4.37	82.6	105.7	6.1
95	16.2	67.7	47.9	0.71	4.35	82.5	105.2	6.7
95	16.9	67.8	48.0	0.71	4.33	82.6	104.8	7.2
95	18.5	67.8	48.0	0.71	4.31	82.5	103.9	8.4
105	10.0	63.6	46.2	0.73	5.10	81.0	121.2	2.9

Table 20. DXH070 full load cooling performance (continued)

EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp power kW	Reject Mbtuh	LWT	Feet Head
105	12.3	63.9	46.5	0.73	4.99	80.9	118.2	4.1
105	13.9	64.0	46.5	0.73	4.94	80.8	116.6	5.0
105	15.4	64.1	46.6	0.73	4.89	80.8	115.5	6.0
105	16.2	64.1	46.6	0.73	4.88	80.7	115.0	6.5
105	16.9	64.2	46.7	0.73	4.86	80.8	114.6	7.0
105	18.5	64.2	46.7	0.73	4.83	80.7	113.7	8.2
115	10.0	59.9	44.9	0.75	5.69	79.3	130.9	2.7
115	12.3	60.2	45.2	0.75	5.58	79.2	127.9	3.9
115	13.9	60.3	45.2	0.75	5.52	79.1	126.4	4.9
115	15.4	60.4	45.3	0.75	5.48	79.1	125.3	5.8
115	16.2	60.4	45.3	0.75	5.46	79.0	124.8	6.4
115	16.9	60.5	45.4	0.75	5.45	79.1	124.4	6.8
115	18.5	60.5	45.4	0.75	5.42	79.0	123.5	8.0
120	10.0	57.7	43.9	0.76	6.01	78.2	135.6	2.5
120	12.3	57.9	44.1	0.76	5.90	78.0	132.7	3.8
120	13.9	58.1	44.2	0.76	5.85	78.0	131.2	4.7
120	15.4	58.2	44.3	0.76	5.80	78.0	130.1	5.7
120	16.2	58.2	44.3	0.76	5.79	77.9	129.6	6.2
120	16.9	58.3	44.4	0.76	5.77	78.0	129.2	6.7
120	18.5	58.3	44.4	0.76	5.74	77.9	128.4	7.9

Notes: Cooling performance data is tabulated at 80°F DB/67°F WB entering air at AHRI/ISO 13256-1 rated CFM. For AHRI/ISO 13256-1 certified ratings, see Table 6. See Performance correction tables to correct performance at conditions other than those tabulated. Interpolation of data is permissible, extrapolation is not. Rated GPM 15.4, Rated CFM 2090, Minimum CFM 1672, Maximum CFM 2299.

Table 21. DXH070 full load heating performance

EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp power kW	LWT	Feet head
25	16.2	53.9	40.8	3.85	20.0	10.7
25	16.9	54.4	41.2	3.86	20.1	11.5
25	18.5	55.3	42.0	3.89	20.5	13.3
35	10.0	55.9	42.1	4.03	26.6	4.0
35	12.3	57.8	43.9	4.09	27.9	5.7
35	13.9	59.2	45.1	4.13	28.5	7.1
35	15.4	60.3	46.1	4.17	29.0	8.6
35	16.2	60.8	46.5	4.18	29.3	9.4
35	16.9	61.2	46.9	4.19	29.4	10.1
35	18.5	61.8	47.4	4.22	29.9	11.8
45	10.0	64.9	50.3	4.28	34.9	3.5
45	12.3	66.2	51.4	4.33	36.6	5.0
45	13.9	67.3	52.4	4.38	37.5	6.3
45	15.4	68.2	53.1	4.41	38.1	7.6
45	16.2	68.6	53.5	4.42	38.4	8.4
45	16.9	68.9	53.8	4.43	38.6	9.0

Table 21. DXH070 full load heating performance (continued)

EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp power kW	LWT	Feet head
45	18.5	69.3	54.1	4.46	39.2	10.6
55	10.0	73.8	58.4	4.51	43.3	3.2
55	12.3	74.9	59.3	4.57	45.4	4.6
55	13.9	76.0	60.2	4.62	46.3	5.8
55	15.4	76.9	61.0	4.65	47.1	7.0
55	16.2	77.2	61.3	4.66	47.4	7.7
55	16.9	77.5	61.6	4.67	47.7	8.3
55	18.5	77.8	61.8	4.70	48.3	9.8
65	10.0	82.6	66.3	4.79	51.7	3.0
65	12.3	84.0	67.5	4.84	54.0	4.4
65	13.9	85.2	68.5	4.89	55.1	5.4
65	15.4	86.1	69.3	4.93	56.0	6.6
65	16.2	86.5	69.7	4.94	56.4	7.2
65	16.9	86.8	69.9	4.95	56.7	7.8
65	18.5	87.2	70.2	4.97	57.4	9.2
75	10.0	91.1	73.6	5.11	60.3	3.0
75	12.3	93.2	75.6	5.17	62.7	4.2
75	13.9	94.7	76.9	5.22	63.9	5.3
75	15.4	95.8	77.9	5.25	64.9	6.3
75	16.2	96.3	78.3	5.26	65.3	6.9
75	16.9	96.7	78.7	5.27	65.7	7.5
75	18.5	97.3	79.2	5.30	66.4	8.8
85	10.0	99.3	80.7	5.46	68.9	3.0
85	12.3	102.4	83.6	5.51	71.4	4.2
85	13.9	104.4	85.4	5.56	72.7	5.2
85	15.4	106.0	86.9	5.59	73.7	6.2
85	16.2	106.6	87.5	5.60	74.2	6.8
85	16.9	107.1	87.9	5.61	74.6	7.3
85	18.5	108.0	88.7	5.64	75.4	8.6
25	16.2	53.9	40.8	3.85	20.0	10.7

Notes: Heating performance data is tabulated at 68°F DB entering air at AHRI/ISO 13256-1 rated CFM. For AHRI/ISO 13256-1 certified ratings, see Table 6. See Performance correction tables to correct performance at conditions other than those tabulated. Interpolation of data is permissible, extrapolation is not. Rated GPM 15.4, Rated CFM 2090, Minimum CFM 1672, Maximum CFM 2299.

Table 22. DXH070 fan correction factors

Entering CFM	Cooling capacity	Sensible capacity	Cooling comp watts	Heating capacity	Heating comp watts
1672	0.958	0.893	0.996	0.990	1.103
1881	0.981	0.948	0.998	0.996	1.047
2090	**1.000**	**1.000**	**1.000**	**1.000**	**1.000**
2299	1.016	1.053	1.002	1.003	0.963

Table 23. DXV024 full load cooling performance

EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp power kW	Reject Mbtuh	LWT	Feet Head
45	3.6	29.8	19.1	0.64	0.90	32.9	63.3	3.9
45	4.5	29.9	19.1	0.64	0.86	32.8	59.6	5.7
45	5.0	30.0	19.2	0.64	0.84	32.9	58.2	6.9
45	5.6	30.0	19.2	0.64	0.82	32.8	56.7	8.4
45	5.9	30.0	19.2	0.64	0.82	32.8	56.1	9.3
45	6.2	30.1	19.3	0.64	0.81	32.9	55.6	10.1
45	6.7	30.1	19.3	0.64	0.80	32.8	54.8	11.6
55	3.6	29.7	19.8	0.67	1.03	33.2	73.4	3.5
55	4.5	29.8	19.8	0.66	0.99	33.2	69.8	5.1
55	5.0	29.8	19.8	0.66	0.97	33.1	68.2	6.2
55	5.6	29.9	19.9	0.67	0.96	33.2	66.9	7.6
55	5.9	29.9	19.9	0.67	0.95	33.1	66.2	8.3
55	6.2	29.9	19.9	0.67	0.95	33.1	65.7	9.1
55	6.7	29.9	19.9	0.67	0.94	33.1	64.9	10.5
65	3.6	29.0	19.7	0.68	1.16	33.0	83.3	3.2
65	4.5	29.1	19.8	0.68	1.12	32.9	79.6	4.8
65	5.0	29.2	19.8	0.68	1.10	33.0	78.2	5.7
65	5.6	29.2	19.8	0.68	1.09	32.9	76.8	7.0
65	5.9	29.2	19.8	0.68	1.08	32.9	76.2	7.7
65	6.2	29.2	19.8	0.68	1.08	32.9	75.6	8.4
65	6.7	29.3	19.9	0.68	1.07	32.9	74.8	9.7
75	3.6	28.0	19.3	0.69	1.29	32.4	93.0	3.1
75	4.5	28.1	19.4	0.69	1.25	32.4	89.4	4.5
75	5.0	28.2	19.5	0.69	1.24	32.4	88.0	5.4
75	5.6	28.2	19.5	0.69	1.22	32.4	86.6	6.6
75	5.9	28.2	19.5	0.69	1.22	32.3	85.9	7.3
75	6.2	28.2	19.5	0.69	1.21	32.3	85.4	8.0
75	6.7	28.3	19.6	0.69	1.20	32.4	84.7	9.2
85	3.6	26.8	18.9	0.71	1.44	31.7	102.6	2.9
85	4.5	26.9	19.0	0.71	1.40	31.7	99.1	4.3
85	5.0	27.0	19.1	0.71	1.38	31.7	97.7	5.2
85	5.6	27.0	19.1	0.71	1.37	31.7	96.3	6.4
85	5.9	27.1	19.1	0.70	1.36	31.7	95.7	7.0
85	6.2	27.1	19.1	0.70	1.35	31.7	95.2	7.7
85	6.7	27.1	19.1	0.70	1.34	31.7	94.5	8.8
95	3.6	25.6	18.5	0.72	1.61	31.1	112.3	2.8
95	4.5	25.7	18.6	0.72	1.56	31.0	108.8	4.2
95	5.0	25.7	18.6	0.72	1.54	31.0	107.4	5.1
95	5.6	25.8	18.7	0.72	1.53	31.0	106.1	6.2
95	5.9	25.8	18.7	0.72	1.52	31.0	105.5	6.8
95	6.2	25.8	18.7	0.72	1.51	31.0	105.0	7.5
95	6.7	25.8	18.7	0.72	1.50	30.9	104.2	8.6
105	3.6	24.2	18.0	0.74	1.79	30.3	121.8	2.8

Table 23. DXV024 full load cooling performance (continued)

EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp power kW	Reject Mbtuh	LWT	Feet Head
105	4.5	24.3	18.1	0.74	1.75	30.3	118.5	4.2
105	5.0	24.3	18.1	0.74	1.73	30.2	117.1	5.0
105	5.6	24.4	18.2	0.75	1.71	30.2	115.8	6.1
105	5.9	24.4	18.2	0.75	1.70	30.2	115.2	6.7
105	6.2	24.4	18.2	0.75	1.70	30.2	114.7	7.3
105	6.7	24.4	18.2	0.75	1.68	30.1	114.0	8.4
115	3.6	22.7	17.5	0.77	2.01	29.6	131.4	2.8
115	4.5	22.8	17.6	0.77	1.96	29.5	128.1	4.2
115	5.0	22.9	17.7	0.77	1.94	29.5	126.8	5.0
115	5.6	22.9	17.7	0.77	1.92	29.5	125.5	6.1
115	5.9	22.9	17.7	0.77	1.91	29.4	125.0	6.7
115	6.2	22.9	17.7	0.77	1.91	29.4	124.5	7.3
115	6.7	23.0	17.7	0.77	1.89	29.5	123.8	8.3
120	3.6	22.0	17.3	0.79	2.13	29.3	136.3	2.7
120	4.5	22.1	17.3	0.78	2.08	29.2	133.0	4.2
120	5.0	22.1	17.3	0.78	2.06	29.1	131.6	5.0
120	5.6	22.2	17.4	0.78	2.04	29.2	130.4	6.1
120	5.9	22.2	17.4	0.78	2.03	29.1	129.9	6.7
120	6.2	22.2	17.4	0.78	2.02	29.1	129.4	7.2
120	6.7	22.2	17.4	0.78	2.01	29.1	128.7	8.3

Notes: Cooling performance data is tabulated at 80°F DB/67°F WB entering air at AHRI/ISO 13256-1 rated CFM. For AHRI/ISO 13256-1 certified ratings, see Table 7. See Performance correction tables to correct performance at conditions other than those tabulated. Interpolation of data is permissible, extrapolation is not. Rated GPM 5.6, Rated CFM 760, Minimum CFM 608, Maximum CFM 836.

Table 24. DXV024 full load heating performance

EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp power kW	LWT	Feet head
25	5.6	17.8	13.3	1.32	20.3	12.0
25	5.9	17.9	13.4	1.32	20.5	13.1
25	6.2	18.0	13.5	1.32	20.6	14.3
25	6.7	18.3	13.8	1.33	20.9	16.3
35	3.6	19.5	14.9	1.36	26.7	4.5
35	4.5	19.9	15.2	1.37	28.2	6.6
35	5.0	20.2	15.5	1.38	28.8	8.0
35	5.6	20.4	15.7	1.38	29.4	9.8
35	5.9	20.5	15.8	1.38	29.6	10.7
35	6.2	20.7	16.0	1.39	29.8	11.7
35	6.7	20.9	16.2	1.39	30.2	13.4
45	3.6	23.4	18.6	1.42	34.7	3.9
45	4.5	23.8	18.9	1.43	36.6	5.7
45	5.0	24.1	19.2	1.43	37.3	6.9
45	5.6	24.3	19.4	1.44	38.1	8.4
45	5.9	24.4	19.5	1.44	38.4	9.3
45	6.2	24.6	19.7	1.44	38.6	10.1

Table 24. DXV024 full load heating performance (continued)

EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp power kW	LWT	Feet head
45	6.7	24.8	19.9	1.44	39.1	11.6
55	3.6	26.7	21.6	1.51	43.0	3.5
55	4.5	27.1	21.9	1.52	45.3	5.1
55	5.0	27.3	22.1	1.52	46.2	6.2
55	5.6	27.6	22.4	1.53	47.0	7.6
55	5.9	27.7	22.5	1.53	47.4	8.3
55	6.2	27.8	22.6	1.53	47.7	9.1
55	6.7	28.1	22.9	1.53	48.2	10.5
65	3.6	29.7	24.2	1.61	51.6	3.2
65	4.5	30.0	24.5	1.63	54.1	4.8
65	5.0	30.3	24.7	1.63	55.1	5.7
65	5.6	30.6	25.0	1.64	56.1	7.0
65	5.9	30.7	25.1	1.64	56.5	7.7
65	6.2	30.8	25.2	1.64	56.9	8.4
65	6.7	31.1	25.5	1.64	57.4	9.7
75	3.6	33.1	27.3	1.71	59.8	3.1
75	4.5	33.5	27.6	1.72	62.7	4.5
75	5.0	33.8	27.9	1.73	63.8	5.4
75	5.6	34.0	28.1	1.73	65.0	6.6
75	5.9	34.2	28.3	1.74	65.4	7.3
75	6.2	34.3	28.4	1.74	65.8	8.0
75	6.7	34.6	28.7	1.74	66.4	9.2
85	3.6	36.6	30.5	1.80	68.1	2.9
85	4.5	37.0	30.8	1.81	71.3	4.3
85	5.0	37.3	31.1	1.82	72.6	5.2
85	5.6	37.5	31.3	1.82	73.8	6.4
85	5.9	37.7	31.5	1.82	74.3	7.0
85	6.2	37.8	31.6	1.82	74.8	7.7
85	6.7	38.0	31.8	1.83	75.5	8.8

Notes: Heating performance data is tabulated at 68°F DB entering air at AHRI/ISO 13256-1 rated CFM. For AHRI/ISO 13256-1 certified ratings, see Table 7. See Performance correction tables to correct performance at conditions other than those tabulated. Interpolation of data is permissible, extrapolation is not. Rated GPM 5.6, Rated CFM 760, Minimum CFM 608, Maximum CFM 836.

Table 25. DXV024 fan correction factors

Entering CFM	Cooling capacity	Sensible capacity	Cooling comp watts	Heating capacity	Heating comp watts
608	0.958	0.891	0.997	0.979	1.099
684	0.981	0.946	0.999	0.991	1.044
760	**1.000**	**1.000**	**1.000**	**1.000**	**1.000**
836	1.017	1.055	1.001	1.008	0.966

Table 26. DXV036 full load cooling performance

EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp power kW	Reject Mbtuh	LWT	Feet Head
45	5.5	44.7	29.1	0.65	1.46	49.7	63.1	3.7
45	6.7	44.5	29.0	0.65	1.42	49.3	59.7	5.2
45	7.6	44.5	29.0	0.65	1.40	49.3	58.0	6.5
45	8.4	44.5	29.0	0.65	1.39	49.2	56.7	7.7
45	8.8	44.5	29.0	0.65	1.38	49.2	56.2	8.4
45	9.2	44.5	29.0	0.65	1.38	49.2	55.7	9.0
45	10.1	44.6	29.1	0.65	1.38	49.3	54.8	10.6
55	5.5	43.5	29.1	0.67	1.60	48.9	72.8	3.2
55	6.7	43.5	29.1	0.67	1.55	48.8	69.6	4.6
55	7.6	43.5	29.1	0.67	1.53	48.7	67.8	5.8
55	8.4	43.5	29.1	0.67	1.51	48.7	66.6	7.0
55	8.8	43.6	29.2	0.67	1.51	48.7	66.1	7.6
55	9.2	43.6	29.2	0.67	1.50	48.7	65.6	8.2
55	10.1	43.6	29.2	0.67	1.50	48.7	64.6	9.7
65	5.5	42.2	28.9	0.68	1.77	48.2	82.5	3.0
65	6.7	42.3	29.0	0.69	1.72	48.2	79.4	4.3
65	7.6	42.3	29.0	0.69	1.69	48.1	77.7	5.4
65	8.4	42.4	29.0	0.68	1.67	48.1	76.5	6.5
65	8.8	42.4	29.0	0.68	1.67	48.1	75.9	7.1
65	9.2	42.4	29.0	0.68	1.66	48.1	75.5	7.7
65	10.1	42.5	29.1	0.68	1.65	48.1	74.5	9.1
75	5.5	40.7	28.5	0.70	1.97	47.4	92.2	2.9
75	6.7	40.8	28.6	0.70	1.92	47.3	89.1	4.1
75	7.6	40.9	28.6	0.70	1.89	47.4	87.5	5.2
75	8.4	41.0	28.7	0.70	1.87	47.4	86.3	6.2
75	8.8	41.0	28.7	0.70	1.86	47.4	85.8	6.8
75	9.2	41.1	28.8	0.70	1.85	47.4	85.3	7.4
75	10.1	41.1	28.8	0.70	1.84	47.4	84.4	8.7
85	5.5	39.0	27.9	0.72	2.21	46.5	101.9	2.8
85	6.7	39.2	28.1	0.72	2.15	46.5	98.9	4.1
85	7.6	39.3	28.1	0.72	2.12	46.5	97.2	5.1
85	8.4	39.4	28.2	0.72	2.10	46.6	96.1	6.1
85	8.8	39.4	28.2	0.72	2.09	46.5	95.6	6.6
85	9.2	39.5	28.3	0.72	2.08	46.6	95.1	7.2
85	10.1	39.6	28.4	0.72	2.06	46.6	94.2	8.5
95	5.5	37.2	27.3	0.73	2.48	45.7	111.6	2.8
95	6.7	37.4	27.5	0.74	2.42	45.6	108.6	4.0
95	7.6	37.5	27.5	0.73	2.38	45.6	107.0	5.0
95	8.4	37.6	27.6	0.73	2.36	45.7	105.9	6.0
95	8.8	37.6	27.6	0.73	2.35	45.6	105.4	6.5
95	9.2	37.7	27.7	0.73	2.34	45.7	104.9	7.0
95	10.1	37.8	27.7	0.73	2.32	45.7	104.0	8.3
105	5.5	35.2	26.6	0.76	2.78	44.7	121.3	2.9

Table 26. DXV036 full load cooling performance (continued)

EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp power kW	Reject Mbtuh	LWT	Feet Head
105	6.7	35.4	26.7	0.75	2.71	44.7	118.3	4.0
105	7.6	35.5	26.8	0.75	2.68	44.6	116.7	5.0
105	8.4	35.6	26.9	0.76	2.65	44.7	115.6	5.9
105	8.8	35.6	26.9	0.76	2.64	44.6	115.1	6.4
105	9.2	35.7	27.0	0.76	2.63	44.7	114.7	7.0
105	10.1	35.7	27.0	0.76	2.62	44.6	113.8	8.2
115	5.5	33.0	25.8	0.78	3.11	43.6	130.9	2.9
115	6.7	33.2	26.0	0.78	3.04	43.6	128.0	4.0
115	7.6	33.3	26.0	0.78	3.01	43.6	126.5	5.0
115	8.4	33.4	26.1	0.78	2.98	43.6	125.4	5.9
115	8.8	33.4	26.1	0.78	2.97	43.5	124.9	6.4
115	9.2	33.4	26.1	0.78	2.96	43.5	124.5	6.9
115	10.1	33.5	26.2	0.78	2.94	43.5	123.6	8.1
120	5.5	31.9	25.4	0.80	3.29	43.1	135.7	2.9
120	6.7	32.1	25.6	0.80	3.22	43.1	132.9	4.0
120	7.6	32.1	25.6	0.80	3.18	43.0	131.3	5.0
120	8.4	32.2	25.7	0.80	3.16	43.0	130.2	5.9
120	8.8	32.2	25.7	0.80	3.15	42.9	129.8	6.4
120	9.2	32.2	25.7	0.80	3.14	42.9	129.3	6.9
120	10.1	32.3	25.7	0.80	3.12	42.9	128.5	8.1

Notes: Cooling performance data is tabulated at 80°F DB/67°F WB entering air at AHRI/ISO 13256-1 rated CFM. For AHRI/ISO 13256-1 certified ratings, see Table 7. See Performance correction tables to correct performance at conditions other than those tabulated. Interpolation of data is permissible, extrapolation is not. Rated GPM 8.4, Rated CFM 1140, Minimum CFM 912, Maximum CFM 1254.

Table 27. DXV036 full load heating performance

EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp power kW	LWT	Feet head
25	8.4	27.2	20.3	2.02	20.2	10.2
25	8.8	27.4	20.5	2.03	20.3	11.1
25	9.2	27.5	20.6	2.03	20.5	12.0
25	10.1	27.7	20.7	2.04	20.9	14.0
35	5.5	30.7	23.5	2.10	26.5	4.4
35	6.7	31.4	24.2	2.12	27.8	6.1
35	7.6	31.9	24.6	2.13	28.5	7.5
35	8.4	32.3	25.0	2.14	29.0	8.9
35	8.8	32.4	25.1	2.14	29.3	9.6
35	9.2	32.6	25.3	2.15	29.5	10.4
35	10.1	32.8	25.5	2.15	30.0	12.2
45	5.5	35.2	27.7	2.21	34.9	3.7
45	6.7	36.1	28.5	2.23	36.5	5.2
45	7.6	36.6	28.9	2.25	37.4	6.5
45	8.4	37.1	29.4	2.26	38.0	7.7
45	8.8	37.3	29.6	2.26	38.3	8.4

Table 27. DXV036 full load heating performance (continued)

EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp power kW	LWT	Feet head
45	9.2	37.4	29.7	2.27	38.5	9.0
45	10.1	37.8	30.0	2.27	39.1	10.6
55	5.5	39.6	31.5	2.36	43.5	3.2
55	6.7	40.7	32.5	2.39	45.3	4.6
55	7.6	41.3	33.1	2.41	46.3	5.8
55	8.4	41.8	33.5	2.43	47.0	7.0
55	8.8	42.0	33.7	2.43	47.3	7.6
55	9.2	42.2	33.9	2.44	47.6	8.2
55	10.1	42.6	34.2	2.45	48.2	9.7
65	5.5	44.0	35.4	2.53	52.1	3.0
65	6.7	45.3	36.5	2.56	54.1	4.3
65	7.6	46.0	37.2	2.59	55.2	5.4
65	8.4	46.6	37.7	2.60	56.0	6.5
65	8.8	46.9	38.0	2.61	56.4	7.1
65	9.2	47.1	38.2	2.62	56.7	7.7
65	10.1	47.5	38.5	2.63	57.4	9.1
75	5.5	48.7	39.5	2.69	60.6	2.9
75	6.7	50.2	40.9	2.73	62.8	4.1
75	7.6	51.0	41.6	2.75	64.1	5.2
75	8.4	51.7	42.2	2.77	65.0	6.2
75	8.8	52.0	42.5	2.78	65.3	6.8
75	9.2	52.3	42.8	2.79	65.7	7.4
75	10.1	52.7	43.1	2.81	66.5	8.7
85	5.5	53.8	44.1	2.84	69.0	2.8
85	6.7	55.5	45.7	2.88	71.4	4.1
85	7.6	56.4	46.5	2.91	72.8	5.1
85	8.4	57.1	47.1	2.93	73.8	6.1
85	8.8	57.5	47.5	2.94	74.2	6.6
85	9.2	57.8	47.7	2.95	74.6	7.2
85	10.1	58.3	48.2	2.96	75.5	8.5

Notes: Heating performance data is tabulated at 68°F DB entering air at AHRI/ISO 13256-1 rated CFM. For AHRI/ISO 13256-1 certified ratings, see Table 7. See Performance correction tables to correct performance at conditions other than those tabulated. Interpolation of data is permissible, extrapolation is not. Rated GPM 8.4, Rated CFM 1140, Minimum CFM 912, Maximum CFM 1254.

Table 28. DXV036 fan correction factors

Entering CFM	Cooling capacity	Sensible capacity	Cooling comp watts	Heating capacity	Heating comp watts
912	0.959	0.887	0.996	0.979	1.106
1026	0.981	0.943	0.998	0.990	1.046
1140	**1.000**	**1.000**	**1.000**	**1.000**	**1.000**
1254	1.017	1.056	1.002	1.007	0.962

Table 29. DXV048 full load cooling performance

EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp power kW	Reject Mbtuh	LWT	Feet Head
45	7.3	60.2	37.4	0.62	1.95	66.8	63.3	4.5
45	9.0	60.1	37.4	0.62	1.87	66.5	59.8	6.6
45	10.1	59.9	37.3	0.62	1.83	66.1	58.1	8.2
45	11.2	59.8	37.2	0.62	1.80	65.9	56.8	10.0
45	11.8	59.7	37.1	0.62	1.78	65.8	56.2	11.0
45	12.3	59.6	37.1	0.62	1.77	65.6	55.7	11.8
45	13.4	59.5	37.0	0.62	1.76	65.5	54.8	13.7
55	7.3	56.7	37.3	0.66	2.05	63.7	72.5	4.1
55	9.0	56.8	37.3	0.66	1.97	63.5	69.1	6.0
55	10.1	56.8	37.3	0.66	1.93	63.4	67.6	7.4
55	11.2	56.7	37.3	0.66	1.90	63.2	66.3	9.1
55	11.8	56.7	37.3	0.66	1.88	63.1	65.7	10.0
55	12.3	56.7	37.3	0.66	1.87	63.1	65.3	10.8
55	13.4	56.7	37.3	0.66	1.86	63.0	64.4	12.6
65	7.3	54.1	36.8	0.68	2.23	61.7	81.9	3.9
65	9.0	54.3	37.0	0.68	2.15	61.6	78.7	5.6
65	10.1	54.4	37.0	0.68	2.11	61.6	77.2	7.0
65	11.2	54.5	37.1	0.68	2.08	61.6	76.0	8.5
65	11.8	54.5	37.1	0.68	2.07	61.6	75.4	9.3
65	12.3	54.6	37.2	0.68	2.06	61.6	75.0	10.1
65	13.4	54.6	37.2	0.68	2.04	61.6	74.2	11.7
75	7.3	52.1	36.3	0.70	2.50	60.6	91.6	3.9
75	9.0	52.4	36.5	0.70	2.42	60.7	88.5	5.5
75	10.1	52.6	36.7	0.70	2.38	60.7	87.0	6.7
75	11.2	52.7	36.7	0.70	2.35	60.7	85.8	8.1
75	11.8	52.8	36.8	0.70	2.33	60.8	85.3	8.9
75	12.3	52.8	36.8	0.70	2.32	60.7	84.9	9.6
75	13.4	52.9	36.9	0.70	2.31	60.8	84.1	11.2
85	7.3	50.3	35.7	0.71	2.82	59.9	101.4	3.8
85	9.0	50.7	35.9	0.71	2.75	60.1	98.4	5.4
85	10.1	50.9	36.1	0.71	2.71	60.1	96.9	6.5
85	11.2	51.1	36.2	0.71	2.67	60.2	95.8	7.8
85	11.8	51.2	36.3	0.71	2.66	60.3	95.2	8.6
85	12.3	51.2	36.3	0.71	2.65	60.2	94.8	9.3
85	13.4	51.3	36.4	0.71	2.63	60.3	94.0	10.8
95	7.3	48.5	35.0	0.72	3.19	59.4	111.3	3.8
95	9.0	48.9	35.3	0.72	3.11	59.5	108.2	5.3
95	10.1	49.1	35.5	0.72	3.07	59.6	106.8	6.4
95	11.2	49.2	35.5	0.72	3.04	59.6	105.6	7.7
95	11.8	49.3	35.6	0.72	3.02	59.6	105.1	8.4
95	12.3	49.4	35.7	0.72	3.01	59.7	104.7	9.1
95	13.4	49.5	35.7	0.72	3.00	59.7	103.9	10.5
105	7.3	46.3	34.3	0.74	3.58	58.5	121.0	3.7

Table 29. DXV048 full load cooling performance (continued)

EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp power kW	Reject Mbtuh	LWT	Feet Head
105	9.0	46.6	34.5	0.74	3.50	58.5	118.0	5.2
105	10.1	46.8	34.6	0.74	3.46	58.6	116.6	6.3
105	11.2	46.9	34.7	0.74	3.43	58.6	115.5	7.5
105	11.8	47.0	34.8	0.74	3.41	58.6	114.9	8.3
105	12.3	47.0	34.8	0.74	3.40	58.6	114.5	8.9
105	13.4	47.1	34.9	0.74	3.39	58.7	113.8	10.3
115	7.3	43.4	33.3	0.77	4.01	57.1	130.6	3.4
115	9.0	43.6	33.4	0.77	3.94	57.0	127.7	5.1
115	10.1	43.7	33.5	0.77	3.90	57.0	126.3	6.1
115	11.2	43.7	33.5	0.77	3.87	56.9	125.2	7.3
115	11.8	43.8	33.6	0.77	3.85	56.9	124.6	8.1
115	12.3	43.8	33.6	0.77	3.84	56.9	124.3	8.7
115	13.4	43.8	33.6	0.77	3.82	56.9	123.5	10.0
120	7.3	41.6	32.7	0.79	4.27	56.2	135.4	3.2
120	9.0	41.7	32.8	0.79	4.20	56.0	132.4	4.9
120	10.1	41.7	32.8	0.79	4.16	55.9	131.1	6.0
120	11.2	41.7	32.8	0.79	4.12	55.8	130.0	7.2
120	11.8	41.7	32.8	0.79	4.11	55.7	129.4	7.9
120	12.3	41.7	32.8	0.79	4.10	55.7	129.1	8.5
120	13.4	41.7	32.8	0.79	4.08	55.6	128.3	9.9

Notes: Cooling performance data is tabulated at 80°F DB/67°F WB entering air at AHRI/ISO 13256-1 rated CFM. For AHRI/ISO 13256-1 certified ratings, see Table 7. See Performance correction tables to correct performance at conditions other than those tabulated. Interpolation of data is permissible, extrapolation is not. Rated GPM 11.2 Rated CFM 1520, Minimum CFM 1216, Maximum CFM 1672.

Table 30. DXV048 full load heating performance

EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp power kW	LWT	Feet head
25	11.2	36.0	26.9	2.66	20.2	12.9
25	11.8	36.1	27.0	2.67	20.4	14.1
25	12.3	36.1	27.0	2.67	20.6	15.1
25	13.4	36.0	26.8	2.69	21.0	17.2
35	7.3	39.6	30.5	2.68	26.6	5.2
35	9.0	40.8	31.6	2.71	28.0	7.6
35	10.1	41.4	32.1	2.72	28.6	9.3
35	11.2	41.8	32.5	2.74	29.2	11.2
35	11.8	42.0	32.6	2.74	29.5	12.3
35	12.3	42.0	32.6	2.75	29.7	13.2
35	13.4	42.0	32.6	2.75	30.1	15.2
45	7.3	45.3	35.8	2.79	35.2	4.5
45	9.0	46.7	37.1	2.82	36.8	6.6
45	10.1	47.3	37.6	2.83	37.6	8.2
45	11.2	47.8	38.1	2.84	38.2	10.0
45	11.8	48.0	38.3	2.85	38.5	11.0

Table 30. DXV048 full load heating performance (continued)

EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp power kW	LWT	Feet head
45	12.3	48.1	38.4	2.85	38.8	11.8
45	13.4	48.2	38.4	2.86	39.3	13.7
55	7.3	51.1	41.1	2.92	43.7	4.1
55	9.0	52.6	42.5	2.95	45.6	6.0
55	10.1	53.4	43.3	2.97	46.4	7.4
55	11.2	54.0	43.8	2.98	47.2	9.1
55	11.8	54.2	44.0	2.99	47.5	10.0
55	12.3	54.3	44.1	2.99	47.8	10.8
55	13.4	54.5	44.3	3.00	48.4	12.6
65	7.3	57.1	46.6	3.07	52.2	3.9
65	9.0	58.7	48.1	3.11	54.3	5.6
65	10.1	59.6	48.9	3.13	55.3	7.0
65	11.2	60.2	49.5	3.14	56.2	8.5
65	11.8	60.5	49.8	3.15	56.6	9.3
65	12.3	60.7	49.9	3.15	56.9	10.1
65	13.4	60.9	50.1	3.16	57.5	11.7
75	7.3	63.2	52.2	3.23	60.7	3.9
75	9.0	65.0	53.8	3.28	63.0	5.5
75	10.1	65.9	54.6	3.30	64.2	6.7
75	11.2	66.7	55.4	3.32	65.1	8.1
75	11.8	66.9	55.6	3.32	65.6	8.9
75	12.3	67.2	55.8	3.33	65.9	9.6
75	13.4	67.5	56.1	3.35	66.6	11.2
85	7.3	69.5	57.9	3.40	69.1	3.8
85	9.0	71.4	59.6	3.45	71.8	5.4
85	10.1	72.4	60.5	3.48	73.0	6.5
85	11.2	73.2	61.2	3.50	74.1	7.8
85	11.8	73.6	61.6	3.51	74.6	8.6
85	12.3	73.8	61.8	3.52	75.0	9.3
85	13.4	74.2	62.1	3.54	75.7	10.8

Notes: Heating performance data is tabulated at 68°F DB entering air at AHRI/ISO 13256-1 rated CFM. For AHRI/ISO 13256-1 certified ratings, see Table 7. See Performance correction tables to correct performance at conditions other than those tabulated. Interpolation of data is permissible, extrapolation is not. Rated GPM 11.2, Rated CFM 1520, Minimum CFM 1216, Maximum CFM 1672.

Table 31. DXV048 fan correction factors

Entering CFM	Cooling capacity	Sensible capacity	Cooling comp watts	Heating capacity	Heating comp watts
1216	0.960	0.892	0.998	0.983	1.105
1368	0.982	0.949	0.999	0.992	1.044
1520	**1.000**	**1.000**	**1.000**	**1.000**	**1.000**
1672	1.016	1.055	1.001	1.008	0.966

Performance Data

Table 32. DXV060 full load cooling performance

EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp power kW	Reject Mbtuh	LWT	Feet Head
45	9.1	69.8	44.4	0.64	2.31	77.7	62.1	3.9
45	11.2	70.4	44.8	0.64	2.24	78.0	58.9	5.5
45	12.6	70.6	44.9	0.64	2.20	78.1	57.4	6.7
45	14.0	70.8	45.0	0.64	2.18	78.2	56.2	8.0
45	14.7	70.9	45.1	0.64	2.17	78.3	55.7	8.7
45	15.4	71.0	45.2	0.64	2.16	78.4	55.2	9.4
45	16.8	71.1	45.2	0.64	2.14	78.4	54.3	11.0
55	9.1	69.0	45.4	0.66	2.56	77.8	72.1	3.7
55	11.2	69.5	45.7	0.66	2.49	78.0	68.9	5.3
55	12.6	69.8	45.9	0.66	2.46	78.2	67.4	6.5
55	14.0	70.0	46.1	0.66	2.43	78.3	66.2	7.8
55	14.7	70.0	46.1	0.66	2.42	78.3	65.7	8.5
55	15.4	70.1	46.1	0.66	2.41	78.3	65.2	9.2
55	16.8	70.2	46.2	0.66	2.40	78.4	64.3	10.7
65	9.1	67.1	45.3	0.68	2.82	76.7	81.9	3.5
65	11.2	67.7	45.7	0.68	2.74	77.1	78.8	5.1
65	12.6	68.0	45.9	0.68	2.71	77.2	77.3	6.3
65	14.0	68.1	46.0	0.68	2.68	77.3	76.0	7.6
65	14.7	68.2	46.0	0.67	2.67	77.3	75.5	8.3
65	15.4	68.3	46.1	0.67	2.66	77.4	75.1	9.0
65	16.8	68.4	46.2	0.68	2.65	77.4	74.2	10.5
75	9.1	64.7	44.6	0.69	3.12	75.3	91.5	3.4
75	11.2	65.3	45.0	0.69	3.04	75.7	88.5	5.0
75	12.6	65.6	45.2	0.69	3.01	75.9	87.0	6.2
75	14.0	65.8	45.3	0.69	2.98	76.0	85.9	7.5
75	14.7	65.8	45.3	0.69	2.97	75.9	85.3	8.2
75	15.4	65.9	45.4	0.69	2.96	76.0	84.9	8.9
75	16.8	66.0	45.5	0.69	2.95	76.1	84.1	10.4
85	9.1	62.0	43.5	0.70	3.46	73.8	101.2	3.3
85	11.2	62.6	43.9	0.70	3.38	74.1	98.2	4.9
85	12.6	62.9	44.2	0.70	3.35	74.3	96.8	6.1
85	14.0	63.0	44.2	0.70	3.32	74.3	95.6	7.3
85	14.7	63.1	44.3	0.70	3.31	74.4	95.1	8.0
85	15.4	63.2	44.4	0.70	3.30	74.5	94.7	8.7
85	16.8	63.3	44.4	0.70	3.29	74.5	93.9	10.1
95	9.1	59.2	42.4	0.72	3.85	72.4	110.9	3.3
95	11.2	59.7	42.8	0.72	3.78	72.6	108.0	4.8
95	12.6	60.0	43.0	0.72	3.74	72.8	106.6	5.9
95	14.0	60.2	43.2	0.72	3.72	72.9	105.4	7.2
95	14.7	60.2	43.2	0.72	3.71	72.9	104.9	7.8
95	15.4	60.3	43.2	0.72	3.70	72.9	104.5	8.5
95	16.8	60.4	43.3	0.72	3.68	73.0	103.7	9.9
105	9.1	56.1	41.2	0.73	4.32	70.8	120.6	3.2

Table 32. DXV060 full load cooling performance (continued)

EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp power kW	Reject Mbtuh	LWT	Feet Head
105	11.2	56.7	41.6	0.73	4.24	71.2	117.7	4.7
105	12.6	56.9	41.8	0.73	4.21	71.3	116.3	5.8
105	14.0	57.1	41.9	0.73	4.18	71.4	115.2	7.0
105	14.7	57.2	42.0	0.73	4.17	71.4	114.7	7.6
105	15.4	57.3	42.1	0.73	4.16	71.5	114.3	8.3
105	16.8	57.4	42.1	0.73	4.15	71.6	113.5	9.7
115	9.1	52.8	39.9	0.76	4.84	69.3	130.2	3.2
115	11.2	53.4	40.4	0.76	4.77	69.7	127.4	4.6
115	12.6	53.6	40.5	0.76	4.73	69.8	126.1	5.6
115	14.0	53.8	40.7	0.76	4.71	69.9	125.0	6.8
115	14.7	53.9	40.7	0.76	4.70	69.9	124.5	7.4
115	15.4	54.0	40.8	0.76	4.69	70.0	124.1	8.0
115	16.8	54.1	40.9	0.76	4.67	70.0	123.3	9.3
120	9.1	51.0	39.3	0.77	5.13	68.5	135.1	3.2
120	11.2	51.6	39.7	0.77	5.05	68.8	132.3	4.5
120	12.6	51.8	39.9	0.77	5.02	68.9	130.9	5.6
120	14.0	52.0	40.0	0.77	4.99	69.0	129.9	6.7
120	14.7	52.1	40.1	0.77	4.98	69.1	129.4	7.3
120	15.4	52.1	40.1	0.77	4.97	69.1	129.0	7.9
120	16.8	52.2	40.2	0.77	4.96	69.1	128.2	9.2

Notes: Cooling performance data is tabulated at 80°F DB/67°F WB entering air at AHRI/ISO 13256-1 rated CFM. For AHRI/ISO 13256-1 certified ratings, see Table 7. See Performance correction tables to correct performance at conditions other than those tabulated. Interpolation of data is permissible, extrapolation is not. Rated GPM 14, Rated CFM 1900, Minimum CFM 1520, Maximum 2090.

Table 33. DXV060 full load heating performance

EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp power kW	LWT	Feet head
25	14.0	46.6	35.1	3.36	20.0	8.6
25	14.7	46.7	35.2	3.36	20.2	9.3
25	15.4	46.9	35.4	3.36	20.4	10.0
25	16.8	47.1	35.6	3.37	20.8	11.5
35	9.1	52.3	40.4	3.48	26.1	4.2
35	11.2	53.4	41.5	3.50	27.6	5.8
35	12.6	54.0	42.0	3.51	28.3	7.0
35	14.0	54.4	42.4	3.52	28.9	8.3
35	14.7	54.6	42.6	3.53	29.2	9.0
35	15.4	54.8	42.7	3.53	29.5	9.7
35	16.8	55.1	43.0	3.54	29.9	11.2
45	9.1	59.5	47.1	3.65	34.6	3.9
45	11.2	60.8	48.2	3.68	36.4	5.5
45	12.6	61.5	48.9	3.70	37.2	6.7
45	14.0	62.1	49.4	3.71	37.9	8.0
45	14.7	62.3	49.6	3.72	38.3	8.7
45	15.4	62.5	49.8	3.72	38.5	9.4

Table 33. DXV060 full load heating performance (continued)

EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp power kW	LWT	Feet head
45	16.8	62.9	50.2	3.73	39.0	11.0
55	9.1	66.6	53.5	3.83	43.2	3.7
55	11.2	68.2	55.0	3.88	45.2	5.3
55	12.6	69.0	55.7	3.90	46.2	6.5
55	14.0	69.7	56.3	3.92	47.0	7.8
55	14.7	70.0	56.6	3.93	47.3	8.5
55	15.4	70.3	56.9	3.93	47.6	9.2
55	16.8	70.8	57.3	3.94	48.2	10.7
65	9.1	73.8	60.0	4.04	51.8	3.5
65	11.2	75.8	61.8	4.10	54.0	5.1
65	12.6	76.8	62.7	4.12	55.0	6.3
65	14.0	77.6	63.4	4.15	55.9	7.6
65	14.7	78.0	63.8	4.16	56.3	8.3
65	15.4	78.3	64.1	4.17	56.7	9.0
65	16.8	78.9	64.6	4.18	57.3	10.5
75	9.1	81.4	66.8	4.27	60.3	3.4
75	11.2	83.8	69.0	4.34	62.7	5.0
75	12.6	85.0	70.1	4.37	63.9	6.2
75	14.0	86.0	71.0	4.41	64.9	7.5
75	14.7	86.5	71.4	4.42	65.3	8.2
75	15.4	86.9	71.8	4.43	65.7	8.9
75	16.8	87.6	72.4	4.45	66.4	10.4
85	9.1	89.6	74.2	4.52	68.7	3.3
85	11.2	92.5	76.8	4.60	71.3	4.9
85	12.6	93.9	78.0	4.65	72.6	6.1
85	14.0	95.1	79.1	4.69	73.7	7.3
85	14.7	95.7	79.6	4.71	74.2	8.0
85	15.4	96.2	80.1	4.72	74.6	8.7
85	16.8	97.0	80.8	4.75	75.4	10.1

Notes: Heating performance data is tabulated at 68°F DB entering air at AHRI/ISO 13256-1 rated CFM. For AHRI/ISO 13256-1 certified ratings, see Table 7. See Performance correction tables to correct performance at conditions other than those tabulated. Interpolation of data is permissible, extrapolation is not. Rated GPM 14, Rated CFM 1900, Minimum CFM 1520, Maximum CFM 2090.

Table 34. DXV060 fan correction factors

Entering CFM	Cooling capacity	Sensible capacity	Cooling comp watts	Heating capacity	Heating comp watts
1520	0.959	0.891	0.995	0.983	1.095
1710	0.981	0.946	0.998	0.993	1.041
1900	1.000	1.000	1.000	1.000	1.000
2090	1.017	1.055	1.002	1.006	0.968

Table 35. DXV070 full load cooling performance

EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp power kW	Reject Mbtuh	LWT	Feet Head
45	10.0	85.3	53.9	0.63	2.64	94.3	63.9	3.6
45	12.3	85.6	54.1	0.63	2.55	94.3	60.3	5.1
45	13.9	85.7	54.2	0.63	2.50	94.2	58.6	6.4
45	15.4	85.8	54.2	0.63	2.46	94.2	57.2	7.7
45	16.2	85.9	54.3	0.63	2.45	94.2	56.6	8.5
45	16.9	85.9	54.3	0.63	2.43	94.2	56.1	9.2
45	18.5	86.0	54.4	0.63	2.40	94.2	55.2	10.9
55	10.0	82.1	53.6	0.65	2.99	92.3	73.5	3.4
55	12.3	82.4	53.8	0.65	2.89	92.3	70.0	4.9
55	13.9	82.6	53.9	0.65	2.84	92.3	68.3	6.1
55	15.4	82.7	54.0	0.65	2.80	92.3	67.0	7.4
55	16.2	82.7	54.0	0.65	2.79	92.2	66.4	8.1
55	16.9	82.8	54.1	0.65	2.77	92.3	65.9	8.8
55	18.5	82.9	54.1	0.65	2.75	92.3	65.0	10.5
65	10.0	78.4	52.6	0.67	3.33	89.8	83.0	3.2
65	12.3	78.7	52.8	0.67	3.22	89.7	79.6	4.6
65	13.9	78.8	52.9	0.67	3.17	89.6	77.9	5.8
65	15.4	79.0	53.0	0.67	3.13	89.7	76.6	7.1
65	16.2	79.0	53.0	0.67	3.12	89.6	76.1	7.8
65	16.9	79.1	53.1	0.67	3.10	89.7	75.6	8.5
65	18.5	79.1	53.1	0.67	3.08	89.6	74.7	10.1
75	10.0	75.3	51.6	0.69	3.71	88.0	92.6	3.1
75	12.3	75.6	51.8	0.69	3.60	87.9	89.3	4.4
75	13.9	75.8	51.9	0.68	3.55	87.9	87.6	5.6
75	15.4	75.9	52.0	0.69	3.50	87.9	86.4	6.8
75	16.2	75.9	52.0	0.69	3.49	87.8	85.8	7.5
75	16.9	76.0	52.1	0.69	3.47	87.8	85.4	8.2
75	18.5	76.1	52.1	0.68	3.44	87.9	84.5	9.8
85	10.0	72.2	50.5	0.70	4.14	86.3	102.3	2.9
85	12.3	72.5	50.7	0.70	4.03	86.2	99.0	4.3
85	13.9	72.7	50.8	0.70	3.97	86.3	97.4	5.4
85	15.4	72.8	50.9	0.70	3.93	86.2	96.2	6.6
85	16.2	72.9	51.0	0.70	3.91	86.3	95.7	7.3
85	16.9	72.9	51.0	0.70	3.90	86.2	95.2	7.9
85	18.5	73.0	51.0	0.70	3.87	86.2	94.3	9.5
95	10.0	68.8	49.3	0.72	4.64	84.6	111.9	2.9
95	12.3	69.1	49.5	0.72	4.52	84.5	108.7	4.2
95	13.9	69.3	49.6	0.72	4.46	84.5	107.2	5.2
95	15.4	69.4	49.7	0.72	4.41	84.5	106.0	6.4
95	16.2	69.5	49.8	0.72	4.39	84.5	105.4	7.0
95	16.9	69.5	49.8	0.72	4.38	84.4	105.0	7.7
95	18.5	69.6	49.8	0.72	4.35	84.4	104.1	9.2
105	10.0	65.1	47.9	0.74	5.18	82.8	121.6	2.8

Table 35. DXV070 full load cooling performance (continued)

EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp power kW	Reject Mbtuh	LWT	Feet Head
105	12.3	65.4	48.1	0.74	5.06	82.7	118.4	4.1
105	13.9	65.6	48.3	0.74	5.00	82.7	116.9	5.1
105	15.4	65.7	48.4	0.74	4.95	82.6	115.7	6.2
105	16.2	65.7	48.4	0.74	4.93	82.5	115.2	6.9
105	16.9	65.8	48.4	0.74	4.91	82.6	114.8	7.5
105	18.5	65.9	48.5	0.74	4.88	82.6	113.9	8.9
115	10.0	61.2	46.4	0.76	5.77	80.9	131.2	2.8
115	12.3	61.5	46.6	0.76	5.65	80.8	128.1	4.0
115	13.9	61.6	46.7	0.76	5.58	80.7	126.6	5.0
115	15.4	61.7	46.8	0.76	5.53	80.6	125.5	6.1
115	16.2	61.8	46.8	0.76	5.51	80.6	125.0	6.7
115	16.9	61.8	46.8	0.76	5.49	80.6	124.5	7.3
115	18.5	61.9	46.9	0.76	5.46	80.5	123.7	8.7
120	10.0	59.1	45.5	0.77	6.09	79.9	136.0	2.8
120	12.3	59.4	45.7	0.77	5.96	79.7	133.0	4.0
120	13.9	59.6	45.9	0.77	5.89	79.7	131.5	4.9
120	15.4	59.7	46.0	0.77	5.84	79.6	130.3	6.0
120	16.2	59.8	46.0	0.77	5.82	79.7	129.8	6.6
120	16.9	59.8	46.0	0.77	5.80	79.6	129.4	7.2
120	18.5	59.9	46.1	0.77	5.77	79.6	128.6	8.6

Notes: Cooling performance data is tabulated at 80°F DB/67°F WB entering air at AHRI/ISO 13256-1 rated CFM. For AHRI/ISO 13256-1 certified ratings, see Table 7. See Performance correction tables to correct performance at conditions other than those tabulated. Interpolation of data is permissible, extrapolation is not. Rated GPM 15.4, Rated CFM 2090, Minimum CFM 1672, Maximum CFM 2299.

Table 36. DXV070 full load heating performance

EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp power kW	LWT	Feet head
25	16.9	56.4	42.4	4.10	20.0	10.0
25	18.5	57.1	43.0	4.13	20.4	11.8
35	10.0	58.7	44.8	4.08	26.0	3.8
35	12.3	60.4	46.3	4.14	27.5	5.4
35	13.9	61.3	47.1	4.17	28.2	6.7
35	15.4	62.2	47.9	4.20	28.8	8.1
35	16.2	62.6	48.2	4.22	29.0	8.9
35	16.9	62.9	48.5	4.23	29.3	9.6
35	18.5	63.6	49.1	4.25	29.7	11.3
45	10.0	67.7	53.2	4.24	34.4	3.6
45	12.3	69.3	54.6	4.30	36.1	5.1
45	13.9	70.3	55.5	4.33	37.0	6.4
45	15.4	71.1	56.2	4.36	37.7	7.7
45	16.2	71.5	56.6	4.37	38.0	8.5
45	16.9	71.9	56.9	4.39	38.3	9.2
45	18.5	72.6	57.5	4.41	38.8	10.9

Table 36. DXV070 full load heating performance (continued)

EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp power kW	LWT	Feet head
55	10.0	74.9	60.1	4.34	43.0	3.4
55	12.3	76.6	61.6	4.40	45.0	4.9
55	13.9	77.5	62.4	4.43	46.0	6.1
55	15.4	78.4	63.2	4.46	46.8	7.4
55	16.2	78.8	63.5	4.48	47.2	8.1
55	16.9	79.1	63.8	4.49	47.4	8.8
55	18.5	79.8	64.4	4.51	48.0	10.5
65	10.0	79.7	64.4	4.48	52.1	3.2
65	12.3	81.4	65.9	4.53	54.3	4.6
65	13.9	82.3	66.7	4.57	55.4	5.8
65	15.4	83.2	67.5	4.60	56.2	7.1
65	16.2	83.6	67.9	4.61	56.6	7.8
65	16.9	83.9	68.1	4.62	56.9	8.5
65	18.5	84.6	68.7	4.65	57.6	10.1
75	10.0	84.7	68.6	4.73	61.3	3.1
75	12.3	86.4	70.1	4.79	63.6	4.4
75	13.9	87.3	70.8	4.82	64.8	5.6
75	15.4	88.1	71.5	4.85	65.7	6.8
75	16.2	88.5	71.9	4.87	66.1	7.5
75	16.9	88.9	72.3	4.88	66.4	8.2
75	18.5	89.6	72.9	4.90	67.1	9.8
85	10.0	95.8	78.7	5.00	69.3	2.9
85	12.3	97.4	80.1	5.06	72.0	4.3
85	13.9	98.4	81.0	5.10	73.3	5.4
85	15.4	99.2	81.7	5.13	74.4	6.6
85	16.2	99.6	82.1	5.14	74.9	7.3
85	16.9	100.0	82.4	5.15	75.2	7.9
85	18.5	100.7	83.0	5.18	76.0	9.5

Notes: Heating performance data is tabulated at 68°F DB entering air at AHRI/ISO 13256-1 rated CFM. For AHRI/ISO 13256-1 certified ratings, see Table 7. See Performance correction tables to correct performance at conditions other than those tabulated. Interpolation of data is permissible, extrapolation is not. Rated GPM 15.4, Rated CFM 2090, Minimum CFM 1672, Maximum CFM 2299.

Table 37. DXV070 fan correction factors

Entering CFM	Cooling capacity	Sensible capacity	Cooling comp watts	Heating capacity	Heating comp watts
1672	0.957	0.886	0.996	0.972	1.087
1881	0.981	0.947	0.998	0.989	1.039
2090	**1.000**	**1.000**	**1.000**	**1.000**	**1.000**
2299	1.017	1.053	1.002	1.006	0.967

Performance Data

Table 38. DXH024 correction factors for variation in entering air temperature

Cooling entering air WB°F	Cooling capacity	Cooling input watts	Sensible vs. entering dry bulb multipliers						Heating entering air DB°F	Heating capacity	Heating input watts
			65.0	70.0	75.0	80.0	85.0	90.0			
50	0.912	0.990	1.024	1.118	*	*	*	*	55	1.058	0.868
55	0.897	0.988	0.899	1.057	1.177	*	*	*	58	1.046	0.893
60	0.920	0.991	0.664	0.897	1.077	1.222	*	*	61	1.035	0.919
65	0.973	0.997	0.327	0.638	0.882	1.080	1.244	*	64	1.023	0.946
67	1.000	1.000		0.511	0.781	1.000	1.182	*	67	1.012	0.972
70	1.046	1.004		0.298	0.607	0.858	1.068	1.246	70	1.000	1.000
75	1.134	1.012			0.268	0.573	0.827	1.044	73	0.989	1.028
78	1.189	1.016				0.378	0.658	0.898	76	0.977	1.057

Note: * = Sensible equals total capacity

Table 39. DXH036 correction factors for variation in entering air temperature

Cooling entering air WB°F	Cooling capacity	Cooling input watts	Sensible vs. entering dry bulb multipliers						Heating entering air DB°F	Heating capacity	Heating input watts
			65.0	70.0	75.0	80.0	85.0	90.0			
50	0.918	0.990	1.012	1.106	*	*	*	*	55	1.035	0.855
55	0.903	0.988	0.891	1.052	1.173	*	*	*	58	1.029	0.884
60	0.924	0.990	0.646	0.891	1.077	1.224	*	*	61	1.022	0.913
65	0.973	0.996	0.283	0.619	0.877	1.082	1.251	*	64	1.015	0.941
67	1.000	1.000		0.482	0.770	1.000	1.188	*	67	1.008	0.970
70	1.047	1.005		0.252	0.585	0.851	1.070	1.254	70	1.000	1.000
75	1.138	1.017			0.220	0.547	0.818	1.045	73	0.991	1.031
78	1.199	1.024				0.338	0.638	0.891	76	0.983	1.062

Note: * = Sensible equals total capacity

Table 40. DXH048 correction factors for variation in entering air temperature

Cooling entering air WB°F	Cooling capacity	Cooling input watts	Sensible vs. entering dry bulb multipliers						Heating entering air DB°F	Heating capacity	Heating input watts
			65.0	70.0	75.0	80.0	85.0	90.0			
50	0.916	0.991	1.004	1.096	*	*	*	*	55	1.066	0.870
55	0.901	0.989	0.892	1.048	1.166	*	*	*	58	1.059	0.898
60	0.923	0.992	0.653	0.894	1.076	1.219	*	*	61	1.048	0.926
65	0.974	0.997	0.292	0.626	0.880	1.081	1.245	*	64	1.035	0.952
67	1.000	1.000		0.490	0.775	1.000	1.184	*	67	1.020	0.977
70	1.045	1.004		0.261	0.591	0.853	1.068	1.247	70	1.000	1.000
75	1.128	1.010			0.227	0.552	0.817	1.040	73	0.976	1.021
78	1.180	1.014				0.342	0.639	0.887	76	0.947	1.039

Note: * = Sensible equals total capacity

Table 41. DXH060 correction factors for variation in entering air temperature

Cooling entering air WB°F	Cooling capacity	Cooling input watts	Sensible vs. entering dry bulb multipliers						Heating entering air DB°F	Heating capacity	Heating input watts
			65.0	70.0	75.0	80.0	85.0	90.0			
50	0.910	0.987	1.073	1.193	*	*	*	*	55	1.033	0.871
55	0.898	0.985	0.906	1.092	1.237	*	*	*	58	1.030	0.901
60	0.922	0.988	0.659	0.896	1.098	1.267	*	*	61	1.025	0.927
65	0.973	0.996	0.356	0.631	0.875	1.093	1.284	*	64	1.018	0.951
67	1.000	1.000		0.510	0.768	1.000	1.209	*	67	1.010	0.975
70	1.046	1.007		0.318	0.591	0.843	1.073	1.285	70	1.000	1.000
75	1.133	1.020			0.270	0.541	0.797	1.039	73	0.988	1.024
78	1.189	1.029				0.345	0.609	0.863	76	0.975	1.047

Note: * = Sensible equals total capacity

Table 42. DXH070 correction factors for variation in entering air temperature

Cooling entering air WB°F	Cooling capacity	Cooling input watts	Sensible vs. entering dry bulb multipliers						Heating entering air DB°F	Heating capacity	Heating input watts
			65.0	70.0	75.0	80.0	85.0	90.0			
50	0.912	0.988	1.040	1.142	*	*	*	*	55	1.019	0.852
55	0.900	0.987	0.903	1.074	1.203	*	*	*	58	1.018	0.885
60	0.922	0.990	0.644	0.896	1.092	1.248	*	*	61	1.015	0.914
65	0.973	0.996	0.271	0.608	0.874	1.089	1.267	*	64	1.011	0.942
67	1.000	1.000		0.466	0.761	1.000	1.198	*	67	1.006	0.971
70	1.046	1.006		0.228	0.565	0.840	1.069	1.262	70	1.000	1.000
75	1.136	1.018			0.186	0.520	0.799	1.035	73	0.993	1.031
78	1.195	1.026				0.301	0.609	0.871	76	0.986	1.062

Note: * = Sensible equals total capacity

Table 43. DXV024 correction factors for variation in entering air temperature

Cooling entering air WB°F	Cooling capacity	Cooling input watts	Sensible vs. entering dry bulb multipliers						Heating entering air DB°F	Heating capacity	Heating input watts
			65.0	70.0	75.0	80.0	85.0	90.0			
50	0.920	0.991	1.055	1.164	*	*	*	*	55	1.052	0.865
55	0.908	0.990	0.899	1.074	1.210	*	*	*	58	1.041	0.891
60	0.928	0.992	0.663	0.893	1.086	1.246	*	*	61	1.031	0.917
65	0.975	0.997	0.361	0.636	0.877	1.087	1.268	*	64	1.021	0.944
67	1.000	1.000		0.516	0.773	1.000	1.200	*	67	1.010	0.972
70	1.043	1.004		0.320	0.598	0.848	1.073	1.274	70	1.000	1.000
75	1.124	1.013			0.266	0.548	0.807	1.044	73	0.989	1.029
78	1.177	1.018				0.344	0.619	0.874	76	0.979	1.060

Note: * = Sensible equals total capacity

Table 44. DXV036 correction factors for variation in entering air temperature

Cooling entering air WB°F	Cooling capacity	Cooling input watts	Sensible vs. entering dry bulb multipliers						Heating entering air DB°F	Heating capacity	Heating input watts
			65.0	70.0	75.0	80.0	85.0	90.0			
50	0.922	0.990	1.027	1.115	*	*	*	*	55	1.049	0.855
55	0.909	0.989	0.904	1.063	1.180	*	*	*	58	1.039	0.884
60	0.929	0.991	0.650	0.899	1.085	1.230	*	*	61	1.029	0.913
65	0.975	0.997	0.269	0.616	0.879	1.085	1.253	*	64	1.020	0.941
67	1.000	1.000		0.473	0.768	1.000	1.189	*	67	1.010	0.970
70	1.043	1.005		0.232	0.575	0.847	1.068	1.252	70	1.000	1.000
75	1.129	1.016			0.195	0.531	0.807	1.037	73	0.990	1.031
78	1.186	1.024				0.313	0.620	0.878	76	0.980	1.063

Note: * = Sensible equals total capacity

Table 45. DXV048 correction factors for variation in entering air temperature

Cooling entering air WB°F	Cooling capacity	Cooling input watts	Sensible vs. entering dry bulb multipliers						Heating entering air DB°F	Heating capacity	Heating input watts
			65.0	70.0	75.0	80.0	85.0	90.0			
50	0.919	0.991	1.028	1.123	*	*	*	*	55	1.047	0.855
55	0.905	0.990	0.902	1.067	1.189	*	*	*	58	1.038	0.883
60	0.926	0.993	0.647	0.898	1.088	1.238	*	*	61	1.028	0.912
65	0.974	0.997	0.268	0.612	0.877	1.088	1.260	*	64	1.019	0.941
67	1.000	1.000		0.468	0.764	1.000	1.193	*	67	1.009	0.970
70	1.044	1.004		0.226	0.569	0.843	1.068	1.256	70	1.000	1.000
75	1.128	1.011			0.184	0.521	0.799	1.033	73	0.990	1.031
78	1.182	1.015				0.299	0.609	0.869	76	0.981	1.064

Note: * = Sensible equals total capacity

Table 46. DXV060 correction factors for variation in entering air temperature

Cooling entering air WB°F	Cooling capacity	Cooling input watts	Sensible vs. entering dry bulb multipliers						Heating entering air DB°F	Heating capacity	Heating input watts
			65.0	70.0	75.0	80.0	85.0	90.0			
50	0.917	0.986	1.030	1.127	*	*	*	*	55	1.014	0.843
55	0.904	0.984	0.900	1.068	1.193	*	*	*	58	1.011	0.872
60	0.924	0.987	0.638	0.895	1.090	1.242	*	*	61	1.008	0.903
65	0.973	0.995	0.248	0.602	0.874	1.089	1.265	*	64	1.005	0.934
67	1.000	1.000		0.455	0.759	1.000	1.197	*	67	1.002	0.967
70	1.047	1.008		0.208	0.559	0.840	1.070	1.262	70	1.000	1.000
75	1.141	1.024			0.167	0.514	0.799	1.037	73	0.997	1.034
78	1.205	1.035				0.289	0.606	0.873	76	0.994	1.069

Note: * = Sensible equals total capacity

Table 47. DXV070 correction factors for variation in entering air temperature

Cooling entering air WB°F	Cooling capacity	Cooling input watts	Sensible vs. entering dry bulb multipliers					
			65.0	70.0	75.0	80.0	85.0	90.0
50	0.914	0.989	1.034	1.131	*	*	*	*
55	0.901	0.988	0.903	1.069	1.193	*	*	*
60	0.923	0.991	0.648	0.898	1.089	1.239	*	*
65	0.973	0.997	0.275	0.614	0.877	1.087	1.260	*
67	1.000	1.000		0.473	0.765	1.000	1.193	*
70	1.046	1.006		0.236	0.573	0.844	1.068	1.256
75	1.136	1.017			0.197	0.529	0.804	1.036
78	1.195	1.024				0.312	0.617	0.875

Heating entering air DB°F	Heating capacity	Heating input watts
55	1.060	0.868
58	1.048	0.894
61	1.036	0.920
64	1.024	0.946
67	1.012	0.973
70	1.000	1.000
73	0.988	1.027
76	0.976	1.053

Note: * = Sensible equals total capacity

Table 48. Waterside economizer performance 2 to 6 ton

Input data				Output data						
Tonnage of heat pump	Model DX	scfm	GPM	Total capacity (Mbh)	Sensible capacity (Mbh)	LVG. air DB (°F)	LVG. air WB (°F)	Standard APD (in. wg.)	LVG. fluid temp. (°F)	Fluid PD (FT H2O)
2.0	024	760	4.5	20.39	14.71	62.1	58.7	0.19	54.1	2.36
2.0	024	760	5.6	21.70	15.24	61.4	58.1	0.19	52.8	3.50
2.0	024	760	6.2	22.26	15.47	61.2	57.9	0.19	52.2	4.16
3.0	036	1140	6.7	29.44	21.66	62.4	59.0	0.19	53.8	2.61
3.0	036	1140	8.4	31.54	22.24	61.9	58.4	0.19	52.5	5.46
3.0	036	1140	9.2	32.33	22.37	61.8	58.2	0.19	52.0	6.36
4.0	048	1520	9.0	40.01	29.22	62.2	58.9	0.17	53.9	1.29
4.0	048	1520	11.2	42.64	30.31	61.5	58.3	0.17	52.6	1.92
4.0	048	1520	12.3	43.90	30.81	61.2	58.0	0.17	52.1	2.27
5.0	060	1900	11.2	47.14	34.56	63.2	59.4	0.24	53.4	1.92
5.0	060	1900	14.0	50.17	35.74	62.6	58.8	0.24	52.2	2.86
5.0	060	1900	15.4	51.42	36.22	62.3	58.6	0.24	51.7	3.40
6.0	070	2090	12.3	50.64	36.60	63.8	59.6	0.27	53.2	2.27
6.0	070	2090	15.4	53.67	37.76	63.3	59.1	0.27	52.0	3.40
6.0	070	2090	16.9	54.70	38.17	63.1	58.9	0.27	51.5	4.05

Notes: Entering Air DB/WB (80/67). Entering Fluid (°F) 45.

Table 49. Antifreeze correction factors

Methanol (concentration by volume)						
Item	**0%**	**10%**	**20%**	**30%**	**40%**	**50%**
Cooling capacity	1.000	0.998	0.997	0.995	0.993	0.992
Heating capacity	1.000	0.995	0.990	0.985	0.979	0.974
Pressure drop	1.000	1.023	1.057	1.091	1.122	1.160
Ethylene glycol (concentration by volume)						
Item	**0%**	**10%**	**20%**	**30%**	**40%**	**50%**
Cooling capacity	1.000	0.996	0.991	0.987	0.983	0.979
Heating capacity	1.000	0.993	0.985	0.977	0.969	0.961
Pressure drop	1.000	1.024	1.068	1.124	1.188	1.263
Propylene glycol (concentration by volume)						
Item	**0%**	**10%**	**20%**	**30%**	**40%**	**50%**
Cooling capacity	1.000	0.993	0.987	0.980	0.974	0.968
Heating capacity	1.000	0.986	0.973	0.960	0.948	0.935
Pressure drop	1.000	1.040	1.098	1.174	1.273	1.405
Brine (NaCL) (concentration by volume)						
Item	**0%**	**10%**	**20%**	**30%**	**40%**	**50%**
Cooling capacity	1.000	0.994	0.987	0.979	0.971	0.963
Heating capacity	1.000	0.993	0.987	0.982	0.978	0.976
Pressure drop	1.000	1.154	1.325	1.497	1.669	1.841

Figure 12. Cooling capacity correction factor

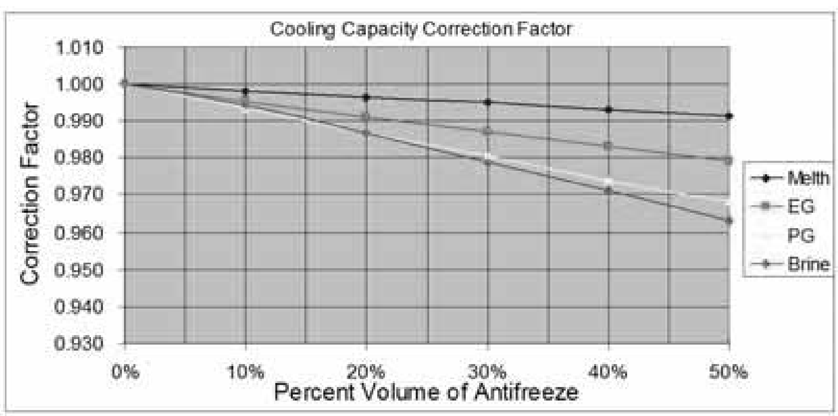


Figure 13. Heating capacity correction factor

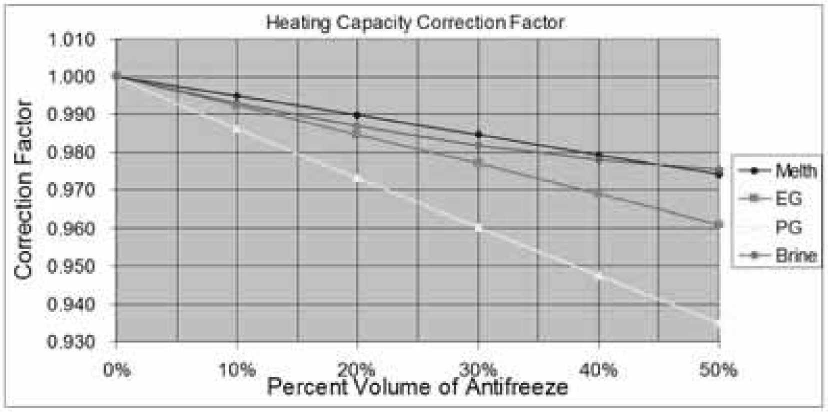
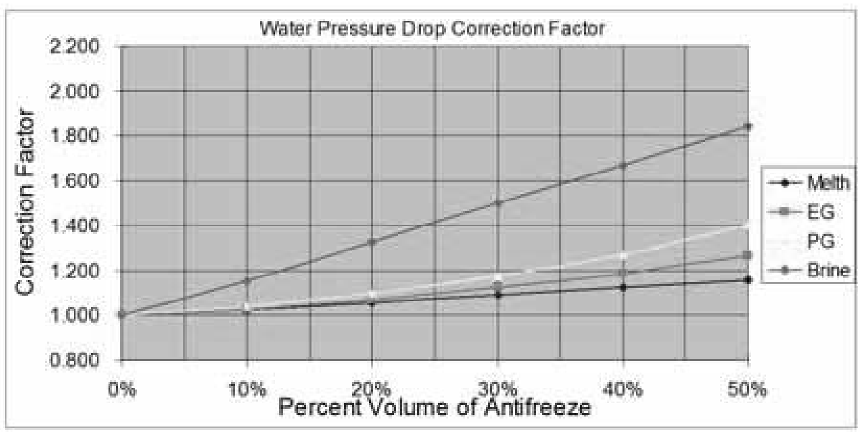


Figure 14. Water pressure drop correction factor



Example 1 (ethylene glycol): The antifreeze solution is 20% by volume of Ethylene Glycol. Determine the corrected cooling capacity and waterside pressure drop for a GEHE018 when the EWT is 86°F and the GPM is 4.2.

From the catalog data, the cooling capacity at these conditions with 100% water is 18.6 Mbtuh, and the waterside pressure drop is 6.0 feet of head. At 20% Ethylene Glycol, the correction factor for cool capacity is 0.9912 and the pressure drop is 1.068.

The corrected cooling capacity (Mbtuh) = 18.6 * 0.9912 = 18.4. The corrected water side pressure drop (Ft. head) = 6.9 * 1.068 = 7.4.

Example 2 (propylene glycol): The antifreeze solution is 30% by volume of Propylene Glycol. Determine the corrected heating capacity and waterside pressure drop for a GEHE042 when the EWT is 45°F and the GPM is 9.7.

From the catalog data, the heating capacity at these conditions with 100% water is 36.7 Mbtuh, and the waterside pressure drop is 16.1 feet of head. At 30% Propylene Glycol, the correction factor for heat capacity is 0.9603 and the pressure drop is 1.174.

The corrected cooling capacity (Mbtuh) = 36.7 * 0.9603 = 35.2. The corrected water side pressure drop (Ft. head) = 16.1 * 1.174 = 18.9.

Unit Fan Performance

Table 50. Fan performance for standard ECM motor (includes wet coils and 1" filter)

Model Number	Fan Motor (hp)	Max ESP (in. wsg)	Profile Setting	Full Load	Partial Load	Fan Only
DXH024	1/3	0.80	A	836	669	418
			B	760	608	380
			C	684	547	342
			D	608	486	304
DXH036	3/4	0.70	A	1254	1003	627
			B	1140	912	570
			C	1026	821	513
			D	912	730	456
DXH048	3/4	0.70	A	1672	1338	836
			B	1520	1216	760
			C	1368	1094	684
			D	1216	973	608
DXH060	1	0.70	A	1870	1496	935
			B	1700	1360	850
			C	1530	1224	765
			D	1360	1088	680
DXH070	1	0.70	A	2299	1839	1150
			B	2090	1672	1045
			C	1881	1505	941
			D	1672	1338	836

Note:
1. Airflow reduces to approximately 50% in fan only mode.
2. Fan profile settings are selected by the ECM motor control board DIP switch setting.

Table 51. Fan performance for standard ECM motor (includes wet coils and 1" filter)

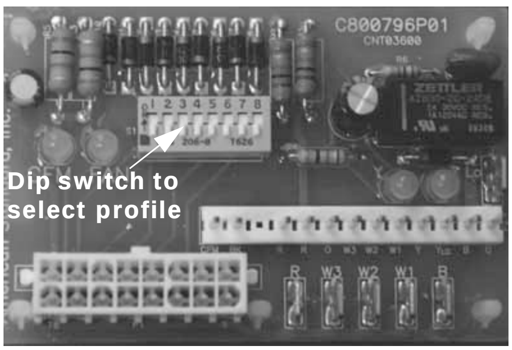
Model Number	Fan Motor (hp)	Max ESP (in. wsg)	Profile Setting	Full Load	Partial Load	Fan Only
DXV024	1/3	0.75	A	836	669	418
			B	760	608	380
			C	684	547	342
			D	608	486	304
DXV036	3/4	0.70	A	1254	1003	627
			B	1140	912	570
			C	1026	821	513
			D	912	730	456
DXV048	3/4	0.75	A	1672	1338	836
			B	1520	1216	760
			C	1368	1094	684
			D	1216	973	608
DXV060	1	0.75	A	2090	1672	1045
			B	1900	1520	950
			C	1710	1368	855
			D	1520	1216	760

Table 51. Fan performance for standard ECM motor (includes wet coils and 1” filter) (continued)

Model Number	Fan Motor (hp)	Max ESP (in. wsg)	Profile Setting	Full Load	Partial Load	Fan Only
DXV070	1	0.75	A	2299	1839	1150
			B	2090	1672	1045
			C	1881	1505	941
			D	1672	1338	836

Note:
1. Airflow reduces to approximately 50% in fan only mode.
2. Fan profile settings are selected by the ECM motor control board DIP switch setting.

Figure 15. ECM control board and dip switch setting



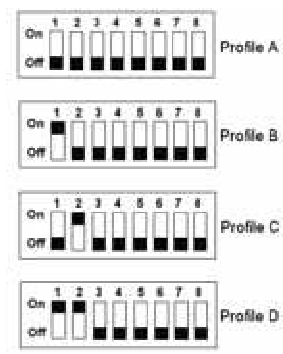


Table 52. Unit fan performance

Model	External Static Pressure (inches of water)																			
			0		0.05		0.1		0.15		0.2		0.25		0.3		0.35		0.4	
	Profile	CFM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM
DXH024	A	836	0.180	824	0.190	851	0.200	878	0.209	903	0.218	928	0.228	952	0.237	975	0.246	997	0.254	1019
	B	760	0.136	756	0.145	787	0.155	817	0.164	846	0.174	874	0.183	901	0.192	927	0.201	953	0.209	977
	C	684	0.096	683	0.106	718	0.115	752	0.124	784	0.132	815	0.141	845	0.150	874	0.158	902	0.166	929
	D	608	0.072	620	0.080	658	0.089	695	0.097	730	0.104	764	0.112	796	0.120	827	0.128	856	0.135	885
			0.45		0.5		0.55		0.6		0.65		0.7		0.75		0.8			
	Profile	CFM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM		
	A	836	0.263	1041	0.272	1062	0.280	1083	0.289	1103	0.297	1123	0.306	1143	0.314	1163	0.323	1184		
	B	760	0.218	1001	0.227	1025	0.235	1047	0.244	1070	0.252	1092	0.261	1114	0.270	1135	0.278	1157		
	C	684	0.175	955	0.183	980	0.191	1005	0.199	1029	0.208	1052	0.216	1075	0.224	1097	0.233	1119		
	D	608	0.143	912	0.150	938	0.158	964	0.165	988	0.173	1012	0.181	1035	0.188	1057	0.196	1078		

			0		0.05		0.1		0.15		0.2		0.25		0.3		0.35		0.4	
	Profile	CFM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM
DXH036	A	1254	0.276	749	0.296	776	0.315	802	0.333	826	0.351	850	0.369	872	0.386	894	0.403	915	0.420	935
	B	1140	0.200	679	0.218	708	0.235	736	0.252	762	0.269	787	0.285	812	0.301	835	0.317	858	0.333	880
	C	1026	0.145	618	0.161	649	0.177	679	0.193	708	0.208	735	0.223	762	0.237	787	0.252	812	0.266	835
	D	912	0.112	560	0.126	594	0.140	627	0.154	659	0.167	689	0.180	718	0.193	746	0.207	773	0.220	799
			0.45		0.5		0.55		0.6		0.65		0.7		0.75		0.8			
	Profile	CFM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM		
	A	1254	0.436	955	0.453	974	0.470	993	0.486	1012	0.503	1030	0.520	1049	—	—	—	—		
	B	1140	0.349	901	0.364	922	0.380	942	0.396	962	0.412	982	0.429	1002	—	—	—	—		
	C	1026	0.281	859	0.295	881	0.310	903	0.325	925	0.341	947	0.357	968	—	—	—	—		
	D	912	0.233	824	0.246	849	0.260	873	0.274	897	0.289	920	0.304	943	—	—	—	—		

Table 52. Unit fan performance (continued)

Model	External Static Pressure (inches of water)																			
			0		0.05		0.1		0.15		0.2		0.25		0.3		0.35		0.4	
	Profile	CFM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM
DXH048	A	1672	0.275	618	0.313	657	0.351	695	0.388	730	0.424	764	0.459	796	0.493	826	0.526	854	0.558	881
	B	1520	0.206	570	0.242	612	0.278	652	0.313	690	0.348	726	0.382	761	0.416	793	0.448	824	0.480	853
	C	1368	0.157	530	0.189	574	0.222	616	0.254	656	0.286	694	0.317	730	0.348	764	0.378	796	0.408	826
	D	1216	0.129	493	0.156	539	0.183	582	0.210	623	0.237	662	0.264	699	0.291	733	0.317	766	0.343	797
			0.45		0.5		0.55		0.6		0.65		0.7		0.75		0.8			
	Profile	CFM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM		
	A	1672	0.588	907	0.618	931	0.646	954	0.672	975	0.697	996	0.720	1015	—	—	—	—		
	B	1520	0.511	880	0.540	906	0.569	930	0.596	954	0.622	975	0.647	996	—	—	—	—		
	C	1368	0.437	854	0.465	881	0.492	907	0.519	930	0.544	953	0.568	974	—	—	—	—		
	D	1216	0.368	826	0.393	853	0.417	878	0.440	902	0.463	924	0.484	945	—	—	—	—		
			0		0.05		0.1		0.15		0.2		0.25		0.3		0.35		0.4	
	Profile	CFM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM
DXH060	A	1870	0.291	618	0.356	664	0.418	709	0.475	750	0.529	790	0.580	827	0.629	862	0.676	895	0.722	926
	B	1700	0.239	583	0.299	629	0.353	673	0.403	716	0.450	755	0.492	793	0.533	829	0.570	862	0.606	893
	C	1530	0.161	550	0.218	596	0.269	640	0.316	681	0.359	721	0.398	758	0.433	793	0.465	827	0.495	858
	D	1360	0.064	523	0.123	567	0.176	609	0.224	649	0.267	688	0.305	724	0.340	758	0.371	790	0.400	820
			0.45		0.5		0.55		0.6		0.65		0.7		0.75		0.8			
	Profile	CFM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM		
	A	1870	0.766	954	0.810	981	0.855	1005	0.899	1028	0.945	1048	0.993	1067	—	—	—	—		
	B	1700	0.640	923	0.674	950	0.707	976	0.740	999	0.773	1021	0.808	1041	—	—	—	—		
	C	1530	0.523	887	0.550	915	0.576	940	0.601	964	0.626	986	0.652	1006	—	—	—	—		
	D	1360	0.426	849	0.450	875	0.472	900	0.494	923	0.515	944	0.536	964	—	—	—	—		

Table 52. Unit fan performance (continued)

Model			External Static Pressure (inches of water)																	
			0		0.05		0.1		0.15		0.2		0.25		0.3		0.35		0.4	
	Profile	CFM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM
DXH070	A	2299	0.797	855	0.817	866	0.838	877	0.859	889	0.881	902	0.903	916	0.926	931	0.948	946	0.969	963
	B	2090	0.617	790	0.644	807	0.672	825	0.702	843	0.732	862	0.764	882	0.796	902	0.827	922	0.859	944
	C	1881	0.434	718	0.462	742	0.493	766	0.525	791	0.560	815	0.595	840	0.631	865	0.668	890	0.706	916
	D	1672	0.317	640	0.337	670	0.360	700	0.385	729	0.412	759	0.442	788	0.473	817	0.505	845	0.538	874
			0.45		0.5		0.55		0.6		0.65		0.7		0.75		0.8			
	Profile	CFM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM		
	A	2299	0.990	980	1.009	999	1.027	1018	1.043	1038	1.058	1059	1.070	1081	—	—	—	—		
	B	2090	0.891	965	0.921	988	0.951	1011	0.980	1034	1.007	1059	1.032	1083	—	—	—	—		
	C	1881	0.743	941	0.781	967	0.818	993	0.854	1020	0.890	1046	0.924	1073	—	—	—	—		
	D	1672	0.573	902	0.607	930	0.643	958	0.678	986	0.713	1013	0.747	1041	—	—	—	—		

			0		0.05		0.1		0.15		0.2		0.25		0.3		0.35		0.4	
	Profile	CFM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM
DXV024	A	836	0.116	665	0.129	711	0.142	753	0.154	791	0.166	827	0.178	860	0.189	890	0.199	919	0.210	946
	B	760	0.088	617	0.101	664	0.112	708	0.123	748	0.134	786	0.144	820	0.154	853	0.164	883	0.173	912
	C	684	0.066	565	0.077	615	0.088	661	0.097	703	0.107	742	0.116	779	0.125	813	0.133	845	0.141	875
	D	608	0.050	514	0.059	566	0.068	614	0.077	659	0.085	700	0.093	738	0.101	774	0.109	807	0.116	839
			0.45		0.5		0.55		0.6		0.65		0.7		0.75		0.8			
	Profile	CFM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM		
	A	836	0.220	972	0.230	998	0.240	1022	0.250	1047	0.260	1072	0.270	1098	0.291	1152	—	—		
	B	760	0.182	939	0.191	966	0.200	991	0.209	1017	0.218	1043	0.227	1069	0.246	1125	—	—		
	C	684	0.150	904	0.158	931	0.166	958	0.174	985	0.182	1012	0.190	1039	0.208	1096	—	—		
	D	608	0.123	869	0.131	898	0.138	926	0.145	953	0.153	981	0.161	1008	0.177	1066	—	—		

Table 52. Unit fan performance (continued)

External Static Pressure (inches of water)

Model	Profile	CFM	0		0.05		0.1		0.15		0.2		0.25		0.3		0.35		0.4	
	Profile	**CFM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**
DXV036	A	1254	0.217	649	0.241	687	0.264	723	0.286	757	0.307	788	0.328	818	0.347	846	0.366	872	0.384	896
DXV036	B	1140	0.163	598	0.183	637	0.203	673	0.222	708	0.241	740	0.259	771	0.276	800	0.293	827	0.309	853
DXV036	C	1026	0.117	541	0.134	581	0.150	618	0.166	653	0.182	687	0.197	718	0.213	748	0.228	777	0.242	805
DXV036	D	912	0.093	498	0.106	538	0.120	576	0.133	612	0.146	646	0.159	679	0.172	710	0.184	741	0.197	770

Model	Profile	CFM	0.45		0.5		0.55		0.6		0.65		0.7		0.75		0.8	
	Profile	**CFM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**
DXV036	A	1254	0.401	919	0.418	941	0.434	962	0.449	982	0.463	1001	0.477	1019	—	—	—	—
DXV036	B	1140	0.325	878	0.341	901	0.356	924	0.370	945	0.385	966	0.399	987	—	—	—	—
DXV036	C	1026	0.257	831	0.271	856	0.285	881	0.299	905	0.313	928	0.327	951	—	—	—	—
DXV036	D	912	0.210	798	0.223	826	0.237	852	0.250	879	0.264	905	0.277	930	—	—	—	—

Model	Profile	CFM	0		0.05		0.1		0.15		0.2		0.25		0.3		0.35		0.4	
	Profile	**CFM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**
DXV048	A	1672	0.284	600	0.307	624	0.331	648	0.356	673	0.381	697	0.406	722	0.432	746	0.458	770	0.485	794
DXV048	B	1520	0.211	539	0.232	569	0.253	598	0.275	627	0.297	655	0.320	684	0.344	712	0.368	739	0.393	767
DXV048	C	1368	0.160	491	0.179	525	0.199	558	0.219	591	0.240	623	0.262	655	0.284	686	0.307	716	0.330	746
DXV048	D	1216	0.107	441	0.126	478	0.145	515	0.165	551	0.185	586	0.206	621	0.228	654	0.250	687	0.273	718

Model	Profile	CFM	0.45		0.5		0.55		0.6		0.65		0.7		0.75		0.8	
	Profile	**CFM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**	**kW**	**RPM**
DXV048	A	1672	0.512	818	0.539	842	0.567	866	0.596	889	0.625	912	0.654	934	0.714	978	—	—
DXV048	B	1520	0.418	793	0.443	820	0.469	845	0.496	871	0.523	895	0.550	919	0.607	965	—	—
DXV048	C	1368	0.354	775	0.378	803	0.403	830	0.429	857	0.455	882	0.482	907	0.537	953	—	—
DXV048	D	1216	0.297	749	0.321	778	0.346	807	0.372	834	0.398	860	0.425	885	0.480	930	—	—

Table 52. Unit fan performance (continued)

Model	External Static Pressure (inches of water)																			
			0		0.05		0.1		0.15		0.2		0.25		0.3		0.35		0.4	
	Profile	CFM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM
DXV060	A	2090	0.619	753	0.643	769	0.670	785	0.699	803	0.730	822	0.764	842	0.798	863	0.833	884	0.868	905
	B	1900	0.444	680	0.468	701	0.495	723	0.525	746	0.557	770	0.592	795	0.627	820	0.663	845	0.700	870
	C	1710	0.315	612	0.337	638	0.362	664	0.390	691	0.421	719	0.454	748	0.489	776	0.524	805	0.561	833
	D	1520	0.237	557	0.255	586	0.276	616	0.301	647	0.328	678	0.357	709	0.389	740	0.421	771	0.455	802
			0.45		0.5		0.55		0.6		0.65		0.7		0.75		0.8			
	Profile	CFM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM		
	A	2090	0.903	926	0.937	948	0.970	969	1.001	990	1.031	1010	1.057	1029	1.100	1065	—	—		
	B	1900	0.737	896	0.773	921	0.809	945	0.842	969	0.874	992	0.903	1015	0.952	1055	—	—		
	C	1710	0.597	861	0.633	889	0.668	916	0.702	942	0.734	967	0.764	991	0.815	1035	—	—		
	D	1520	0.489	832	0.522	861	0.555	889	0.587	917	0.618	943	0.646	968	0.694	1013	—	—		

			0		0.05		0.1		0.15		0.2		0.25		0.3		0.35			
	Profile	CFM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM
DXV070	A	2299	0.689	747	0.731	774	0.769	799	0.804	823	0.836	845	0.865	865	0.891	884	0.914	902	0.935	918
	B	2090	0.511	692	0.551	722	0.589	749	0.624	775	0.657	799	0.687	821	0.716	842	0.742	862	0.766	881
	C	1881	0.355	631	0.390	662	0.422	691	0.453	718	0.482	743	0.509	767	0.535	789	0.560	810	0.583	830
	D	1672	0.280	579	0.304	610	0.327	640	0.348	667	0.368	693	0.388	717	0.407	740	0.425	761	0.442	781
			0.45		0.5		0.55		0.6		0.65		0.7		0.75		0.8			
	Profile	CFM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM	kW	RPM		
	A	2299	0.953	934	0.969	948	0.982	962	0.994	976	1.003	989	1.011	1001	1.021	1026	—	—		
	B	2090	0.789	898	0.810	915	0.829	931	0.847	946	0.864	961	0.880	976	0.908	1005	—	—		
	C	1881	0.605	849	0.626	867	0.647	884	0.667	901	0.686	917	0.705	933	0.743	964	—	—		
	D	1672	0.460	801	0.477	819	0.494	836	0.511	853	0.528	870	0.546	886	0.583	918	—	—		

Table 53. Added pressure drop through optional filters (inches water column)

Model No.	CFM	2" Filter	MERV 8	MERV 13
DXH024	608	0.017	0.10	0.11
	684	0.018	0.11	0.13
	760	0.022	0.13	0.15
	836	0.023	0.14	0.17
DXH036	1026	0.027	0.16	0.19
	1140	0.032	0.19	0.22
	1254	0.035	0.21	0.26
	912	0.170	0.00	0.14
DXH048	1216	0.025	0.15	0.17
	1368	0.028	0.17	0.20
	1520	0.032	0.19	0.23
	1672	0.037	0.22	0.26
DXH060	1360	0.028	0.17	0.20
	1530	0.032	0.19	0.23
	1700	0.037	0.22	0.27
	1870	0.042	0.25	0.31
DXH070	1672	0.037	0.22	0.26
	1881	0.042	0.25	0.31
	2090	0.048	0.29	0.36
	2299	0.055	0.33	0.42
DXV024	608	0.017	0.10	0.11
	684	0.018	0.11	0.13
	760	0.022	0.13	0.15
	836	0.023	0.14	0.17
DXV036	912	0.022	0.13	0.16
	1026	0.025	0.15	0.18
	1140	0.030	0.18	0.21
	1254	0.033	0.20	0.24
DXV048	1216	0.017	0.10	0.12
	1368	0.020	0.12	0.13
	1520	0.022	0.13	0.15
	1672	0.025	0.15	0.17
DXV060	1520	0.022	0.13	0.15
	1710	0.025	0.15	0.18
	1900	0.028	0.17	0.21
	2090	0.033	0.20	0.24
DXV070	1672	0.025	0.15	0.17
	1881	0.028	0.17	0.20
	2090	0.033	0.20	0.24
	2299	0.037	0.22	0.27

Note: Added pressure drop should be considered when utilizing optional 2" Standard, MERV 8 and MERV 13 filters

Electrical Data

Table 54. Electrical data - horizontal models

Model no.	Unit volts	Total unit FLA	Comp RLA	Comp LRA	Blower motor FLA	Blower motor HP	Minimum circuit ampacity	Maximum overcurrent protective device	Electric heat kW	Electric heat amps
DXH024	208/60/1	15.0	13.0	58.3	2.00	1/3	18.25	30	0.0	0.0
	208/60/1	17.7	13.0	58.3	2.00	1/3	22.09	30	3.3	15.7
	230/60/1	15.0	13.0	58.3	2.00	1/3	18.25	30	0.0	0.0
	230/60/1	19.4	13.0	58.3	2.00	1/3	24.24	30	4.0	17.4
	265/60/1	12.1	10.1	54.0	2.00	1/3	14.63	20	0.0	0.0
	265/60/1	22.0	10.1	54.0	2.00	1/3	27.50	30	5.3	20.0
	208/60/3	9.2	7.2	55.4	2.00	1/3	11.00	15	0.0	0.0
	208/60/3	11.0	7.2	55.4	2.00	1/3	13.81	15	3.3	9.0
	230/60/3	9.2	7.2	55.4	2.00	1/3	11.00	15	0.0	0.0
	230/60/3	12.0	7.2	55.4	2.00	1/3	15.05	20	4.0	10.0
	460/60/3	5.9	3.9	28.0	2.00	1/3	6.88	15	0.0	0.0
	460/60/3	8.7	3.9	28.0	2.00	1/3	10.82	15	5.3	6.7
DXH036	208/60/1	19.7	17.0	83.0	2.70	3/4	23.95	40	0.0	0.0
	208/60/1	26.3	17.0	83.0	2.70	3/4	32.82	40	4.9	23.6
	230/60/1	19.7	17.0	83.0	2.70	3/4	23.95	40	0.0	0.0
	230/60/1	28.8	17.0	83.0	2.70	3/4	35.98	40	6.0	26.1
	265/60/1	17.2	14.5	72.0	2.70	3/4	20.83	35	0.0	0.0
	265/60/1	32.7	14.5	72.0	2.70	3/4	40.88	45	8.0	30.0
	208/60/3	15.6	12.9	73.0	2.70	3/4	18.83	30	0.0	0.0
	208/60/3	16.3	12.9	73.0	2.70	3/4	20.38	30	4.9	13.6
	230/60/3	15.6	12.9	73.0	2.70	3/4	18.83	30	0.0	0.0
	230/60/3	17.8	12.9	73.0	2.70	3/4	22.20	30	6.0	15.1
	460/60/3	9.1	6.4	38.0	2.70	3/4	10.70	15	0.0	0.0
	460/60/3	12.7	6.4	38.0	2.70	3/4	15.85	20	8.0	10.0
DXH048	208/60/1	26.5	23.6	104.0	2.90	3/4	32.40	50	0.0	0.0
	208/60/1	34.2	23.6	104.0	2.90	3/4	42.69	50	6.5	31.3
	230/60/1	26.5	23.6	104.0	2.90	3/4	32.40	50	0.0	0.0
	230/60/1	37.7	23.6	104.0	2.90	3/4	47.10	50	8.0	34.8
	208/60/3	18.5	15.6	83.1	2.90	3/4	22.40	35	0.0	0.0
	208/60/3	20.9	15.6	83.1	2.90	3/4	26.18	35	6.5	18.0
	230/60/3	18.5	15.6	83.1	2.90	3/4	22.40	35	0.0	0.0
	230/60/3	23.0	15.6	83.1	2.90	3/4	28.73	35	8.0	20.1
	460/60/3	10.0	7.1	41.0	2.90	3/4	11.78	15	0.0	0.0
	460/60/3	16.2	7.1	41.0	2.90	3/4	20.26	25	10.6	13.3

Table 54. Electrical data - horizontal models

Model no.	Unit volts	Total unit FLA	Comp RLA	Comp LRA	Blower motor FLA	Blower motor HP	Minimum circuit ampacity	Maximum overcurrent protective device	Electric heat kW	Electric heat amps
DXH060	208/60/1	36.2	30.2	152.9	6.00	1	43.75	70	0.0	0.0
	208/60/1	37.3	30.2	152.9	6.00	1	46.56	70	6.5	31.3
	230/60/1	36.2	30.2	152.9	6.00	1	43.75	70	0.0	0.0
	230/60/1	40.8	30.2	152.9	6.00	1	50.98	70	8.0	34.8
	208/60/3	24.4	18.4	110.0	6.00	1	29.00	45	0.0	0.0
	208/60/3	24.4	18.4	110.0	6.00	1	30.05	45	6.5	18.0
	230/60/3	24.4	18.4	110.0	6.00	1	29.00	45	0.0	0.0
	230/60/3	26.1	18.4	110.0	6.00	1	32.60	45	8.0	20.1
	460/60/3	14.1	8.1	52.0	6.00	1	16.13	20	0.0	0.0
	460/60/3	19.3	8.1	52.0	6.00	1	24.13	25	10.6	13.3
DXH070	208/60/1	39.8	33.1	179.2	6.70	1	48.08	80	0.0	0.0
	208/60/1	39.8	33.1	179.2	6.70	1	48.08	80	6.5	31.3
	230/60/1	39.8	33.1	179.2	6.70	1	48.08	80	0.0	0.0
	230/60/1	41.5	33.1	179.2	6.70	1	51.85	80	8.0	34.8
	208/60/3	26.3	19.6	136.0	6.70	1	31.20	50	0.0	0.0
	208/60/3	26.3	19.6	136.0	6.70	1	31.20	50	6.5	18.0
	230/60/3	26.3	19.6	136.0	6.70	1	31.20	50	0.0	0.0
	230/60/3	26.8	19.6	136.0	6.70	1	33.48	50	8.0	20.1
	460/60/3	16.1	9.4	66.1	6.70	1	18.45	25	0.0	0.0
	460/60/3	20.0	9.4	66.1	6.70	1	25.01	30	10.6	13.3

Table 55. Electrical data - vertical models

Model no.	Unit volts	Total unit FLA	Comp RLA	Comp LRA	Blower motor FLA	Blower motor HP	Minimum circuit ampacity	Maximum overcurrent protective device	Electric heat kW	Electric heat amps
DXV024	208/60/1	14.7	13.0	58.3	1.70	1/3	17.95	30	0.0	0.0
	208/60/1	17.4	13.0	58.3	1.70	1/3	21.72	30	3.3	15.7
	230/60/1	14.7	13.0	58.3	1.70	1/3	17.95	30	0.0	0.0
	230/60/1	19.1	13.0	58.3	1.70	1/3	23.86	30	4.0	17.4
	265/60/1	11.8	10.1	54.0	1.70	1/3	14.33	20	0.0	0.0
	265/60/1	21.7	10.1	54.0	1.70	1/3	27.13	30	5.3	20.0
	208/60/3	8.9	7.2	55.4	1.70	1/3	10.70	15	0.0	0.0
	208/60/3	8.9	7.2	55.4	1.70	1/3	11.00	15	3.3	7.1
	230/60/3	8.9	7.2	55.4	1.70	1/3	10.70	15	0.0	0.0
	230/60/3	10.4	7.2	55.4	1.70	1/3	13.02	15	4.0	8.7
	460/60/3	5.6	3.9	28.0	1.70	1/3	6.58	15	0.0	0.0
	460/60/3	13.2	3.9	28.0	1.70	1/3	16.56	20	5.3	11.5

Table 55. Electrical data - vertical models

Model no.	Unit volts	Total unit FLA	Comp RLA	Comp LRA	Blower motor FLA	Blower motor HP	Minimum circuit ampacity	Maximum overcurrent protective device	Electric heat kW	Electric heat amps
DXV036	208/60/1	19.6	17.0	83.0	2.60	3/4	23.85	40	0.0	0.0
	208/60/1	26.2	17.0	83.0	2.60	3/4	32.70	40	4.9	23.6
	230/60/1	19.6	17.0	83.0	2.60	3/4	23.85	40	0.0	0.0
	230/60/1	28.7	17.0	83.0	2.60	3/4	35.86	40	6.0	26.1
	265/60/1	17.1	14.5	72.0	2.60	3/4	20.73	35	0.0	0.0
	265/60/1	32.6	14.5	72.0	2.60	3/4	40.75	45	8.0	30.0
	208/60/3	15.5	12.9	73.0	2.60	3/4	18.73	30	0.0	0.0
	208/60/3	16.2	12.9	73.0	2.60	3/4	20.25	30	4.9	13.6
	230/60/3	15.5	12.9	73.0	2.60	3/4	18.73	30	0.0	0.0
	230/60/3	17.7	12.9	73.0	2.60	3/4	22.08	30	6.0	15.1
	460/60/3	9.0	6.4	38.0	2.60	3/4	10.60	15	0.0	0.0
	460/60/3	12.6	6.4	38.0	2.60	3/4	15.72	20	8.0	10.0
DXV048	208/60/1	27.2	23.6	104.0	3.60	3/4	33.10	50	0.0	0.0
	208/60/1	34.9	23.6	104.0	3.60	3/4	43.56	50	6.5	31.3
	230/60/1	27.2	23.6	104.0	3.60	3/4	33.10	50	0.0	0.0
	230/60/1	38.4	23.6	104.0	3.60	3/4	47.98	50	8.0	34.8
	208/60/3	19.2	15.6	83.1	3.60	3/4	23.10	35	0.0	0.0
	208/60/3	21.6	15.6	83.1	3.60	3/4	27.05	35	6.5	18.0
	230/60/3	19.2	15.6	83.1	3.60	3/4	23.10	35	0.0	0.0
	230/60/3	23.7	15.6	83.1	3.60	3/4	29.60	35	8.0	20.1
	460/60/3	10.7	7.1	41.0	3.60	3/4	12.48	15	0.0	0.0
	460/60/3	16.9	7.1	41.0	3.60	3/4	21.13	25	10.6	13.3
DXV060	208/60/1	35.9	30.2	152.9	5.70	1	43.45	70	0.0	0.0
	208/60/1	37.0	30.2	152.9	5.70	1	46.19	70	6.5	31.3
	230/60/1	35.9	30.2	152.9	5.70	1	43.45	70	0.0	0.0
	230/60/1	40.5	30.2	152.9	5.70	1	50.60	70	8.0	34.8
	208/60/3	24.1	18.4	110.0	5.70	1	28.70	45	0.0	0.0
	208/60/3	24.1	18.4	110.0	5.70	1	29.68	45	6.5	18.0
	230/60/3	24.1	18.4	110.0	5.70	1	28.70	45	0.0	0.0
	230/60/3	25.8	18.4	110.0	5.70	1	32.23	45	8.0	20.1
	460/60/3	13.8	8.1	52.0	5.70	1	15.83	20	0.0	0.0
	460/60/3	19.0	8.1	52.0	5.70	1	23.76	25	10.6	13.3
DXV070	208/60/1	38.8	33.1	179.2	5.70	1	47.08	80	0.0	0.0
	208/60/1	38.8	33.1	179.2	5.70	1	47.08	80	6.5	31.3
	230/60/1	38.8	33.1	179.2	5.70	1	47.08	80	0.0	0.0
	230/60/1	40.5	33.1	179.2	5.70	1	50.60	80	8.0	34.8
	208/60/3	25.3	19.6	136.0	5.70	1	30.20	45	0.0	0.0
	208/60/3	25.3	19.6	136.0	5.70	1	30.20	45	6.5	18.0
	230/60/3	25.3	19.6	136.0	5.70	1	30.20	45	0.0	0.0
	230/60/3	25.8	19.6	136.0	5.70	1	32.23	45	8.0	20.1
	460/60/3	15.1	9.4	66.1	5.70	1	17.45	25	0.0	0.0
	460/60/3	19.0	9.4	66.1	5.70	1	23.76	25	10.6	13.3

Table 56. Electrical data - minimum and maximum

Digit 8	Rated Voltage	Hz	Ph	Minimum Utilization Voltage	Maximum Utilization Voltage
1	208	60	1	197	229
2	230	60	1	207	253
3	208	60	3	187	229
4	460	60	3	414	506
7	265	60	1	239	292
8	230	60	3	207	253

Dimensional Data

Figure 16. Left return/left supply DXH

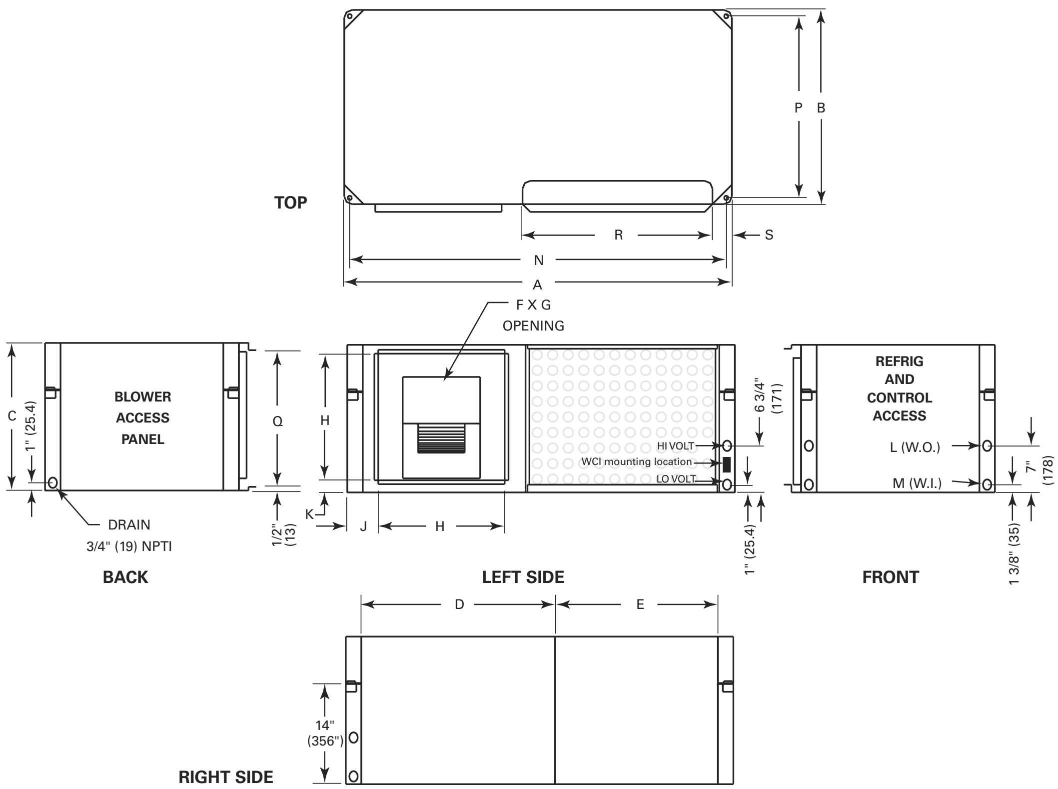


Table 57. Dimensional data—left return/left supply

Unit	A	B	C	D(a)	E	F x G	H	J	K	LNPTI	MNPTI	N	P	Q	R(b)	S
024	46 (1168)	23 (584)	18 (457)	23 (584)	18 (457)	8-1/4 x 11-3/8 (210) x (289)	13-1/2 (343)	4-3/4 (121)	1-3/8 (35)	3/4 (19)	3/4 (19)	44-3/4 (1137)	21-3/4 (552)	16-5/8 (422)	18-1/2 (470)	4-1/4 (108)
036	50 (1270)	25 (635)	19 (483)	25 (635)	20 (508)	10-1/2 x 13-1/2 (267) x (343)	17 (432)	4 (102)	1 (25)	3/4 (19)	3/4 (19)	48-3/4 (1238)	23-3/4 (603)	17-5/8 (448)	23-1/2 (597)	3-1/4 (83)
048-060	58 (1473)	33 (838)	21 (533)	29-1/2 (597)	23-1/2 (749)	13-1/8 x 11-3/8 (333) x (289)	18 (457)	5-1/4 (133)	1-1/2 (38)	1 (25)	1 (25)	56-3/4 (1441)	31-3/4 (806)	19-5/8 (498)	23-1/2 (597)	5-1/2 (140)
070	58 (1473)	39 (991)	21 (533)	29-1/2 (597)	23-1/2 (749)	13-7/8 x 13-7/8 (352) x (352)	18 (457)	5-1/4 (133)	1-1/2 (38)	1 (25)	1 (25)	56-3/4 (1441)	37-3/4 (959)	19-5/8 (498)	23-1/2 (597)	5-1/2 (140)

Notes:

1. All dimensions are in inches followed by millimeters in parenthesis.
2. Access to the unit for service purposes should be provided at installation. Horizontal units require an 18 in. (457 mm) surround clearance from other mechanical and electrical equipment to enable panel removal from the unit for service/maintenance ability. NEC requires 36 in. clearance on the control panel side of the unit. Some local codes require a greater service clearance. Check all code requirements prior to unit installations. Installer is responsible for following all local and NEC code requirements.
3. Equipment containing a same-side supply/return combination requires a 3 in. (229 mm) clearance on one side. Access to the TXV may not be possible with this 3 in. (229 mm) clearance.
4. If hot gas reheat is specified for a size 018, 024, the actual cabinet size increases to an 036 cabinet.
5. When a horizontal model is ordered with the same side return and supply in a ducted application, bottom filter removal is required due to limited access on either side of the filter.

(a) Return air opening dimension.
(b) Filter rack dimension.

Figure 17. Left return/back supply DXH

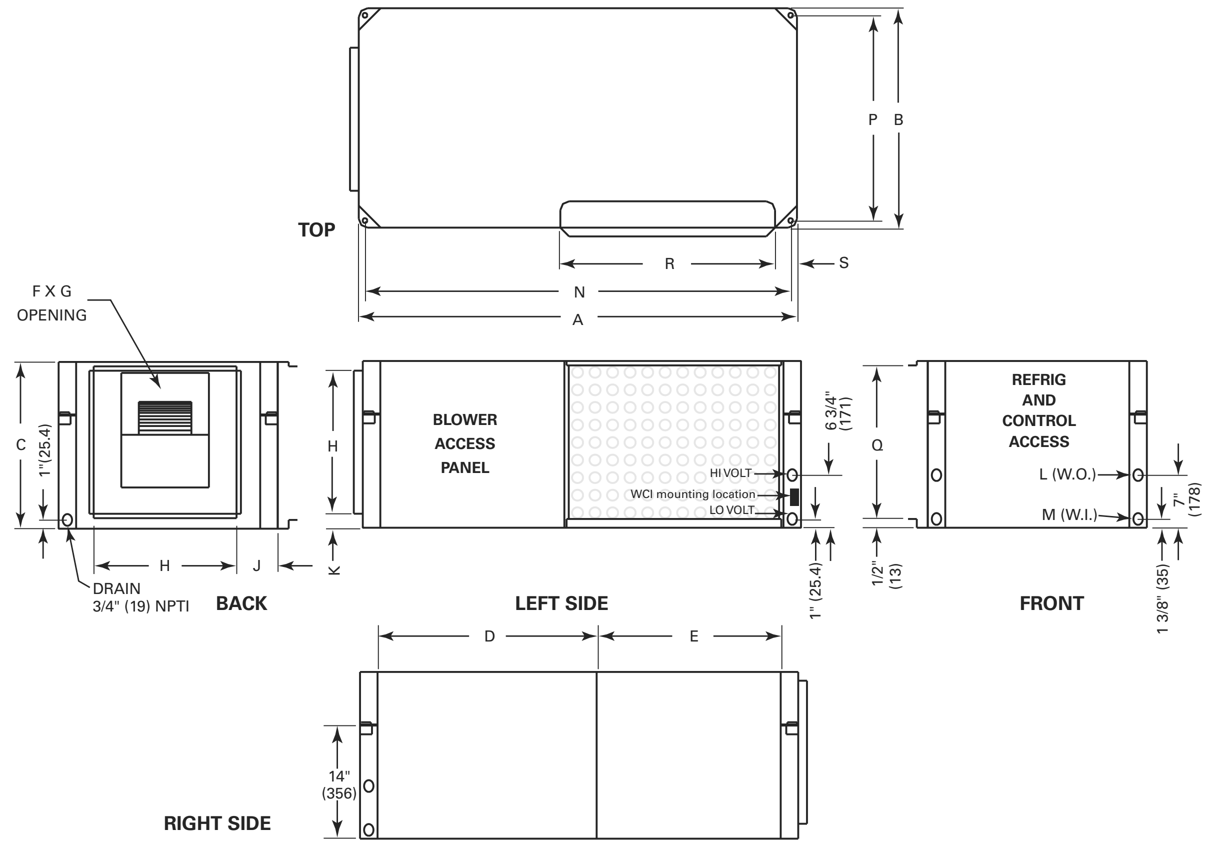


Table 58. Dimensional data—left return/back supply

Unit	A	B	C	D[a]	E	F x G	H	J	K	LNPTI	MNPTI	N	P	Q	R[b]	S
024	46 (1168)	23 (584)	18 (457)	23 (584)	18 (457)	8-1/4 x 11-3/8 (210) x (289)	13-1/2 (343)	4-3/4 (121)	3-1/4 (83)	3/4 (19)	3/4 (19)	44-3/4 (1137)	21-3/4 (552)	16-5/8 (422)	18-1/2 (470)	4-1/4 (108)
036	50 (1270)	25 (635)	19 (483)	25 (635)	20 (508)	10-1/2 x 13-1/2 (267) x (343)	17 (432)	4 (102)	1 (25)	3/4 (19)	3/4 (19)	48-3/4 (1238)	23-3/4 (603)	17-5/8 (448)	23-1/2 (597)	3-1/4 (83)
048-060	58 (1473)	33 (838)	21 (533)	29-1/2 (597)	23-1/2 (749)	13-1/8 x 11-3/8 (333) x (289)	18 (457)	9-3/4 (248)	1-1/2 (38)	1 (25)	1 (25)	56-3/4 (1441)	31-3/4 (806)	19-5/8 (498)	23-1/2 (597)	5-1/2 (140)
070	58 (1473)	39 (991)	21 (533)	29-1/2 (597)	231/2 (749)	13-7/8 x 13-7/8 (352) x (352)	18 (457)	9-3/4 (248)	1-1/2 (38)	1 (25)	1 (25)	56-3/4 (1441)	37-3/4 (959)	19-5/8 (498)	23-1/2 (597)	5-1/2 (140)

Notes:

1. All dimensions are in inches followed by millimeters in parenthesis.
2. Access to the unit for service purposes should be provided at installation. Horizontal units require an 18 in. (457 mm) surround clearance from other mechanical and electrical equipment to enable panel removal from the unit for service/maintenance ability. NEC requires 36 in. clearance on the control panel side of the unit. Some local codes require a greater service clearance. Check all code requirements prior to unit installations. Installer is responsible for following all local and NEC code requirements.
3. Equipment containing a same-side supply/return combination requires a 3 in. (229 mm) clearance on one side. Access to the TXV may not be possible with this 3 in. (229 mm) clearance.
4. If hot gas reheat is specified for a size 018, 024, the actual cabinet size increases to an 036 cabinet.

(a) Return air opening dimension
(b) Filter rack dimension

Dimensional Data

Figure 18. Left return/right supply DXH

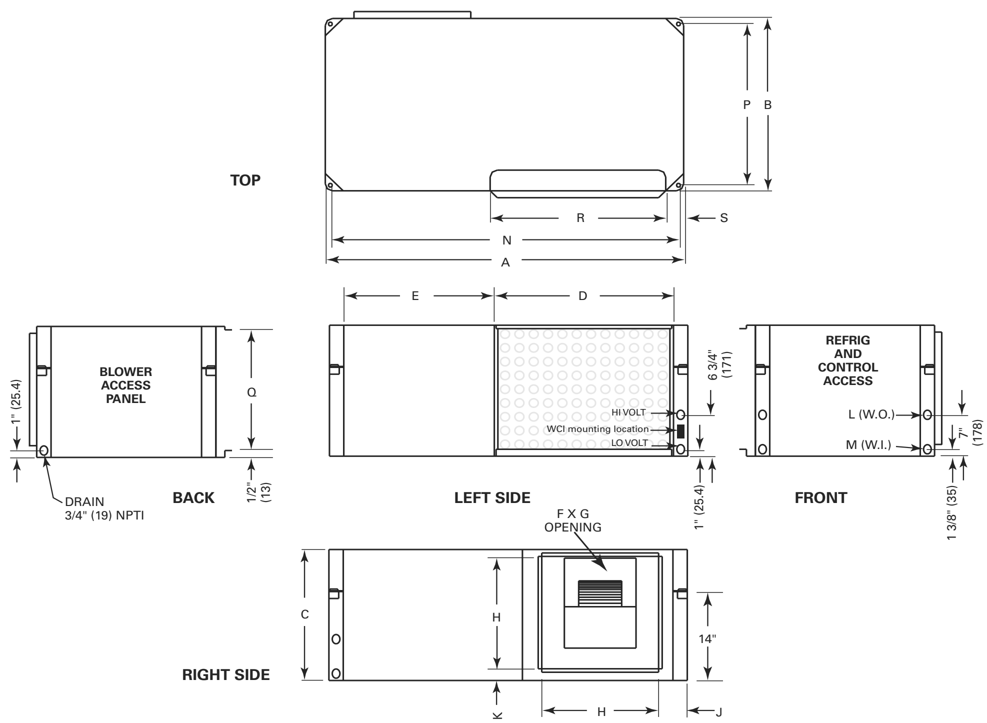


Table 59. Dimensional data—left return/right supply

Unit	A	B	C	D(a)	E	F x G	H	J	K	LNPTI	MNPTI	N	P	Q	R(b)	S
024	46 (1168)	23 (584)	18 (457)	23 (584)	18 (457)	8-1/4 x 11-3/8 (210) x (289)	13-1/2 (343)	4-3/4 (121)	3-1/4 (83)	3/4 (19)	3/4 (19)	44-3/4 (1137)	21-3/4 (552)	16-5/8 (422)	18-1/2 (470)	4-1/4 (108)
036	50 (1270)	25 (635)	19 (483)	25 (635)	20 (508)	10-1/2 x 13-1/2 (267) x (343)	17 (432)	4 (102)	1 (25)	3/4 (19)	3/4 (19)	48-3/4 (1238)	23-3/4 (603)	17-5/8 (448)	23-1/2 (597)	3-1/4 (83)
048-060	58 (1473)	33 (838)	21 (533)	29-1/2 (597)	23-1/2 (749)	13-1/8 x 11-3/8 (333) x (289)	18 (457)	5-1/4 (133)	1-1/2 (38)	1 (25)	1 (25)	56-3/4 (1441)	31-3/4 (806)	19-5/8 (498)	23-1/2 (597)	5-1/2 (140)
070	58 (1473)	39 (991)	21 (533)	29-1/2 (597)	23-1/2 (749)	13-7/8 x 13-7/8 (352) x (352)	18 (457)	5-1/4 (133)	1-1/2 (38)	1 (25)	1 (25)	56-3/4 (1441)	37-3/4 (959)	19-5/8 (498)	23-1/2 (597)	5-1/2 (140)

Notes:
1. All dimensions are in inches followed by millimeters in parenthesis.
2. Access to the unit for service purposes should be provided at installation. Horizontal units require an 18 in. (457 mm) surround clearance from other mechanical and electrical equipment to enable panel removal from the unit for service/maintenance ability. NEC requires 36 in. clearance on the control panel side of the unit. Some local codes require a greater service clearance. Check all code requirements prior to unit installations. Installer is responsible for following all local and NEC code requirements.
3. Equipment containing a same-side supply/return combination requires a 3 in. (229 mm) clearance on one side. Access to the TXV may not be possible with this 3 in. (229 mm) clearance.
4. If hot gas reheat is specified for a size 018, 024, the actual cabinet size increases to an 036 cabinet.

(a) Return air opening dimension
(b) Filter rack dimension

Figure 19. Right return/left supply DXH

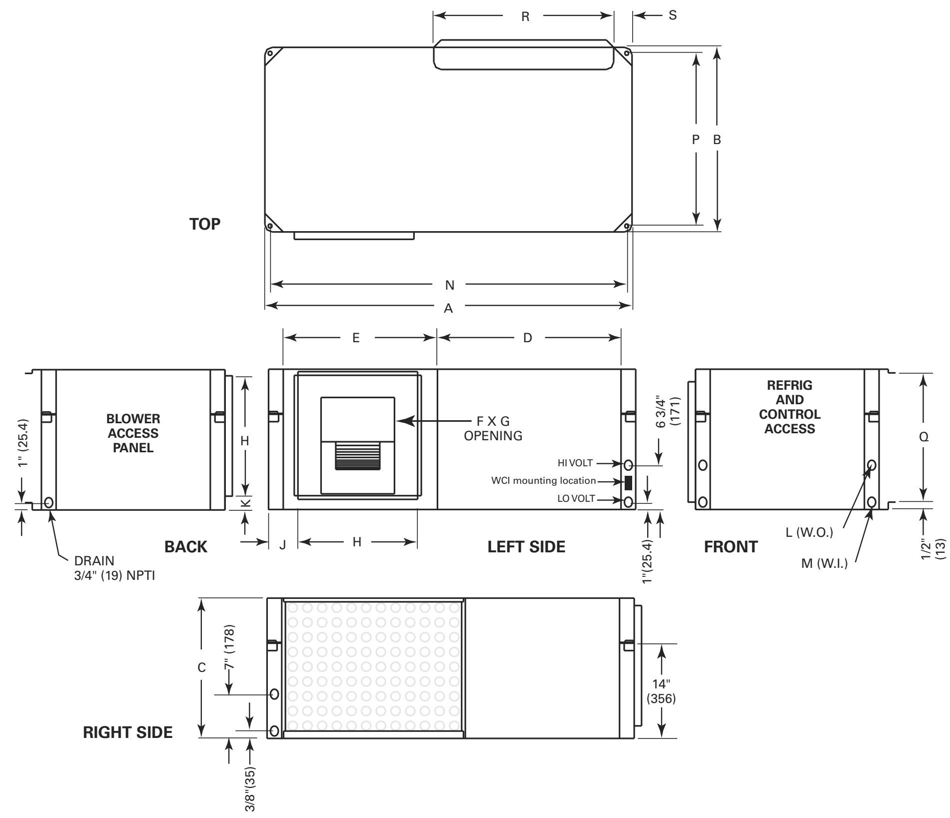


Table 60. Dimensional data—right return/left supply

Unit	A	B	C	D(a)	E	F x G	H	J	K	LNPTI	MNPTI	N	P	Q	R(b)	S
024	46 (1168)	23 (584)	18 (457)	23 (584)	18 (457)	8-1/4 x 11-3/8 (210) x (289)	13-1/2 (343)	4-3/4 (121)	1-3/8 (35)	3/4 (19)	3/4 (19)	44-3/4 (1137)	21-3/4 (552)	16-5/8 (422)	18-1/2 (470)	4-1/4 (108)
036	50 (1270)	25 (635)	19 (483)	25 (635)	20 (508)	10-1/2 x 13-1/2 (267) x (343)	17 (432)	4 (102)	1 (25)	3/4 (19)	3/4 (19)	48-3/4 (1238)	23-3/4 (603)	17-5/8 (448)	23-1/2 (597)	3-1/4 (83)
048-060	58 (1473)	33 (838)	21 (533)	29-1/2 (597)	23-1/2 (749)	13-1/8 x 11-3/8 (333) x (289)	18 (457)	5-1/4 (133)	1-1/2 (38)	1 (25)	1 (25)	56-3/4 (1441)	31-3/4 (806)	19-5/8 (498)	23-1/2 (597)	5-1/2 (140)
070	58 (1473)	39 (991)	21 (533)	29-1/2 (597)	23-1/2 (749)	13-7/8 x 13-7/8 (352) x (352)	18 (457)	5-1/4 (133)	1-1/2 (38)	1 (25)	1 (25)	56-3/4 (1441)	37-3/4 (959)	19-5/8 (498)	23-1/2 (597)	5-1/2 (140)

Notes:

1. All dimensions are in inches followed by millimeters in parenthesis.
2. Access to the unit for service purposes should be provided at installation. Horizontal units require an 18 in. (457 mm) surround clearance from other mechanical and electrical equipment to enable panel removal from the unit for service/maintenance ability. NEC requires 36 in. clearance on the control panel side of the unit. Some local codes require a greater service clearance. Check all code requirements prior to unit installations. Installer is responsible for following all local and NEC code requirements.
3. Equipment containing a same-side supply/return combination requires a 3 in. (229 mm) clearance on one side. Access to the TXV may not be possible with this 3 in. (229 mm) clearance.
4. If hot gas reheat is specified for a size 018, 024, the actual cabinet size increases to an 036 cabinet.

(a) Return air opening dimension
(b) Filter rack dimension

Dimensional Data

Figure 20. Right return/back supply DXH

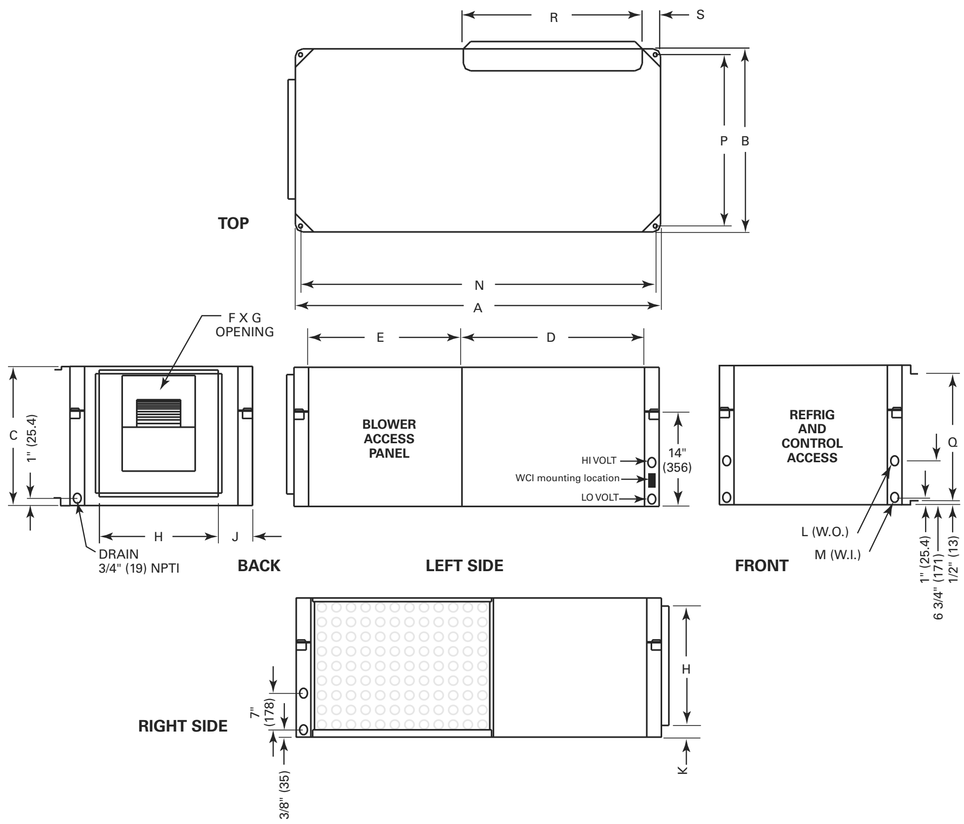


Table 61. Dimensional data—right return/back supply

Unit	A	B	C	D(a)	E	F x G	H	J	K	LNPTI	MNPTI	N	P	Q	R(b)	S
024	46 (1168)	23 (584)	18 (457)	23 (584)	18 (457)	8-1/4 x 11-3/8 (210) x (289)	13-1/2 (343)	4-3/4 (121)	3-1/4 (83)	3/4 (19)	3/4 (19)	44-3/4 (1137)	21-3/4 (552)	16-5/8 (422)	18-1/2 (470)	4-1/4 (108)
036	50 (1270)	25 (635)	19 (483)	25 (635)	20 (508)	10-1/2 x 13-1/2 (267) x (343)	17 (432)	4 (102)	1 (25)	3/4 (19)	3/4 (19)	48-3/4 (1238)	23-3/4 (603)	17-5/8 (448)	23-1/2 (597)	3-1/4 (83)
048-060	58 (1473)	33 (838)	21 (533)	29-1/2 (597)	23-1/2 (749)	13-1/8 x 11-3/8 (333) x (289)	18 (457)	9-3/4 (248)	1-1/2 (38)	1 (25)	1 (25)	56-3/4 (1441)	31-3/4 (806)	19-5/8 (498)	23-1/2 (597)	5-1/2 (140)
070	58 (1473)	39 (991)	21 (533)	29-1/2 (597)	23-1/2 (749)	13-7/8 x 13-7/8 (352) x (352)	18 (457)	9-3/4 (248)	1-1/2 (38)	1 (25)	1 (25)	56-3/4 (1441)	37-3/4 (959)	19-5/8 (498)	23-1/2 (597)	5-1/2 (140)

Notes:

1. All dimensions are in inches followed by millimeters in parenthesis.
2. Access to the unit for service purposes should be provided at installation. During installation, apply a typical 18 in. (457 mm) around the unit for service access. If supply or return are not located on a long side of the unit, this side will not require more than a 2 in. (51 mm) clearance. Local and/ or NEC codes may require greater service clearance. Check all code requirements prior to the unit installation. Installer is responsible for following all local and NEC code requirements. Forklift is recommended when rigging the unit. If hot gas reheat is specified for a size 018, 024, the actual cabinet size increases to an 036 cabinet.

(a) Return air opening dimension
(b) Filter rack dimension

Figure 21. Right return/right supply DXH

Note: *It is recommended to order a bottom access filter rack with right return/right supply combination due to potential problem with return air filter removal.*

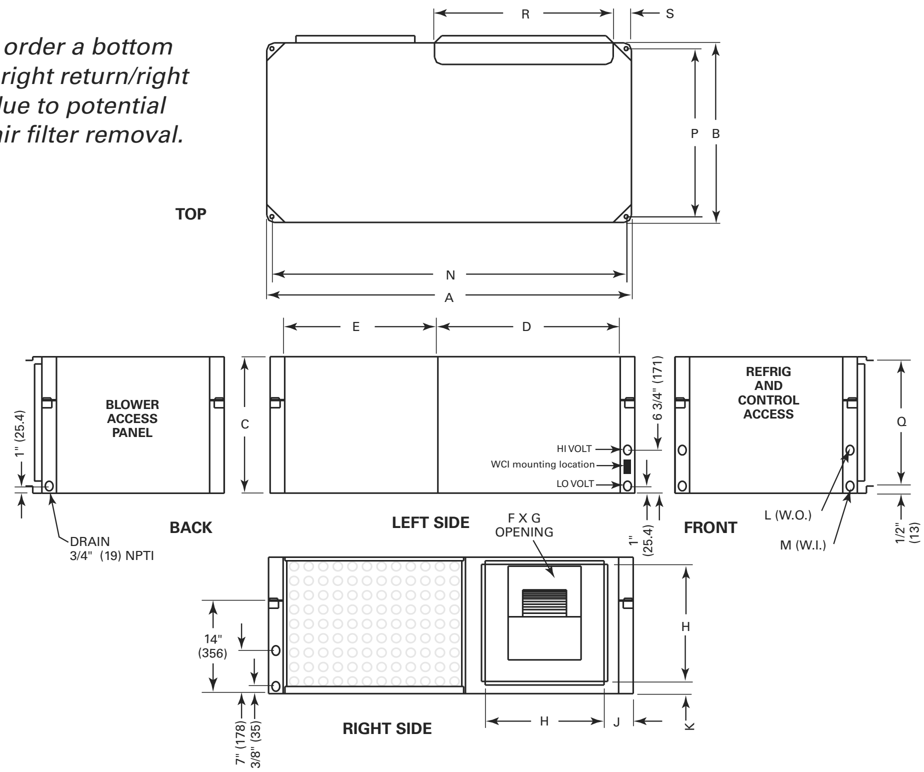


Table 62. Dimensional data—right return/right supply

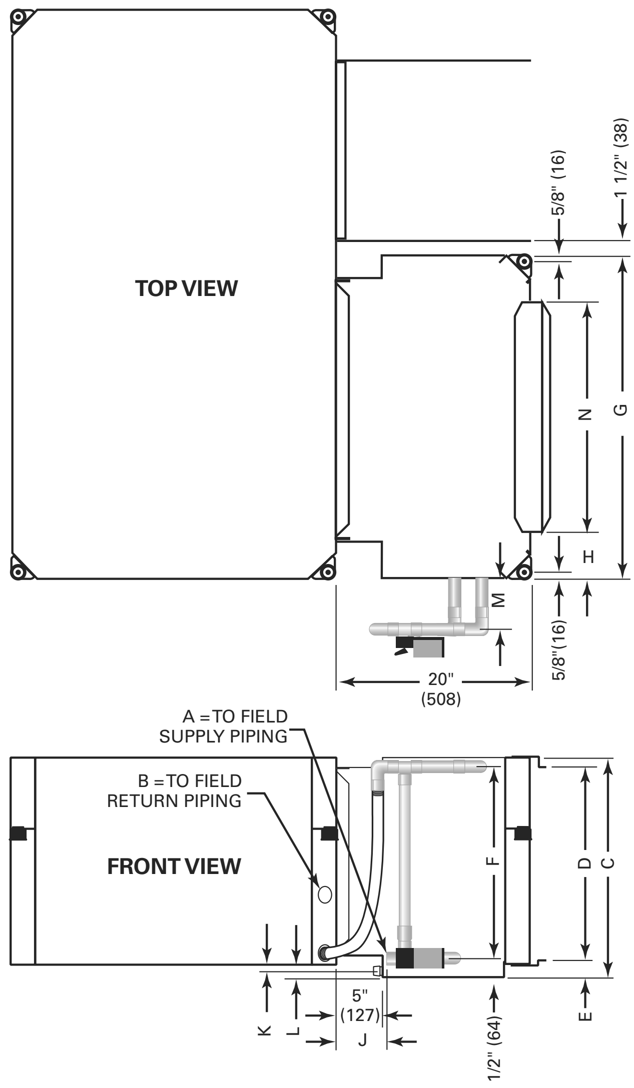
Unit	A	B	C	D[(a)]	E	F x G	H	J	K	LNPTI	MNPTI	N	P	Q	R[(b)]	S
024	46 (1168)	23 (584)	18 (457)	23 (584)	18 (457)	8-1/4 x 11-3/8 (210) x (289)	13-1/2 (343)	4-3/4 (121)	3-1/4 (83)	3/4 (19)	3/4 (19)	44-3/4 (1137)	21-3/4 (552)	16-5/8 (422)	18-1/2 (470)	4-1/4 (108)
036	50 (1270)	25 (635)	19 (483)	25 (635)	20 (508)	10-1/2 x 13-1/2 (267) x (343)	17 (432)	4 (102)	1 (25)	3/4 (19)	3/4 (19)	48-3/4 (1238)	23-3/4 (603)	17-5/8 (448)	23-1/2 (597)	3-1/4 (83)
048-060	58 (1473)	33 (838)	21 (533)	29-1/2 (597)	23-1/2 (749)	13-1/8 x 11-3/8 (333) x (289)	18 (457)	5-1/4 (133)	1-1/2 (38)	1 (25)	1 (25)	56-3/4 (1441)	31-3/4 (806)	19-5/8 (498)	23-1/2 (597)	5-1/2 (140)
070	58 (1473)	39 (991)	21 (533)	29-1/2 (597)	23-1/2 (749)	13-7/8 x 13-7/8 (352) x (352)	18 (457)	5-1/4 (133)	1-1/2 (38)	1 (25)	1 (25)	56-3/4 (1441)	37-3/4 (959)	19-5/8 (498)	23-1/2 (597)	5-1/2 (140)

Notes:

1. All dimensions are in inches followed by millimeters in parenthesis.
2. Access to the unit for service purposes should be provided at installation. Horizontal units require an 18 in. (457 mm) surround clearance from other mechanical and electrical equipment to enable panel removal from the unit for service/maintenance ability. NEC requires 36 in. clearance on the control panel side of the unit. Some local codes require a greater service clearance. Check all code requirements prior to unit installations. Installer is responsible for following all local and NEC code requirements.
3. When a horizontal model is ordered with the same side return and supply in a ducted application, bottom filter removal is required due to limited access on either side of the filter.
4. Equipment containing a same-side supply/return combination requires a 3 in. (229 mm) clearance on one side. Access to the TXV may not be possible with this 3 in. (229 mm) clearance.
5. If hot gas reheat is specified for a size 018, 024, the actual cabinet size increases to an 036 cabinet.

(a) Return air opening dimension
(b) Filter rack dimension

Figure 22. Waterside Economizer[a]



(a) Waterside economizer requires field piping. Waterside economizer is designed for right return. Left return requires additional field piping.

Table 63. Dimensional data—waterside economizer

Unit	A NPTI	B NPTI	C	D	E	F	G	H	J	K	L	M	N	Filter Size (nominal)
024	3/4 (19)	3/4 (19)	18-1/2 (470)	15-5/8 (397)	1-1/2 (38)	13-3/4 (349)	26 (660)	3-1/4 (83)	6-7/8 (175)	1/2 (12.7)	1 (25.4)	4 (102)	18-1/2 (470)	16-3/4 x 23-3/4 (426) x (603)
036	3/4 (19)	3/4 (19)	21 (533)	17-5/8 (448)	2-1/4 (57)	16-1/2 (419)	30 (762)	3-3/4 (95)	6-1/4 (159)	1-1/4 (32)	2 (50.8)	4-1/2 (114)	23-1/2 (597)	18-3/4 x 25-1/2 (476) x (648)
048-070	1 (25.4)	1 (25.4)	23-1/8 (587)	19-5/8 (498)	2-1/2 (64)	19-1/2 (495)	34 (864)	5-1/4 (133)	5-7/8 (149)	1-1/4 (32)	2 (50.8)	4-1/2 (114)	23-1/2 (597)	20-3/4 x 29-7/8 (528) x (759)

Note: All dimensions are in inches followed by millimeters in parenthesis.

Figure 23. Left return/top supply DXV

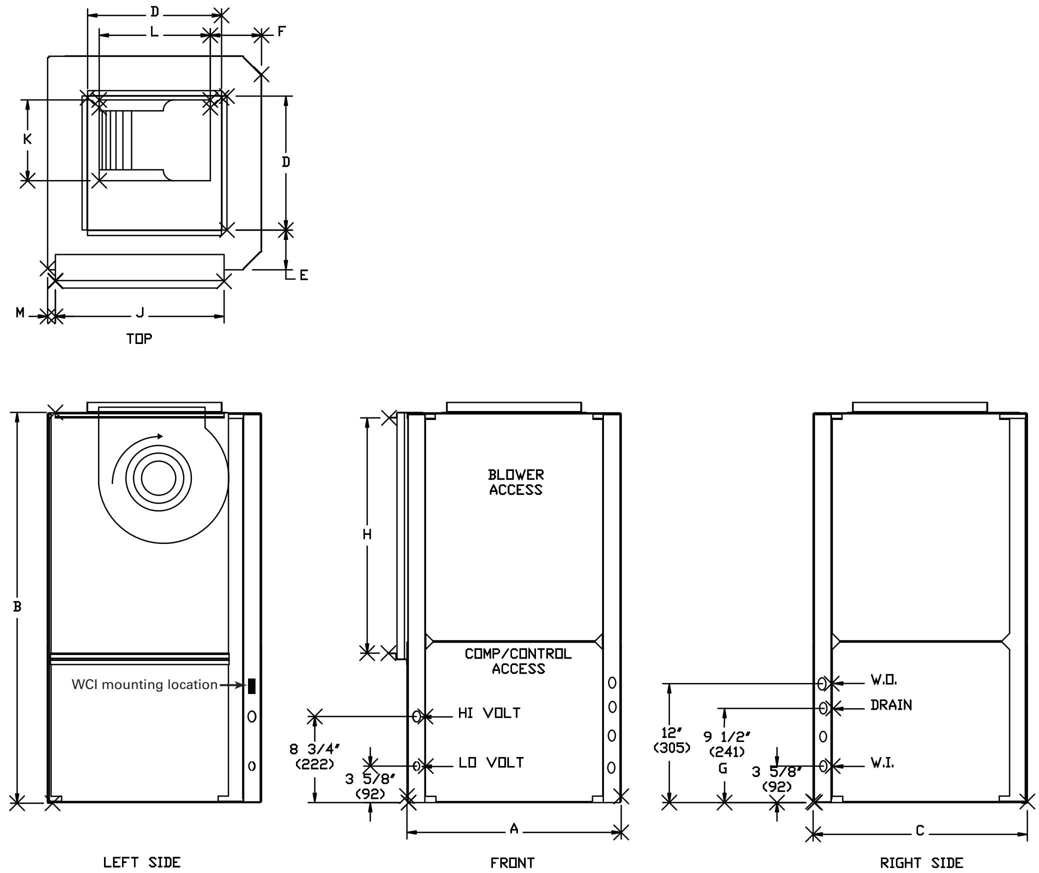


Table 64. Dimensional data—left return/top supply

Unit	A	B	C	D	E	F	G	H	J	K	L	M	W.I. NPTI	W.O. NPTI	Drain FPT
024	21-1/2 (546)	39-1/4 (997)	21-1/2 (546)	13-1/2 (343)	4 (102)	4 (1021)	9-1/2 (241)	23-3/4 (603)	17 (432)	8-1/4 (368)	11-3/8 (289)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)
036	24-1/2 (622)	41-7/8 (1064)	26-1/2 (673)	18 (457)	3-1/4 (83)	5-3/4 (146)	9-1/2 (241)	19 (483)	23 (584)	10-1/2 (267)	13-1/2 (343)	1/4 (6)	3/4 (19)	3/4 (19)	3/4 (19)
048-060	26-1/2 (673)	46-7/8 (1191)	30-1/2 (775)	18 (457)	4-1/4 (108)	2 (51)	9-1/2 (241)	29 (737)	27-7/8 (708)	13-7/8 (352)	11-3/8 (289)	1/2 (13)	1 (25.4)	1 (25.4)	3/4 (19)
070	26-1/2 (673)	50-7/8 (1292)	30-1/2 (775)	18 (457)	4-1/4 (108)	2 (51)	9-1/2 (241)	29 (737)	27-7/8 (708)	13-1/8 (333)	11-3/8 (289)	1/2 (13)	1 (25.4)	1 (25.4)	3/4 (19)

Notes:

1. All dimensions are in inches followed by millimeters in parenthesis.
2. Access to the unit for service purposes should be provided at installation. Vertical units require an 24 in. (610 mm) surround clearance from other mechanical and electrical equipment to enable panel removal from the unit for service/maintenance ability. NEC requires 36 in. clearance on the control panel side of the unit. Some local codes require a greater service clearance. Check all code requirements prior to unit installations. Installer is responsible for following all local and NEC code requirements.
3. Units in a free return application will require more than a 1 in. (25.4 mm) clearance to provide proper air flow to the unit's air-to-refrigerant coil.

Dimensional Data

Figure 24. Left return/back supply DXV

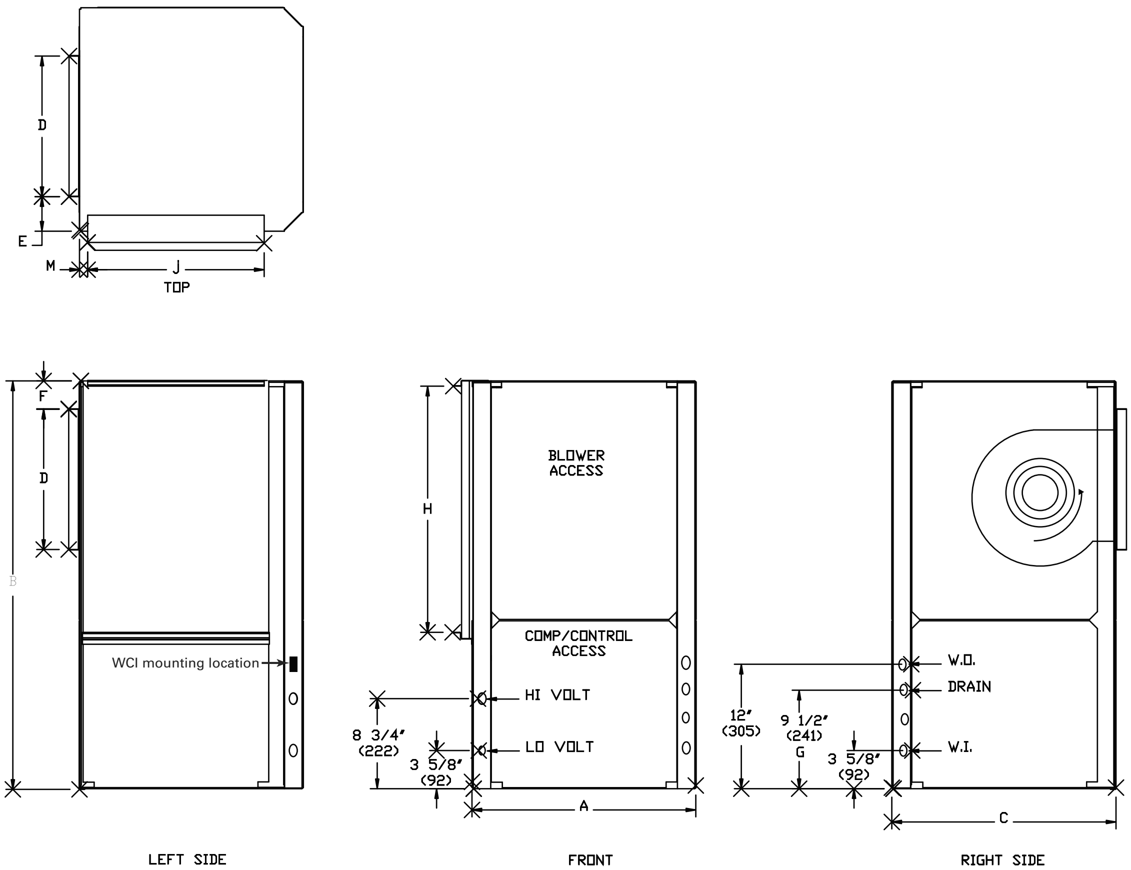


Table 65. Dimensional data—left return/back supply

Unit	A	B	C	D	E	F	G	H	J	K	L	M	W.I. NPTI	W.O. NPTI	Drain FPT
024	21-1/2 (546)	39-1/4 (997)	21-1/2 (546)	13-1/2 (343)	4 (102)	3-7/8 (98)	9-1/2 (241)	23-3/4 (603)	17 (432)	8-1/4 (368)	11-3/8 (289)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)
036	24-1/2 (622)	41-7/8 (1064)	26-1/2 (673)	18 (457)	3-1/4 (83)	1-7/8 (48)	9-1/2 (241)	19 (483)	23 (584)	10-1/2 (267)	13-1/2 (343)	1/4 (6)	3/4 (19)	3/4 (19)	3/4 (19)
048-060	26-1/2 (673)	46-7/8 (1191)	30-1/2 (775)	18 (457)	4-1/4 (108)	2 (51)	9-1/2 (241)	29 (737)	27-7/8 (708)	13-7/8 (352)	11-3/8 (289)	1/2 (13)	1 (25.4)	1 (25.4)	3/4 (19)
070	26-1/2 (673)	50-7/8 (1292)	30-1/2 (775)	18 (457)	4-1/4 (108)	2 (51)	9-1/2 (241)	29 (737)	27-7/8 (708)	13-1/8 (333)	11-3/8 (289)	1/2 (13)	1 (25.4)	1 (25.4)	3/4 (19)

Notes:
1. All dimensions are in inches followed by millimeters in parenthesis.
2. Access to the unit for service purposes should be provided at installation. Vertical units require an 24 in. (610 mm) surround clearance from other mechanical and electrical equipment to enable panel removal from the unit for service/maintenance ability. NEC requires 36 in. clearance on the control panel side of the unit. Some local codes require a greater service clearance. Check all code requirements prior to unit installations. Installer is responsible for following all local and NEC code requirements.
3. Units in a free return application will require more than a 1 in. (25.4 mm) clearance to provide proper air flow to the unit's air-to-refrigerant coil.

Figure 25. Right return/top supply DXV

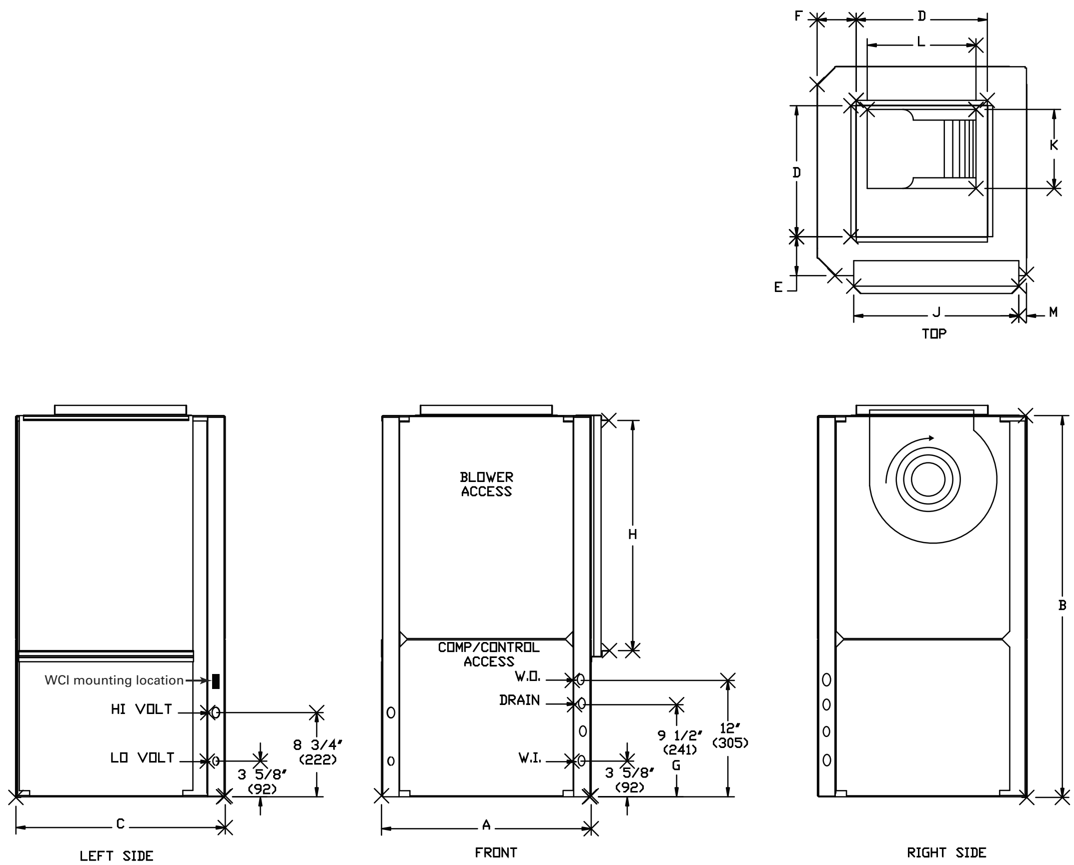


Table 66. Dimensional data—right return/top supply

Unit	A	B	C	D	E	F	G	H	J	K	L	M	W.I. NPTI	W.O. NPTI	Drain FPT
024	21-1/2 (546)	39-1/4 (997)	21-1/2 (546)	13-1/2 (343)	4 (102)	4 (102)	9-1/2 (241)	23-3/4 (603)	17 (432)	8-1/4 (368)	11-3/8 (289)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)
036	24-1/2 (622)	41-7/8 (1064)	26-1/2 (673)	18 (457)	3-1/4 (83)	5-3/4 (146)	9-1/2 (241)	19 (483)	23 (584)	10-1/2 (267)	13-1/2 (343)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)
048-060	26-1/2 (673)	46-7/8 (1191)	30-1/2 (775)	18 (457)	4-1/4 (108)	2 (51)	9-1/2 (241)	29 (737)	27-7/8 (708)	13-7/8 (352)	11-3/8 (289)	1/2 (13)	1 (25.4)	1 (25.4)	3/4 (19)
070	26-1/2 (673)	50-7/8 (1292)	30-1/2 (775)	18 (457)	4-1/4 (108)	2 (51)	9-1/2 (241)	29 (737)	27-7/8 (708)	13-1/8 (333)	11-3/8 (289)	1/2 (13)	1 (25.4)	1 (25.4)	3/4 (19)

Notes:

1. All dimensions are in inches followed by millimeters in parenthesis.
2. Access to the unit for service purposes should be provided at installation. Vertical units require an 24 in. (610 mm) surround clearance from other mechanical and electrical equipment to enable panel removal from the unit for service/maintenance ability. NEC requires 36 in. clearance on the control panel side of the unit. Some local codes require a greater service clearance. Check all code requirements prior to unit installations. Installer is responsible for following all local and NEC code requirements.
3. Units in a free return application will require more than a 1 in. (25.4 mm) clearance to provide proper air flow to the unit's air-to-refrigerant coil.

Figure 26. Right return/back supply DXV

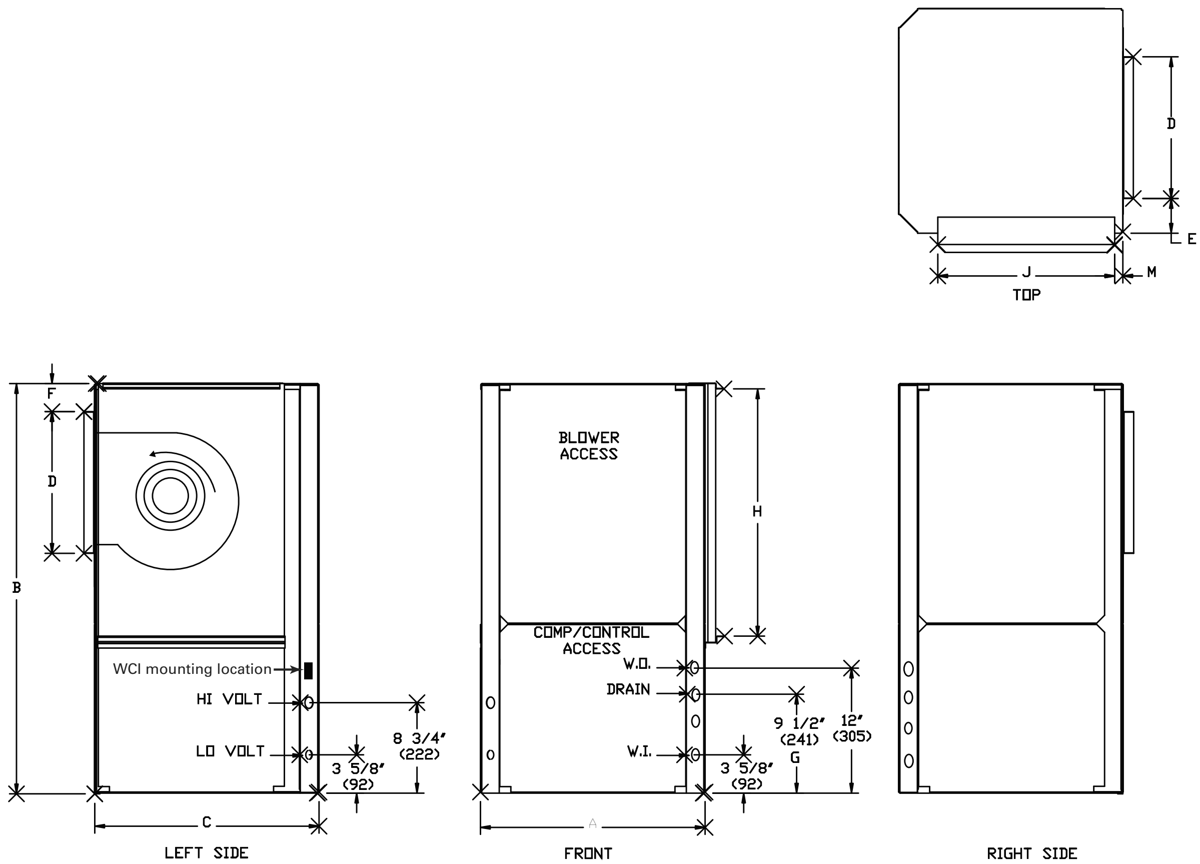


Table 67. Dimensional data—right return/back supply

Unit	A	B	C	D	E	F	G	H	J	K	L	M	W.I. NPTI	W.O. NPTI	Drain FPT
024	21-1/2 (546)	39-1/4 (997)	21-1/2 (546)	13-1/2 (343)	4 (102)	3-7/8 (98)	9-1/2 (241)	23-3/4 (603)	17 (432)	8-1/4 (368)	11-3/8 (289)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)
036	24-1/2 (622)	41-7/8 (1064)	26-1/2 (673)	18 (457)	3-1/4 (83)	1-7/8 (48)	9-1/2 (241)	19 (483)	23 (584)	10-1/2 (267)	13-1/2 (343)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)
048-060	26-1/2 (673)	46-7/8 (1191)	30-1/2 (775)	18 (457)	4-1/4 (108)	2 (51)	9-1/2 (241)	29 (737)	27-7/8 (708)	13-7/8 (352)	11-3/8 (289)	1/2 (13)	1 (25.4)	1 (25.4)	3/4 (19)
070	26-1/2 (673)	50-7/8 (1292)	30-1/2 (775)	18 (457)	4-1/4 (108)	2 (51)	9-1/2 (241)	29 (737)	27-7/8 (708)	13-1/8 (333)	11-3/8 (289)	1/2 (13)	1 (25.4)	1 (25.4)	3/4 (19)

Notes:

1. All dimensions are in inches followed by millimeters in parenthesis.
2. Access to the unit for service purposes should be provided at installation. Vertical units require an 24 in. (610 mm) surround clearance from other mechanical and electrical equipment to enable panel removal from the unit for service/maintenance ability. NEC requires 36 in. clearance on the control panel side of the unit. Some local codes require a greater service clearance. Check all code requirements prior to unit installations. Installer is responsible for following all local and NEC code requirements.
3. Units in a free return application will require more than a 1 in. (25.4 mm) clearance to provide proper air flow to the unit's air-to-refrigerant coil.

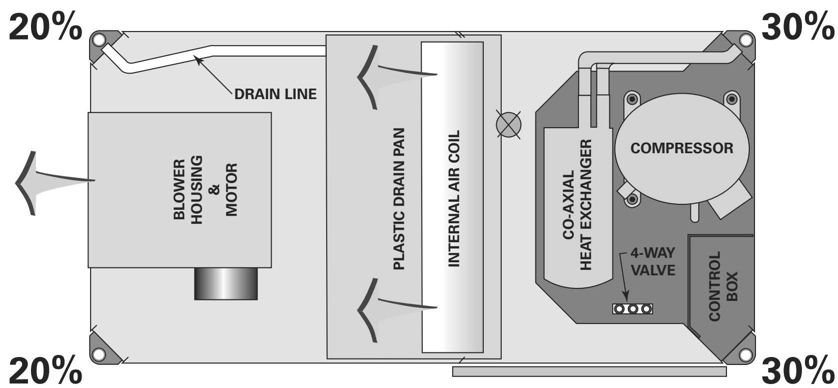
Weights

Approximate weight distribution for the DXH model is indicated in Figure 27.

Tolerance on the weights determined are ±15%.

Total weights for each unit are given in the table below.

Figure 27. DXH approximate weight distribution



DXH unit	Shipping weight (lbs)	Running weight (lbs)
024	301	269
036	343	313
048	454	424
060	474	444
070	514	484

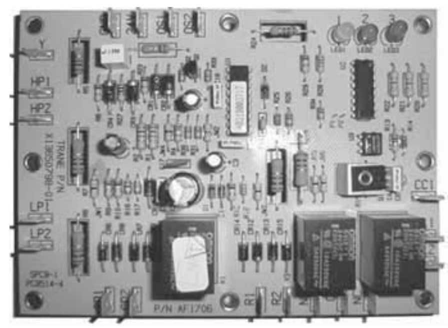
Controls

Deluxe 24V Electronic Controls

The 24V deluxe design is a microprocessor-based control board conveniently located in the control box. The board is unique to Trane water-source products and is designed to control the unit as well as provide outputs for unit status and fault detection.

The Trane control board is factory wired to a terminal strip to provide all necessary terminals for field connections.

The deluxe 24V electronic unit control provides component protection devices similar to the basic design, but contains upgraded features to maximize system performance to extend the system life. Each device, is factory mounted, wired, and tested in the unit. Features include 75 VA transformer, compressor contactor, compressor lockout relay, compressor run capacitor (for 1-phase units only), anti-short cycle compressor protection, random start delay, brown-out protection, low pressure time delay, low pressure switch, high pressure switch, compressor delay on start, reversing valve coil, multi-speed fan motor, soft lockout mode, 18-pole terminal strip (for low voltage field wiring), condensate overflow, freeze protection, optional: boilerless electric heat.



Deluxe 24V features include:

Anti-short Cycle Timer

The anti-short cycle timer provides a three minute time delay between compressor stop and compressor restart.

Brown-out Protection

The brown-out protection function measures the input voltage to the controller and halts the compressor operation. Once a brown-out situation has occurred, the anti-short cycle timer will become energized. The general fault contact will not be affected by this condition. The voltage will continue to be monitored until the voltage increases. The compressors will be enabled at this time if all start-up time delays have expired, and all safeties have been satisfied.

Compressor Disable

The compressor disable relay provides a temporary disable in compressor operation. The signal would be provided from a water loop controller in the system. It would disable the compressor because of low water flow, peak limiting or if the unit goes into an unoccupied state. Once the compressor has been disabled, the anti-short cycle time period will begin. Once the compressor disable signal is no longer present, and all safeties are satisfied, the control will allow the compressor to restart.

Diagnostics

Three LEDs (light emitting diodes) are provided for indicating the operating mode of the controller. See the unit IOM for diagnostics or troubleshooting through the use of the LEDs.

Generic Relay

The generic relay is provided for field use in some applications.

An 24VAC signal will energize the relay coil on terminals R1 and R2. Terminals C (common), NO (normally open), and NC (normally closed) will be provided for the relay contacts.

Random Start

The random start relay provides a time delay start-up of the compressor when cycling in the occupied mode. A new start delay time between 3 and 10 seconds is applied each time power is enabled to the unit.

Safety Control

The deluxe controller receives separate input signals from the refrigerant high pressure switch, low suction pressure switch and condensate overflow.

In a high pressure situation, the compressor contactor is de-energized, which suspends compressor operation. The control will go into soft lockout mode initializing a three minute time delay and a random start of 3 to 10 second time delays. Once these delays have expired, the unit will be allowed to run. If a high pressure situation occurs within one hour of the first situation, the control will be placed into a manual lockout mode, halting compressor operation, and initiating the general alarm.

In a low temperature situation, the low pressure switch will transition open after the compressor starts. If the switch is open for 45 seconds during compressor start, the unit will go into soft lockout mode initializing a three minute time delay and a random start of 3 to 10 second time delays. Once these delays have expired, the unit will be allowed to run. If the low pressure situation occurs again within 30 minutes, and the device is open for more than 45 seconds, the control will be placed into a manual lockout mode, halting compressor operation, and initiating the general alarm.

In a condensate overflow situation, the control will go into manual lockout mode, halting compressor operation, and initiating the general alarm.

The general alarm is initiated when the control goes into a manual lockout mode for either high pressure, low pressure or condensate overflow conditions.

Safety Devices

System safety devices are provided through the use of low/high pressure switches in the refrigeration circuit to help prevent compressor damage.

The low pressure switch is set to activate at refrigerant pressures of 40 psig to fit most applications.

In cases where a low charge, or excessive loss of charge occurs, each compressor comes equipped with an external overload device to halt the compressor operation.

The high pressure switch prevents compressor operation during high or excessive discharge pressures that exceed 650 psig.

A lockout relay provides the mechanical communication of the low and high pressure switches to prevent compressor operation if the unit is under low or high refrigerant circuit pressure, or during a condensate overflow condition. The lockout relay may be reset at the thermostat, or by cycling power to the unit.

General alarm is accomplished through the lockout relay and will drive dry contacts only, and cannot be used to drive field installed control inputs.

Stand-alone System

The 24 volt basic or deluxe design may be applied as a stand-alone control system. The stand-alone design provides accurate temperature control directly through a wall-mounted electronic thermostat. This system set-up may be utilized in a replacement design where a single unit retrofit is needed. It may be easily interfaced with a field provided control system by way of the factory installed 18-pole terminal strip. This stand-alone control is frequently utilized on small jobs where a building controller may not be necessary, or where field installed direct digital controls are specified. This type of control design does require a constant flow of water to the water source heat pump. With a positive way to sense flow to the unit, the units safety devices will trigger the unit off. The stand-alone system design provides a low cost option of installation while still allowing room control for each unit.

Tracer™ Direct Digital Controllers (DDC Controls)

The Tracer™ ZN524 and UC400 are direct digital control (DDC) systems specifically designed to provide control of the entire water source heat pump unit, as well as outputs for unit status and fault detection. Each device is factory installed, commissioned, and tested to ensure the highest level of quality in unit design.

Each of the controller's features and options were selected to coordinate with the unit hardware to provide greater energy efficiency and equipment safety to prolong the equipment life.

Features include 75 VA transformer, compressor contactor, compressor lockout function, compressor run capacitor (for 1-phase units only), random start delay, heating/cooling status, occupied/unoccupied mode, low pressure switch, high pressure switch, fan and filter status (optional), reversing valve coil, multi-speed fan motor, 18-pole terminal strip (for low voltage field wiring), condensate overflow and freeze protection. Additional features include water isolation valve support (for variable speed pumping), Boilerless control for electric heat and WaterSide economizer.

Tracer™ ZN524

The Tracer™ ZN524 is LonTalk® certified. It is capable of working with, and talking to other LonTalk certified controllers providing the building owner more choices, and the design engineers more flexibility to meet the challenges of building automation.

Tracer™ UC400

The Tracer™ UC400 is a BTL Listed BACnet® controller can operate stand- alone or within a Building Automations system such as Tracer™ SC.

Tracer™ UC400/ZN524 functions include:

Boilerless Control Electric Heat

The controller supports a single stage of boilerless electric heat operation.

Electric heat is used when boilerless heat is enabled/configured and the EWT is too low for compressor operation. When this condition is met, the isolation valve will be closed shutting down the water flow to the unit.

Compressor Operation

The compressor is cycled on and off to meet heating or cooling zone demands. Units use the unit capacity and pulse width modulation (PWM) logic along with minimum on/off timers to determine the compressor's operation. The compressor is controlled ON for longer periods as capacity increases and shorter periods as capacity decreases.

Condensate Overflow

When condensate reaches the trip point, a condensate overflow signal generates a diagnostic which disables the fan, unit water valves (if present), and compressor. The unit will remain in a halted state until the condensation returns to a normal level. At this time, the switch in the drain pan will automatically reset. However, the controller's condensate overflow diagnostic must be manually reset to clear the diagnostic and restart the unit.

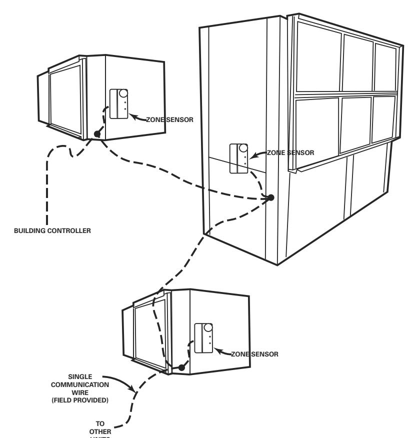
Building Control Advantages

The Tracer™ ZN524 or UC400 controllers have the ability to share information with one or several units on the same communication link.

An advantage of installing a Tracer™ controller is its capability to work with other BACnet® LonTalk® certified controllers. This provides greater flexibility to the building owner, as well as greater flexibility in design.

Integrating the UC400 or ZN524 on water-source equipment, and tying it to a Tracer™ SC System or other BAS provides a complete building management system. With a Building Automation system like a Tracer™ SC, the system the Tracer™ can initiate an alarm on a loss of performance on equipment malfunctions; allowing problems to be handled in a timely manner before compromising comfort.

This type of application would most commonly be used for a large space(s) that may require more than one unit. In addition to this application design, the Tracer™ UC400 and ZN524 controller provides a way for units located within the same space to share the same zone sensor to prevent units from simultaneously heating and cooling in the same space.



Data Sharing

The UC400 and ZN524 are controller is capable of sending or receiving data (setpoints, fan request, or space temperature) to and from other controllers on the communication link. This allows multiple units to share a common space temperature sensor in both stand-alone and building automation applications.

Fan Operation

The supply air fan operates at the factory wired speed in the occupied or occupied standby mode. When switch is set to AUTO, the fan is configured for cycling ON with heating or cooling. In heat mode, the fan will run for 30 seconds beyond compressor shutdown in both occupied and unoccupied mode. Airflow is reduced to approximately 50% when the fan switch is enabled or when the unit is operating in the continuous fan mode and cooling or heating is not required.

Filter Maintenance Timer

The controller's filter status is based on the unit fan's cumulative run hours. The controller compares the fan run time against an adjustable fan run hours limit and recommends unit maintenance as required.

High and Low Pressure Safety Controls

The Tracer™ ZN524 and UC400 controller detects the state of the high pressure or low pressure switches. When a fault is sensed by one of these switches, the corresponding message is sent to the controller to be logged into the fault log. When the circuit returns to normal, the high pressure control and low pressure control automatically reset. If a second fault is detected within a thirty-minute time span, the unit must be manually reset.

Occupancy Modes

The four operations of the UC400 and ZN524 controller include occupied, occupied standby, occupied bypass and unoccupied.

In an occupied situation, the controller uses occupied heating and cooling setpoints to provide heating and cooling to the building. This occupied operation is normally used during the daytime hours when the building is at the highest occupancy level.

In an occupied standby situation, the controllers heating and cooling setpoints are usually wider than the occupied setpoints. This occupied standby operation is used during daytime hours when people are not present in the space (such as lunchtime or recess). To determine the space occupancy, an occupancy sensor is applied.

In an unoccupied situation, the controller assumes the building is vacant, which normally falls in evening hours when a space may be empty. In the unoccupied mode, the controller uses the default unoccupied heating and cooling setpoints stored in the controller. When the building is in unoccupied mode, individual units may be manually placed into timed override of the unoccupied mode at the units wall sensor. During timed override, the controller interprets the request and initiates the occupied setpoint operation, then reports the effective occupancy mode as occupied bypass.

In the occupied bypass mode, the controller applies the occupied heating and cooling setpoint for a 120 minute time limit.

Random Start

To prevent all of the units in a building from energizing major loads at the same time, the controller observes a random start from 0 to 25 seconds. This timer halts the controller until the random start time expires.

Reversing Valve Operation

For cooling, the reversing valve output is energized simultaneously with the compressor. It will remain energized until the controller turns on the compressor for heating. At this time, the reversing valve moves to a de-energized state. In the event of a power failure or controller OFF situation, the reversing valve output will default to the heating (de-energized) state.

Additional Functions of the ZN524 Controller

When the building owners choice is Trane® Tracer™ controls, the ZN524 controller is required when any of the following applications are selected:

- Waterside Economizer
- Boilerless Control for Electric Heat
- Water Isolation Valve Control (for Variable Speed Pumping)

Entering Water Temperature Sampling

The controller will sample the entering water temperature to determine proper control action for units equipped with boilerless electric heat or waterside economizer.

Waterside Economizer (ZN524 controller only)

Entering water temperature (EWT) sampling will automatically occur at power up when the unit is equipped with a waterside economizer (WSE). The EWT is used to determine if economizing is feasible. When the conditions are met, the isolation valve(s) are driven open for three minutes and the EWT reading is taken. The determination as to whether or not the economizer can be enabled will be made and the controller will take appropriate action. The isolation valve will remain open regardless if the WSE or the DX cooling is enabled.

The unit's waterside economizer will contain a 2-position water valve wired to the ZN524. The economizing water coil will be optimized to provide 100% of the unit capacity at 80.6°F/66.2°F return air temperature with 45°F entering water. The flow rate is established at 86°F entering water temperature and 96°F leaving water temperature.

Low leaving air protection will be furnished to protect the unit against delivering air that is cold enough to sweat discharge air grilles. Coil icing protection will also be provided.

Waterside economizer cooling will be active during occupied, unoccupied and standby cooling modes.

Water Isolation Valves

Variable speed pumping systems are supported by the UC400 and ZN524 controller when water isolation valves (12 VA max) are present.

Isolation Valve "ON" Control. The isolation valve output will be energized (controlled open) during compressor heating, compressor cooling, waterside economizing or dehumidification. When the isolation valve is driven open for compressor operation, the output will be energized 20 seconds prior to the compressor and indoor fan (if not already energized) outputs to ensure adequate water flow to the heat exchanger. To reduce excessive cycling of the isolation valve once opened, the isolation valve will remain open for a minimum of 10 minutes.

Isolation Valve "OFF" Control. The isolation valve output will be de-energized (controlled closed) when there is no longer a call for compressor or WSE operation and the 10 minute minimum on time has expired.

Wireless Comm Interface (WCI). The Trane® wireless Comm Interface (WCI) enables wireless communication between system controls, unit controls, and wireless sensors for the new generation of Trane control products. The WCI replaces the need for communication wire in all system applications.

Note: *See BAS-SVX40*-EN, Installation, Operation and Maintenance, Wireless Comm for more information.*

Quantity of WCIs per Network. Each Trane® wireless network can have a total of 31 WCIs (30 member WCIs plus 1 coordinator WCI). Each network requires one WCI to function as network coordinator.

Quantity of Networks per Tracer™ SC. A Tracer™ SC can support up to 8 wireless networks.

Automatic Network Formation. When a WCI is connected to a Tracer™ SC, it is auto-assigned as the coordinator. To enable the coordinator, Tracer™ SC must be configured for wireless communication. The coordinator WCI opens the network to allow all WCIs having matching addresses to automatically join the network. If no Tracer™ SC is present, a centrally located WCI must be designated to act as the coordinator. You can manually set the coordinator WCI so all WCIs having matching addresses automatically join the network.

Wireless Zone Sensors. The WCI also communicates with Trane® wireless zone sensors, eliminating the need for analog receivers.

Wired Zone Sensors. Systems using Wireless Comm can also use wired zone sensors.

Thermostats and Zone Sensors

Table 68. Thermostat selection for use with the Deluxe Controller

Thermostat / sensor	Part number	Description
	X13511535010	1 Heat/1 Cool, Non-Programmable Commercial Thermostat for air conditioners and heat pumps that are configured with or without auxiliary heat • 1 H/1 C
	X13511536010	3 Heat/2 Cool, Non-programmable commercial thermostat for air conditioners and heat pumps that are configured with or without auxiliary heat. • 3 H/2 C
	X13511537010	3 Heat/2 Cool, Programmable commercial thermostat for air conditioners and heat pumps that are configured with or without auxiliary heat. • 3 H/2 C - Programmable
	X13511538010	3 Heat/2 Cool Programmable touch screen thermostat for air conditioners and heat pumps that are configured with or without auxiliary heat. • 3H/2C - Programmable

Thermostats and Zone Sensors

Table 69. Wired zone sensor selection for use with the UC400 or ZN524 controllers

Thermostat/sensor	Part number	Description
	X13651467020	Communication Module • Sold in packs of 12 • Provides local RJ22 connection to Trane® service tools for easy, low cost maintenance.
	X13511529010	Zone Sensor • Tracer™ UC400 and ZN524 compatible • External setpoint adjustment wheel
	X13511527010	Zone Sensor • Tracer™ UC400 and ZN524 compatible • External setpoint adjustment wheel • Occupancy override
	X1379084501	Zone Sensor • Tracer™ UC400 and ZN524 compatible • External setpoint adjustment wheel. • Occupancy override • Fan switch AUTO-OFF
	X13790886010	Wired temperature sensor with an LCD display • Tracer™ UC400 and ZN524 compatible • Temperature setpoint control • Occupancy override
	X1379044401	Zone Sensor • Tracer™ ZN524 and UC400 compatible • Temperature and relative humidity sensor

Table 70. Wireless zone sensor selection for use with the UC400 controller

Sensor	Part Number	Description
	X1379082201	Universal Display Sensor • Clear and simple monitoring and control • Tracer™ UC400 Compatible
	X13790492	Wireless Zone Sensor • Local control • Limited occupant temp. control • Timed occupancy overrides
	X13790821	Wireless Zone Sensor • Simplicity • Eliminates local temperature control when higher control level is required
		WCI - UC400 compatible • Provides wireless communication between the Tracer™ SC, Tracer™ Unit Controllers, and BACnet® Communication Interface (BCI) modules

Accessories

Ducted panel

Figure 28. Return-air duct panel

The return-air arrangement may be easily converted from a free return-air system, to a ducted return-air system with the addition of a return-air side panel. By replacing the filter racks with the return-air panel, a complete seal from the duct to the unit is possible. The 1½ in. duct flange facilitates ease of field connection to the mechanical system. This accessory is typically used when the return-air filter is placed in a built-in ceiling grille, or placed within a field provided filter rack assembly. See Figure 28, p. 96 for return-air duct panel.

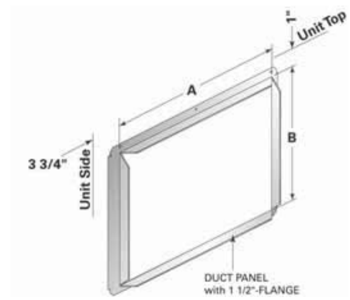


Table 71. Opening size and part number

Unit Size (60 Hz)	A (in.)	B (in.)	Duct collar part number
024	20-1/2	16	447456280100
036	221/2	17	447411350100
048-060	26-1/2	19	447411360100
070	26-1/2	19	447411360100

Ducted filter rack

Figure 29. Ducted filter rack

When it is necessary to have filter access at the unit in a ducted return, a ducted filter rack is available. This option allows access to the filter at the unit. Vertical unit filter racks are available in right or left access configurations. Horizontal units are available in top, bottom or side access configurations.

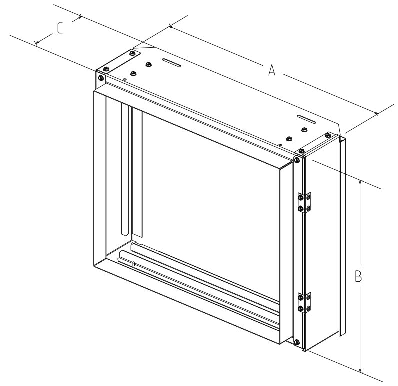


Table 72. Ducted filter opening size

Unit size	A (in.)	B (in.)	C (in.)
DXH 024	24.5	18.4	5.6
DXH 036	26.4	19.4	5.5
DXH 048-070	30.7	21.4	5.5
DXV 0024	20.7	23.1	5.5
DXV 036	25.7	22.4	4.3
DXV 048-070	30.7	26.6	5.5

Dual filtration

The accessory package includes both the bottom and top filter rack, and one, 1-inch or 2-inch filter. Table 73 provides dual filtration accessory numbers appropriate to unit size.

Table 73. Dual filter accessory kit numbers

Unit Size	1-inch Filter Kit Part No.	2-inch Filter Kit Part No.
024	447465350100	447465360100
036	447459740100	447459760100
048-070	447466090100	447466100100

Automatic and Manual Balancing Kits

Superior circuit balancing of the HVAC equipment is an important aspect to the overall layout and design of the HVAC system. Proper balance of the system can protect the WSHP equipment while providing a longer equipment life.

Trane provides three hose kit selections for equipment balancing.

- Ball valve flow control (manual)
- Circuit setter flow control (manual)
- Automatic, Self Balancing Flow Control Hose Kit

Each selection provides some accuracy in equipment balancing. Range of accuracy consist of ±25% for the ball valve method, ±20% for the manual flow control method, and ±10% for the automatic flow control method.

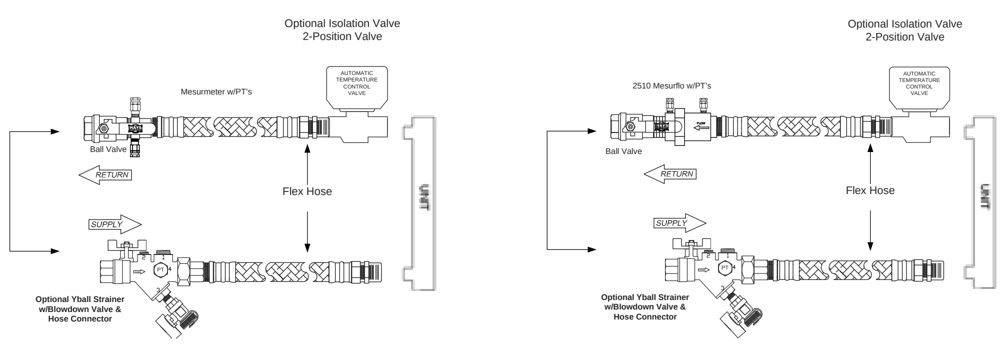
Utilizing the ball valve flow control method, the pressure/temperature measurement on the leaving and entering side of the heat pump is measured within the water piping. The ball valve is then throttled to change the amount of flow to the unit to reach the desired temperature or pressure differential.

The circuit setter manual flow control method uses an in-line flow measurement device an and adjustment feature to measure and set flow rates at each heat pump.

For automatic system balancing of a water source heat pump, the Mesurflo® self-balancing hose kit provides a constant flow rate over the pressure differential rage of 2 to 80 psid. As system pressure changes (through further addition of heat pumps, for example) each individual flow control valve will automatically adjust to the new system conditions. In variable water volume applications, a self-balancing hose kit can provide continuous balancing because of its ability to automatically adjust to the varying system conditions.

Note: *At low differential pressure the flow area required to achieve higher flow can exceed the flow area available for the respective series. Therefore, the minimum pressure differential requirement is increased for the higher flow ranges of each series Mesurflo valve.*

Figure 30. Ball valve kit (manual)/MeasurfloVac kit (automatic)



Motorized water valve

The motorized water valve is installed on the return line of the water loop system between the loop and the loop's pump module. This isolation device is less expensive and a very effective alternative to the water regulating valve.

When the compressor begins running, the valve will open, allowing water to flow through the unit. As the compressor shuts down, the valve slowly closes off. The main purpose of the motorized valve is to shut-off the flow of water through the unit when the unit is off, thus reducing water consumption. The motorized valve is fast opening to prevent compressor trip-out, and slow closing to prevent water hammer.

Pump module

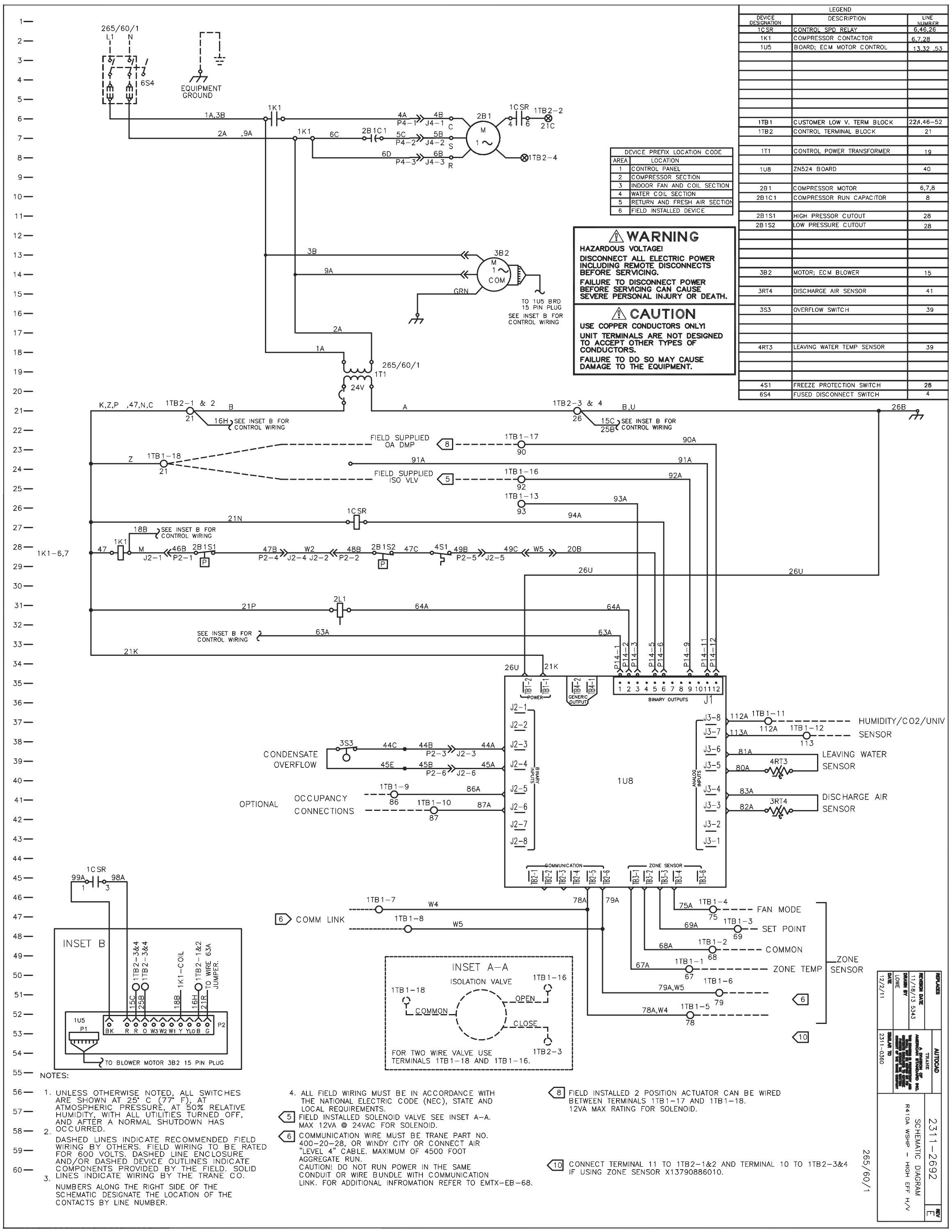
The pump module and hose kit make a complete self-contained pumping package for distributed pumping systems. These kits contain all the necessary components for the installation, operation and maintenance of the water circuit of a closed loop geothermal application. Standard pump module features include insulated Grundfos pumps, insulated cabinet, bronze or cast iron pump, and 3-way brass valves. Literature number WSHPC-IN-5 will provide electrical and dimensional requirements for the PMCA and PMBA products.

Pump module hose kit

The pump module hose kit consists of two brass, ¾ or 1-inch male pipe thread (MPT) -by-barb fittings; two brass 90° 1-inch, MPT-by-barb elbows with pressure/temperature ports; and 10 feet of rubber hose with 4 hose clamps. The pump module hose kit is available separately from the pump module.

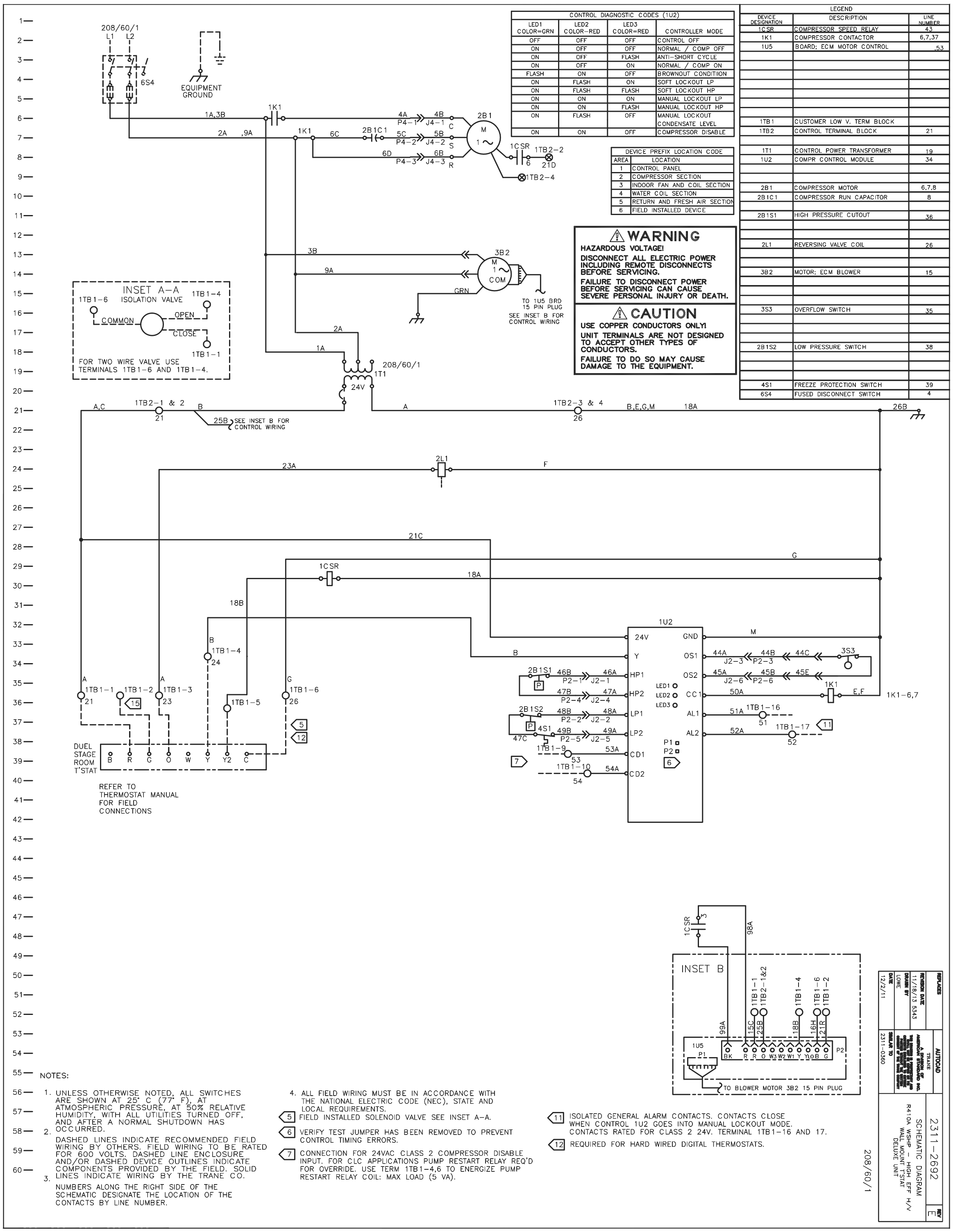
Control Wiring

Figure 31. ZN524 Control - 1 ph[(a)]



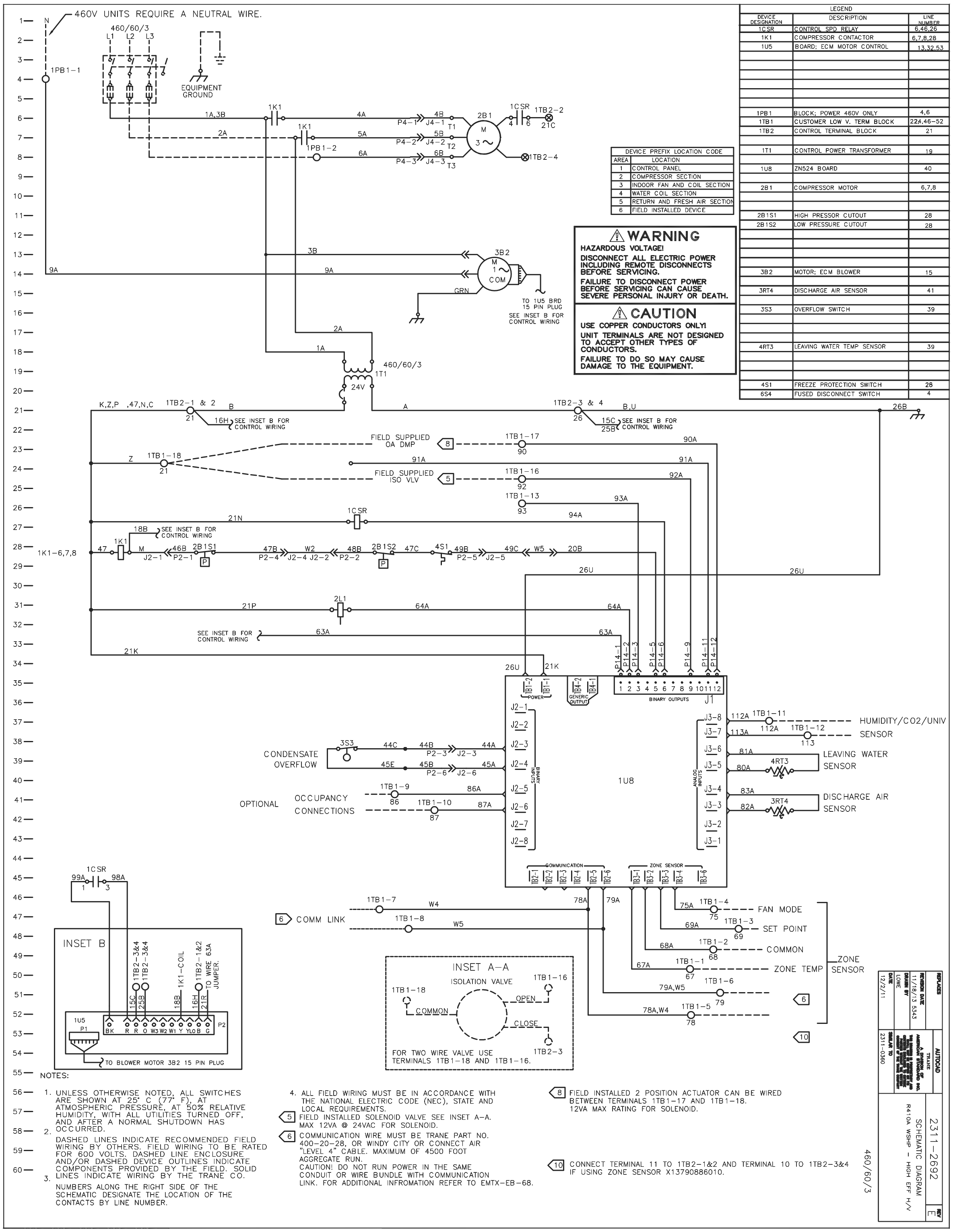
(a) Wiring diagrams provided in the catalog are generic. A unit specific *As Built* wiring diagram is located on the unit control panel.

Figure 32. Deluxe 24V Control - 1 ph[(a)]



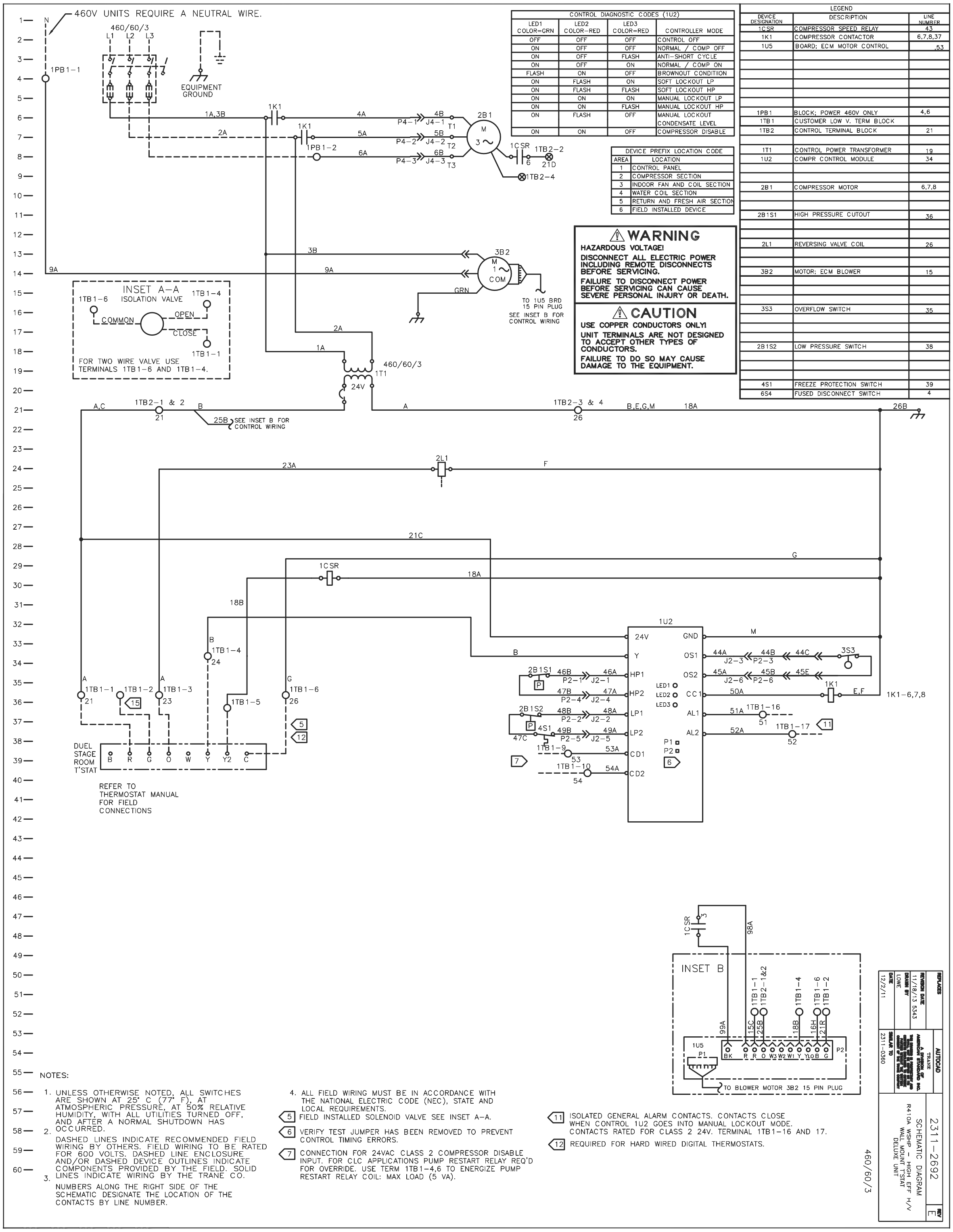
(a) Wiring diagrams provided in the catalog are generic. A unit specific *As Built* wiring diagram is located on the unit control panel.

Figure 33. ZN524 Control - 3 ph[(a)]



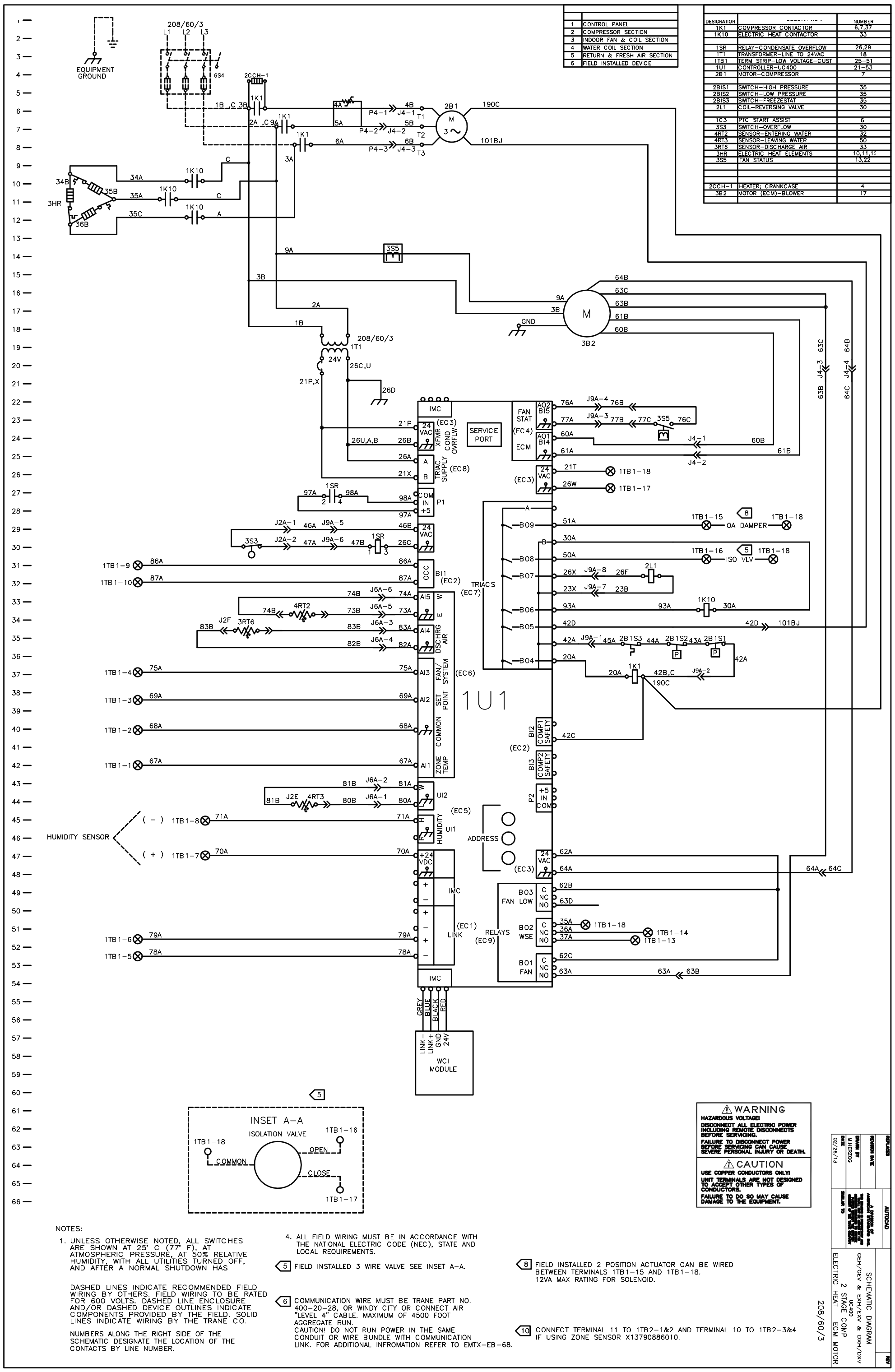
(a) Wiring diagrams provided in the catalog are generic. A unit specific *As Built* wiring diagram is located on the unit control panel.

Figure 34. Deluxe 24V Control - 3 ph(a)



(a) Wiring diagrams provided in the catalog are generic. A unit specific *As Built* wiring diagram is located on the unit control panel.

Figure 35. UC400[a]



(a) Wiring diagrams provided in the catalog are generic. A unit specific *As Built* wiring diagram is located on the unit control panel.

Mechanical Specifications

General

Equipment shall be completely assembled, piped, internally wired, fully charged with R-410A refrigerant and test operated at the factory. Filters, thermostat field interface terminal strip, and all safety controls are furnished and factory installed.

The system water inlet and outlet connections shall be female NPT composed of copper.

The 6-ton and below equipment shall contain ETL, CETL and AHRI/ISO 13256-1listings and labels prior to leaving the factory. Larger units shall be rated in accordance with AHRI/ISO 13256-1. Service and caution area labels shall also be placed on the unit in their appropriate locations.

Air-to-Refrigerant Coil

Internally finned, 3/8-inch copper tubes mechanically bonded to a configured aluminum plate fin shall be standard. Coils shall be leak tested at the factory to ensure the pressure integrity. The coil shall be leak tested to 450 psig and pressure tested to 650 psig. The tubes are to be completely evacuated of air and correctly charged with proper volume of refrigerant prior to shipment.

The refrigerant coil distributor assembly shall be of orifice style with round copper distributor tubes. The tubes shall be sized consistently with the capacity of the coil. Suction header shall be fabricated from rounded copper pipe.

A thermostatic expansion valve shall be factory selected and installed for a wide range of control.

Automatic Flow Devices (accessory)

The automatic flow kit shall contain a Hays Mesurflo® automatic flow control valve, two ball valves, two flexible hoses, a high flow Y-strainer, and may include a strainer blow-down and various other accessories.

The automatic flow control valve shall be factory set to a rated flow, and shall automatically control the flow to within 10% of the rated value over a 40 to 1 differential pressure, operating range (2 to 80 PSID). Operational temperature shall be rated from fluid freezing, to 225°F. The valve body shall be constructed from hot forged brass UNS C37700 per ASTM B-283 latest revision. For more information pertaining to the automatic balancing hose kits, see literature documentation WSHP-PRC025*-EN.

Ball Valves (accessory)

Ball valves shall be field installed between the unit and the supply and return lines of the loop to stop water flow to the unit in a maintenance or service situation.

Blower Motor

For unit sizes DXH/V 024-070 - Motor/Fan. The motor is an ECM variable speed motor with thermal overload protection. The ECM motor is programmed to provide soft starting and a constant CFM over a range of static pressure. A means to adjust the air flow is provided on the control board. Fan speed reduces down to provide 50% of the selected profile setting when the zone set point temperature is satisfied or when the unit runs in fan only mode. The motor contains a quick disconnect plug and permanently lubricated bearing. The fans are placed in a draw-through configuration. They are constructed of corrosion resistant galvanized material. Removal of the motor and fan wheel can be made with the assistance of a factory provided orifice ring device. This device attaches the wheel and motor to the fan housing in a single assembly eliminating the need for access to the set screw on the backside of the fan hub.

Cabinet

Unit casing shall be constructed of zinc coated, heavy gauge, galvanized steel.

Service to the refrigerant and controls shall be provided through a single access panel at the front of the equipment. Access to the refrigerant and controls for the larger units shall be provided through the front and side access panels.

All panels shall be insulated with ½-inch thick dual density bonded glass fiber. The exposed side is a high density erosion proof material suitable for use in air streams up to 3600 feet per minute (FPM). The insulation meets the erosion requirements of UL 181. It has a flame spread of less than 25 and a smoke developed classification of less than 50 per ASTM E-84 and UL 723.

Access for inspection and cleaning of the unit drain pan, coils and fan section shall be provided. The unit shall be installed for proper access.

Four rubber grommets are enclosed with every DX* unit. These grommets are to be used in conjunction with unit hanging rods to isolate vibration.

Compressors

The unit shall contain a high efficiency scroll compressor. External vibration isolation shall be provided by rubber mounting devices located underneath the mounting base of the compressor. A second isolation of the refrigeration assembly shall be supported under the compressor mounting base.

Thermal overload protection shall be provided. Protection against excessive discharge pressure shall be provided by means of a high pressure switch. A loss of charge shall be provided by a low pressure safety.

Deluxe Controls (option)

The deluxe control package shall provide a 50 VA transformer (fused) or 75 VA transformer with circuit breaker. The controller shall include a lockout relay, anti-short cycle compressor protection, random start delay, brown-out protection, low pressure time delay, compressor delay on start, an open relay, condensate overflow and freeze protection. Optional wiring from the factory for, electric heat, and compressor enable shall also be provided. Three LEDs (light emitting diodes) shall also be included for diagnostics of the equipment.

Drain Pan

The condensate pan shall be constructed of corrosion resistant material and insulated to prevent sweating. The bottom of the drain pan shall be sloped on two planes which pitches the condensate to the drain connection. The drain pan shall be flame rated per UL945V-B. An optional UL 508 condensate overflow device shall be provided.

Economizing Coil (DXH option)

The waterside economizing package shall be an external unit accessory pre-piped and pre-wired ready for turn-key installation to the unit. The economizing coil shall be designed to perform with the WSHP at unit measured flow rate of 80°F DB/67°F WB with 45°F EWT.

All hydronic coils shall be of 5/8” copper and aluminum plate fin combination. All coils shall be proof and leak tested from the manufacturer. The proof test shall be performed at 1.5 times the maximum operating pressure and the leak test at the maximum operating pressure.

A dual sloped non corrosive drain pan shall be easily accessible and cleanable for the hydronic economizing coil.

An electronic two-position, 3-way valve shall meter water flow to the economizing coil during the economizing mode. It shall be factory set to energize the economizing mode at 55°F, while simultaneously halting mechanical operation of the compressor.

Hanging brackets with rubber isolation shall be provided for the horizontal version of the economizing coil option. The bracket design shall be the same throughout the equipment.

Electrical

The unit control box shall contain all necessary devices to allow heating and cooling operation to occur from a remote wall thermostat. These devices shall be as follows:

- 24 VAC energy limiting class II
- 50 VA (minimum) transformer

- 24 VAC compressor contactor for compressor control
- Field thermostat connections shall be provided for ease of hook-up to a terminal strip located in the unit's control box.
- Lockout function controls cycling of the compressor shall be provided to protect the compressor during adverse operating conditions. The device may be reset by interrupting power to the 24VAC control circuit. Reset may be done either at a remote thermostat or through a momentary main power interruption
- A high pressure switch shall protect the compressor against operation at refrigerant system pressures exceeding 650 psig.
- Factory installed wire harness shall be available for the Deluxe, UC400 and ZN524 control packages.

Nameplate information shall be provided for the application of either time-delay fuses or HACR circuit breakers for branch circuit protection from the primary source of power.

Electric Heat (option)

Boilerless control electric heat shall be factory wired and tested. It shall be composed of a nichrome open wire coil designed for ~2-kW per unit ton. The design consist of a single stage of electric heat used as a primary heating source when compressor lockout has occurred due to the entering water temperature falling below 55°F with an adjustable range between 25°F to 60°F. The electric heat option is not intended for secondary heat. All power connections to the electric heat shall be made in the equipment's control box.

Filters

One inch or two inch, throwaway filters shall be standard and factory installed. One inch throwaway filters are standard and ship with each unit. Two inch throwaway filters are available as a standard option.

Hoses (accessory)

Hoses shall consist of a stainless steel outer braid with an inner core of tube made of a nontoxic synthetic polymer material. The hoses shall be suitable for water temperatures ranging between 33°F and 211°F without the use of glycol.

Indoor Fan

Fan speed reduces down to provide 50% of the selected profile setting when the zone set point temperature is satisfied or when the unit runs in fan only mode.

Motorized Water Valve (accessory)

A motorized water valve shall be applied to each water-source heat pump. The motorized valve shall stop flow to the unit, causing pressures to rise. This rise in pressure will halt pump operation to provide greater energy savings of the entire system.

Orifice Ring

Removal of the motor and fan wheel for the 2 to 6-ton units shall be made with the assistance of a factory provided orifice ring device. This device shall attach the wheel and motor to the fan housing in one assembly providing single side service access.

Pump Module (field installed accessory)

The pump module shall consist of either a single, 1/6-HP bronze pump and a brass 3-way shut-off valve. Cast iron pumps are also acceptable. The pump module kits shall contain the necessary components for the installation, operation, and maintenance of the water circuit of a closed-loop distributed pumping application.

Refrigerant Circuits

The refrigerant circuit shall contained a thermal expansion device. Service pressure ports shall be factory supplied on the high and low pressure sides for easy refrigerant pressure or temperature testing.

Refrigerant Tubing

The refrigerant tubing shall be of 99% pure copper. This system shall be free from contaminants and conditions such as drilling fragments, dirt and oil. All refrigerant and water lines shall be insulated with an elastomeric insulation that has a 3/8-inch thick wall in the air-side section of the unit.

Sound Attenuation

Sound attenuation shall be applied as a standard feature in the product design. The sound reduction package shall include, vibration isolation to the compressor and water-to-refrigerant coil, unit base stiffeners, insulated metal compressor enclosure, and a second stage of vibration isolation to the compressor and water-to-refrigerant base pan.

Tracer DDC Controller (option)

The UC400 and ZN524 controller shall utilize factory furnished and mounted DDC controls. The Tracer DDC control package shall include a 75 VA (minimum) transformer. The controller shall provide random start delay, heating/cooling status, occupied/unoccupied mode, fan status and filter maintenance options. Optional wiring from the factory for condensate overflow shall be available.

The controller shall be capable of a standalone application, or as applied to a full building automation installation.

With this controller, the unit shall be capable of a hot gas reheat (for dehumidification), boilerless control for electric heat, waterside economizing, and support of variable speed pump control applications.

Water-to-Refrigerant Heat Exchanger

The water-to-refrigerant heat exchanger shall be of a high quality co-axial coil for maximum heat transfer. The copper or optional cupro-nickel coil shall be deeply fluted to enhance heat transfer and minimize fouling and scaling. The coil shall have a refrigerant working pressure of 650 PSIG and a water side pressure of 400 PSIG. The factory shall provide rubber isolation to the heat exchanging device to enhance sound attenuation.

Water-to-Refrigerant Heat Exchanger and Suction Lines - Insulated Option

The water-to-refrigerant heat exchanger(s), water lines, and refrigerant suction lines shall be insulated to prevent condensation at low temperatures below 60F degrees.

Trane optimizes the performance of homes and buildings around the world. A business of Ingersoll Rand, the leader in creating and sustaining safe, comfortable and energy efficient environments, Trane offers a broad portfolio of advanced controls and HVAC systems, comprehensive building services, and parts. For more information, visit www.Trane.com.

WSHP-PRC027A-EN 28 Feb 2014
New

FORM A

PRODUCTS & SERVICES

Warranty Services

Type: Extended parts and labor

Description:
Extended warranties are available for purchase before the ship date of the applicable equipment. Because every job is different and has its own unique characteristics, only certain extended warranty offerings may apply.

- *Delayed Start-Up*

  When start-up of new equipment will be delayed beyond six months after shipment, the delayed start-up warranty will postpone the commencement date of the standard one-year part warranty.

- *Whole Unit Parts Warranty*

  The extended whole unit parts warranty begins at the expiration of the standard warranty. And like the standard warranty, the whole unit parts warranty will replace any covered part that is found to be defective in material or manufacture.

- *Compressor Warranty*

  In the event a part in the compressor assembly of a Trane unit or a part in the motor/transmission/compressor assembly of a Trane centrifugal chiller covered by this warranty is found to be defective, this warranty will provide for a replacement compressor or part (at the discretion of The Trane Company).

- *Labor Warranty*

  When a part covered under warranty is found to be defective, the labor warranty will provide for labor to install the replacement part. Note that 'compressor only' labor warranty covers labor to replace applicable parts on that assembly only. Only a Trane commercial warranty agent may perform warranted repairs under the labor warranty.

- *Refrigerant Warranty*

  The refrigerant warranty will provide for replacement refrigerant to restore a unit to the proper refrigerant charge if a warranted part on the Trane unit is found to be defective.

Personnel: Factory trained technicians will perform all warranty service. Currently we have over 300 technicians on staff not including Field Supervisors.

Project References:

ZONE 1:
- Katy ISD-10 year parts and labor warranty on chillers
- Jefferson County Entertainment Complex Central Plant-15 years parts & labor warranty on entire plant

ZONE 2:
- Duncanville Independent School District: 5 year extended labor warranty on Ground Source (Geothermal) Heat Pumps

ZONE 3:
- Harlandale Independent School District: 2-5 years on motors and compressors on chillers. Schools that received chillers are -
  - Flanders
  - Kingsborough
  - Leal
  - Terrell Wells
  - Vestal
  - Harlandale M.S.

ZONE 4:
- Mount Pleasant Independent School District: 5 year parts and labor warranties on chillers

ZONE 5
- Gadsen Independent School District: Five years extended service warranty

ZONE 6
- Chandler Unified School District
- Peoria Unified School District
- Dysart School District
- Mesa Unified School District
- Sahuarita Unified School District
- Scottsdale Unified School District
- Tucson Unified School District
- Deer Valley School District

Extended labor warranties are usually 1 – 4 years beyond the normal first year labor warranty.

ZONE 7
- Rogers SD-Renews yearly
- Bald Knob SD-Renews yearly
- Dollarway SD-10 years, Fort Smith SD-10 years
- Corning SD-2 years,
- University of Central Arkansas-Renews yearly
- UACC Morrilton-Renews Yearly
- Bentonville SD-Renews Yearly

Detailed Features and Benefits:
- Protects your investment by securing your cost
- Peace of mind
- Eliminates unknown costs associated with unplanned repairs
- Makes budgeting easier

FORM A

PRODUCTS & SERVICES

Warranty Services

Type: Extended parts and labor

Description:

Give your new system the right start to assure best operation and longest life. There's a reason you chose a Trane HVAC system for your building. You wanted an advanced, high performance system that could be relied on for years to come. But as you know, there are a number of installation and situational variables that can impact the performance, reliability and useful life of your systems.Twelve Months, Five Essential Services To Assure Long Term Performance. Make sure your HVAC system investment gets off to the right start with a Trane In-Warranty Support Agreement. It's the best way to validate proper installation and assure the highest level of performance during that all-important first year of operation.

Trane HVAC systems are typically sold with a standard one year, parts-only warranty. The In-Warranty Support Agreement goes above and beyond the standard warranty to provide five critical services:

- **Post-Installation Inspection**: Validates that installation and startup were done to factory specifications.
- **Chiller Benchmark Report**: Verifies expected system operating parameters and provides an "as installed" benchmark to track changes in performance in later years.
- **Periodic Inspections**: Uncover chronic operational problems that could impair efficiency and shorten the life of your system.
- **Chiller Oil Analysis**: Analyzes compressor oil samples for the presence of wear metals, acidity and moisture and provides a detailed report of the current state of the system.
- **Filter Changes**: Scheduled to maximize flow and efficiency of system operation.

Periodic Checks In The First Year Help Assure Long Term Performance

Trane provides a variety of extended warranties to allow customers another opportunity to manage their ongoing costs of operations. The nature of Trane HVAC equipment, and truly any mechanical equipment, means that it requires service as it operates. While you receive a standard parts warranty as the original purchaser, our extended warranties help you project your costs and protect your business against increases in material and/or labor costs.

The following HVAC extended warranties are available for purchase before the ship date of the applicable equipment to give you added peace of mind (See *Appendix #4* for certificates):

Types of Extended Warranties

Extended warranties are available for purchase before the ship date of the applicable equipment.

- **Delayed Start-Up:** When start-up of new equipment will be delayed beyond six months after shipment, the delayed start-up warranty will postpone the commencement date of the standard one-year part warranty.

Whole Unit Parts Warranty: The extended whole unit parts warranty begins at the expiration of the standard warranty. And like the standard warranty, the whole unit parts warranty will replace any covered part that is found to be defective in material or manufacture.

Compressor Warranty: In the event a part in the compressor assembly of a Trane unit or a part in the motor/transmission/compressor assembly of a Trane centrifugal chiller covered by this warranty is found to be defective, this warranty will provide for a replacement compressor or part (at the discretion of Trane).

Labor Warranty: When a part covered under warranty is found to be defective, the labor warranty will provide for labor to install the replacement part. Note that 'compressor only' labor warranty covers labor to replace applicable parts on that assembly only. Only a Trane commercial warranty agent may perform warranted repairs under the labor warranty.

Refrigerant Warranty: The refrigerant warranty will provide for replacement refrigerant to restore a unit to the proper refrigerant charge if a warranted part on the Trane unit is found to be defective.

Service Warranty: The extended service warranty is similar to our new equipment extended warranties, but it is available after equipment start-up. This coverage requires a service agreement with your local Trane-affiliated service company. Coverage may be available for up to 10 years from shipment.

Personnel: Every district office have factory trained technicians that will perform all warranty service. Currently we have over 2500 technicians on staff not including Field Supervisors.

Project References:

Refer to TAB 3-Warranty Question #2 for examples of extended labor and parts warranties

Detailed Features and Benefits:

- Protects your investment by securing your cost
- Peace of mind
- Eliminates unknown costs associated with unplanned repairs
- Makes budgeting easier

Product Catalog

Extended Warranties

February 2012

SRV-PRC009-EN

Table of contents

Warranty Descriptions

The following warranty options are valid only on equipment installed in the United States and Canada. These warranties are only available for purchase through a Trane Commercial Sales office.

Startup

For the purposes of new equipment extended warranty, the term “startup” is defined as the first date power is put to the unit.

Maintenance Requirements

All manufacturer’s recommended maintenance, as listed in the maintenance literature for the specific product, is to be performed during the term of the warranty (standard and extended). A record of the maintenance performed is to be kept for the duration of the extended warranty and made available to Trane upon request.

Failure to perform the recommended maintenance or inability to provide maintenance documentation may result in denial of warranty claims.

Whole Unit Parts Warranty

The Whole Unit Parts Warranty is a continuation of the 12/18 month standard parts warranty and the new equipment standard terms and conditions as supported by Trane. This extended warranty option covers replacement parts for a failure due to a manufacturing defect. All parts on the unit as purchased on the original sales order from Trane are covered. Add-ons, upgrades and field modifications are not covered by the extended warranty.

Replacement parts used for repairs to the equipment covered by this optional warranty are to be obtained through Trane HVAC Parts & Supplies. Only Trane-approved parts are covered.

Parts given in satisfaction of this warranty do not carry a warranty of their own. The standard and extended warranties remain in effect for the term originally purchased.

All warranties may be voided if a non-Trane modification is performed to the unit. A 'non-Trane modification' is defined as a repair or alteration not specifically approved by the Trane product manufacturing location. An approved modification, however, is not covered by existing warranties.

Items covered by this warranty	Items not covered by this warranty*
• All parts on unit as originally purchased from Trane	• Crane/rigging • Maintenance materials • Tools • Equipment rental • Labor • Refrigerant • Insulation

*This list includes some specific examples of items not covered, but is not an exhaustive list of exclusions. The absence of an item in this list does not mean that the item is covered by the warranty. Items are not covered by the warranty unless expressly stated as included.

Compressor Parts Warranty

The Compressor Parts Warranty provides for coverage on the compressor only and continues the terms and conditions of the 12/18 equipment warranty.

Replacement parts used for repairs to the covered equipment are to be obtained through Trane HVAC Parts & Supplies. Only Trane-approved parts are covered.

Items covered by this warranty	Items not covered by this warranty*
• Only the main compressor(s) on the unit as originally purchased from Trane • Replacement part may be whole compressor or compressor parts at the discretion of Trane	• Unit parts other than the compressor • Contactors or other related electrical/control components • Maintenance materials • Tools • Equipment rental • Labor • Refrigerant • Insulation

*This list includes some specific examples of items not covered, but is not an exhaustive list of exclusions. The absence of an item in this list does not mean that the item is covered by the warranty. Items are not covered by the warranty unless expressly stated as included.

Parts given in satisfaction of this warranty do not include a warranty of their own. The standard and extended warranties remain in effect for the term originally purchased.

All warranties may be voided if a non-Trane modification is performed to the unit. A ‘non-Trane modification’ can be defined as a repair or alteration not specifically approved by the Trane product manufacturing location. An approved modification, however, is not covered by existing warranties.

Motor/Compressor Parts Warranty (Centrifugal and Rotary chillers only)

The Motor/Compressor Parts Warranty provides for replacement parts on the motor/compressor assembly only and continues the terms and conditions of the 12/18 equipment warranty.

Replacement parts used for repairs to the covered equipment are to be obtained through Trane HVAC Parts & Supplies. Only Trane-approved parts are covered.

Items covered by this warranty	Items not covered by this warranty*
• Only the motor/compressor assembly on the unit as originally purchased from Trane • Gaskets and o-rings that are part of the motor/compressor assembly • Compressor motor terminals • Oil tank and pump (CenTraVac only) • In the event of a motor failure, the motor change-out kit is covered, as would be the oil and oil filters	• Unit parts other than the motor/compressor assembly • Contactors or other related electrical/control components that are not considered part of the motor/compressor assembly • Motors other than the compressor motor (i.e. condenser fan motors) • Suction flanges • Discharge piping • Gaskets and fittings which make up the motor compressor assembly, but are not part of it • Maintenance materials • Tools • Equipment rental • Labor • Refrigerant • Insulation

*This list includes some specific examples of items not covered, but is not an exhaustive list of exclusions. The absence of an item in this list does not mean that the item is covered by the warranty. Items are not covered by the warranty unless expressly stated as included.

Parts given in satisfaction of this warranty do not include a warranty of their own. The standard and extended warranties remain in effect for the term originally purchased.

All warranties may be voided if a non-Trane modification is performed to the unit. A 'non-Trane modification' can be defined as a repair or alteration not specifically approved by the Trane product manufacturing location. An approved modification, however, is not covered by existing warranties.

Building Services

Refrigerant Circuit Parts Warranty

The Refrigerant Circuit Warranty is a parts only warranty and continues the terms and conditions of the 12/18 equipment warranty.

The components covered by this warranty are the compressor, condenser coil, evaporator coil, expansion valve and connecting tubing. Essentially, any component through which the refrigerant passes is covered by this warranty. Parts not specifically listed are not covered by this warranty.

Replacement parts used for repairs to the covered equipment are to be obtained through Trane HVAC Parts & Supplies. Only Trane-approved parts are covered.

Items covered by this warranty	Items not covered by this warranty*
• Compressor • Condenser coil • Evaporator coil • Expansion valve • Connecting tubing	• Unit parts not specifically listed to the left • Crane/rigging • Maintenance materials • Tools • Labor • Refrigerant

*This list includes some specific examples of items not covered, but is not an exhaustive list of exclusions. The absence of an item in this list does not mean that the item is covered by the warranty. Items are not covered by the warranty unless expressly stated as included.

Parts given in satisfaction of this warranty do not include a warranty of their own. The standard and extended warranties remain in effect for the term originally purchased.

All warranties may be voided if a non-Trane modification is performed to the unit. A 'non-Trane modification' can be defined as a repair or alteration not specifically approved by the Trane product manufacturing location. An approved modification, however, is not covered by existing warranties.

Gas Heat Exchanger Parts Warranty

The Heat Exchanger Warranty covers gas heat exchanger parts only and continues the terms and conditions of the 12/18 equipment warranty.

This covers only a gas heat exchanger, not a hot water or refrigerant heat exchanger. The replacement heat exchanger used to repair the covered equipment is to be obtained through Trane HVAC Parts & Supplies.

Items covered by this warranty	Items not covered by this warranty*
• Only the heat exchanger in the unit as originally purchased from Trane	• Failures resulting from corrosion, erosion or deterioration (see terms and conditions) • Unit parts other than heat exchanger itself • Burner and gas train • Crane/rigging • Maintenance materials • Tools • Equipment rental • Labor • Refrigerant

*This list includes some specific examples of items not covered, but is not an exhaustive list of exclusions. The absence of an item in this list does not mean that the item is covered by the warranty. Items are not covered by the warranty unless expressly stated as included.

Note: Probably the most common cause of failure for a heat exchanger is corrosion. Corrosion is specifically excluded from warranty coverage. Humidity and acidity levels are out of our direct control, therefore any claims for corrosion are specifically excluded.

Parts given in satisfaction of this warranty do not include a warranty of their own. The standard and extended warranties remain in effect for the term originally purchased.

All warranties may be voided if a non-Trane modification is performed to the unit. A 'non-Trane modification' can be defined as a repair or alteration not specifically approved by the Trane product manufacturing location. An approved modification, however, is not covered by existing warranties.

Parts Less Compressor Warranty

The Parts Less Compressor Warranty is a continuation of the 12/18 equipment warranty (excluding compressor) and the standard terms and conditions.

A Compressor Parts Warranty must be purchased with the Parts Less Compressor Warranty. The Parts Less Compressor option is not available as a stand-alone warranty. It is to be used in conjunction with a compressor warranty when the required term of the whole unit parts coverage is less than that of the compressor.

Replacement parts used for repairs to the covered equipment are to be obtained through Trane HVAC Parts & Supplies. Only Trane-approved parts are covered.

Items covered by this warranty	Items not covered by this warranty*
• All parts except compressor or motor/compressor assembly on the unit as originally purchased from Trane	• Compressor or motor/compressor assembly • Crane/rigging • Maintenance materials • Tools • Equipment rental • Labor • Refrigerant • Insulation

*This list includes some specific examples of items not covered, but is not an exhaustive list of exclusions. The absence of an item in this list does not mean that the item is covered by the warranty. Items are not covered by the warranty unless expressly stated as included.

Parts given in satisfaction of this warranty do not include a warranty of their own. The standard and extended warranties remain in effect for the term originally purchased.

All warranties may be voided if a non-Trane modification is performed to the unit. A ‘non-Trane modification’ can be defined as a repair or alteration not specifically approved by the Trane product manufacturing location. An approved modification, however, is not covered by existing warranties.

First Year Whole Unit Labor Warranty

The First Year Labor Warranty begins at initial unit start-up and ends the same date as the 12/18 equipment warranty. This warranty applies only to the repair/replacement of parts that fail due to a defect in material or manufacture. Standard terms and conditions apply to this warranty.

The labor warranty must be purchased prior to shipment of the unit from the Trane manufacturing location.

Repair to parts or components not provided by Trane are not covered.

A Trane warranty agent (Trane-affiliated service company) must perform warranty repair labor. Labor by others is not covered unless for a specific operation or skill not possessed by the Trane warranty agent and preapproved in writing by Extended Warranties.

Items covered by this warranty	Items not covered by this warranty*
• Labor to repair or replace Trane supplied parts that fail in warranty on the unit as originally purchased from Trane • Reasonable travel and diagnostic time • Repair of factory insulation • Nitrogen, oxygen acetylene and brazing materials when required for a covered repair	• Parts and materials (except as listed to the left) used to repair the covered unit • Crane/rigging • Labor to perform maintenance • Nuisance calls • Unit access problems • Overtime and holiday pay • Repair resulting from any condition excluded in the standard terms and conditions • Equipment rental • Refrigerant • The first CTV Oil Filter Replacement as called out in the IOM (this is maintenance)

*This list includes some specific examples of items not covered, but is not an exhaustive list of exclusions. The absence of an item in this list does not mean that the item is covered by the warranty. Items are not covered by the warranty unless expressly stated as included.

All warranties may be voided if a non-Trane modification is performed to the unit. A 'non-Trane modification' can be defined as a repair or alteration not specifically approved by the Trane product manufacturing location. An approved modification, however, is not covered by existing warranties.

Beyond First Year Whole Unit Labor Warranty

The Beyond First Year Labor Warranty (second year plus) begins at the end of the 12/18 equipment warranty term and applies only to the repair/replacement of parts that fail due to a defect in material or manufacture. Standard terms and conditions apply to this warranty.

The labor warranty must be purchased prior to shipment of the unit from the Trane manufacturing location.

Repair to parts or components not provided by Trane is not covered.

A Trane warranty agent (Trane-affiliated service company) must perform warranty repair labor. Labor by others is not covered unless for a specific operation or skill not possessed by the Trane warranty agent.

Items covered by this warranty	Items not covered by this warranty*
• Labor to repair or replace Trane supplied parts that fail in warranty on the unit as originally purchased from Trane • Reasonable travel and diagnostic time • Repair of factory insulation • Nitrogen, oxygen acetylene and brazing materials when required for a covered repair	• Parts and materials (except as listed to the left) used to repair the covered unit • Crane/rigging • Labor to perform maintenance • Nuisance calls • Unit access problems • Overtime and holiday pay • Repair resulting from any condition excluded in the standard terms and conditions • Equipment rental • Refrigerant

*This list includes some specific examples of items not covered, but is not an exhaustive list of exclusions. The absence of an item in this list does not mean that the item is covered by the warranty. Items are not covered by the warranty unless expressly stated as included.

All warranties may be voided if a non-Trane modification is performed to the unit. A 'non-Trane modification' can be defined as a repair or alteration not specifically approved by the Trane product manufacturing location. An approved modification, however, is not covered by existing warranties.

First Year Motor/Compressor Labor Warranty

The First Year Motor/Compressor Labor Warranty begins at initial unit start-up and ends the same date as the 12/18 equipment warranty. This warranty applies only to the repair/replacement of the parts in the motor/compressor assembly that fail due to a defect in material or manufacture. Standard terms and conditions apply to this warranty.

The labor warranty must be purchased prior to shipment of the unit from the Trane manufacturing location.

Repair to parts or components not provided by Trane is not covered.

A Trane warranty agent (Trane-affiliated service company) must perform warranty repair labor. Labor by others is not covered unless for a specific operation or skill not possessed by the Trane warranty agent and preapproved in writing by La Crosse Extended Warranties.

Items covered by this warranty	Items not covered by this warranty*
• Labor to repair or replace motor/compressor assembly parts that fail in warranty on the unit as originally purchased from Trane • Reasonable travel and diagnostic time • Repair of existing factory compressor insulation if damaged during repair • Nitrogen, oxygen acetylene and brazing materials when required for a covered repair	• Parts and materials (except those listed to the left) used to repair the covered unit • Crane/rigging • Labor to perform maintenance • Nuisance calls • Unit access problems • Overtime and holiday pay • Repair resulting from any condition excluded in the standard terms and conditions • Equipment rental • Refrigerant

*This list includes some specific examples of items not covered, but is not an exhaustive list of exclusions. The absence of an item in this list does not mean that the item is covered by the warranty. Items are not covered by the warranty unless expressly stated as included.

All warranties may be voided if a non-Trane modification is performed to the unit. A 'non-Trane modification' can be defined as a repair or alteration not specifically approved by the Trane product manufacturing location. An approved modification, however, is not covered by existing warranties.

Beyond First Year Motor/Compressor Labor Warranty

The Beyond First Year Motor/Compressor Labor Warranty (second year plus) begins at the end of the 12/18 equipment warranty. This warranty applies only to the repair/replacement of the parts in the motor/compressor assembly that fail due to a defect in material or manufacture. Standard terms and conditions apply to this warranty.

The labor warranty must be purchased prior to shipment of the unit from the Trane manufacturing location.

Repair to parts or components not provided by Trane is not covered.

A Trane warranty agent (Trane-affiliated service company) must perform warranty repair labor. Labor by others is not covered unless for a specific operation or skill not possessed by the Trane warranty agent and preapproved in writing by La Crosse Extended Warranties.

Items covered by this warranty	Items not covered by this warranty*
• Labor to repair or replace motor/compressor assembly parts that fail in warranty on the unit as originally purchased from Trane • Reasonable travel and diagnostic time • Repair of existing factory compressor insulation if damaged during repair • Nitrogen, oxygen acetylene and brazing materials when required for a covered repair	• Parts and materials (other than those listed to the left) used to repair the covered unit • Crane/rigging • Labor to perform maintenance • Nuisance calls • Unit access problems • Overtime and holiday pay • Repair resulting from any condition excluded in the standard terms and conditions • Equipment rental • Refrigerant

*This list includes some specific examples of items not covered, but is not an exhaustive list of exclusions. The absence of an item in this list does not mean that the item is covered by the warranty. Items are not covered by the warranty unless expressly stated as included.

All warranties may be voided if a non-Trane modification is performed to the unit. A 'non-Trane modification' can be defined as a repair or alteration not specifically approved by the Trane product manufacturing location. An approved modification, however, is not covered by existing warranties.

First Year Refrigerant Loss Warranty

The First Year Refrigerant Warranty runs concurrent to the 12/18 equipment warranty and provides for refrigerant that must be replaced as the result of a part that failed due to a defect in material or manufacture. Standard terms and conditions apply to this warranty.

Intentional or accidental discharge of refrigerant is not considered a covered failure.

The refrigerant warranty must be purchased prior to shipment of the unit from the Trane manufacturing location.

Items covered by this warranty	Items not covered by this warranty*
• Refrigerant that must be replaced due to a defect in material or manufacture. Defect must be on unit as originally configured and ordered from Trane. Accessories and added components do not apply. • Replacement refrigerant of the same type (R123, R22, R134a) as specified by Trane for the covered unit.	• Intentional or accidental discharge of refrigerant is not considered a covered failure • Parts and materials used to repair the covered unit • Labor • Repair resulting from condition excluded in standard terms and conditions • Tools • Equipment rental including tanks

*This list includes some specific examples of items not covered, but is not an exhaustive list of exclusions. The absence of an item in this list does not mean that the item is covered by the warranty. Items are not covered by the warranty unless expressly stated as included.

This warranty only covers the design refrigerant charge in the Trane unit listed on the sales order.

All warranties may be voided if a non-Trane modification is performed to the unit. A 'non-Trane modification' can be defined as a repair or alteration not specifically approved by the Trane product manufacturing location. An approved modification, however, is not covered by existing warranties.

Beyond First Year Refrigerant Loss Warranty

The Beyond First Year Refrigerant Warranty (second year plus) begins at the end of the 12/18 equipment warranty and provides for refrigerant that must be replaced as the result of a part that failed due to a defect in material or manufacture. Standard terms and conditions apply to this warranty.

Intentional or accidental discharge of refrigerant is not considered a covered failure.

The refrigerant warranty must be purchased prior to shipment of the unit from the Trane manufacturing location.

Items covered by this warranty	Items not covered by this warranty*
• Refrigerant that must be replaced due a defect in material or manufacture. Defect must be on unit as originally configured and ordered from Trane. Accessories and added components do not apply. • Replacement refrigerant of the same type (R123, R22, R134a) as specified by Trane for the covered unit.	• Intentional or accidental discharge of refrigerant is not considered a covered failure • Parts and materials used to repair the covered unit • Labor • Repair resulting from condition excluded in standard terms and conditions • Tools • Equipment rental including tanks

*This list includes some specific examples of items not covered, but is not an exhaustive list of exclusions. The absence of an item in this list does not mean that the item is covered by the warranty. Items are not covered by the warranty unless expressly stated as included.

This warranty only covers the design refrigerant charge in the Trane unit listed on the sales order.

All warranties may be voided if a non-Trane modification is performed to the unit. A 'non-Trane modification' can be defined as a repair or alteration not specifically approved by the Trane product manufacturing location. An approved modification, however, is not covered by existing warranties.

Delayed Startup Warranty

This optional warranty is useful when startup of new equipment will occur after six months from shipment. In those circumstances, the Delayed Startup Warranty will postpone the commencement date of the 12/18 equipment warranty based on the amount of coverage purchased. On its own, this policy is a parts only coverage, but it does postpone the commencement date of all purchased warranties on the unit, including labor.

Consider the following example:
A chiller was shipped on January 1st, 2010. Due to a long construction cycle, the chiller was not started until January 1st, 2011. The chiller was sold with a 1st year labor warranty and 2nd-5th year parts warranty. The tables below illustrate the difference in warranty commencement dates with and without Delayed Startup coverage.

Option A: Without Delayed Startup

WARRANTY	EFFECTIVE WARRANTY	
	START DATE	END DATE
12/18 Standard Parts	1/1/2011	7/1/2011
1st Year Labor	1/1/2011	7/1/2011
2-5th Year Parts	7/1/2011	7/1/2015

Option B: With Delayed Startup

WARRANTY	EFFECTIVE WARRANTY	
	START DATE	END DATE
12/18 Standard Parts	1/1/2011	7/1/2011
12/24 Delayed Startup	7/1/2011	1/1/2012
1st Year Labor	1/1/2011	1/1/2012
2-5th Year Parts	1/1/2012	1/1/2016

Replacement parts used for repairs to the equipment covered by this optional warranty are to be obtained through Trane HVAC Parts & Supplies. Only Trane-approved parts are covered.

Parts given in satisfaction of this warranty do not carry a warranty of their own. The standard and extended warranties remain in effect for the term originally purchased.

All warranties may be voided if a non-Trane modification is made to the unit. A 'non-Trane modification' can be defined as a repair or alteration not specifically approved by the Trane product manufacturing location. An approved modification, however, is not covered by existing warranties.

Items covered by this warranty	Items not covered by this warranty*
• All parts on unit as originally purchased from Trane	• Labor • Crane/rigging • Tools • Equipment rental • Refrigerant • Insulation

*This list includes some specific examples of items not covered, but is not an exhaustive list of exclusions. The absence of an item in this list does not mean that the item is covered by the warranty. Items are not covered by the warranty unless expressly stated as included.

Series R™ Chiller R'newal™ Warranty (Running Compressor)

The Series R chiller R'newal warranty includes a standard two year parts and labor warranty which starts at shipment. An optional third through fifth year parts and labor warranty is also available, but requires a five year Trane service agreement beginning when the R'newal ships. It must be ordered at the same time as the R'newal program. The minimum requirements for that service agreement include annual startup inspection, mid-season run inspection, shutdown inspection and annual oil analysis by Trane Charlotte, or in the case of Trane Canada, an approved lab.

The R'newal warranties only cover the compressor assembly as shipped from Trane Charlotte. Additional items purchased as part of the R'newal program such as the condenser fan staging, a low pressure cutout switch and fan banks are not covered by these warranties.

Replacement parts used for repairs to the equipment covered by this optional warranty are to be obtained through Trane HVAC Parts & Supplies. Only Trane-approved parts are covered. Parts given in satisfaction of this warranty do not carry a warranty of their own. The standard and extended warranties remain in effect for the term originally purchased.

A Trane warranty agent (Trane-affiliated service company) must perform warranty repair labor. Labor by others is not covered unless for a specific operation or skill not possessed by the Trane warranty agent and must be preapproved in writing by La Crosse Extended Warranties.

Items covered by this warranty	Items not covered by this warranty*
• The R'newal compressor assembly • Labor to repair or replace compressor assembly parts that fail in warranty – subject to Trane typical repair hours • Reasonable travel and diagnostic time • Repairs by Trane-affiliated service companies • O-rings and gaskets included in the replacement of the mot or compressor	• Labor by non-Trane servicers • Contactors and other controls • Gaskets and o-rings • Motors other than the compressor motor • Tools • Rental equipment • Crane/rigging • Maintenance items or labor to perform maintenance operations • Overtime/holiday premium • Nuisance calls • Refrigerants

*This list includes some specific examples of items not covered, but is not an exhaustive list of exclusions. The absence of an item in this list does not mean that the item is covered by the warranty. Items are not covered by the warranty unless expressly stated as included.

Series R™ Chiller R'newal™ Warranty (Failed Compressor)

This offering is very similar to the original Series R chiller R'newal warranty with two major differences. As the name implies, this offering is available for Series R compressors that have failed. This warranty option requires a Trane service agreement from the time the R'newal ships through the end of the warranty period. The minimum requirements for that service agreement include annual startup inspection, mid-season run inspection, shutdown inspection and annual oil analysis by Charlotte, or in the case of Trane Canada, an approved lab.

Like the original Series R chiller R'newal warranty, this offering includes a standard two year parts and labor warranty which starts at shipment. An optional third through fifth year parts and labor warranty is also available, but must be ordered at the same time as the R'newal program.

The R'newal warranties only cover the compressor assembly. Additional items purchased as part of the R'newal such as the condenser fan staging, a low pressure cutout switch and fan banks are not covered by these warranties.

Replacement parts used for repairs to the equipment covered by this optional warranty are to be obtained through Trane HVAC Parts & Supplies. Only Trane-approved parts are covered. Parts given in satisfaction of this warranty do not carry a warranty of their own. The standard and extended warranties remain in effect for the term originally purchased.

A Trane warranty agent (Trane-affiliated service company) must perform warranty repair labor. Labor by others is not covered unless for a specific operation or skill not possessed by the Trane warranty agent.

Items covered by this warranty	Items not covered by this warranty*
• R'newal compressor assembly • Labor to repair or replace compressor assembly parts that fail in warranty – subject to Trane typical repair hours • Reasonable travel and diagnostic time • Repairs by Trane-affiliated service companies • O-rings and gaskets included in the replacement of the mot or compressor	• Labor by non-Trane servicers • Contactors and other controls • Gaskets and o-rings • Motors other than the compressor motor • Tools • Rental equipment • Crane/rigging • Maintenance items or labor to perform maintenance operations • Overtime/holiday premium • Nuisance calls • Refrigerant

*This list includes some specific examples of items not covered, but is not an exhaustive list of exclusions. The absence of an item in this list does not mean that the item is covered by the warranty. Items are not covered by the warranty unless expressly stated as included.

Building Services

CenTraVac™ Chiller R'newal™ Warranties

The CenTraVac chiller R'newal warranty includes a standard two year parts and labor warranty which starts at shipment. An optional third through fifth year parts and labor warranty is also available. This warranty option requires a Trane service agreement from the time the R'newal ships through the end of the warranty period. It must be ordered at the same time as the R'newal program. The minimum requirements for that service agreement include annual startup inspection, mid-season run inspection, shutdown inspection and annual oil analysis by Charlotte, or in the case of Trane Canada, an approved lab.

The CenTraVac chiller R'newal warranties only cover the compressor motor, motor bearings and oil system. Additional items purchased as part of the R'newal program are not covered by these warranties.

Replacement parts used for repairs to the equipment covered by this optional warranty are to be obtained through Trane HVAC Parts & Supplies. Only Trane-approved parts are covered. Parts given in satisfaction of this warranty do not carry a warranty of their own. The standard and extended warranties remain in effect for the term originally purchased.

A Trane warranty agent (Trane-affiliated service company) must perform warranty repair labor. Labor by others is not covered unless for a specific operation or skill not possessed by the Trane warranty agent.

Items covered by this warranty	Items not covered by this warranty*
• The R'newal compressor motor, motor bearings and oil system	• Labor by non-Trane servicers
• Labor to repair or replace compressor motor parts that fail in warranty	• Contactors and other controls
• Reasonable travel and diagnostic time	• Gaskets and o-rings
• Repairs by Trane-affiliated service companies	• Compressor (i.e. suction elbow, vane tang assembly)
• O-rings and gaskets included in the replacement of the mot or compressor	• Motors other than the compressor motor
	• Tools
	• Rental equipment
	• Crane/rigging
	• Maintenance items or labor to perform maintenance operations
	• Overtime/holiday premium
	• Nuisance calls
	• Refrigerant

*This list includes some specific examples of items not covered, but is not an exhaustive list of exclusions. The absence of an item in this list does not mean that the item is covered by the warranty. Items are not covered by the warranty unless expressly stated as included.

Low Voltage Controls Warranties on Performance Climate Changers

Low Voltage Controls warranties are available on Performance Climate Changers that ship with a Pre-packaged Solution or Common Configuration. Only the components within the Pre-packaged Solution or Common Configuration are covered by these warranties. Sensors and components added in the field are not covered. Both parts and labor options are available for order with the equipment.

Replacement parts used for repairs to the equipment covered by this optional warranty are to be obtained through a Trane HVAC Parts & Supplies. Only Trane-approved parts are covered. Parts given in satisfaction of this warranty do not carry a warranty of their own. The standard and extended warranties remain in effect for the term originally purchased.

A Trane warranty agent (Trane-affiliated service company) must perform warranty repair labor. Labor by others is not covered unless for a specific operation or skill not possessed by the Trane warranty agent and must be preapproved in writing by La Crosse Extended Warranties.

Parts Warranty

Items covered by this warranty	Items not covered by this warranty*
• Low voltage control components that make up the PPS selected with the equipment (sensors, switches, actuators, etc.) that fail due to a defect in material or manufacture.	• Labor • Parts and components that are not included in the PPS • High Voltage Control Components such as VFD and Starter

Labor Warranty

Items covered by this warranty	Items not covered by this warranty*
• Labor to repair or replace low voltage control components that make up the PPS or Common Configuration selected with the equipment (sensors, switches, actuators, etc.) that fail due to a defect in material or manufacture. • Reasonable travel and diagnostic time	• Labor to repair or replace components other than those that make up the PPS • Parts • Tools • Rental equipment • Maintenance items or labor to perform maintenance operations • Overtime/holiday premium • Nuisance calls

*This list includes some specific examples of items not covered, but is not an exhaustive list of exclusions. The absence of an item in this list does not mean that the item is covered by the warranty. Items are not covered by the warranty unless expressly stated as included.

Light Commercial Unitary Extended Warranties

There are several different extended warranty options available for Light Commercial Unitary (LCU) equipment. Whole Unit Parts, Compressor Parts and Gas Heat Exchanger Parts are available for LCU equipment and are almost identical to those for other equipment types. Whole Unit Labor and Compressor Labor warranties are also available, but are a bit different from the labor warranties on other types of equipment.

Parts

For Trane Affiliated Service Companies, there is no difference in how LCU Extended Parts Warranties are handled compared to other equipment types. The only difference between LCU Extended Parts Warranties and Extended Parts Warranties on other equipment types is parts markup. This applies only to non-Trane Servicers providing warranty repairs.

Labor

There are a few key differences between Large Commercial Extended Labor Warranties and Light Commercial Extended Labor Warranties:

- Trane Service is not required to perform warranty repairs on LCU equipment. A qualified servicer may complete the repair and utilize the Special Light Commercial Unitary Warranty program for reimbursement (see WAR-SVW01B-EN).
- A $300 crane allowance is included with LCU Labor Warranties.
- The Whole Unit Labor warranty on LCU equipment includes refrigerant loss coverage. You do not need to purchase a separate policy.

The LCU Owners Guide (WAR-SVW01B-EN) provides a more detailed explanation of the program including servicer allowances, parts markups, claim form, etc.

Parts Center Extended Warranties

Compressor Parts Warranty

The Compressor Warranty provides for parts coverage on the compressor only and continues the terms and conditions of the standard parts warranty.

Replacement parts used for repairs to the covered equipment are to be obtained through Trane HVAC Parts & Supplies. Only Trane-approved parts are covered.

Items covered by this warranty	Items not covered by this warranty*
• Only the main compressor(s) on the unit as originally purchased from Trane • Replacement part may be whole compressor or compressor parts at the discretion of Trane	• Unit parts other than the compressor • Contactors or other related electrical/control components • Maintenance materials • Tools • Equipment rental • Labor • Refrigerant • Insulation

*This list includes some specific examples of items not covered, but is not an exhaustive list of exclusions. The absence of an item in this list does not mean that the item is covered by the warranty. Items are not covered by the warranty unless expressly stated as included.

Parts given in satisfaction of this warranty do not include a warranty of their own. The standard and extended warranties remain in effect for the term originally purchased.

CenTraVac™ Chiller Motor Parts Warranty

The CenTraVac (CTV) Motor Parts Warranty provides parts coverage for a replacement CTV motor only and continues the terms and conditions of the standard parts warranty.

Replacement parts used for repairs to the covered equipment are to be obtained through Trane HVAC Parts & Supplies. Only Trane-approved parts are covered.

Items covered by this warranty	Items not covered by this warranty*
• Only the CTV motor as originally purchased from Trane • Replacement part may be a complete motor or motor parts (i.e. rotor, shaft, etc.) at the discretion of Trane • Motor rewind/remanufacture must be performed by Trane Charlotte	• Unit parts other than the motor itself • Contactors or other related electrical/control components • Maintenance materials • Tools • Equipment rental • Labor • Refrigerant • Insulation • Maintenance materials

*This list includes some specific examples of items not covered, but is not an exhaustive list of exclusions. The absence of an item in this list does not mean that the item is covered by the warranty. Items are not covered by the warranty unless expressly stated as included.

Parts given in satisfaction of this warranty do not include a warranty of their own. The standard and extended warranties remain in effect for the term originally purchased.

Optional Compressor Labor Warranty

The labor warranty is valid only for compressor failures that are warranted or covered by the replacement compressor system hazard warranty. This warranty runs the same term as the compressor standard warranty. Non-warranted failures are not covered, even if a labor warranty was purchased. This is a maximum limit labor warranty. Coverage will not exceed the limit option purchased.

Items covered by this warranty	Items not covered by this warranty*
• Repair or replacement labor including evacuation and clean-up for burnouts • Reasonable travel and diagnostic time • Reasonable crane and rigging charges (up to $300 US – invoice required)	• Repair or replacement of system controls including contractors • Replacement or addition of refrigerant • Labor premium (overtime or holiday pay) • Per Diem allowance • Labor claims submitted on non-warranted compressor failures • Amounts that exceed the maximum dollar level of the labor warranty ordered

*This list includes some specific examples of items not covered, but is not an exhaustive list of exclusions. The absence of an item in this list does not mean that the item is covered by the warranty. Items are not covered by the warranty unless expressly stated as included.

Parts given in satisfaction of this warranty do not include a warranty of their own. The standard and extended warranties remain in effect for the term originally purchased.

Optional CenTraVac™ Chiller Motor Labor Warranty

The labor warranty is valid only for motor failures that are warranted or covered by the replacement compressor system hazard warranty. This warranty runs the same term as the motor standard warranty. Non-warranted failures are not covered, even if a labor warranty was purchased. Labor MUST be performed by the Trane Affiliated Service Company. This is a maximum limit labor warranty. Coverage will not exceed the limit option purchased.

Items covered by this warranty	Items not covered by this warranty*
• Repair or replacement labor up to Trane typical hours and approved labor rate • Reasonable travel and diagnostic time • Local purchase of materials within a reasonable amount and with supporting documents • Motor changeout kits and oil, if obtained from Trane HVAC Parts & Supplies	• Repair or replacement of system controls including contractors • Refrigerant • Labor premium (overtime or holiday pay) • Per diem allowance • Labor claims submitted on non-warranted motor failures • Crane and rigging

*This list includes some specific examples of items not covered, but is not an exhaustive list of exclusions. The absence of an item in this list does not mean that the item is covered by the warranty. Items are not covered by the warranty unless expressly stated as included.

Reimbursement will be based on the Trane typical hours established by the appropriate manufacturing location. Labor will be paid at a maximum of the office's approved labor rate.

Warranty Certificates

After the purchase of an extended warranty, a warranty certificate that provides the terms and conditions and lists the specific warranties purchased is generated and mailed to the customer. The purpose of the certificate is to acknowledge the purchased warranties and convey the associated terms and conditions. The extended warranty certificate is mailed to the 'sold-to' address on the order. A copy of the warranty certificate can be found on ComfortSite under the related job number.

What happens to the warranty if the equipment is sold?

- If the building, and the HVAC equipment within it, is sold, the warranty ownership will seamlessly transfer from one owner to the next.
- If the HVAC equipment itself is either sold to a new owner and moved to a new site, or moved by the current owner to a different job site other than the one originally intended for the job, the warranties will be void.

Limited Warranty

Company warrants the Equipment manufactured by Company for a period of the lesser of 12 months from initial start-up or 18 months from date of shipment, whichever is less, against failure due to defects in material and manufacture and that it has the capacities and ratings set forth in Company's catalogs and bulletins ("Warranty"). **Equipment manufactured by Company that includes required start-up and sold in North America will not be warranted by Company unless Company performs the Equipment startup.** Exclusions from this Warranty include damage or failure arising from: wear and tear; corrosion, erosion, deterioration; modifications made by others to the Equipment; repairs or alterations by a party other than Company that adversely affects the stability or reliability of the Equipment; vandalism; neglect; accident; adverse weather or environmental conditions; abuse or improper use; improper installation; commissioning by a party other than Company; unusual physical or electrical or mechanical stress; operation with any accessory, equipment or part not specifically approved by Company; and/or lack of proper maintenance as recommended by Company. Company shall not be obligated to pay for the cost of lost refrigerant or lost product. Company's obligations and liabilities under this Warranty are limited to furnishing replacement equipment or parts, at its option, FCA (Incoterms 2000) factory or warehouse (f.o.b. factory or warehouse for US domestic purposes) at Company-designated shipping point, freight-allowed to Company's warranty agent's stock location, for all non-conforming Company-manufactured Equipment (which have been returned by Customer to Company. Returns must have prior written approval by Company and are subject to restocking charge where applicable. Equipment, material and/or parts that are not manufactured by Company are not warranted by Company and have such warranties as may be extended by the respective manufacturer. COMPANY MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, REGARDING PREVENTION OF MOLD/MOULD, FUNGUS, BACTERIA, MICROBIAL GROWTH, OR ANY OTHER CONTAMINATES. No warranty liability whatsoever shall attach to Company until Customer's complete order has been paid for in full and Company's liability under this Warranty shall be limited to the purchase price of the Equipment shown to be defective. Additional warranty protection is available on an extra-cost basis and must be in writing and agreed to by an authorized signatory of the Company. Additional terms and conditions of warranty coverage are applicable for refrigeration equipment. **EXCEPT FOR COMPANY'S WARRANTY EXPRESSLY SET FORTH HEREIN, COMPANY DOES NOT MAKE, AND HEREBY EXPRESSLY DISCLAIMS, ANY WARRANTIES, EXPRESS OR IMPLIED CONCERNING ITS PRODUCTS, EQUIPMENT OR SERVICES, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF DESIGN, MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, OR OTHERS THAT ARE ALLEGED TO ARISE FROM COURSE OF DEALING OR TRADE.**

Trane Optional Extended Limited Warranty

Note: *A complete copy of the terms and conditions of the Extended Limited Warranty referenced below may be obtained at www.Trane.com or by calling 1-877-788-7263. This document contains only a summary of the Extended Limited Warranty. This Extended Limited Warranty shall not apply to any equipment that has been repaired or altered in such manner that, in the judgment of Trane, affects its stability or reliability. Nor does it cover corrosion, erosion, deterioration or damage due to accident, abuse, external causes, or freezing. This warranty is conditioned upon the equipment operating under normal use and service. A written notice of material considered defective under this warranty shall be given to Trane. No liability whatever shall attach to Trane until said products and extended warranty have been paid for and then said liability shall be limited to the purchase price of the equipment shown to be defective.*

All labor applicable to an extended labor warranty must be performed by the Trane affiliated commercial service representative in your area. Warranty labor, when purchased, is furnished during normal working hours only and excludes, among other things, unusual equipment access problems and crane charges.

EXCEPT FOR COMPANY'S WARRANTY EXPRESSLY SET FORTH HEREIN, COMPANY DOES NOT MAKE, AND HEREBY EXPRESSLY DISCLAIMS, ANY WARRANTIES, EXPRESS OR IMPLIED CONCERNING ITS PRODUCTS, EQUIPMENT OR SERVICES, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF DESIGN, MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, OR OTHERS THAT ARE ALLEGED TO ARISE FROM COURSE OF DEALING OR TRADE.

This exclusion applies regardless of whether such damages are sought based on breach of warranty, breach of contract, negligence, strict liability in tort, or any other legal theory. Should Trane nevertheless be found liable for any damages, they shall be limited to the purchase price of the equipment.

The Extended Limited Warranty/Warranties are provided to Customer and shall commence upon expiration of the Original Warranty. Additionally, if the equipment is moved from its original installed location or outside of the U.S. or Canada, these warranties will be void.

Building Services

Trane Company Replacement Parts Standard Warranty Terms and Conditions
Commercial Equipment

Warranty and Liability

The Company warrants for a period of one year from date of shipment that the Company products covered by this order are free from defects in material and workmanship provided that no warranty is made against corrosion or deterioration. The Company's obligations and liabilities under this warranty are limited to furnishing f.o.b. factory or warehouse at Company designated shipping point, freight allowed to the Company's warranty agent's stock location (or port of export for shipments outside the conterminous United States) replacements parts for all products not conforming to this warranty and which have been returned to the manufacturer. In no event shall the Company be obligated to pay for the cost of lost refrigerant. No liability whatever shall attach to the Company until said products have been paid for then the said liability shall be limited to the purchase price of the products shown to be defective. Any further warranty must be in writing, signed by an officer of the Company.

Warranty Disclaimer

The above warranties are given in lieu of all other warranties, express or implied, including the implied warranty of merchantability, any implied warranty of fitness for a particular purpose and any implied warranties otherwise arising from course of dealing or trade.

Liability Disclaimer

In no event shall Trane be liable for any incidental or consequential damages resulting from the use, misuse, or inability to use the product. This exclusion applies regardless of whether such damages are sought based on breach of warranty, breach of contract, negligence, strict liability in tort, or any other legal theory. Should Trane nevertheless be found liable for any damages, they shall be limited to the purchase price of the equipment.In no event shall Trane be liable for any incidental or consequential damages resulting from the use, misuse, or inability to use the product. This exclusion applies regardless of whether such damages are sought based on breach of warranty, breach of contract, negligence, strict liability in tort, or any other legal theory. Should Trane nevertheless be found liable for any damages, they shall be limited to the purchase price of the equipment.

Let us offer you peace of mind.

Quality and expertise and characteristics you've come to expect from Trane, and extended warranties are no exception. When purchasing an extended warranty, you know you have backing from Trane. Let an extended warranty offer you worry-free protection.

For more information about extended warranty offerings, contact your local Trane sales office.

Trane optimizes the performance of homes and buildings around the world. A business of Ingersoll Rand, the leader in creating and sustaining safe, comfortable and energy efficient environments, Trane offers a broad portfolio of advanced controls and HVAC systems, comprehensive building services, and parts. For more information, visit www.Trane.com.

Trane has a policy of continuous product and product data improvement and reserves the right to change design and specifications without notice.

SRV-PRC009-EN 24 Feb 2012
Supersedes SRV-PRC009-EN (27 Jan 2012)

We are committed to using environmentally conscious print practices that reduce waste.

WHAT IS THE BENEFIT TO YOU?

The Trane extended service warranty offers the benefit of local service backed by The Trane Company, the OEM manufacturer. With training and resources provided by the OEM, you can be assured that the Trane-affiliated service technicians are the most qualified to provide inspections, preventive maintenance, or service on your Trane equipment.

The extended service warranty is available for multiple year terms, ranging from first- through fifth-year increments, for new Trane equipment only. Contact your local Trane service company to see if these warranties apply for your situation.

CONDITIONS AND EXCLUSIONS

EXTENDED SERVICE WARRANTY COMBINED WITH A SERVICE AGREEMENT MAY BE AVAILABLE FOR YOUR EQUIPMENT. CONTACT YOUR LOCAL TRANE-AFFILIATED SERVICE COMPANY FOR DETAILS.

EXCLUSIONS FROM THE TRANE EXTENDED SERVICE WARRANTIES INCLUDE THE FOLLOWING:

- Equipment which has been repaired or altered in a manner which causes or materially contributes to the claimed defect (in the judgement of The Trane Company).
- Corrosion, erosion or deterioration.
- Damage due to accident, abuse, external causes, or freezing.
- Crane charges, nuisance calls, freight, and additional labor resulting from problem access areas.
- Any damage caused by failure to perform Trane recommended maintenance and labor.

The extended service warranties are conditioned upon the equipment operating under normal use and service. Trane equipment should be installed following the space guidelines published in product literature. Warranty claims will be processed only after the product(s) and warranties have been paid in full or The Trane Company has approved alternative credit arrangements. In no event shall Trane be liable for any special, consequential or incidental damages no matter under what legal theory advanced. Trane makes no other warranty express or implied.

TRANE®

The Trane Company
3600 Pammel Creek Road
La Crosse, WI 54601-7599

www.trane.com

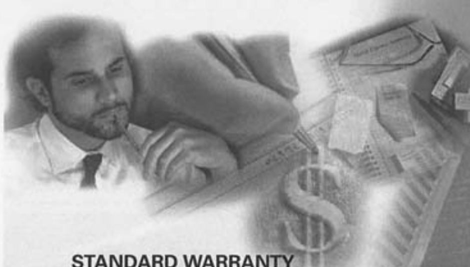
An American Standard Company

Literature Order Number	WAR-SLB001-EN
Date	August 2000
Supersedes	New
Stocking Location	La Crosse - Inland

TRANE®

Extended Service Warranty

Quality and expertise are characteristics you expect from The Trane Company. When you purchase equipment from The Trane Company, you know you're receiving the benefit of decades of experience and training in the HVAC field.



STANDARD WARRANTY

The Trane Company provides to the original equipment purchaser a standard parts warranty. The standard warranty covers a period of one year from unit start-up or 18 months from shipment, whichever is less. This warrants that all products are free from defects in material and workmanship and have the capacities and ratings set forth in the Company's catalogs and bulletins.

TRANE SERVICE AGREEMENT WARRANTIES

To keep your Trane equipment in top condition and help avoid costly, inconvenient repairs or unexpected downtime, it is important to conduct routine inspections and maintenance. This allows minor inconveniences to be spotted and remedied before they become catastrophic problems. With that in mind, The Trane Company has developed three maintenance agreement packages that help meet the needs of every type of equipment owner. These packages offer as little as routine inspections on a periodic basis to a full-maintenance agreement. Two of these packages are backed by The Trane Company, the original equipment manufacturer (OEM). Contact your local Trane-affiliated service company to learn more about the maintenance agreement offerings and to customize a plan that is right for you.

INSPECTION AGREEMENT

If you have a facility with trained HVAC personnel, you may need only an inspection agreement. This agreement allows your local Trane-affiliated service company to conduct routine inspections on a scheduled, periodic basis. This includes taking readings, reviewing the logs, talking to your personnel about questions and concerns they may have, and suggesting upgrades to keep your unit in top running condition. They can also make appropriate suggestions for the long-term care of your unit. Should repairs be required, the inspection agreement warranty would cover the cost of any repairs or labor performed on the unit, dependent upon coverage purchased.

PREVENTIVE MAINTENANCE AGREEMENT

If you have a small facility or don't have a dedicated HVAC technician, you may want to consider a preventive maintenance agreement. This agreement allows your local Trane-affiliated service company to perform periodic, scheduled inspections and also conduct all routine maintenance. This includes cleaning the coils, changing the air filters, performing major overhauls, conducting eddy current tube analysis, and vibration analysis. Periodic inspections give the Trane-affiliated service company the opportunity to inspect the equipment and spot potential problems if present, and make a scheduled, minor repair before it causes a major failure. Should repairs be required, the cost of the repairs would be invoiced to the customer.

FULL MAINTENANCE AGREEMENT

A full maintenance agreement is designed to give you peace of mind. For a pre-set, agreed-upon price, your local Trane-affiliated service company will perform maintenance and needed repairs for your equipment for the life of the agreement. This includes periodic inspections and preventive maintenance, as well as any required repairs on your HVAC equipment, and includes the replacement parts and the labor to make those repairs, dependent upon coverage purchased. It may even replace any lost refrigerant, dependent upon coverage purchased.

TAB 4-APPENDIX B: PRODUCTS / SERVICES SPECIFICATIONS

Note: Ingersoll Rand and Trane feel strongly that every attempt must be made to minimize any impacts that would negatively impact the Company (s) Green initiatives. As such, we have provided what we feel are the minimum printed documents necessary to obtain a fair evaluation.

We have, however, provided additional documents such as product catalogs, brochures, etc. in the electronic copies provided as part of this response. We are happy to provide specific printed materials upon request.

Greg Spencer

TCPN Strategic Program Leader, North America

PPENDIX – F: References

K-12

Osseo Area Schools ISD 279

Contact Name: Dale Carlstrom
Title: Director of Facilities and Transportation Operations
City, State: Maple Grove, MN
Phone Number: (763) 391-7000
Years Serviced: 3
Description of Services: Turnkey mechanical installation and remodel. Wireless controls installation and upgrade
Annual Volume: 2013: $2.17M; 2014: $2.58M

Minneapolis Public Schools

Contact Name: Neil Hill
Title: General Foreman
City, State: Minneapolis, MN
Phone Number: 612-688-0342
Years Serviced: 2
Description of Services: HVAC PM, new HVAC equipment, turnkey HVAC installations, new lockers, new theatre seats
Annual Volume: $1,500,000

Cook County School District 104

Contact Name: Dr. Troy Whalen
Title: Superintendent
City, State: Summit, IL
Phone Number: 708-458-0505
Years Serviced: 2014-2015
Description of Services: Comprehensive Solution – Replaced unit ventilators in two schools with new unit ventilators (adding comfort cooling) & classroom shelving, replaced the boiler plant in one school, and new building automation systems in two schools
Annual Volume: $2M

New Kensington-Arnold School District

Contact Name: Jeff McVey
Title: Business Manager
City, State: New Kensington, PA

Phone Number: 724-335-4401
Years Serviced: 1
Description of Services: performance contract
Annual Volume: $2.1M

Dallas Independent School District
Contact Name: Tony Thompson
Title: Assistant Director of Facilities
City, State: Dallas, TX
Phone Number: (972) 925-5082
Years Serviced: 10+
Description of Services: HVAC Service, New Equipment, Controls, Energy Services, HVAC Parts, Rental Chillers
Annual Volume: $2.5M

Cities/Counties

City of Dallas
Contact Name: Mr. Jeff Fink – EBS
Title: Manager II
City, State: Dallas, TX
Phone Number: 214-671-9436
Years Serviced: 10
Description of Services: Repair, Replacement and Control of HVAC Equipment
Annual Volume: $3.3M

Gregg County
Contact Name: Kelli Davis
Title: Purchasing Agent
City, State: Longview, TX
Phone Number: 903-237-2686
Years Serviced: 1
Description of Services: Trane/TCPN PACT/Turnkey Contracting and HVAC Services
Annual Volume: $500,000.00

City of Newport News
Contact Name: Lisa Cipriano
Title: Director of Budget and evaluation
City, State: Newport News, VA

Phone Number: 757-926-8733
Years Serviced: 5
Description of Services: Equipment/Services/Turnkey
Annual Volume: $902,000 (2013) $770,000 (2014)

Reeves County
Contact Name: Terry Upchurch
Title: Purchasing
City, State: Pecos, TX
Phone Number: 432-445-3030
Years Serviced: 1
Description of Services: Turnkey, New Service Agreement
Annual Volume: $1.5M

Andrews County Expo Arena
Contact Name: Brad Watts
Title: Facility Maintenance Manager
City, State: Andrews, TX
Phone Number: 432-266-1145
Years Serviced: 10+
Description of Services: Service Contract, Turnkey Work
Annual Volume: $1.2M

Higher Ed

University of Arkansas at Little Rock
Contact Name: Suzette Probst
Title: Assistant Business Manager Procurement Services
City, State: Little Rock, AR
Phone Number: 501-569-3119
Years Serviced: 2014 - 2015
Description of Services: Building Automation System Controls
Annual Volume: ~$2 Million

University of Washington
Contact Name: John Whitney
Title: Procurement Services
City, State: Seattle, WA
Phone Number: jbwhit@uw.edu

Years Serviced: 4
Description of Services: General Contractor, New and Replacement Equipment, & Controls
Annual Volume: $860,000

University of Texas Medical Branch at Galveston
Contact Name: Marcel Blanchard
Title: Assistant V.P. of Utility Operations
City, State: Galveston, TX
Phone Number: (O) 409.747.2942 (M) 409.682.4180
Years Serviced: 3
Description of Services: Diesel GenSets, Electrical Switchgear, Trane AHUs & Chillers
Annual Volume: Averaged $4.5 million over past three years

University of Montevallo
Contact Name: Wade Walker
Title: Director of Purchasing
City, State: Montevallo, AL
Phone Number: 205-665-6063
Years Serviced: 30
Description of Services: Turnkey HVAC Project, Control Installation Projects, Chiller and Control System Service
Annual Volume: 3 million in 2013, 1.1 million in 2014

Gloucester County College
Contact Name: Paul Grasso
Title: Manager Maintenance and New Construction
City, State: Sewell, NJ
Phone Number: 856-415-2231
Years Serviced: 10
Description of Services: HVAC Sole Source Service-Controls-Turnkey Provider
Annual Volume: Service: $150K Equipment varies: $100k-250K annual

Booking Reports

TCPN Proposal #	Date	Job Type	Trane Order #	Customer Name	Job Description	Job Total
32-10011-13-001	4/17/2013	TURNKEY	CRM 1540096	Osseo ISD # 279	Mechanical Equipment Replacement at Willow Lane ECC/Edinbrook ES	$2,110,600.00
32-10011-14-001	5/5/2014	TURNKEY	1700456 / PID00030163/4	Osseo Schools #279	Osseo Schools Palmer Lake/Birch Grove Boiler Repl	$765,833.00
32-10011-14-002	5/5/2014	TURNKEY	1709460	Osseo Schools #279	Osseo Schools Palmer Lake/Birch Grove Contracting	$765,619.00
32-10011-14-003	5/5/2014	TURNKEY	1714366	Osseo Schools #279	2014 Alt. to Park Center HS Labor Only	$398,470.00
32-10011-14-004	5/5/2014	TURNKEY	1714352	Osseo Schools #279	2014 Alterations to Park Center HS MATERIAL ONLY	$746,730.00
32-10011-14-007	11/12/2014	TURNKEY	1820376	Osseo Schools #279	Park Center Sr High	$167,391.00
32-10011-14-008	11/12/2014	INSTALLATION	1819299	Osseo Schools #279	Maple Grove Sr HS Add & Alt	$82,430.00
32-10011-14-009	11/12/2014	TURNKEY	1819301	Osseo Schools #279	Osseo Sr HS Add & Alt	$239,148.00

TCPN Proposal #	Date	Job Type	Trane Order #	Customer Name	Job Description	Job Total
32-10010-13-002	6/10/2013	SA-MULTI	CRM 1568568	Minneapolis Public School District	Chiller PM Program	$679,756.00
32-10010-13-003	6/10/2013	SERVICE	M1568568 / S346869	Minneapolis Public School District	Chiller Baseline Inspection	$48,072.73
32-10010-13-006	8/15/2013	EQUIPMENT	NA	Minneapolis Public School District	RTU Replacement	$35,439.00
32-10010-13-008	10/25/2013	TURNKEY	1641120	Minneapolis Public School District	Northeast Middle School RTU	$9,686.00
32-10010-14-001	1/17/2014	TURNKEY	1618538	Independent School District 1	Pillsbury Chiller Overhaul and Upgrades	$95,049.00
32-10010-14-002	1/17/2014	TURNKEY	1618582/3828027	Independent School District 1	ISD 1 Ramsey Chiller Overhaul and Upgrades	$93,013.00
32-10010-14-003	1/23/2014	TURNKEY	1647971	Independent School District 1	Bethune Community School Pre-purchase equipment package	$294,280.00
32-10010-14-004	1/23/2014	TURNKEY	1630706	Independent School District 1	Green Central Park Community School-pre-purchased equipment package	$249,766.00
32-10010-14-005	1/23/2014	TURNKEY	1656848/S347111	Independent School District 1	North Star Hmong Internation Academy-pre-purchase equipment package	$308,575.00
32-10010-14-006	1/23/2014	TURNKEY	1665711/S347144	Independent School District 1	Dowling Urban Environmental School Folwel Auditoriums equipment pre-pkg	$207,563.00
32-10010-14-007	2/10/2014	SERVICE	1686360/S347192	Independent School District 1	Southwest High Auditorium Equip Only	$64,793.00
32-10010-14-008	3/5/2014	SERVICE	1698469	Independent School District 1	Southwest High Auditorium Labor Only	$208,440.00
32-10010-14-009	4/3/2014	TURNKEY	1714458	Independent School District 1	Edison Auditorium Equipment Only	$105,802.00
32-10010-14-010	4/7/2014	TURNKEY	1716046 / S347421	Independent School District 1	Longfellow Improvements	$240,000.00

32-10010-14-011	4/7/2014	TURNKEY	1716054	Independent School District 1	Edison Auditorium Installation	$30,000.00
32-10010-14-012	4/10/2014	SERVICE	1718776	Independent School District 1	ISD 1 Locker Order 041014 NEXT	$170,000.00
			S347310	Independent School District 1		$61,144.00
			S347311	Independent School District 1		$93,575.09
			S347312	Independent School District 1		$32,430.00
32-10010-14-013	4/11/2014	TURNKEY	1719402	Independent School District 1	Kenny Community School AC Equipment	$24,274.00
32-10010-14-015	4/15/2014	SERVICE	1708165 / 14-3920037	Independent School District 1	ISD #1 Pillsbury R-11 Conversion	$11,339.00
32-10010-14-016	4/21/2014	SERVICE	1723308 / 14-3914479	Independent School District 1	ISD 1 Emerson Repairs 042114	$5,770.91
32-10010-14-018	5/27/2014	SERVICE	14-3962490	Independent School District 1	ISD #1 North High Chiller Repairs	$15,672.00
32-10010-14-019	5/27/2014	SERVICE	1742886	Independent School District 1	ISD #1 Bryn Mawr Leak Check & Repair	$3,029.45
32-10010-14-020	5/27/2014	SERVICE	1742762	Independent School District 1	ISD #1 North High Chiller Repairs	$10,472.00
32-10010-14-022	5/29/2014	SERVICE	1744164/14-3977403	Independent School District 1	ISD #1 Hall Chiller Repairs	$21,767.67
32-10010-14-023	6/10/2014	SERVICE	1750700/14-3987698	Independent School District 1	ISD #1 Nellie Stone Chiller Repairs	$13,017.99
32-10010-14-024	6/10/2014	SERVICE	1750707/14-3987691	Independent School District 1	ISD #1 Lucy Laney Chiller Repairs	$7,000.00
32-10010-14-025	6/11/2014	SERVICE	1751084/14-4010146	Independent School District 1	ISD #1 Ramsey PFCCs	$2,421.00
32-10010-14-026	6/13/2014	TURNKEY	1753161	Independent School District 1	MPS Nutrition Center Dishwasher Equip	$149,518.00
32-10010-14-027	6/13/2014	TURNKEY	1753167	Independent School District 1	MPS Nutrition Center Dishwasher Labor	$5,450.00
32-10010-14-028	6/30/2014	SERVICE	1761417	Independent School District 1	ISD #1 Bryn Mawr Chiller Panel Replacement	$3,000.00
32-10010-14-029	7/11/2014	SERVICE	1766825	Independent School District 1	Bryn Mawr Cooling Pump	$2,471.00
32-10010-14-030	8/7/2014	SERVICE	1780657	Independent School District 1	ISD 1 Jenny Lind RTAA EXV Upgrade	$3,000.00
32-10010-14-031	8/12/2014	SERVICE	1782720/14-4002912	Independent School District 1	ISD #1 Waite Park Refrig Monitor Repair	$3,008.00

32-10010-14-032	8/20/2014	SERVICE	1786865/14-4072638	Independent School District 1	ISD #1 Cityview Cond Fan Motor	$1,247.45
32-10010-14-033	8/25/2014	SERVICE	1789523	Independent School District 1	ISD 1 Bryn Mawr York Cooling Pump	$5,445.45
32-10010-14-034	8/25/2014	SERVICE	1789544	Independent School District 1	ISD 1 Jordan Park Repair	$500.00
32-10010-14-035	8/26/2014	SERVICE	1790174/14-4086036	Independent School District 1	ISD 1 Whittier Chiller Surge Diagnosis	$714.36
32-10010-14-036	8/29/2014	SERVICE	1791803/14-4089841	Independent School District 1	ISD 1 Northeast Chiller Repairs	$482.08
32-10010-14-037	8/29/2014	SERVICE	1791807/14-4089855	Independent School District 1	ISD 1 Seward Chiller Repairs	$619.41
32-10010-14-038	8/29/2014	SERVICE	1791809/14-4089852	Independent School District 1	ISD 1 Keewaydin Chiller Repairs	$946.64
32-10010-14-039	8/29/2014	SERVICE	1791810/14-4085576	Independent School District 1	ISD 1 North Chiller Repairs	$520.80
32-10010-14-040	9/2/2014	SERVICE	1792480/14-4090146	Independent School District 1	ISD 1 Clara Barton Chiller Repairs	$404.66
32-10010-14-041	9/8/2014	SERVICE	1795724	Independent School District 1	ISD 1 Fall 2014 Locker Order	$49,000.00
32-10010-14-042	9/10/2014	SERVICE	1796860/14-4093001	Independent School District 1	ISD 1 Seward Chiller Repairs	$352.10
32-10010-14-043	9/19/2014	SERVICE	1801838/14-4110938	Independent School District 1	ISD 1 Nutrition Center Service	$404.66
32-10010-14-044	9/19/2014	SERVICE	1801841/14-4100270	Independent School District 1	ISD 1 Nutrition Center Service Call	$1,798.33
32-10010-14-045	9/19/2014	SERVICE	1801854/14-4092992	Independent School District 1	ISD 1 Clara Barton Replaced Actuators	$2,193.94
32-10010-14-046	9/25/2014	SERVICE	1804402/14-4114388	Independent School District 1	ISD 1 Hamilton Cond Fan Blade Rubbing	$636.94
32-10010-14-047	9/26/2014	SERVICE	1805245/14-4117949	Independent School District 1	ISD 625 Lucy Laney Comp Diag	$404.66
32-10010-14-048	9/29/2014	SERVICE	1805935/14-4104815	Independent School District 1	ISD 1 Clara Barton Chiller Repairs	$7,874.97
32-10010-14-049	10/16/2014	INSTALLATION	1815102	Independent School District 1	MPS Northwest Middle School Lockers	$121,601.00
32-10010-14-050	10/20/2014	SERVICE	1816518/14-4149850	Independent School District 1	ISD #1 Olson SCB Board Replace	$4,834.00
32-10010-14-052	10/30/2014	SERVICE	1821296	Independent School District 1	ISD 1 Nellie Stone Fall 2014 Repairs	$2,000.00
32-10010-14-053	10/30/2014	SERVICE	1821302/15-4214544	Independent School District 1	ISD 1 Northeast Fall 2014 Repairs	$1,149.00

32-10010-14-054	10/30/2014	SERVICE	1821307	Independent School District 1	ISD 1 City View Fall 2014 Repairs	$12,311.11
32-10010-14-055	10/30/2014	SERVICE	1821314	Independent School District 1	ISD 1 Keewaydin Fall 2014 Repairs	$1,000.00
32-10010-14-056	10/30/2014	SERVICE	1821316	Independent School District 1	ISD 1 Burroughs Fall 2014 Repairs	$500.00
32-10010-14-057	10/30/2014	SERVICE	1821320	Independent School District 1	ISD 1 Bryn Mawr Fall 2014 Repairs	$500.00
32-10010-14-058	11/4/2014	SERVICE	1823241 / 15-4211797	Independent School District 1	ISD 1 Harry Davis Contacts	$8,422.22
32-10010-14-059	11/6/2014	SERVICE	1825108/14-4178706	Independent School District 1	ISD 1 Pillsbury Tube Brushing 2014	$1,454.55
32-10010-14-060	11/6/2014	SERVICE	1825110/14-4181859	Independent School District 1	ISD 1 Whittier Tube Brushing 2014	$1,527.00
32-10010-14-061	11/6/2014	SERVICE	1825114/14-4181891	Independent School District 1	ISD 1 Ramsey Tube Brushing 2014	$1,054.55
32-10010-14-062	11/6/2014	SERVICE	1825120/14-4181885	Independent School District 1	ISD 1 Bryn Mawr Tube Brushing 2014	$1,036.36
32-10010-14-063	11/26/2014	SERVICE	1834121/14-4171651	Independent School District 1	ISD 1 Jordan Park MSA Refrig Monitor Repair	$3,750.03
32-10010-14-064	12/2/2014	SERVICE	1835493/15-4214534	Independent School District 1	ISD 1 Lake Nakomis Wenonah Fall Repairs 2014	$1,254.55
32-10010-14-065	12/16/2014	TURNKEY	1842418	Independent School District 1	ISD 1 Ramsey Theatre Seats	$190,339.00

TCPN Proposal #	Date	Job Type	Trane Order #	Customer Name	Job Description	Job Total
30-10011-14-001	1/6/2014	TURNKEY	1669028	Cook County School District 104	SD104 Summit Schools Walker/Wharton	$1,736,400.00

TCPN Proposal #	Date	Job Type	Trane Order #	Customer Name	Job Description	Job Total
31-212257-14-001	10/2/2013	CCS	1627811	New Kensington - Arnold School District	New Kensington Arnold SD - PACT	$1,700,000.00

TCPN Proposal #	Date	Job Type	Trane Order #	Customer Name	Job Description	Job Total
02-10140-13-004	4/18/2013	EQUIPMENT	CRM 1495640	Dallas ISD	Douglas Elementary Chiller Replacement	$146,640.22
02-10140-14-001	8/13/2014	EQUIPMENT	1747622	Dallas Independent School District	DISD White locker room	$90,538.00
02-10140-14-002	8/29/2014	TURNKEY	1773544	Dallas Independent School District	DISD Degolyer Cooling Tower Change out	$500,000.00

02-10140-14-007	8/29/2014	SERVICE	1770071	Dallas Independent School District	DISD Storey Cooling Tower Change out	$197,728.00
02-10140-14-014	8/29/2014	SERVICE	1682997	Dallas Independent School District	DISD WH Adamson High RTAC Change out	$230,893.00
02-10140-14-015	10/2/2014	TURNKEY	1807767	Dallas Independent School District	DISD MLK Elementary Air-Cooled Chiller C/O	$78,727.00
02-10140-14-017	10/3/2014	TURNKEY	1752879	Dallas Independent School District	DISD Master Agreement Chiller & Controls 2014	$257,700.00
02-10140-14-018	10/3/2014	TURNKEY	1520881	Dallas Independent School District	DISD Hope Medrano Cooling Tower Replacement	$303,315.00

TCPN Proposal #	Date	Job Type	Trane Order #	Customer Name	Job Description	Job Total
02-10527-12-001	1/4/2012	SERVICE	W/O 12-2923795	City of Dallas	Farmers Market Summit System Crashed	$282.85
02-10527-12-002	1/5/2012	SERVICE	CRM 1302638	City of Dallas	Love Field Central Plant Sensor Replacement	$1,356.00
02-10527-12-003	1/10/2012	SERVICE	CRM 1306480	City of Dallas	Majestic Theatre Chiller Enable	$15,597.00
02-10527-12-004	1/10/2012	SERVICE	N/A	City of Dallas	Dallas Exec Airport-Need to access comm from Love Field	$14,710.00
02-10527-12-004		SERVICE	W/O 12-2929643	City of Dallas		$1,382.72
02-10527-12-005	1/9/2012	SERVICE	CRM 1304954	City of Dallas	Elm Fork Water Treatment Plant C02 Tank Inspection	$1,995.00
02-10527-12-006	1/9/2012	SERVICE	W/O 12-2927503	City of Dallas	Love Field Parking Garage Having Comm Issues	$23,928.00
02-10527-12-007	1/11/2012	SERVICE	W/O 11-2838677	City of Dallas	Love Field Central Plant chiller #3 down starter not working	$8,058.00
02-10527-12-008	1/17/2012	SERVICE		City of Dallas	Controls Integrator Contract	$415.45
02-10527-12-009	1/13/2012	SERVICE	CRM 1308534	City of Dallas	Fair Park Cotton Bowl Stadium Water System Replacement	$26,032.00
02-10527-12-011	1/18/2012	SERVICE	CRM 1311171	City of Dallas	Fair Park Cotton Bowl Stadium heaters diagnosis and repair	$17,823.00
02-10527-12-012	1/20/2012	SERVICE	CRM 1312300	City of Dallas	COD Love Field ceiling tile diffusers	$4,000.00
02-10527-12-018	2/6/2012	SERVICE	CRM 1320565	City of Dallas	Dallas Southwest Police HVAC Duct Transitions	$3,688.00
02-10527-12-019	2/7/2012	SERVICE	CRM 1320671	City of Dallas	Fair Park Cotton Bowl Stadium Generator 2012 Annual Inspection	$5,168.00
02-10527-12-020	2/7/2012	SERVICE	CRM 1320888	City of Dallas	Fair Park Cotton Bowl Stadium Check Office Heat	$9,124.80
02-10527-12-021	2/7/2012	SERVICE	CRM 1320962	City of Dallas	Fair Park Centennial Hall Infrared Heater Diagnosis	$7,013.00
02-10527-12-023	2/7/2012	SERVICE	CRM 1325099	City of Dallas	Dallas Executive Airport Exhaust Fan	$9,924.00

02-10527-12-025	2/7/2012	SERVICE	CRM 1321308	City of Dallas	Love Field 3rd Floor Pump Replacements	$15,970.00
02-10527-12-026	2/7/2012	TURNKEY	CRM 1316616	City of Dallas	Creative Arts Building 60 Ton HVAC Options	$108,950.00
02-10527-12-027	2/7/2012	SERVICE	CRM 1321331	City of Dallas	Fair Park Cotton Bowl Stadium Standby Time	$2,650.00
02-10527-12-028	2/8/2012	SERVICE	CRM 1321405	City of Dallas	Fair Park Esplanade Fountain Filter Delivery	$306.17
02-10527-12-029	2/8/2012	SERVICE	CRM 1321512	City of Dallas	Farmers Market Dallas Summit System Diagnosis	$282.85
02-10527-12-030	2/8/2012	SERVICE	CRM 1321545	City of Dallas	Park Forest Library Condenser Coil Cleaning	$713.00
02-10527-12-031	2/8/2012	SERVICE	CRM 1321603	City of Dallas	Court & Detention Services Boiler annual Inspections	$3,743.00
02-10527-12-032	2/8/2012	SERVICE	CRM 1321632	City of Dallas	Meyerson Symphony Center Pump Inspection	$222.15
02-10527-12-033	2/8/2012	SERVICE	CRM 1321916	City of Dallas	Audelia Road Library VFD Control Card Replacement	$1,503.00
02-10527-12-034	2/13/2012	SERVICE	CRM 1323737	City of Dallas	Love Field Central Plant Reprogram VFD Cohesive	$10,006.00
02-10527-12-035	2/13/2012	SERVICE	CRM 1323736	City of Dallas	Love Field Central Plant Repair W700 VFD	$6,143.00
02-10527-12-037	2/17/2012	SERVICE	CRM 1327177	City of Dallas	Central Police Roof Fall Protection	$6,500.00
02-10527-12-038	2/23/2012	SERVICE	CRM 1330090	City of Dallas	Police Canton St Split Chiller Replacement	$7,285.22
02-10527-12-040	2/29/2012	SERVICE	CRM 1332348	City of Dallas	Keist Park	$31,554.00
02-10527-12-041	2/29/2012	TURNKEY	CRM 1329626 / PID00014229	City of Dallas	Fair Park Music Hall Cooling Towers 55ton cooling towers	$272,125.00
02-10527-12-042	3/5/2012	SERVICE	CRM 1335385	City of Dallas	Farmers Market Dallas RTAC Trip Off On Low Evap Temp	$1,000.00
02-10527-12-043	3/7/2012	SERVICE	CRM 1336710	City of Dallas	Bachman WWTP Ozone Generator Split Systems	$125,000.00
02-10527-12-044	3/7/2012	SERVICE	W/O 12-2987248	City of Dallas	Love Field Central plant for starter repair on chiller	$1,142.46
02-10527-12-046	3/15/2012	SERVICE	CRM 1340505	City of Dallas	Central Library Dallas Carrier Motor Plate Replacement	$2,703.00
02-10527-12-047	3/15/2012	SERVICE	CRM 1340507	City of Dallas	Thanksgiving Square Various Deficiencies	$809.00
02-10527-12-048	3/15/2012	SERVICE	CRM 1340512	City of Dallas	Fair Park Coliseum Clean Cooling Tower	$7,697.00
02-10527-12-051	3/15/2012	SERVICE	CRM 1340518	City of Dallas	Fair Park Facilities Warehouse Check Heat	$774.00

02-10527-12-052	3/15/2012	SERVICE	CRM 1342167	City of Dallas	Meyerson Symphony Center 50HP Condenser Water Pump Motor Replacement	$9,500.00
02-10527-12-053	3/17/2012	SERVICE	CRM 1342170	City of Dallas	Meyerson Symphony Center Acidize Chiller/Filter Replacement	$4,632.00
02-10527-12-054	3/21/2012	SERVICE	CRM 1344230	City of Dallas	City Hall Water Cooled DX Unit	$635.00
02-10527-12-055	3/21/2012	EQUIPMENT	CRM 1343090	City of Dallas	City of Dallas 15 Ton Water Treatment	$11,393.00
02-10527-12-057	3/26/2012	SERVICE	CRM 1346539	City of Dallas	Eastside WWTP Ozone Bid 25 Ton Install	$44,850.00
02-10527-12-058	3/27/2012	EQUIPMENT	CRM 1330090	City of Dallas	EBS Services Office	$129,636.40
02-10527-12-059	3/27/2012	TURNKEY	CRM 1346539	City of Dallas	Eastside WWTP Ozone Bid 25 Ton Install	$47,125.00
02-10527-12-061	3/30/2012	EQUIPMENT	CRM 1347679	City of Dallas	Elm Fork WWTP Switch Bldg 7 5ton	$5,787.00
02-10527-12-062	3/30/2012	SERVICE	W/O 12-3018174	City of Dallas	Love Field automation system is down.	$448.36
02-10527-12-062A	4/4/2012			City of Dallas		$1,408.00
02-10527-12-064	4/6/2012	SERVICE	CRM 1353323	City of Dallas	Love Field Central Plant CH1 SS starter Failure	$1,142.46
02-10527-12-065	4/6/2012	SERVICE	CRM 1353320	City of Dallas	Fair Park Old Mill Inn Leak Repair	$3,006.00
02-10527-12-066	4/11/2012	SERVICE	CRM 1353316	City of Dallas	Fair Park Cotton Bowl Stadium Check Exhaust Fans	$5,198.00
02-10527-12-067	4/11/2012	SERVICE	CRM 1355753	City of Dallas	Animal Shelter Eng Air Modbus Interface Boards	$34,812.00
02-10527-12-068	4/12/2012	SERVICE	CRM 1356232	City of Dallas	Meyerson Symphony Center Chiller 1 Leak Repair	$640.00
02-10527-12-069	4/12/2012	SERVICE		City of Dallas		$939.45
02-10527-12-070	4/13/2012	SERVICE	CRM 1355113	City of Dallas	Convention Center CHWP 2 Motor replacement	$7,046.72
02-10527-12-071	4/13/2012	SERVICE	CRM 1356664 / L366543	City of Dallas	Southside WWTP Electrical Bldg Wallpaks	$58,000.00
02-10527-12-072	4/13/2012	SERVICE	CRM 1356956	City of Dallas	Central Patrol Server Room Ductless Cooling	$13,729.00
02-10527-12-073	4/16/2012	SERVICE	CRM 1357309	City of Dallas	SW Patrol Server Room Ductless Cooling	$12,265.00
02-10527-12-075	4/23/2012	SERVICE	CRM 1360682	City of Dallas	Fair Park Cotton Bowl Stadium Switchgear Inspection	$650.00
02-10527-12-078	4/23/2012	SERVICE	CRM 1361470	City of Dallas	Fair Park Colliseum Pump Repair	$19,307.09
02-10527-12-079	4/24/2012	SERVICE	CRM 1361530	City of Dallas	Fair Park Automotive Building Condenser Tube Brushin and Chiller Repair	$20,302.00
02-10527-12-080	4/24/2012	SERVICE	CRM 1361524	City of Dallas	Fair Park Cotton Bowl Stadium Controls Down	$1,738.00

02-10527-12-081	4/25/2012	SERVICE	CRM 1362742	City of Dallas	Fair Park Museum of Nature & Science 2012 Annual Inspection	$5,103.00
02-10527-12-082	4/27/2012	EQUIPMENT	CRM 1364200	City of Dallas	Elm Fork WWTP 5-Ton Packaged Unit	$12,693.27
02-10527-12-083	4/27/2012	SERVICE	CRM 1364215	City of Dallas	Love Field Parking Garage AHU Diagnosis	$1,042.60
02-10527-12-084	4/30/2012	SERVICE	CRM 1365248	City of Dallas	CoD Old City Hall 2012 100 Ton Rental Chiller	$42,718.68
02-10527-12-086	4/30/2012	SERVICE	CRM 1364728	City of Dallas	Central Library Dallas Cooling Tower Repairs	$9,115.40
02-10527-12-089	5/2/2012	TURNKEY	CRM 1366756	City of Dallas	COD Abrams Pump Station Install 25-ton RTUs	$26,577.00
02-10527-12-090	5/2/2012	TURNKEY	CRM 1366749	City of Dallas	COD Bachman Pump Station Mini Splits Turnkey	$26,215.00
02-10527-12-096	5/4/2012	EQUIPMENT	CRM 1365856	City of Dallas	City of Dallas Sanitation Department Unit Repiping	$18,586.00
02-10527-12-097	5/8/2012	SERVICE	CRM 1370100	City of Dallas	Southwest Transfer Station PTAC Unit Repair	$428.64
02-10527-12-099	5/14/2012	SERVICE	CRM 1373175	City of Dallas	COD Martin Weiss Rec Center Replace 4 Condenser's	$5,914.00
02-10527-12-101	5/15/2012	EQUIPMENT	CRM 1373842	City of Dallas	CoD Eastside WWTP 10 Ton Packaged Unit	$7,550.00
02-10527-12-102	5/16/2012	SERVICE	CRM 1374292 / PID00015974	City of Dallas	Fair Park Cotton Bowl Domestic Water Pumps	$323,038.00
02-10527-12-103	5/16/2012	SERVICE	W/O 12-3072748	City of Dallas	Aviation - Love Field Central Plant May monthly wtr trtmt	$1,291.18
02-10527-12-104	5/16/2012	SERVICE	W/O 12-3054208	City of Dallas	Aviation - Love Field Central Boiler Layup	$987.28
02-10527-12-105G	5/15/2012	PARTS	NA	City of Dallas		$2,270.81
02-10527-12-105-I	9/30/2012	PARTS	See Parts Tab *enteries	City of Dallas		$25,293.71
02-10527-12-105J	10/31/2012	PARTS	N/A	City of Dallas	Parts Program	$15,175.21
02-10527-12-108	5/22/2012	SERVICE	CRM 1377028	City of Dallas	Mountain Creek Library Wire & Startup	$414.04
02-10527-12-109	5/22/2012	SERVICE	CRM 1377901	City of Dallas	Meyerson Symphony Cneter Chiller 2 Condenser Flow Switch Replacment	$1,476.00
02-10527-12-110	5/22/2012	SERVICE	CRM 1377906	City of Dallas	Fair Park Old Mill Inn Fair Make Ready	$3,868.00
02-10527-12-111	5/30/2012	SERVICE	CRM 1380961	City of Dallas	Parks and Recreation Fair Park Womans Building Unit Repairs	$31,965.00
02-10527-12-112	5/30/2012	SERVICE	CRM 1380727	City of Dallas	Love Field Central Plant Remote MP Displays	$1,790.45
02-10527-12-113	5/30/2012	SERVICE	W/O 12-3089355	City of Dallas	Mountain Creek Library CGAF blowing fuses	$1,462.00
02-10527-12-114	6/5/2012	SERVICE	CRM 1384631	City of Dallas	Oakcliff Municipal Bathroom Adds to job	$31,958.00

02-10527-12-119	6/11/2012	SERVICE	W/O 12-3105737	City of Dallas	Power Outage - Check Chillers	$380.90
02-10527-12-122	6/15/2012	SERVICE	W/O 12-3110161	City of Dallas	Dallas Central Library Front End Led Out York Unit	$8,816.14
02-10527-12-123	6/15/2012	SERVICE	CRM 1390939	City of Dallas	Central Police Station Replace Flash Memory	$1,683.00
02-10527-12-126	6/19/2012	EQUIPMENT	CRM 1392198	City of Dallas	Fair Park Livestock Pavilion Unit Replacement	$2,236.00
02-10527-12-127	6/19/2012	EQUIPMENT	CRM 1392252	City of Dallas	Fair Park Cotton Bowl Stadium Concert Standby	$1,665.00
02-10527-12-128	6/19/2012	SERVICE	W/O 12-3114665	City of Dallas	Love Field Central Plant June Wtr trmt Service & Chemicals	$2,910.36
02-10527-12-129	6/20/2012	SERVICE	CRM 1387156	City of Dallas	Fair Park Women's Building Air Cooled Chiller Repair	$36,324.00
02-10527-12-131	6/21/2012	SERVICE	W/O12-3121176	City of Dallas	Love Field Calibrate Tank Sensors	$724.63
02-10527-12-132	6/21/2012	SERVICE	CRM 1394317	City of Dallas	Fair Park Esplanade Fountain VFD Diagnosis and Filters	$947.30
02-10527-12-133	6/21/2012	SERVICE	CRM 1394309	City of Dallas	Dallas Central Police Station Chiller 1 Diagnosis	$190.41
02-10527-12-136	6/22/2012	SERVICE	CRM 1390707	City of Dallas	Central Library Dallas Replace VSD on Chiller	$52,706.28
02-10527-12-137	6/25/2012	SERVICE	CRM 1394444	City of Dallas	Dallas Fair Park Aquarium York Chiller Repairs	$34,498.00
02-10527-12-139	6/28/2012	SERVICE	CRM 1397660	City of Dallas	Dallas Museum of Art 2012 Annual Inspections	$5,097.00
02-10527-12-140	6/28/2012	EQUIPMENT	CRM 1299517	City of Dallas	Love Field Central Plant Add Mini Mate AC to Mod	$3,208.00
02-10527-12-141	6/29/2012	SERVICE	CRM 1373889	City of Dallas	Dallas Central Police Station Repair Condenser Water Lines	$4,213.00
02-10527-12-142	6/29/2012	SERVICE	CRM 1398302	City of Dallas	Majestic Theater TXV Issue Bistro Unit	$481.00
02-10527-12-145	7/2/2012	SERVICE	CRM 1399301	City of Dallas	Love Field Central Plant Summit Software Installation	$3,919.00
02-10527-12-147	7/2/2012	SERVICE	CRM 1391746	City of Dallas	Thanksgiving Square Joy Fan Replacement	$29,526.00
02-10527-12-148	7/8/2012	EQUIPMENT	CRM 1399202	City of Dallas	CoD Greenville Pump Station 10 Ton RTU PT3	$6,662.00
02-10527-12-149	7/10/2012	EQUIPMENT	CRM 1403067	City of Dallas	CoD Elementary Fork WWTP 5-Ton Adapter Curb	$639.00
02-10527-12-150	7/4/2012	SERVICE	CRM 1400284	City of Dallas	Trinity Watershed Wall Unit Not Cooling	$677.00
02-10527-12-151	7/6/2012	EQUIPMENT	CRM 1401211	City of Dallas	Lew Sterrett Justice Center Chiller 1B Repairs	$1,156.03
02-10527-12-152	7/11/2012	EQUIPMENT	CRM 1402335	City of Dallas	Jack Evans Police Headquarters Board Replacement	$8,816.14

02-10527-12-153	7/11/2012	EQUIPMENT	CRM 1402499	City of Dallas	Love Field Parking Garage AHU B4 Coil Replacement	$14,901.00
02-10527-12-154	7/11/2012	EQUIPMENT	CRM 1393715	City of Dallas	Meyerson Symphony Center Control Panel Retrofit	$26,439.00
02-10527-12-155	7/12/2012	EQUIPMENT	CRM 1299517	City of Dallas	Love Field Central Plant Add Mini Mate AC to eMod	$3,208.00
02-10527-12-156	7/12/2012	EQUIPMENT	CRM 1402934	City of Dallas	Love Field Central Plant Add Mini Mate AC 1.5 Ton	$2,463.00
02-10527-12-158	7/18/2012	SERVICE	CRM 1408013	City of Dallas	Love Field Central Plant Chilled Water Leak Repair	$1,295.00
02-10527-12-159	7/20/2012	SERVICE	CRM 1405531	City of Dallas	Dallas Museum of Art Chiller RM3 Repairs	$8,905.46
02-10527-12-160	7/24/2012	TURNKEY	CRM 1404614	City of Dallas	Fire Rescue Aire Cooled Chiller	$81,830.00
02-10527-12-161	7/24/2012	TURNKEY	PID00017546/CRM 1404619	City of Dallas	Heldt Building 10-13 Ton Package	$33,475.00
02-10527-12-162	7/24/2012	TURNKEY	CRM 1410997	City of Dallas	Larry Johnson Rec Center 20 Ton Retrofit	$38,442.00
02-10527-12-163	7/24/2012	TURNKEY	CRM 1411003	City of Dallas	Southside WWTP (4) 5 Ton RTU Install	$43,850.00
02-10527-12-164	7/25/2012	EQUIPMENT	CRM 1410762	City of Dallas	EBS Services Building 2-Ton Split PT31	$1,987.00
02-10527-12-166	7/25/2012	TURNKEY	CRM 1411786	City of Dallas	CoD Elm Fork WWTP 5 Ton RTUs Main Bldg	$39,580.00
02-10527-12-167	7/25/2012	TURNKEY	CRM 1411798	City of Dallas	CoD Eastside WWTP 25 Ton Turnkey Install	$48,250.00
02-10527-12-169	7/26/2012	SERVICE	CRM 1412262	City of Dallas	Dallas Police Department Quatermaster Condenser Coil Replacement	$20,757.00
02-10527-12-170	7/26/2012	EQUIPMENT	CRM 1402934	City of Dallas	Dallas Love Field Valve Replacement	$5,255.00
02-10527-12-171	7/26/2012	SERVICE	CRM 1411943	City of Dallas	Meyerson Symphony Center Air Handler Repairs	$15,061.00
02-10527-12-172	7/26/2012	SERVICE	W/O 12-3172325/3100757	City of Dallas	Carrier Unit Running Hot	$1,109.80
02-10527-12-173	7/27/2012	SERVICE	CRM 1413162	City of Dallas	Jack Evans Police Headquarters 2012 Annual Inspection	$10,249.00
02-10527-12-174	7/27/2012	TURNKEY	CRM 1186056	City of Dallas	Central Police Station	$6,410.40
02-10527-12-175	7/28/2012	SERVICE	CRM 1413375	City of Dallas	Fair Park Cotton Bowl Stadium Clean Drain Lines	$456.00
02-10527-12-176	7/30/2012	SERVICE	CRM 1413571	City of Dallas	1 Year Service Agreement Contract	$202,936.00
02-10527-12-177	7/31/2012	SERVICE	CRM 1414644	City of Dallas	Fair Park Old Mill Lnn Dinning Room Unit Down	$670.00
02-10527-12-178	7/31/2012	SERVICE	CRM 1414643	City of Dallas	Fair Park Creative Arts Building Check AC	$1,312.00
02-10527-12-179	7/31/2012	SERVICE	CRM 1414647	City of Dallas	Fair Park Esplanade Fountain Check Sump Pump	$1,281.00

02-10527-12-180	8/1/2012	SERVICE	W/O 12-3180255	City of Dallas	Meyerson Symphony Center RF #5 making noise	$10,676.00
02-10527-12-182	8/2/2012	SERVICE	W/O 12-3183814/3710676	City of Dallas	Trinity Watershed	$309.18
02-10527-12-183	8/2/2012	TURNKEY	CRM 1415101	City of Dallas	Eastside WWTP 4-10 Ton and 1-7.5	$69,850.00
02-10527-12-184	8/3/2012	SERVICE	CRM 1416603	City of Dallas	Dallas Fair Park Aquarium York Chiller Repairs	$3,181.00
02-10527-12-185	8/3/2012	TURNKEY	CRM 1416958	City of Dallas	Majestic Theater 2 Ton Mini Split Turnkey	$11,785.00
02-10527-12-186	8/3/2012	SERVICE	W/O12-3185070	City of Dallas	Old Mill Inn Upstairs Not Cooling	$349.00
02-10527-12-187	8/3/2012	SERVICE	W/O 12-3184125/2015883	City of Dallas	Food and Beverage Fair make ready	$9,010.00
02-10527-12-188	8/3/2012	SERVICE	CRM 1414803	City of Dallas	Love Field Central Plant CH1 Unable to Confirm Chiller On	$1,824.72
02-10527-12-189	8/3/2012	SERVICE	CRM 1414797	City of Dallas	Central Library Dallas VFD Heat Sync Issue	$4,595.09
02-10527-12-190	8/3/2012	EQUIPMENT	CRM 1414794	City of Dallas	Court & Detention Services York Chiller Diagnosis	$884.00
02-10527-12-191	8/6/2012	SERVICE	WO #12-3186617	City of Dallas	Farmers Market Dallas Summit Issues Lost Graphics	$222.15
02-10527-12-192	8/6/2012	SERVICE	CRM 1414805	City of Dallas	Central Library Dallas Replace VSD on Chiller	$444.36
02-10527-12-193	8/6/2012	EQUIPMENT	CRM 1414808	City of Dallas	Dallas Sanitation Department Chiller Leak Repair	$4,118.18
02-10527-12-194	8/6/2012	SERVICE	W/O #12-3187764/1430084	City of Dallas	Aviation Love Field E Satelite Bldg AHU Bad Bearings	$1,565.00
02-10527-12-195	8/7/2012	SERVICE	CRM 1416498	City of Dallas	Mountain Creek Library Chiller Diagnosis	$1,462.00
02-10527-12-196	8/7/2012	SERVICE	CRM 1416503	City of Dallas	Communications Building Dallas Chiller Down on Water Flow	$1,818.18
02-10527-12-197	8/7/2012	SERVICE	CRM 1416506	City of Dallas	Thanksgiving Square Repair Valve	$629.00
02-10527-12-198	8/7/2012	SERVICE	CRM 1416513	City of Dallas	Thanksgiving Square Blower Motor Down	$6,386.00
02-10527-12-199	8/7/2012	SERVICE	CRM 1416514	City of Dallas	Thanksgiving Square Chiller Issues	$4,578.00
02-10527-12-201	8/7/2012	SERVICE	CRM 1416945	City of Dallas	Jack Evans Police Headquarters Board Replacement	$3,320.00
02-10527-12-202	8/8/2012	SERVICE	W/O12-3189681	City of Dallas	Love Field Central Plant AHU S-1 Burnt VFD	$4,005.00
02-10527-12-203	8/8/2012	SERVICE	CRM 1419437	City of Dallas	CoD Oak Cliff Library 60 Ton Chiller Rental Company	$7,500.00

02-10527-12-204	8/8/2012	SERVICE	CRM 1419189	City of Dallas	Fair Park Automotive Building Prepare Boilers for Inspection	$1,908.90
02-10527-12-205	8/9/2012	SERVICE	CRM 1419619	City of Dallas	Fair Park Old Mill In Upstairs Unit Not Cooling	$349.00
02-10527-12-206	8/9/2012	RENTAL	CRM 1419868	City of Dallas	CoD Oak Cliff Library 60 Ton Chiller Rental	$7,500.00
02-10527-12-207	8/9/2012	TURNKEY	CRM 1420075	City of Dallas	CoD Meyerson Symophony Interior Remodel 1 Company	$15,950.00
02-10527-12-208	8/13/2012	SERVICE	CRM 1419211	City of Dallas	Dallas Police Department Quatermaster Unit Repairs	$3,425.09
02-10527-12-209	8/14/2012	EQUIPMENT	CRM 1421777	City of Dallas	CoD Central WWTP 3 and 4 Ton RTU Install	$28,606.00
02-10527-12-211	8/17/2012	SERVICE	CRM 1424404	City of Dallas	Meyerson Symphony Center Mount Replacement	$10,737.00
02-10527-12-212	8/20/2012	SERVICE	CRM 1419216	City of Dallas	Dallas West Library ABB VFD Tripping	$1,558.00
02-10527-12-213	8/20/2012	SERVICE	CRM 1419225	City of Dallas	City of Dallas Trinity Watershed Trailer Unit Not Cooling	$285.62
02-10527-12-214	8/20/2012	SERVICE	CRM 1419447	City of Dallas	Thanksgiving Square Carrier Chiller Going Down	$412.56
02-10527-12-215	8/21/2012	SERVICE	CRM 1420875	City of Dallas	Meyerson Symphony Center Carrier 1 Running Hot	$1,109.80
02-10527-12-216	8/21/2012	SERVICE	CRM 1425614	City of Dallas	Fair Park Automotive Building is Hot	$742.00
02-10527-12-217	8/21/2012	SERVICE	CRM 1425710	City of Dallas	Dallas Police Department Quartemaster Heater Replacement	$261.00
02-10527-12-218	8/21/2012	SERVICE	CRM 1425745	City of Dallas	Love Field Central Plant VFD Replacement	$4,005.00
02-10527-12-219	8/21/2012	SERVICE	W/O12-3206116	City of Dallas	Aviation Sump Pump in Boiler Room	$7,409.00
02-10527-12-220	8/21/2012	SERVICE	CRM 1425830	City of Dallas	Dallas Animal Control After Hours Condenser Coil Cleaning	$1,797.00
02-10527-12-221	8/21/2012	SERVICE	CRM 1426106	City of Dallas	North Oak Cliff Library Chiller Down	$8,914.00
02-10527-12-222	8/22/2012	SERVICE	CRM 1426440	City of Dallas	Love Field Central Plant BCU Upgrade	$5,043.00
02-10527-12-223	8/22/2012	SERVICE	CRM 1426399	City of Dallas	Bachman Recreation Leak Check Pool Unit	$2,755.00
02-10527-12-227	8/24/2012	SERVICE	CRM 1427934	City of Dallas	CoD White Rock Pump Station HVAC Renovation	$235,280.00
02-10527-12-228	8/27/2012	TURNKEY	CRM 1237644	City of Dallas	CoD Meyerson Symphony 2012 Duct Cleaning	$17,093.00
02-10527-12-229	8/29/2012	SERVICE	CRM 1430050	City of Dallas	Fair Park Magnolia Lounge Inspect Equipmemnt For Fair	$3,259.09
02-10527-12-230	8/29/2012	SERVICE	CRM 1425825	City of Dallas	Service Agreement Contract for 1 Year	$58,284.00
02-10527-12-231	8/30/2012	SERVICE	CRM 1430053	City of Dallas	Fair Park Grand Place Inspect For Fair	$22,302.00
02-10527-12-232	8/30/2012	SERVICE	CRM 1430063	City of Dallas	Fair Park Women's Building Chiller Diagnosis	$451.00

02-10527-12-233	8/30/2012	SERVICE	CRM 1430065	City of Dallas	Fair Park Band Shell Check Units	$1,042.00
02-10527-12-234	8/31/2012	SERVICE	CRM 1430074	City of Dallas	Fair Park Cotton Bowl Stadium Standby For Soccer Game	$1,245.00
02-10527-12-235	8/31/2012	SERVICE	CRM 1430067	City of Dallas	Fair Park Administration	$27,842.00
02-10527-12-235		SERVICE	W/O 12-3095590	City of Dallas	Fair Park Administration Check out units	$1,815.45
02-10527-12-236	8/31/2012	SERVICE	CRM 1430060	City of Dallas	Fair Park Coliseum Check Equipment	$23,400.00
02-10527-12-237	9/5/2012	SERVICE	CRM 1433686	City of Dallas	CoD Meyerson Symphony Sump Pit Pumps	$84,894.90
02-10527-12-238	9/6/2012	SERVICE	CRM 1434206	City of Dallas	Meyerson Symphony Center 2012 Annual Inspection	$8,660.00
02-10527-12-239	9/11/2012	SERVICE	CRM 1427014	City of Dallas	Meyerson Symphony Center Exhaust Fan RF1, EF3 & EF6 Repair	$8,923.00
02-10527-12-241	9/13/2012	SERVICE	CRM 1430089	City of Dallas	Majestic Theater Split System Not Cooling	$4,299.00
02-10527-12-242	9/14/2012	TURNKEY	CRM 1434426	City of Dallas	CoD N. Cliff Library Chiller Turnkey	$102,985.00
02-10527-12-243	9/14/2012	SERVICE	CRM 1438380	City of Dallas	CoD Old City Hall CHW/HW Leak Repairs	$29,948.00
02-10527-12-245	9/18/2012	SERVICE	CRM 1439104	City of Dallas	Fair Park Womens Museum Parts Sale Only	$3,914.00
02-10527-12-246	9/20/2012	SERVICE	CRM 1441522	City of Dallas	Fair Park Cotton Bowl Stadium Event Standby	$7,616.40
02-10527-12-247	9/20/2012	SERVICE	CRM 1441528	City of Dallas	Fair Park Fair Opening Standby	$4,062.08
02-10527-12-247		SERVICE	W/O 12-3254373	City of Dallas		$1,600.00
02-10527-12-249	9/25/2012	SERVICE	CRM 1430079	City of Dallas	Dallas West Library Start Stop Clogged Oil Filter	$4,005.00
02-10527-12-250	9/25/2012	EQUIPMENT	CRM 1443102	City of Dallas	Love Field 2 Ton Split System	$2,080.00
02-10527-12-251	9/26/2012	SERVICE	CRM 1444088	City of Dallas	Fair Park Cotton Bowl Stadium 10-13-2012 Event Standby	$3,000.00
02-10527-12-252	9/28/2012	SERVICE	CRM 1445611	City of Dallas	Fair Park Administration Replace UCM Board	$1,348.00
02-10527-12-253	10/2/2012	SERVICE	CRM 1446707	City of Dallas	Fair Park Administration RTU 2 Leak Repair	$1,311.00
02-10527-12-254	10/2/2012	SERVICE	W/O12-3251011	City of Dallas	Meyerson Symphony Center CH2 Replace Rupture Disc	$764.00
02-10527-12-255	10/2/2012	SERVICE	CRM 1443323	City of Dallas	Dallas City of Central Water Treatment Program CHW Sensor	$285.62
02-10527-12-256	10/3/2012	SERVICE	CRM 1447431	City of Dallas	Dallas City of Communications Building Chiller Diagnosis	$2,605.54
02-10527-12-257	10/3/2012	SERVICE	CRM 1445570	City of Dallas	Meyerson Symphony Center Replace Damper Actuator	$841.00
02-10527-12-258	10/3/2012	SERVICE	W/O12-3260933	City of Dallas	Dallas Water Utilities	$711.82
02-10527-12-259	10/4/2012	SERVICE	CRM 1448022	City of Dallas	Fair Park Cotton Bowl Stadium Maintenance	$10,378.00

02-10527-12-261	10/4/2012	SERVICE	CRM 1448390	City of Dallas	Fair Park Pan American Arena Exhaust Fan Maintenance	$6,292.00
02-10527-12-262	10/4/2012	SERVICE	CRM 1448469	City of Dallas	Fair Park Coliseum AHU 5 Repair	$5,985.00
02-10527-12-264	10/8/2012	SERVICE	CRM 1449471	City of Dallas	Fair Park Centennial Hall Inspect Unit	$20,863.00
02-10527-12-265	10/8/2012	SERVICE	CRM 1449951	City of Dallas	Fair Park Cotton Bowl Stadium Check Tempsco Controls	$2,000.00
02-10527-12-266	10/8/2012	SERVICE	CRM 1449957	City of Dallas	Fair Park Coliseum Clean & Inspect 2 Boilers	$6,919.00
02-10527-12-267	10/8/2012	SERVICE	CRM 1449657	City of Dallas	Fair Park Automotive Building Inspect Units	$13,090.00
02-10527-12-268	10/9/2012	SERVICE	CRM 1450357	City of Dallas	Fair Park Embarcadero Unit Inspections	$23,381.00
02-10527-12-269	10/9/2012	SERVICE	CRM 1450420	City of Dallas	Meyerson Symphony Center Carrier 1 Rupture Disc Replacement	$764.00
02-10527-12-270	10/9/2012	SERVICE	CRM 1450459	City of Dallas	Fairi Park Automotive Building Starter Replacement	$1,123.00
02-10527-12-271	10/12/2012	SERVICE	CRM 1443985	City of Dallas	Meyerson Symphony Center Epoxy Coat Condensers	$36,965.00
02-10527-12-272	10/16/2012	SERVICE	CRM 1453751	City of Dallas	Dallas City Hall 2012 1 Trane Chiller Annuals	$3,838.00
02-10527-12-273	10/16/2012	SERVICE	CRM 1453714	City of Dallas	Dallas City Hall 2012 2 Trane Chiller Annuals	$7,676.00
02-10527-12-274	10/16/2012	SERVICE	CRM 1453718	City of Dallas	Dallas City Hall 2012 Cooling Tower 1 Cleaning	$5,092.00
02-10527-12-275	10/16/2012	SERVICE	CRM 1454047	City of Dallas	Dallas City Hall 2012 Cooling Tower 2 Cleaning	$5,092.00
02-10527-12-276	10/16/2012	SERVICE	CRM 1453725	City of Dallas	Dallas City Hall 2012 Backup Chiller Inspections	$7,871.00
02-10527-12-277	10/16/2012	SERVICE	CRM 1454207	City of Dallas	Dallas Central Library 2012 1 Chiller Annual	$5,410.00
02-10527-12-278	10/16/2012	SERVICE	CRM 1454210	City of Dallas	Dallas Central Library 2012 2 Chiller Annuals	$6,676.00
02-10527-12-279	10/17/2012	SERVICE	CRM 1454426	City of Dallas	Dallas Central Library 2012 Cooling Tower Cleaning	$5,092.00
02-10527-12-280	10/17/2012	SERVICE	CRM 1454465	City of Dallas	Thanksgiving Square 2012 Carrier Chiller Annuals	$5,249.00
02-10527-12-281	10/17/2012	SERVICE	CRM 1454613	City of Dallas	COD Oak Cliff Municipal Center 2012 Annuals	$9,193.00
02-10527-12-282	10/18/2012	SERVICE	CRM 1454461	City of Dallas	Fair Park Women's Museum 2 Water Boiler Repairs	$3,113.00
02-10527-12-284	10/18/2012	SERVICE	CRM 1455481	City of Dallas	Jack Evans Police Headquarters Piping Repair	$5,927.00
02-10527-12-285	10/19/2012	SERVICE	CRM 1454454	City of Dallas	Fair Park Cotton Bowl Stadium Tempsco Repair	$2,727.00

02-10527-12-286	1016/2012	EQUIPMENT	CRM 1446637	City of Dallas	CoD Southside WWTP (2) Wall Paks PT31	$12,763.63
02-10527-12-287	10/19/2012	SERVICE	W/O 12-3254008	City of Dallas	Dallas Water Utilities Purifica Equipment & Bldg	$485.92
02-10527-12-288	10/23/2012	SERVICE	CRM 1457255	City of Dallas	Park and Recreation Fair Park Women's Museum Boiler 1 Pump Repair	$4,132.00
02-10527-12-289	10/25/2012	SERVICE	CRM 1456094	City of Dallas	Meyerson Symphony Center AHU 8 Repair	$3,762.00
02-10527-12-290	10/26/2012	SERVICE	CRM 1458497	City of Dallas	Meyerson Symphony Center Exhaust Fan 1 Diagnosis	$325.00
02-10527-12-291	10/26/2012	SERVICE	CRM 1458444	City of Dallas	Meyerson Symphony Center Chiller 2 Add Refrigerant	$225.00
02-10527-12-293	10/29/2012	SERVICE	CRM 1459779	City of Dallas	Meyerson Symphony Center EF1, EF4, EF5 & EF7 Annuals	$11,924.00
02-10527-12-294	10/30/2012	SERVICE	CRM 1458482	City of Dallas	Meyerson Center Chiller 2 Contact Replacement	$3,190.00
02-10527-12-295	10/31/2012	SERVICE	CRM 1461243	City of Dallas	Dalas Police Property Bldg Ball Valve Replacement	$4,137.00
02-10527-12-296	10/31/2012	SERVICE	CRM 1461247	City of Dallas	Dallas Police Property Bldg HVAC Condensate Drain	$5,458.00
02-10527-12-299	11/2/2012	SERVICE	CRM 1458494	City of Dallas	Fair Park Food & Fiber Pavilion Fair Make Ready	$9,010.00
02-10527-12-300	11/2/2012	SERVICE	CRM 1458451	City of Dallas	Bachman Recreation Center Check Pool Dehumidifier	$425.00
02-10527-12-301	11/2/2012	SERVICE	CRM 1458456	City of Dallas	Meyerson Symphony Center Boiler Not Working	$175.00
02-10527-12-302	11/2/2012	SERVICE	CRM 1458461	City of Dallas	Communications Building Dallas Clean Condenser Coil	$676.00
02-10527-12-303	11/2/2012	SERVICE	CRM 1458470	City of Dallas	Dallas Police Property Building Clean Condenser Coils	$676.00
02-10527-12-304	11/5/2012	SERVICE	CRM 1458477	City of Dallas	Latino Cultural Center Condenser Coil Cleaning	$779.00
02-10527-12-305	11/5/2012	SERVICE	CRM 1458480	City of Dallas	Majestic Theater Second Floor Unit Not Working	$6,076.00
02-10527-12-306	11/5/2012	SERVICE	CRM 1458485	City of Dallas	Love Foeld Central Plant Set Drive Parameters	$626.00
02-10527-12-307	11/6/2012	SERVICE	CRM 1464328	City of Dallas	CoD Meyerson Water Valve/Heat Trace Install	$17,910.00
02-10527-12-310	11/8/2012	SERVICE	CRM 1464539 / 13-3376719	City of Dallas	Dallas City Hall BAC Basin Heater Control Board Replacement	$890.00
02-10527-12-311	11/9/2012	SERVICE	CRM 1465635	City of Dallas	Dallas City Hall Replace Entering Chilled Water Sensor	$642.00

02-10527-12-313	11/14/2012	TURNKEY	CRM 1468647	City of Dallas	Central WWTP Replace Small Water Cool Unit Company	$8,064.00
02-10527-12-314	11/15/2012	SERVICE	CRM 1469019	City of Dallas	Meyerson Symphony Center Chiller 3 Oil Replacement	$620.25
02-10527-12-315	11/15/2012	SERVICE	CRM 1469331	City of Dallas	Latino Cultural Center AHU 1 Repair	$3,677.00
02-10527-12-316	11/16/2012	SERVICE	CRM 1467168	City of Dallas	Thanksgiving Square Duct Heater Repairs	$12,999.00
02-10527-12-317	11/16/2012	SERVICE	CRM 1467141	City of Dallas	Majestic Theater AHU 16 Repairs	$4,927.98
02-10527-12-319	11/19/2012	SERVICE	CRM 1470035	City of Dallas	Thanksgiving Square Duct Heater Repairs 2	$6,303.00
02-10527-12-320	11/19/2012	SERVICE	CRM 1470272	City of Dallas	Dallas City Hall Re-Pipe Mechnical Room Chilled Water Pump 2	$7,320.00
02-10527-12-321	11/19/2012	SERVICE	CRM 1470271	City of Dallas	Dallas City Hall Re-Pipe Mechnical Room Chilled Water Pump 1	$7,320.00
02-10527-12-322	11/20/2012	SERVICE	CRM 1469610	City of Dallas	Fair Park Embarcadero Heater Repairs	$3,747.00
02-10527-12-324	11/26/2012	SERVICE	W/O 12-3316245	City of Dallas	Love Field Central Plant AHU 3-1-7 No Comm	$1,379.00
02-10527-12-325	11/26/2012	SERVICE	CRM 1472389	City of Dallas	Allen Administration Chiller Leak Check	$665.00
02-10527-12-326	11/27/2012	SERVICE	CRM 1472773	City of Dallas	Jack Evans Police Headquarters HVAC Leak Repair 6' Piping Generator Room	$7,188.00
02-10527-12-327	12/3/2012	SERVICE	CRM 1475226	City of Dallas	Fair Park Livestock Pavilion Check Cexhaust Fans	$16,260.00
02-10527-12-328	12/3/2012	SERVICE	CRM 1475229	City of Dallas	Thanksgiving Square Exhaust Fans Annual Inspection	$3,457.08
02-10527-12-330	12/4/2012	SERVICE	CRM 1475223	City of Dallas	Dallas City Hall Steam Leaking From Roof	$412.50
02-10527-12-331	12/6/2012	SERVICE	CRM 1476377	City of Dallas	Fair Park Cotton Bowl Stadium 1-1-13 Event Standby	$2,000.00
02-10527-12-332	12/6/2012	SERVICE	CRM 1476876	City of Dallas	Fair Park Cotton Bowl Stadium Check Generator	$500.00
02-10527-12-333	12/7/2012	SERVICE	CRM 1476357	City of Dallas	Fair Park Automotive Chiller Leak Check	$10,650.00
02-10527-12-334	12/7/2012	TURNKEY	CRM 1472234 / PID00020684	City of Dallas	Bachman Rec Center Duct Heaters and Pool	$275,396.00
02-10527-12-335	12/7/2012	SERVICE	W/O 12-3260933 / CRM 1478222	City of Dallas	Dallas City of Central Water Treatment Program CHW Sensor	$711.82
02-10527-12-336	12/7/2012	SERVICE	CRM 1477898	City of Dallas	Love Field Central Plant AHU 3-1-7 Communication Issue	$1,379.00
02-10527-12-337	12/10/2012	SERVICE	CRM 1477883	City of Dallas	Central Library Dallas Seal Condensate Pans	$3,464.00
02-10527-12-338	12/10/2012	SERVICE	CRM 1477880	City of Dallas	Dallas Police Department Quartermaster Unit Repairs	$867.00
02-10527-12-339	12/11/2012	SERVICE	CRM 1479296	City of Dallas	Dallas City Hall Chiller SE#L04F02795 Oil Replace	$1,002.00

02-10527-12-340	12/11/2012	EQUIPMENT	CRM 1478237	City of Dallas	Love Field K-9 Replacement RTU #2	$4,912.00
02-10527-12-342	12/19/2012	SERVICE	CRM 1480970	City of Dallas	Meyerson Symphony Center Replace Condenser Water Blow Down Valve	$1,066.00
02-10527-12-343	12/19/2012	SERVICE	CRM 1479601	City of Dallas	Fair Park Women's Museum Honeywell Comm Problems	$1,760.00
02-10527-12-345	12/21/2012	TURNKEY	CRM 1483833	City of Dallas	Meyerson Symphony Center Freeze Hot Water Line	$4,502.00
02-10527-12-346	12/27/2012	SERVICE	CRM 1484502	City of Dallas	Central Library Dallas Ch 1&2 Replace Flow Switch	$1,570.00
02-10527-13-368			PID00011270	City of Dallas		$23,277.00
02-10624-12-001G	5/11/2012	PARTS	N/A	City of Dallas Equipment & Bldg	potential for parts program	$3,063.49
02-10631-12-001	5/15/2012	PARTS	N/A	City of Dallas - Aviation	potential for parts program	$2,141.69
02-10631-12-001J	10/31/2012	PARTS	N/A	City of Dallas-Aviation		$1,199.84
02-10527-13-001	1/2/2013	TURNKEY	CRM 1485167	City of Dallas	2014 Main St. Boiler Rental	$52,566.00
02-10527-13-002	1/2/2013	SERVICE	CRM 1490075	City of Dallas	Dallas Animal Control Replace Flow Switch & High Limit Switch	$2,097.00
02-10527-13-003	1/2/2013	SERVICE	CRM 1485828	City of Dallas	Fair Park Automotive Building Duct Drop Add	$2,880.00
02-10527-13-004-B	1/3/2013	PARTS	NA	City of Dallas	Potential for parts program	$189.62
02-10527-13-004-H	8/1/2013	PARTS	8252357	City of Dallas Equipment & Bldg.	Parts program	$203.70
02-10527-13-004-J	10/31/2013	PARTS		City of Dallas Equipment & Bldg.	Parts program	$849.83
02-10527-13-005	1/9/2013	SERVICE	CRM 1487241	City of Dallas	Court & Detention Services York Chiller Down	$653.00
02-10527-13-008	1/14/2013	SERVICE	CRM 1490067 / 12-3349726	City of Dallas	Dallas Animal Control Unable to change set point	$1,042.00
02-10527-13-009	1/17/2013	SERVICE	CRM 1488805	City of Dallas	Fair Park Automotive PTAC Unit Repair & Replacement	$3,309.00
02-10527-13-010	1/21/2013	SERVICE	CRM 1494935	City of Dallas	Meyerson Symphony Center Boiler Clean Out	$11,024.00
02-10527-13-011	1/21/2013	TURNKEY	CRM 1494973	City of Dallas	Love Field CHW Tank Insulation Repair	$23,401.00
02-10527-13-012	1/22/2013	SERVICE	CRM 1494346	City of Dallas	Fair Park Automotive Restroom Mini Split Add	$31,378.00
02-10527-13-013	1/22/2013	SERVICE	CRM 1490232	City of Dallas	Love Field Parking Garage Replace Chilled Water Coil	$13,990.00
02-10527-13-014	1/24/2013	SERVICE	CRM 1496128	City of Dallas	Communications Building HVAC Hot Water Pipe Repair	$7,307.00
02-10527-13-015	1/18/2013	SERVICE	CRM 1497793	City of Dallas	Dallas Animal Control 2013 EA Annual Inspection	$16,525.00

02-10527-13-016	1/28/2013	SERVICE	CRM 1497119	City of Dallas	Meyerson Symphony Center Replace Flow Regulator	$4,756.00
02-10527-13-017	1/31/2013	SERVICE	CRM 1490240	City of Dallas	Meyerson Symphony Center Clean 3 BAC Cooling Tower	$23,972.00
02-10527-13-018	2/4/2013	SERVICE	CRM 1493890	City of Dallas	Fair Park Embarcadero Unit Heater Repairs	$3,704.00
02-10527-13-020	2/11/2013	SERVICE	CRM 1505170	City of Dallas	Latino Cultural Center 2013 Annual Inspection	$2,250.00
02-10527-13-021	2/12/2013	SERVICE	CRM 1500995	City of Dallas	Love Field Central Plant Replace Hot Water Valve	$6,149.00
02-10527-13-022	2/12/2013	SERVICE	CRM 1500776	City of Dallas	Dallas Animal Control Motor Mount Retrofit	$13,178.00
02-10527-13-023	2/12/2013	SERVICE	PID00024709 / CRM 1502370	City of Dallas	Hall Emergency Chiller Switchover	$37,420.00
02-10527-13-024	2/12/2013	SERVICE	CRM 1506475	City of Dallas	Fair Park Women's Museum Restore Automation System	$22,246.00
02-10527-13-025	2/13/2013	SERVICE	CRM 1505975 / 13-3413026	City of Dallas	Dallas Convention Center Pump Repairs Plant 1	$35,136.00
02-10527-13-026	2/13/2013	SERVICE	CRM 1507200	City of Dallas	Dallas Animal Control Rooms 132 &133 Cold Change Belts	$683.00
02-10527-13-027	2/15/2013	SERVICE	CRM 1508876	City of Dallas	Meyerson Symphony Center Filter Rack In AHU Collapsed	$747.00
02-10527-13-028	2/19/2013	SERVICE	CRM 1507712	City of Dallas	Dallas Water Utilities Reprogram 2 Controllers	$297.54
02-10527-13-029	2/19/2013	SERVICE	CRM 1507717	City of Dallas	City of Dallas Court & Detention Services York Chiller Diagnosis	$596.18
02-10527-13-030	2/21//2013	SERVICE	CRM 1505105	City of Dallas	Meyerson Symphony Center Carrier Flow Regulator Replacement	$4,956.00
02-10527-13-031	2/22/2013	SERVICE	CRM 1511376	City of Dallas	Fair Park Band Shell Replace Unit	$8,374.00
02-10527-13-033	2/26/2013	SERVICE	CRM 1513551	City of Dallas	Dallas Convention Center Plant 3 Pump 4 Valve Replacement	$6,048.00
02-10527-13-034	2/26/2013	SERVICE	CRM 1513547	City of Dallas	Dallas Convention Center Plant 3 CHWP 2 Motor Repair	$8,846.00
02-10527-13-035	2/26/2013	SERVICE	CRM 1513561	City of Dallas	Dallas Convention Center Plant 4 CW Pump 2 Motor Replacement	$10,692.00
02-10527-13-036	2/26/2013	SERVICE	CRM 1513558	City of Dallas	Dallas Convention Center Plant 4 Pump 7 VFD Replacement	$29,882.00
02-10527-13-037	2/27/2013	SERVICE	CRM 1514003	City of Dallas	Meyerson Symphony Center Cooling Tower Electronic Water Level Control Install	$34,400.00
02-10527-13-039	3/5/2013	SERVICE	CRM 1512267	City of Dallas	Latino Cultural Center Carrier Chiller Diagnosis	$6,605.00
02-10527-13-040	3/5/2013	SERVICE	CRM 1512264	City of Dallas	Dallas Animal Control Unit 8 Repair	$1,893.00

02-10527-13-041	3/5/2013	SERVICE	CRM 1512176	City of Dallas	Fair Park Automotive Building Close Boilers	$1,158.00
02-10527-13-042	3/5/2013	SERVICE	CRM 1512172	City of Dallas	Love Field Central Plant Program New Drive	$216.00
02-10527-13-043	3/5/2013	SERVICE	CRM 1513058	City of Dallas	Dallas Animal Control Hot Water Heater Diagnosis	$991.00
02-10527-13-045	3/15/2013	SERVICE	CRM 1522948	City of Dallas	Meyerson Symphony Center Dampers Stuck	$459.00
02-10527-13-047	3/26/2013	EQUIPMENT	CRM 1526340	City of Dallas	CoD Eastside Purification Grounds and Main	$37,303.63
02-10527-13-049	3/27/2013	SERVICE	CRM 1529076	City of Dallas	City of Dallas Technical Training	$10,000.00
02-10527-13-051	4/2/2013	SERVICE	CRM 1530421	City of Dallas	Bachman Recreation Center Replace Controller & Add Refrigerant Circuit 2	$6,014.00
02-10527-13-052	4/3/2013	SERVICE	CRM 1532134	City of Dallas	Fair Park Esplanade Fountain Pump Repair	$2,477.00
02-10527-13-053	4/10/2013	SERVICE	CRM 1535775	City of Dallas	Dallas Animal Control Lighting Module Replacement	$2,544.00
02-10527-13-055	4/11/2013	SERVICE	CRM 1536640	City of Dallas	Dallas Convention Center Condenser Water Line Repair	$13,687.00
02-10527-13-056	4/11/2013	SERVICE	CRM 1536648	City of Dallas	Dallas Executive Airport Water Pipe Leak Repair	$6,138.00
02-10527-13-057	4/11/2013	SERVICE	CRM 1536658	City of Dallas	Communication Building AHU & Water Pipe Repair	$2,371.00
02-10527-13-060	4/18/2013	SERVICE	CRM 1530421	City of Dallas	Bachman Recreation Center Replace CH530 Display	$2,842.00
02-10527-13-062	4/19/2013	SERVICE	CRM 1536776	City of Dallas	Dallas Police Property Building Chiller Repair	$325.00
02-10527-13-063	4/19/2013	SERVICE	CRM 1537062	City of Dallas	Meyerson Symphony Center Chiller 3 Repairs	$450.00
02-10527-13-064	4/19/2013	SERVICE	CRM 1537052	City of Dallas	Meyerson Symphony Center Air Handler Diagnosis	$407.00
02-10527-13-065	4/19/2013	SERVICE	CRM 1537073	City of Dallas	Meyerson Symphony Center Troubleshoot Boiler	$2,519.00
02-10527-13-066	4/19/2013	SERVICE	CRM 1537069	City of Dallas	Dallas Police Property Building Valve Diagnosis	$2,371.45
02-10527-13-067	4/22/2013	SERVICE	CRM 1537076	City of Dallas	Dallas Animal Control RTU 3 and 5 Troubleshoot	$2,785.81
02-10527-13-068	4/22/2013	SERVICE	CRM 1537098	City of Dallas	Meyerson Symphony Center Boiler Repairs	$9,126.00
02-10527-13-070	4/22/2013	SERVICE	CRM 1539811	City of Dallas	Dallas Sanitation Department Replace Shaft Seal	$13,629.00
02-10527-13-071	4/22/2013	SERVICE	CRM 1539998	City of Dallas	Court & Detention Services Logic Board Replacement	$4,961.00

02-10527-13-072	4/23/2013	SERVICE	CRM 1537108	City of Dallas	Meyerson Symphony Center Dampers Stuck	$2,156.00
02-10527-13-074	4/25/2013	SERVICE	CRM 1544054	City of Dallas	Love Field Plant Central Communication Diagnosis	$366.55
02-10527-13-075	4/25/2013	SERVICE	WO # 13-3564783	City of Dallas	Trane Compressor R'newal for RTAA1854YB01A0B0EF	$29,853.00
02-10527-13-076	4/25/2013	SERVICE	WO# 13-3564949	City of Dallas	Fair Park Women' Building Air Cooled Chiller Repair	$51,607.00
02-10527-13-078	5/2/2013	TURNKEY	PID00025174 / CRM 1547953	City of Dallas	Meyerson Symphony Center City of Dallas Condensate Line	$40,360.00
02-10527-13-079	5/3/2013	TURNKEY	CRM 1491803	City of Dallas	Southside Water Treatment Plant Southside Wastewater Admin Lab	$11,860.00
02-10527-13-080	5/8/2013	SERVICE	CRM 1551012	City of Dallas	Dallas Convention Center Tunnel Chilled Water Line Leak Repair	$2,070.00
02-10527-13-082	5/10/2013	TURNKEY	PID00024683 / CRM 1441960	City of Dallas	CoD Dallas Communicatin Bldg Backup IT Unit	$69,300.00
02-10527-13-083	5/13/2013	SERVICE	CRM 1551643	City of Dallas	Meyerson Symphony Center Chiller 1 Diagnosis	$233.26
02-10527-13-084	5/13/2013	SERVICE	CRM 1551675	City of Dallas	Meyerson Symphony Center Exhaust in Kithchen Not Working	$332.11
02-10527-13-085	5/13/2013	SERVICE	CRM 1551649	City of Dallas	Dallas Animal Control RTU 1 Not Cooling	$233.26
02-10527-13-086	5/13/2013	SERVICE	CRM 1551673	City of Dallas	Love Field Central Plant Chilled Water Pump # 1 Repair	$402.00
02-10527-13-087	5/13/2013	SERVICE	CRM 1551655	City of Dallas	Jack Evans Police Headquarters Dallas Liebert Annual Inspection	$4,016.00
02-10527-13-088	5/14/2013	SERVICE	CRM 1553951	City of Dallas	Meyerson Symphony Center EF 7 Motor Sheave Replacement	$754.00
02-10527-13-089	5/15/2013	TURNKEY	CRM 1550649	City of Dallas	Dallas Convention Center Cooling Tower Changeout	$825,766.00
02-10527-13-091	5/16/2013	TURNKEY	CRM 1544560	City of Dallas	Bachman Rec AHUs	$147,601.00
02-10527-13-092	5/17/2013	SERVICE	CRM 1553857	City of Dallas	Dallas Animal Control Repairs from Inspection	$96,364.00
02-10527-13-092A	5/21/2013	TURNKEY	CRM 1558497	City of Dallas	Kalita Theatre Cooling Tower	$62,996.00
02-10527-13-093	5/21/2013	SERVICE	CRM 1558501	City of Dallas	Kalita Rental Chiller (separate job)	$11,800.00
02-10527-13-095	5/22/2013	TURNKEY	CRM 1558943	City of Dallas	Majestic Theatre AHU 16	$10,655.00
02-10527-13-096	5/22/2013	SERVICE	CRM 1551663	City of Dallas	Meyerson Symphony Center RF 8 Repairs	$3,020.00
02-10527-13-097	5/22/2013	SERVICE	CRM 1551668	City of Dallas	Dallas Animal Control Check Lighting Panel	$1,470.00
02-10527-13-098	5/22/2013	SERVICE	CRM 1551671	City of Dallas	Meyerson Symphony Center Chiller 2 Diagnosis	$1,042.00

02-10527-13-100	5/22/2013	SERVICE	CRM 1553209	City of Dallas	Meyerson Symphony Center CWP 3 Motor Replacement	$8,742.00
02-10527-13-101	5/24/2013	SERVICE	CRM 1560587 / 13-3525704	City of Dallas	Majestic Theater AHU Repair	$7,757.00
02-10527-13-102	5/29/2013	SERVICE	CRM 1562089	City of Dallas	Fair Park Womens Museum Automation Repairs	$8,217.00
02-10527-13-103	5/29/2013	SERVICE	CRM 1557471	City of Dallas	Arcadia Park Library Chiller Repairs	$8,489.00
02-10527-13-104	5/30/2013	SERVICE	CRM 1563044 / 13-3557343	City of Dallas	Dallas Animal Control AHU 1 Blower Repair	$3,729.00
02-10527-13-105	5/30/2013	SERVICE	CRM 1563624	City of Dallas	Park Forest and Renner Frankfort Libraries AC Rental	$19,120.00
02-10527-13-106	6/3/2013	SERVICE	CRM 1562764	City of Dallas	CoD Elm Fork Lennox Replacements	$19,534.00
02-10527-13-107	6/4/2013	SERVICE	CRM 1565988	City of Dallas	City of Dallas Oak Cliff Municipal Center Chiller Diagnosis	$525.00
02-10527-13-108	6/4/2013	SERVICE	CRM 1554857	City of Dallas	Meyerson Symphony Center Exhaust Fan 1&4 Repairs	$10,364.00
02-10527-13-109	6/5/2013	SERVICE	1566092	City of Dallas	Meyerson Symphony Center Oiler Replacement	$311.00
02-10527-13-110	6/5/2013	SERVICE	CRM 1561253	City of Dallas	Dallas Central Garage Split System Replacement	$9,650.00
02-10527-13-111	6/5/2013	SERVICE	CRM 1566108	City of Dallas	Central Library Dallas Chiller Diagnosis	$11,382.00
02-10527-13-112	6/5/2013	SERVICE	CRM 1566444	City of Dallas	Dallas City of Hall AHU Valve Replacement	$34,935.00
02-10527-13-113	6/6/2013	SERVICE	CRM 1567637 / 13-3546312	City of Dallas	Meyerson Symphony Center Multiple Valve Replacement	$18,216.00
02-10527-13-114	6/6/2013	SERVICE	CRM 1562116	City of Dallas	Meyerson Symphony Center Vane Shaft Assembly Replacement	$3,637.00
02-10527-13-116	6/13/2013	SERVICE	CRM 1570698 / 13-3511515	City of Dallas	Dallas Animal Control RTU 7 Repair	$4,829.00
02-10527-13-116A	6/17/2013	SERVICE	CRM 1572626	City of Dallas	Meyerson Symphony Center EF7 Motor Replacement	$3,061.00
02-10527-13-117	6/13/2013	SERVICE	W/O # 13-3544454	City of Dallas	Love Field Central Plant CHWP Revenue Bldg Park Garage	$366.55
02-10527-13-117A	6/18/2013	SERVICE	CRM 1571729	City of Dallas	Kalita Humphrey Theater 2013 Annual Inspection	$3,791.00
02-10527-13-118	6/18/2013	SERVICE	13-3520242 / CRM 1565542	City of Dallas	Mountain Creek Library CGAF Chiller Repairs	$641.00
02-10527-13-119	6/18/2013	SERVICE	CRM 1569545	City of Dallas	COD Cedar Crest Golf Course Stainless Duct Heater Replacement	$9,045.00
02-10527-13-120	6/21/2013	SERVICE	CRM 1575538 / 13-3575083	City of Dallas	Dallas Field Operations Replace Compressor	$8,968.00
02-10527-13-121	6/21/2013	SERVICE	CRM 1575925 / 13-3565565	City of Dallas	Love Field Reveue Building Parking Garage Pump Replacement	$5,873.65

02-10527-13-122	6/24/2013	SERVICE	CRM 1574448	City of Dallas	Dallas Police Department Quartmaster Lobby Units Down	$2,657.00
02-10527-13-123	6/24/2013	SERVICE	CRM 1574444 / 13-3522659	City of Dallas	Jack Evans Police Headquaters Dallas AHU Repairs	$1,732.00
02-10527-13-124	6/24/2013	SERVICE	CRM 1574440	City of Dallas	Dallas Central Garage Troubleshoot Condenser	$293.45
02-10527-13-125	6/25/2013	TURNKEY	CRM 1577503	City of Dallas	Dallas Exective Airport Cooling Tower Replacement	$102,575.00
02-10527-13-129	7/9/2013	SERVICE	CRM 1580334	City of Dallas	Bachman Recreation Center 3 Way Valve Replacement	$2,965.00
02-10527-13-130	7/9/2013	SERVICE	CRM 1584120	City of Dallas	Dallas Convention Center 5-6 Chilled Water Line Leak Repair	$3,787.00
02-10527-13-131	7/9/2013	SERVICE	13-3556723 / CRM 1584109	City of Dallas	Latino Cultural Center AC Out on Stage Area AHU	$4,806.00
02-10527-13-132	7/10/2013	SERVICE	CRM 1574743 / 13-3584554	City of Dallas	City of Dallas Trinity Watershed York Coil Replacement	$4,163.00
02-10527-13-133	7/10/2013	SERVICE	CRM 1585237 / 13-3490436	City of Dallas	Dallas City Hall AHU 3 Repairs	$11,093.00
02-10527-13-134	7/12/2013	TURNKEY	1585088	City of Dallas	3131 Dawson Communications Building Retrofit	$56,812.00
02-10527-13-135	7/12/2013	SERVICE	CRM 1585325	City of Dallas	Dallas Water Utilities Bachman Chiller Rental	$6,824.05
02-10527-13-136	7/22/2013	TURNKEY	CRM 1591087	City of Dallas	Meyerson Deaerator	$100,165.00
02-10527-13-137	7/22/2013	SERVICE	CRM 1591217	City of Dallas	Love Field Satellite Building AHU Comm.Room Not Running	$333.69
02-10527-13-138	7/22/2013	SERVICE	CRM 1591221	City of Dallas	Dallas Police Department Quartmaster RTU 1 Not Cooling	$995.00
02-10527-13-139	7/25/2013	SERVICE	CRM 1590754	City of Dallas	Dallas Water Utilities Purification Control Board Replacement	$5,379.00
02-10527-13-140	7/26/2013	SERVICE	1591340	City of Dallas	Fair Park Embarcadero Replace Fan Switches	$1,929.00
02-10527-13-142	7/29/2013	SERVICE	CRM 1594550	City of Dallas	Kalita Humphrey Theater Chiller Not Starting	$1,427.00
02-10527-13-143	8/5/2013	SERVICE	CRM 1592783	City of Dallas	Majestic Theater VAV 4-1 Heater Repair	$1,126.00
02-10527-13-145	8/8/2013	SERVICE	13-3629176 / CRM 1600638	City of Dallas	Centennial Hall Add Refrigerant	$4,217.00
02-10527-13-146	8/9/2013	SERVICE	1607900	City of Dallas	Dallas Executive Airport Cooling Tower Add Temporary Connections	$4,959.74
02-10527-13-147	8/9/2013	SERVICE	CRM 1580485	City of Dallas	Dallas Convention Center AHU-17 Replacement	$37,510.00
02-10527-13-148	8/9/2013	SERVICE	CRM 1601656	City of Dallas	Dallas County of Central Library York Chiller Repair	$18,292.00

02-10527-13-149	8/13/2013	SERVICE	CRM 1602412	City of Dallas	Dallas City Hall Heat Pump Mini Split Add	$16,662.00
02-10527-13-150	8/20/2013	SERVICE	CRM 1606344	City of Dallas	Dallas Convention Center Air Compressor Maintenance	$1,244.00
02-10527-13-151	8/23/2013	SERVICE	1604346	City of Dallas	Love Field Central Plant AHU 1 Diagnosis	$433.43
02-10527-13-152	8/26/2013	SERVICE	CRM 1475223	City of Dallas	Dallas City Performance Hall Troubleshoot HVAC	$5,611.00
02-10527-13-153	8/26/2013	SERVICE	CRM 1604337	City of Dallas	Dallas Animal Control RTU 7 Not Cooling	$638.00
02-10527-13-154	8/26/2013	SERVICE	CRM 1604332	City of Dallas	Dallas Police Department Quartermaster Lobby Unit Down	$905.00
02-10527-13-155	8/26/2013	SERVICE	CRM 1604327	City of Dallas	Majestic Theater RTU 8 Compressor Replacement	$3,670.00
02-10527-13-156	8/26/2013	SERVICE	CRM 1604232	City of Dallas	Majestic Theater Split System Issues	$1,109.00
02-10527-13-157	8/27/2013	SERVICE	CRM 1604315	City of Dallas	Dallas City of Southwest Patrol Actuator Replacement	$970.00
02-10527-13-158	8/27/2013	SERVICE	CRM 1604316	City of Dallas	Meyerson Symphony Center Chiller 2 Add Refrigerant	$14,883.00
02-10527-13-159	8/28/2013	SERVICE	CRM 1604326	City of Dallas	Majestic Theater Unit Repairs	$4,766.00
02-10527-13-160	8/28/2013	SERVICE	CRM 1604324	City of Dallas	Love Field Central Plant AHU A4 Diagnosis	$537.00
02-10527-13-161	8/28/2013	SERVICE	CRM 1610835	City of Dallas	Meyerson Symphony Center Condenser Water Balancing	$11,659.00
02-10527-13-162	8/29/2013	SERVICE	CRM 1610080	City of Dallas	Dallas Water Utilities Pur	$658.00
02-10527-13-163	8/29/2013	SERVICE	CRM 1611376	City of Dallas	Northwest Service Center Communication Issues	$632.00
02-10527-13-164	8/29/2013	SERVICE	CRM 1611204	City of Dallas	Dallas City Hall SCUD Unit Leak Repair	$1,674.00
02-10527-13-165	8/29/2013	SERVICE	CRM 1611196	City of Dallas	Dallas Sanitation Department Compressor Blowing Fuse	$2,175.00
02-10527-13-166	8/29/2013	SERVICE	CRM 1610030	City of Dallas	Meyerson Symphony Center Chiller 3 Oil Heater Replacement	$1,022.00
02-10527-13-167	8/29/2013	SERVICE	CRM 1610045	City of Dallas	Meyerson Symphony Center AHU 8 Motor Replacement	$10,684.00
02-10527-13-168	8/29/2013	SERVICE	CRM 1610020	City of Dallas	Majestic Theater RTU 12 Compressor Replacement	$11,777.00
02-10527-13-169	8/30/2013	SERVICE	CRM 1604251	City of Dallas	Meyerson Symphony Center Chiller 2 Over Amping	$828.00
02-10527-13-170	9/3/2013	SERVICE	CRM 1611181	City of Dallas	City of Dallas Larry Johnson Recreation Center EMS Not Communicating	$299.00
02-10527-13-171	9/3/2013	SERVICE	1611621	City of Dallas	City of Dallas Central Patrol Control Point on Unit	$366.55

02-10527-13-172	9/3/2013	SERVICE	CRM 1611615	City of Dallas	City of Dallas Grauwyler Recreation Center Pipe Replacement	$2,719.00
02-10527-13-173	9/3/2013	SERVICE	CRM 1611791	City of Dallas	Kalita humphrey Theater Carrier Chiller Repairs	$7,895.00
02-10527-13-174	9/5/2013	SERVICE	CRM 1611628	City of Dallas	Central Library York Chiller 2 Low on Oil	$1,162.00
02-10527-13-175	9/5/2013	SERVICE	CRM 1596586	City of Dallas	Majestic Theater Compressor Replacement	$6,282.00
02-10527-13-176	9/5/2013	SERVICE	CRM 1614604	City of Dallas	Meyerson Symphony Center AHU 6 Diagnosis	$566.48
02-10527-13-177	9/5/2013	SERVICE	CRM 1607809	City of Dallas	Convention Center AHU DO-7 VFD Replacement	$16,362.00
02-10527-13-178	9/9/2013	SERVICE	CRM 1605976	City of Dallas	Jack Evans Police Headquarters 2013 Annual Inspection	$30,110.00
02-10527-13-179	9/9/2013	SERVICE	CRM 1615904	City of Dallas	Fair Park Cotton Bowl Stadium 9 28 13 Event Standby	$2,399.00
02-10527-13-180	9/9/2013	SERVICE	CRM 1615906	City of Dallas	Fair Park Cotton Bowl Stadium 10 5 13 Event Standby	$2,399.00
02-10527-13-181	9/9/2013	SERVICE	CRM 1615910	City of Dallas	Fair Park Cotton Bowl Stadium 10 12 13 Event Standby	$2,399.00
02-10527-13-182	9/10/2013	SERVICE	CRM 1617133	City of Dallas	Dallas Parts Department Warehouse Building C Duct Drop Add	$1,879.00
02-10527-13-183	9/11/2013	SERVICE	CRM 1622168	City of Dallas	Communication Building CHW Closed Loop Clean & Euipment Assessment	$8,000.00
02-10527-13-186	9/12/2013	SERVICE	CRM 1618669	City of Dallas	Parks and Recreation Fair Park Women's Museum	$561.00
02-10527-13-187	9/16/2013	SERVICE	CRM 1438379	City of Dallas	Dallas Museum of Art Remove Glycol from Ice Loop	$27,853.00
02-10527-13-189	9/20/2013	SERVICE AGREEMENT	CRM 1622346	City of Dallas	Communication Building Dallas	$3,000.00
02-10527-13-190	9/20/2013	SERVICE	CRM 1622350	City of Dallas	Communications Building Filter Feeder Install	$2,962.00
02-10527-13-191	9/20/2013	SERVICE	CRM 1622428	City of Dallas	Fair Park Centennial 1U1 Module Replacement	$2,545.00
02-10527-13-192	9/24/2013	SERVICE AGREEMENT	CRM 1611187&1611189	City of Dallas	Dallas Executive Airport Admin Building	$60,420.00
02-10527-13-193	9/25/2013	SERVICE	CRM 1624237	City of Dallas	Jack Evans Police Headquarters HVAC Pipe Repairs	$6,324.00
02-10527-13-194	9/27/2013	SERVICE	CRM 1626215	City of Dallas	Dallas Animal Control Additional Parts From Inspection Repairs	$4,221.00
02-10527-13-195	9/27/2013	SERVICE	CRM 1624231 / 13-3695736	City of Dallas	Dallas City Hall Kewanee Boiler Repair	$8,760.00

02-10527-13-196	9/30/2013	SERVICE	CRM 1626717	City of Dallas	Fair Park Aministration Multiple Compressor Replacements	$17,973.00
02-10527-13-197	10/1/2013	SERVICE	CRM 1627110	City of Dallas	Dallas Convention Center Power Outage Controls Repairs	$14,468.00
02-10527-13-198	10/2/2013	SERVICE	CRM 1628131	City of Dallas	Jack Evan's Cooling Tower Replace	
02-10527-13-199	10/3/2013	SERVICE	CRM 1628795	City of Dallas	Dallas City Hall 2013 Annual Inspection	$24,276.00
02-10527-13-202	10/8/2013	TURNKEY	1630862	City of Dallas	Hall of State Humidity Control (AHUs-2, 7 & 8 only)	$67,585.36
02-10527-13-203	10/9/2013	SERVICE	CRM 1622435	City of Dallas	Northwest Service Center Compressor Locked Out	$626.00
02-10527-13-204	10/9/2013	SERVICE	CRM 1618993	City of Dallas	Audelia Road Trane CGAM Chiller Diagnosis	$746.00
02-10527-13-206	10/9/2013	SERVICE	CRM 1623855	City of Dallas	Latino Cultural Center AHU 1 Repair	$2,561.00
02-10527-13-207	10/9/2013	SERVICE	CRM 1623825	City of Dallas	Oak Cliff Municipal Cond XFMR Out	$707.00
02-10527-13-208	10/9/2013	SERVICE	CRM 1623752	City of Dallas	Fair Park Hall of State Trane RTWD Sensor Replacement	$645.00
02-10527-13-209	10/9/2013	SERVICE	CRM 1623746	City of Dallas	Dallas City Hall AHU 4 Broken Bracket	$4,830.00
02-10527-13-210	10/9/2013	SERVICE	CRM 1618998	City of Dallas	Jacks Evans Police Headquarters Chiller 1 Repair	$21,329.00
02-10527-13-211	10/9/2013	SERVICE	CRM 1631704	City of Dallas	Northwest Service Center Compressor Replacements	$11,595.00
02-10527-13-212	10/9/2013	SERVICE	CRM 1631590	City of Dallas	Meyerson Symphony Center AHU 7 VFD in Bypass	$527.00
02-10527-13-213	10/9/2013	SERVICE	CRM 1631870	City of Dallas	Hall of State Building Fair Water Treatment Repairs	$2,894.00
02-10527-13-214	10/9/2013	SERVICE	CRM 1631606	City of Dallas	Love Field Central Plant AHU 1 Making Loud Noises	$833.06
02-10527-13-215	10/9/2013	SERVICE	CRM 1631613	City of Dallas	Bachman Recreation Center Display Blank	$1,790.00
02-10527-13-216	10/9/2013	SERVICE	CRM 1631622	City of Dallas	Jack Evans Police Headquarters Cooling Tower Fan Stuck	$499.84
02-10527-13-217	10/9/2013	SERVICE	CRM 1631632	City of Dallas	Dallas Animal Control Troubleshoot RTU 9	$275.00
02-10527-13-218	10/9/2013	SERVICE	CRM 1618986	City of Dallas	Meyerson Symphony Center Cooling Tower Leaking	$5,422.00
02-10527-13-219	10/10/2013	SERVICE	CRM 1623750	City of Dallas	Meyerson Symphony Center EF Exhaust Damper	$1,123.00
02-10527-13-220	10/10/2013	SERVICE	CRM 1623735	City of Dallas	Meyerson Symphony Center AHU 7 Pressure Sensor	$1,891.00
02-10527-13-221	10/10/2013	SERVICE	CRM 1631872	City of Dallas	Audelia Road Trane Check BAS and Chiller Operation	$1,556.00
02-10527-13-222	10/10/2013	SERVICE	CRM 1623828	City of Dallas	Larry Johnson Recreation Center EPO Shutting Down System	$275.00

02-10527-13-223	10/10/2013	SERVICE	CRM 1631688	City of Dallas	Kiest Park Recreation Center Self Contained Unit Replacement	$6,607.00
02-10527-13-224	10/10/2013	SERVICE	CRM 1631678	City of Dallas	Jacks Evans Police Headquarters VFD Not Operating	$3,652.00
02-10527-13-225	10/10/2013	SERVICE	CRM 1623741	City of Dallas	Hensley Field Dallas and Replace Drive	$9,228.00
02-10527-13-226	10/10/2013	SERVICE	CRM 1631675 / 13-3544454	City of Dallas	Love Field Central Plant CHWP 1 Pump Repair	$366.55
02-10527-13-227	10/10/2013	SERVICE	CRM 1632381	City of Dallas	Fire Station 47 HVAC A/C Install	$88,832.00
02-10527-13-228	10/10/2013	SERVICE	CRM 1632339	City of Dallas	Fair Park Food & Fiber Freezer Compressor Burnt Up	$1,255.00
02-10527-13-229	10/10/2013	SERVICE	CRM 1631671	City of Dallas	Dallas Museum of Art AHU 2 West Possible Bad Bearing	$2,757.00
02-10527-13-230	10/10/2013	SERVICE	CRM 1631663	City of Dallas	Dallas Water Utilities Purification E PSU 4 MP581	$1,035.00
02-10527-13-231	10/10/2013	SERVICE	CRM 1631640	City of Dallas	Dallas City Hall VFD Replacement	$7,834.00
02-10527-13-232	10/10/2013	SERVICE	CRM1632506	City of Dallas	Fruitdale Recreation Center No Comm to AC 1	$343.76
02-10527-13-233	10/14/2013	SERVICE AGREEMENT	CRM 1633511	City of Dallas	Hall of State Building Fair Park	$9,408.00
02-10527-13-234	10/14/2013	SERVICE	CRM 1633510	City of Dallas	Fair Park Hall of State Building Chiller & Tower Annuals	$8,025.00
02-10527-13-235	10/16/2013	SERVICE	CRM 1633722	City of Dallas	Fire Station 15 Replace missing BACNet Stat on AC1	$1,146.00
02-10527-13-236	10/17/2013	SERVICE	1635310	City of Dallas	Jack Evans Police Headquarters Cooling Tower Fan Motor Drive Tripping Off	$2,469.00
02-10527-13-237	10/17/2013	SERVICE	CRM 1635309	City of Dallas	Dallas City Hall Misc Issues 4 Liebert Units	$4,664.00
02-10527-13-238	10/17/2013	SERVICE	CRM 1635773	City of Dallas	Dallas Fair Aquarium Multistack Chiller Repair	$1,366.00
02-10527-13-239	10/18/2013	SERVICE	CRM 1635989	City of Dallas	Thanksgiving Square Carrier Chiller Repairs	$5,008.00
02-10527-13-241	10/22/2013	SERVICE	CRM 1537524	City of Dallas	Dallas City Hall Cooling Tower Repairs	$78,971.00
02-10527-13-243	10/24/2013	TURNKEY	CRM 1638674	City of Dallas	Dallas City Hall Data Center Room Valves	$40,565.00
02-10527-13-244	10/28/2013	SERVICE	CRM 1640275	City of Dallas	Southside Wastewater Plant Condenser Tube Brushing	$2,343.00
02-10527-13-245	10/30/2013	SERVICE	CRM 1640773	City of Dallas	Dallas City of Central Water Treatment Replace Sensor	$734.00
02-10527-13-247	10/30/2013	SERVICE	CRM 1640703	City of Dallas	Forest Green Library Building Not Heating	$298.00
02-10527-13-248	10/30/2013	SERVICE	CRM 1640769	City of Dallas	Farmers Market Dallas Lost Files and Tracer Issues	$364.00

02-10527-13-249	10/30/2013	SERVICE	CRM 1640741	City of Dallas	Dallas City Hall Chiller 2 Lo Oil Flow	$1,002.00
02-10527-13-250	10/30/2013	SERVICE	CRM 1640746	City of Dallas	Love Field Central Plant Check Tracer Points	$981.00
02-10527-13-251	11/4/2013	SERVICE	CRM 1643305	City of Dallas	City Hall Troubleshooot hot water boiler	$1,423.00
02-10527-13-252	11/4/2013	SERVICE	CRM 1637578	City of Dallas	Fire Rescue Prevention Building RTU 14 Repairs	$1,600.00
02-10527-13-253	11/6/2013	SERVICE	CRM 1644704	City of Dallas	West Dallas Multipurpose Center EMS Checkout	$10,105.00
02-10527-13-256	11/6/2013	SERVICE	CRM 1644703	City of Dallas	City Hall Court & Detention Services Logic Board Replacement	$933.03
02-10527-13-257	11/8/2013	TURNKEY	1645815	City of Dallas	Dallas Convention Center Plant 1 H/X	$146,100.00
02-10527-13-259	11/11/2013	SERVICE	CRM 1646239	City of Dallas	Jack Evans Police HQ R3 Drive Tripping 100 AMP Breaker	$4,956.00
02-10527-13-260	11/11/2013	SERVICE	CRM 1646859	City of Dallas	Dallas City Hall Boiler Pump Seal Replacement	$3,116.00
02-10527-13-261	11/12/2013	SERVICE	CRM 1646938	City of Dallas	Preston Royal Library AHU Motor Bracket Repair	$231.00
02-10527-13-262	11/12/2013	SERVICE	CRM 1646932	City of Dallas	Martin Luther King Jr. Center Cooling Tower Diagnosis	$7,874.00
02-10527-13-263	11/13/2013	SERVICE	CRM 1648240	City of Dallas	Oak Cliff Municipal Center Boiler Repair	$2,680.00
02-10527-13-264	11/14/2013	SERVICE	CRM 1648276	City of Dallas	Thanksgiving Square Carrier Chiller Repairs	$15,423.00
02-10527-13-265	11/25/2013	SERVICE	CRM 1652877	City of Dallas	Dallas Museum of Natural History Overload Installation	$6,231.00
02-10527-13-266	12/2/2013	SERVICE	CRM 1654720	City of Dallas	Dallas Police Department Quartment RTU 1 and 5 Diagnosis	$300.00
02-10527-13-267	12/2/2013	SERVICE	CRM 1654787	City of Dallas	Central Patrol Room 203 Communication Issues	$418.18
02-10527-13-268	12/2/2013	SERVICE	CRM 1654731	City of Dallas	Dallas Convention Center Leak On Boiler Feed Line	$7,155.00
02-10527-13-269	12/3/2013	SERVICE	CRM 1655370	City of Dallas	Meyerson Symphony Center Chiller 1 Carrier Control Panel Error	$300.00
02-10527-13-270	12/3/2013	SERVICE	CRM 1654879	City of Dallas	Dallas City Hall L1 UPS Room Blank Screens	$2,362.00
02-10527-13-271	12/6/2013	SERVICE	CRM 1657321	City of Dallas	Dallas City Hall Remaining (2) AHU Valves for 911	$6,627.00
02-10527-13-272	12/6/2013	SERVICE	CRM 1646937	City of Dallas	Central Library Dallas Boilers Need Automation	$4,016.18
02-10527-13-273	12/9/2013	TURNKEY	CRM 1658291	City of Dallas	Majestic Theater Storm Water Pump Renoation	$25,812.00
02-10527-13-274	12/13/2013	SERVICE	CRM 1660365	City of Dallas	Dallas Animal Control RTU 7 No Heat	$2,479.00
02-10527-13-275	12/17/2013	SERVICE	CRM 1660419	City of Dallas	White Rock Library Piping Refrigerant Charge	$19,969.00

02-10527-13-276	12/13/2013	SERVICE	CRM 1660545 / 13-3766404	City of Dallas	Dallas Fire Rescue Building B Training Comm Issues	$1,006.00
02-10527-13-277	12/13/2013	SERVICE	CRM 1660362	City of Dallas	Dallas City Hall WCA Extra' to Annual	$1,460.00
02-10624-13-001-F	1/3/2013	PARTS	7797452	City of Dallas Equipment & Bldg.	Potential for parts program	$1,359.00
02-10631-13-001-C	1/3/2013	PARTS	NA	City of Dallas-Aviation	Potential for parts program	$1,599.68
02-10631-13-001-J	10/31/2013	PARTS	8476329	City of Dallas-Aviation	Potential for parts program	$957.11
02-10644-13-001	7/8/2013	PARTS	NA	City of Dallas Parks and Recreation	Potential for parts program	$5,525.02
02-10527-14-001	1/9/2014	SERVICE	1667278/3845032	City of Dallas	Majestic Theatre Dressing Room FCU's	$21,018.00
02-10527-14-002	1/9/2014	SERVICE	1669762	City of Dallas	Southwest Patrol Communication Issues	$302.00
02-10527-14-003	1/10/2014	SERVICE	1669899 / 13-3764198	City of Dallas	City Hall Liebert Unit Repairs	$3,496.00
02-10527-14-004	1/10/2014	SERVICE	1667273	City of Dallas	Jack Evans Police Headquarters Purge Replacement	$16,361.00
02-10527-14-008	1/14/2014	SERVICE	1670121	City of Dallas	Covention Center Replace Warranty CT Motor	$13,975.09
02-10527-14-009-A (1/2015)		PARTS	N/A	City of Dallas	Parts Program	$134,213.07
02-10527-14-009-F		PARTS		City of Dallas	Parts Program	$93,321.23
02-10527-14-009-H		PARTS		City of Dallas	Parts Program	$79,865.07
02-10527-14-009-I		PARTS		City of Dallas	Parts Program	$36,862.57
02-10527-14-009-J	10/31/2014	PARTS		City of Dallas	Parts Program	$64,268.34
02-10527-14-009-M	12/1/2014	PARTS	N/A	City of Dallas	2014 Parts Program	$67,019.30
02-10527-14-010A	1/15/2014	SERVICE	1671803	City of Dallas	Love Field E Satellite Building Replace Coils	$36,979.00
02-10527-14-011	1/17/2014	SERVICE	1673895 / 14-3823958	City of Dallas	Fire Rescue Bldg C Duct Cleaning	$25,397.00
02-10527-14-012	1/21/2014	SERVICE	1667121 / 14-3824014	City of Dallas	Cummings Recreation Multiple Repairs on Rooftop Units	$43,218.00
02-10527-14-013	1/22/2014	SERVICE	1676171	City of Dallas	Northwest Service Center Site Evaluation	$2,352.72
02-10527-14-014	1/23/2014	SERVICE	1677022	City of Dallas	Convention Center Heat Exchanger Install	$100,460.00

02-10527-14-016	1/24/2014	SERVICE	1677792	City of Dallas	Lancaster Kiest Library HVAC Pipe Repair	$2,256.00
02-10527-14-017	1/29/2014	SERVICE	1648763	City of Dallas	City Hall 911 Call center Pump Repairs	$9,522.00
02-10527-14-018	1/29/2014	SERVICE	1679156	City of Dallas	Aviation Dept. Love Field Central Plant Coil Parts Sale	$3,207.00
02-10527-14-019	2/3/2014	SERVICE	1682109/3832565	City of Dallas	Meyerson Symphony Center 2014 Annual Inspection	$9,585.00
02-10527-14-020	2/3/2014	SERVICE	1682169	City of Dallas	Museum of Art 2014 Cooling Tower Annual	$7,152.00
02-10527-14-021	2/3/2014	SERVICE	1682153 / 14-4043447	City of Dallas	Meyerson Symphony Center 2014 Cooling Tower Annual	$24,442.00
02-10527-14-023	2/4/2014	SERVICE	1679787/3834719	City of Dallas	Police Property Building Chiller Leak Test	$2,999.00
02-10527-14-024	2/4/2014	SERVICE	1682646	City of Dallas	Meyerson Symphony Center Pump Float Switch Repairs	$3,091.00
02-10527-14-025	2/5/2014	T&M	14-3824935	City of Dallas	Equipment&Bldg FCU 15 Controller is blank	$280.50
02-10527-14-026	2/6/2014	SERVICE	1684644/3834378	City of Dallas	White Rock Library Line Set Theft Deterrent Install	$4,528.00
02-10527-14-027	2/7/2014	SERVICE	1680756	City of Dallas	Bachman Recreation Center Check Dectron Unit	$5,884.00
02-10527-14-028	2/10/2014	SERVICE	1681091	City of Dallas	Meyerson Symphony Center Rebuild Motor AHU 8	$4,449.00
02-10527-14-029	2/10/2014	SERVICE	1681079	City of Dallas	Jack Evans Police HQ Dallas Replace Starter Hoses	$1,058.00
02-10527-14-030	2/10/2014	SERVICE	1681046 / 13-3769905	City of Dallas	City Hall Troubleshoot Water Boiler	$443.60
02-10527-14-031	2/10/2014	SERVICE	1680976	City of Dallas	Dallas Fire Station 2 Repair Boiler	$2,173.00
02-10527-14-032	2/11/2014	SERVICE	1680752	City of Dallas	Preston Royal Library Building Has No Heat	$1,375.00
02-10527-14-033	2/11/2014	SERVICE	1681088	City of Dallas	Dallas Fire Station 10 Sensor to ECM Board Not Control	$404.00
02-10527-14-034	2/11/2014	SERVICE	1680748	City of Dallas	JC Phelps Recreation Center Comm Link Down	$443.00
02-10527-14-035	2/11/2014	SERVICE	1680821	City of Dallas	Dallas City Hall Replace Gear Box WCA	$6,922.00
02-10527-14-036	2/11/2014	SERVICE	1680811	City of Dallas	Dallas Police Headquarters RTU Gas Heater OP	$358.00
02-10527-14-038	2/11/2014	SERVICE	1680807	City of Dallas	WRR Building Comm Down	$942.00
02-10527-14-039	2/11/2014	SERVICE	1680792	City of Dallas	Dallas Animal Control Holeman Boiler Repairs	$1,832.18
02-10527-14-040	2/11/2014	SERVICE	1680794	City of Dallas	Meyerson Symphony Center Repair 100 HP Supply Fan	$13,521.00

02-10527-14-041	2/11/2014	SERVICE	1680766	City of Dallas	Majestic Theater Damper on AHU Not Closing	$1,610.00
02-10527-14-042	2/11/2014	SERVICE	1680761	City of Dallas	Meyerson Symphony Center Ch#3 Not Communicating	$935.00
02-10527-14-043	2/14/2014	SERVICE	1666557	City of Dallas	Dallas Fair Park Aquarium Multistack Chiller Repairs	$10,204.00
02-10527-14-046	2/24/2014	SERVICE	1693003/3858238	City of Dallas	Majestic Load Study	$1,366.00
02-10527-14-047	2/27/2014	SERVICE	1690244	City of Dallas	Lakewood Branch Library AHU 1 Repairs	$1,388.00
02-10527-14-048	2/27/2014	SERVICE	1695779/3865208	City of Dallas	Love Field Central Plant Add AHU Freeze Control	$3,404.00
02-10527-14-049	3/3/2014	SERVICE	1688020/3862468	City of Dallas	Fair Park Coliseum Repair Leaks on Motor Terminal	$19,771.00
02-10527-14-051	3/4/2014	SERVICE	1688013	City of Dallas	Fair Park Coliseum Boiler Repairs	$1,670.00
02-10527-14-052	3/5/2014	SERVICE	1698250	City of Dallas	Audelia Road Library VAV 9 11 12 13 14 No Comm BAS	$1,059.00
02-10527-14-053	3/6/2014	SERVICE	1699186	City of Dallas	Love Field Central Plant Pump Inspection	$21,270.00
02-10527-14-054	3/6/2014	SERVICE	1698269	City of Dallas	Dallas Police Property Bldg RTAA Repairs	$6,637.00
02-10527-14-055	3/7/2014	SERVICE	1699961	City of Dallas	Dallas City Hall Pump Repairs	$7,455.00
02-10527-14-056	3/7/2014	SERVICE	1698253	City of Dallas	Southwest Patrol FPBs Not Heating	$907.25
02-10527-14-057	3/7/2014	SERVICE	1697457	City of Dallas	Dallas Fire Rescue Bldg C Training Comm Issues	$780.30
02-10527-14-058	3/7/2014	SERVICE	1697452	City of Dallas	Dallas Police Headquarters RTU Overcooling	$275.00
02-10527-14-059	3/7/2014	SERVICE	1697418	City of Dallas	Fruitdale Recreation Center Lost Comm to Units	$406.50
02-10527-14-060	3/7/2014	SERVICE	1697386	City of Dallas	Meyerson Symphony Ctr Ch1 Press Diff Switch Drift	$920.00
02-10527-14-061	3/8/2014	SERVICE	1697382	City of Dallas	Dallas Water Utilities Purification Ckt No Refri	$943.00
02-10527-14-062	3/8/2014	SERVICE	1697380	City of Dallas	Dallas Convention Center Con Water Pump Repair 2	$8,346.00
02-10527-14-063	3/8/2014	SERVICE	1697374	City of Dallas	Fair Park Coliseum for Boiler & Chiller Repair	$425.00
02-10527-14-064	3/8/2014	SERVICE	1697369	City of Dallas	Dallas Police Property Bldg Troubleshoot Chiller	$8,623.00
02-10527-14-065	3/8/2014	SERVICE	1697361	City of Dallas	Dallas City Performance Hall JCI SYS No Heat	$572.00
02-10527-14-066	3/8/2014	SERVICE	1697330	City of Dallas	Lakewood Branch Library Restore Colling to Bldg	$925.70

02-10527-14-067	3/8/2014	SERVICE	1697335	City of Dallas	Dallas Convention Center Steam Pipe Repair	$12,662.00
02-10527-14-068	3/8/2014	SERVICE	1697337	City of Dallas	Dallas Fire Station 3 Comm Down	$238.35
02-10527-14-069	3/8/2014	SERVICE	1697339	City of Dallas	Southwest Patrol Automation No Heat	$649.25
02-10527-14-070	3/8/2014	SERVICE	1697345	City of Dallas	Bachman Lake Library No Heat TSTAT Down	$394.30
02-10527-14-071	3/8/2014	SERVICE	1697340	City of Dallas	Meyerson Symphony C&P Pumps Replace Seals Bearings	$5,672.00
02-10527-14-072	3/10/2014	SERVICE	1697413	City of Dallas	Jack Evans Police Headquarters Dallas Check CH 2&3	$942.00
02-10527-14-073	3/10/2014	SERVICE	1699763	City of Dallas	Dallas Arboretum Replace Evap and Heater or Chillr	$7,283.00
02-10527-14-074	3/11/2014	SERVICE	1700978	City of Dallas	Dallas Museum of Art Chiller 3 & 4 Repairs	$11,394.00
02-10527-14-075	3/12/2014	SERVICE	1687131	City of Dallas	Southside Wastewater Plant Replace Chill Water Coil	$26,951.00
02-10527-14-076	3/13/2014	SERVICE	1693376	City of Dallas	Central Library Dallas Replace Motors RF 11 12A12B	$8,732.00
02-10527-14-077	3/13/2014	SERVICE	1703556	City of Dallas	Dallas City Hall AHU F1 8th Fl Valve Replacement	$5,267.00
02-10527-14-078	3/13/2014	SERVICE	1702413	City of Dallas	Jack Evans Police HQ Replace Display Assembly CH3	$8,089.00
02-10527-14-079	3/17/2014	SERVICE	1705045	City of Dallas	Dallas Exec Airport Admin Bldg Generator Repair	$9,160.00
02-10527-14-080	3/17/2014	SERVICE	1705056 / 13-3718744	City of Dallas	Dallas City Hall 8th Floor Chill Water Pump Down	$6,066.00
02-10527-14-082	3/21/2014	SERVICE	1707826	City of Dallas	Dallas Museum of Art Piping Damage	$9,812.00
02-10527-14-083	3/24/2014	SERVICE	1708607	City of Dallas	Dallas Fire Station 50 Heating Issues	$383.00
02-10527-14-084	3/24/2014	SERVICE	1703896	City of Dallas	Dallas Arboretum Chiller Pump Strainer Cleaning	$682.00
02-10527-14-085	3/19/2014	SERVICE	1706350	City of Dallas	Dallas Museum of Art Cooling Tower Bad Motor	$616.00
02-10527-14-086	2/27/2014	SERVICE	1695911	City of Dallas	Dallas City Hall Change Out 8 Inch Check Valve	$10,278.00
02-10527-14-087	3/19/2014	SERVICE	1706384	City of Dallas	Kleberg Rylie Library Check Setpoints	$591.00
02-10527-14-088	3/19/2014	SERVICE	1706372	City of Dallas	Dallas Police Property Bldg CH Down on Superheat	$716.00
02-10527-14-089	3/19/2014	SERVICE	1706354	City of Dallas	Marcus Recreation Center Repair Controls	$762.00
02-10527-14-090	3/28/2014	SERVICE	1711416	City of Dallas	Arlington Park Recreation Center Comm Issues	$775.00
02-10527-14-091	3/4/2014	SERVICE	1697934	City of Dallas	Dallas City Hall Hot Water 2 Pump Repairs	$10,879.00

02-10527-14-092	3/31/2014	SERVICE	1712220	City of Dallas	Exline Recreation Center Control Issues	$543.00
02-10527-14-093	3/19/2014	SERVICE	1706377	City of Dallas	Northwest Service Center Temp Issues	$7,960.91
02-10527-14-094	3/17/2014	SERVICE	1704807	City of Dallas	Northwest Service Center VFD Display Replacement	$788.00
02-10527-14-095	3/19/2014	SERVICE	1706367	City of Dallas	Fair Park Food & Fiber Pavilion Convection Oven	$325.00
02-10527-14-097	3/19/2014	SERVICE	1706351	City of Dallas	Meyerson Symphony Center Replace 6 Rubber Boots	$6,994.00
02-10527-14-098	3/28/2014	SERVICE	1711410	City of Dallas	Jack Evans Police HQ Dallas Boilers in Alarm	$333.00
02-10527-14-099	3/28/2014	SERVICE	1711421	City of Dallas	Meyerson Symphony Center Troubleshoot RA 4	$534.00
02-10527-14-100	3/28/2014	SERVICE	1711423	City of Dallas	Dallas City Hall AHU for 911 Dispatch Issue	$1,202.00
02-10527-14-101	3/28/2014	SERVICE	1711428	City of Dallas	Arcadia Park Library Check Setpoints AHUS in Auto	$3,125.00
02-10527-14-106	3/28/2014	SERVICE	1711432	City of Dallas	Pennsylvania Service Center No Heat	$260.00
02-10527-14-107	4/8/2014	SERVICE	1717220	City of Dallas	Dallas Museum of Art Rental Cooling Tower	$48,812.00
02-10527-14-108	4/17/2014	SERVICE	1722447	City of Dallas	COD Central Water Treatment Liebert Installation	$20,679.00
02-10527-14-110	4/21/2014	SERVICE	1723320	City of Dallas	Dallas Fair Park Aquarium AHU Repalcement	$137,896.00
02-10527-14-112	4/23/2014	SERVICE	1725034	City of Dallas	Love Field Parking Gar TShoot Pumps Seals Leaking	$4,491.00
02-10527-14-113	4/23/2014	SERVICE	1724997	City of Dallas	Majestic Theater VAV Boxes and FCU Repairs	$16,605.45
02-10527-14-114	4/24/2014	SERVICE	1725003	City of Dallas	Bachman Recreation Ctr Pool Office Area No Cooling	$466.00
02-10527-14-115	4/24/2014	SERVICE	1725011	City of Dallas	Dallas City Hall AHU Down	$2,199.00
02-10527-14-116	4/24/2014	SERVICE	1725832	City of Dallas	Northwest Service Center Exhaust Issues	$2,061.00
02-10527-14-117	4/25/2014	SERVICE	1726738	City of Dallas	Forest Green Library Split System Repalcement	$37,519.10
02-10527-14-118	4/29/2014	SERVICE	1728566	City of Dallas	Meyerson Symphony Center Oil Filter Housing Replac	$3,635.00
02-10527-14-119	4/29/2014	SERVICE	1728459	City of Dallas	Fair Park Centennial Hall U91E04611	$29,167.00
02-10527-14-121	5/8/2014	SERVICE	1731472	City of Dallas	Majestic Theater 4th Floor CH Wtr Valve Not Resp	$369.00
02-10527-14-122	5/9/2014	SERVICE	1729970	City of Dallas	Meyerson Symphony Center WCA Purchase Contacts	$3,889.00
02-10527-14-123	5/12/2014	SERVICE	1729955	City of Dallas	Mountain Creek Library Chiller Down	$260.00
02-10527-14-124	5/12/2014	SERVICE	1729952	City of Dallas	Majestic Theater AC 10 Freezing Up	$1,450.00

02-10527-14-125	5/12/2014	SERVICE	1729705	City of Dallas	Dallas Police Property Bldg Lost Comm ZeroonTracer	$298.18
02-10527-14-126	5/12/2014	SERVICE	1729683	City of Dallas	Dallas City Hall Sub Hoffman Bleed Valve	$1,045.00
02-10527-14-127	5/12/2014	SERVICE	1729977	City of Dallas	Fretz Park Branch Library Heat Valves Not Opening	$799.27
02-10527-14-128	5/12/2014	SERVICE	1730648	City of Dallas	Dallas Fire Station 50 TAC Schneider Control	$723.00
02-10527-14-129	5/12/2014	SERVICE	1730645	City of Dallas	Arcadia Park Rectration Center Controllers Offline	$446.18
02-10527-14-130	5/13/2014	SERVICE	1730643	City of Dallas	Dallas Fire Station 14 AC2 BACKNET TSTAT Offline	$243.00
02-10527-14-131	5/13/2014	SERVICE	1730639	City of Dallas	Dallas Fire Station 34 AC BACNET TSTAT Offline	$243.00
02-10527-14-132	5/13/2014	SERVICE	1730632	City of Dallas	Bachman Lake Library HP4 Offline Auditorium	$520.00
02-10527-14-133	5/13/2014	SERVICE	1730620	City of Dallas	Thurgood Marshall Rec Ctr Controllers Offline	$723.00
02-10527-14-134	5/13/2014	SERVICE	1736149	City of Dallas	Dallas Sanitation Department Engineering Analysis	$100.00
02-10527-14-135	5/13/2014	SERVICE	1736179	City of Dallas	Arcadia Park Library AH Valves Not Modulating	$758.73
02-10527-14-136	5/14/2014	SERVICE	1735834	City of Dallas	Dallas City Hall Check Comm Issues	$743.00
02-10527-14-137	5/14/2014	SERVICE	1735826	City of Dallas	Singing Hills Recreation Center AC 2 Offline	$575.64
02-10527-14-138	5/14/2014	SERVICE	1735829	City of Dallas	Fair Park Discovery Grdns Butterfly Exhibit Bearin	$4,363.00
02-10527-14-139	5/14/2014	SERVICE	1736723	City of Dallas	Majestic Theater Issues with Valve and Automation	$302.00
02-10527-14-140	5/14/2014	SERVICE	1736735	City of Dallas	Dallas Fire Rescue Bldg C Unit Controllers Offline	$1,615.00
02-10527-14-145	5/20/2014	SERVICE	1729189	City of Dallas	Fair Park Discovery Gardens RTU 1 Repairs	$7,088.00
02-10527-14-146	5/20/2014	SERVICE	1735600	City of Dallas	Dallas City Hall Build Viconics BACnet Training	$3,160.97
02-10527-14-147	5/22/2014	SERVICE	1740827	City of Dallas	Meyerson Symphony Center Paco Pump Repair	$4,462.00
02-10527-14-149	6/3/2014	SERVICE	1746802	City of Dallas	Beckley Saner Rec Center Dallas Coil Cleaning	$3,778.00
02-10527-14-151	6/4/2014	SERVICE	1747661	City of Dallas	Martin Luther King Jr Comm Center HVAC Water Leak	$1,278.00
02-10527-14-152	6/10/2014	T&M	14-3983991	City of Dallas	14-3983991 COND PUMP SEALS SN#2308548	$1,046.72

02-10527-14-153	6/19/2014	SERVICE	1755996	City of Dallas	CoD Performing Arts Rental Chiller	$100.00
02-10527-14-154	6/20/2014	SERVICE	1754001	City of Dallas	Majestic Theater Replace Split System	$15,036.00
02-10527-14-155	6/26/2014	SERVICE	1759571	City of Dallas	Southside Wastewater Plant 2014 Annual Ch Inspect	$2,459.00
02-10527-14-156	7/1/2014	SERVICE	1761697	City of Dallas	Communications Building Dallas HVAC System Cleanin	$52,778.00
02-10527-14-157	7/3/2014	SERVICE	1758573	City of Dallas	Thanksgiving Square Compressor replacement	$35,266.00
02-10527-14-158	7/7/2014	SERVICE	1752835	City of Dallas	Martin Luther King Jr Community Ctr AHU Starter	$4,259.00
02-10527-14-159	7/9/2014	SERVICE	1765229	City of Dallas	Dallas Central Water Treatment Unit Intall	$100.00
02-10527-14-160	7/9/2014	SERVICE	1762699	City of Dallas	Marcus Annex Issues with Jace Controller	$2,382.36
02-10527-14-161	7/9/2014	SERVICE	1765237	City of Dallas	Meyerson Symphony Center 20 Ton Split System Repla	$100.00
02-10527-14-162	7/9/2014	SERVICE	1762812	City of Dallas	Majestic Theater Install Compressor 3rd Floor	$6,769.00
02-10527-14-163	7/9/2014	SERVICE	1762800	City of Dallas	Majestic Theater Leak Repair 3rd Floor Unit	$100.00
02-10527-14-164	7/10/2014	SERVICE	1765811	City of Dallas	Southside Wastewater Plant York Chiller Repairs	$7,809.00
02-10527-14-166	7/10/2014	SERVICE	1762143	City of Dallas	KB Polk Recreation Center Automation Repairs	$8,978.00
02-10527-14-167	7/10/2014	SERVICE	1762154	City of Dallas	Fair Park Centennial Hall Chiller Repairs	$4,776.00
02-10527-14-168	7/11/2014	SERVICE	1767006	City of Dallas	Meyerson Symphony Center Ceiling Repairs	$3,058.00
02-10527-14-169	7/15/2014	SERVICE	1762948	City of Dallas	Hampton Illinois Library Chiller Repairs	$2,975.00
02-10527-14-170	7/15/2014	SERVICE	1765802	City of Dallas	Fair Park Centennial Hall Chiller 2 Repairs	$2,164.00
02-10527-14-171	7/15/2014	SERVICE	1768376	City of Dallas	Dallas Fire Station 24 HVAC Cleaning	$5,769.00
02-10527-14-172	7/15/2014	SERVICE	1768743	City of Dallas	Dallas City Hall 311 Call Center Valve Replacement	$8,779.00
02-10527-14-173	7/16/2014	SERVICE	1762764	City of Dallas	Meyerson Symphony Center Ch 1 Off on High Head	$3,153.00
02-10527-14-174	7/16/2014	SERVICE	1762760 / 14-3979261	City of Dallas	Elm Fork Water Treatment Plant 40T Package No Cool	$780.00
02-10527-14-175	7/16/2014	SERVICE	1766129	City of Dallas	Southside Wastewater Plant York Eddy Current Test	$9,861.00
02-10527-14-176	7/16/2014	SERVICE	1762748	City of Dallas	City of Dallas Trinity Watershed Bard Not Cooling	$735.00
02-10527-14-177	7/16/2014	SERVICE	1762736	City of Dallas	JC Phelps Recreation Center AC 1 Offline	$608.00

02-10527-14-178	7/16/2014	SERVICE	1762689	City of Dallas	Umphress Recreation Center AC 2 Offline	$1,972.91
02-10527-14-179	7/16/2014	SERVICE	1762601	City of Dallas	Thanksgiving Square Install Pulley on GreenheckFan	$1,873.00
02-10527-14-180	7/17/2014	SERVICE	1762594	City of Dallas	Hampton Illinois Library Ch Thermal Overload Comp2	$520.00
02-10527-14-181	7/17/2014	SERVICE	1762585	City of Dallas	Dallas Fire Station 41 AC2 Bacnet Tstat Offline	$987.00
02-10527-14-182	7/17/2014	SERVICE	1762582	City of Dallas	Dallas Fire Station 47 Jace Offline	$770.91
02-10527-14-183	7/17/2014	SERVICE	1762576	City of Dallas	Dallas Fire Station 36 AC2 and AC3 Offline	$1,411.45
02-10527-14-184	7/17/2014	SERVICE	1762520	City of Dallas	Dallas Fire Station 1 AC 2 and AC 3 Bacnet TSTATS	$1,394.00
02-10527-14-185	7/17/2014	SERVICE	1762512	City of Dallas	Dallas City Hall Fan 6 on L2 Actuator Commision	$1,384.91
02-10527-14-186	7/17/2014	SERVICE	1762506	City of Dallas	Dallas Animal Control RTU 5 Not Running	$3,997.00
02-10527-14-187	7/17/2014	SERVICE	1762501	City of Dallas	Lakewood Branch Library Sens Replace Damper Check	$986.55
02-10527-14-188	7/17/2014	SERVICE	1762429	City of Dallas	Dallas City Hall Scud Unit Comp Down Leak	$505.00
02-10527-14-189	7/17/2014	SERVICE	1762420	City of Dallas	Dallas City Performance Hall Boiler No Signal	$198.00
02-10527-14-190	7/14/2014	T&M	14-3916221	City of Dallas	T&M	$2,962.00
02-10527-14-190	7/17/2014	SERVICE	1762414	City of Dallas	Love Field Central Plant Chiller Sched is Corrupt	$823.00
02-10527-14-191	7/25/2014	SERVICE	1774591	City of Dallas	Fair Park Cotton Bowl Stadium First Aid Rooms AC	$10,482.00
02-10527-14-194	7/31/2014	SERVICE	1765650	City of Dallas	Dallas City Hall Archives WSHP Installation	$23,288.00
02-10527-14-195	8/4/2014	T&M	14-4062493	City of Dallas	14-4062493 TROUBLESHOOT AHU DRIVE	$3,382.00
02-10527-14-196	8/4/2014	T&M	14-4061555	City of Dallas	14-4061555 PUMP DISCHARGE LINE OFF, LOUD	$7,429.00
02-10527-14-198	8/8/2014	SERVICE	1779656	City of Dallas	Dallas Convention Center New Gear Box & Fan Blade	$69,154.00
02-10527-14-200	8/11/2014	SERVICE	1781988	City of Dallas	White Rock Service Center Demo Duct Work Unit Inta	$16,823.00
02-10527-14-201	8/14/2014	SERVICE	1776797	City of Dallas	Dallas City Performance Hall Chiller Down	$30,432.00
02-10527-14-202	8/19/2014	SERVICE	1786451	City of Dallas	Grauwyler Recreation Center Heat Exchanger Replace	$14,804.00

02-10527-14-206	8/26/2014	SERVICE	1779967 / 14-4036842	City of Dallas	Dallas Animal Control Troubleshoot RTU 4 and 5	$11,320.00
02-10527-14-207	8/26/2014	SERVICE	1776728	City of Dallas	Mattie Nash Myrtle Davis Recreation Ctr TS Tracer	$2,491.64
02-10527-14-208	8/26/2014	SERVICE	1776807	City of Dallas	Dallas Animal Control Unit 9 Not Cooling	$1,436.00
02-10527-14-209	8/26/2014	SERVICE	1776800 / 14-4043466	City of Dallas	Jack Evans Police Headquarters Dallas CH 1 Ex Purg	$722.00
02-10527-14-210	8/26/2014	SERVICE	1776789	City of Dallas	Dallas City of Central WTEvap Coil Repair	$3,085.00
02-10527-14-212	8/26/2014	SERVICE	1776735	City of Dallas	Love Field Central Plant AC CHLR Temp Not Reading	$100.00
02-10527-14-213	8/26/2014	SERVICE	1776778	City of Dallas	Meyerson Symphony Ctr CHLR VWSupply TempFluctuating	$591.82
02-10527-14-214	8/26/2014	SERVICE	1776774	City of Dallas	Dallas Animal Control TS 3 Units in Alarm	$3,446.00
02-10527-14-215	8/26/2014	SERVICE	1776769	City of Dallas	Dallas Museum of Art Sub IR Air Comp Service	$860.00
02-10527-14-216	8/26/2014	SERVICE	1776764	City of Dallas	Dallas West Library Check Control of Unit	$1,504.55
02-10527-14-217	8/26/2014	SERVICE	1776762	City of Dallas	Dallas Water Utilities Bachman Comm Issues	$908.00
02-10527-14-218	8/26/2014	SERVICE	1776766	City of Dallas	Campbell Green Recreation Center TS Tracer	$8,984.18
02-10527-14-219	8/26/2014	SERVICE	1776756	City of Dallas	Jack Evans Police HQ Dallas 12 VAVs No Comm Cool	$4,605.45
02-10527-14-220	8/26/2014	SERVICE	1776760	City of Dallas	West Dallas Multipurpose Center Half Bldg CommDown	$2,394.36
02-10527-14-221	8/27/2014	SERVICE	1776745	City of Dallas	Mountain Creek Library CGAF Won't Shut Off	$2,006.00
02-10527-14-222	8/27/2014	SERVICE	1776742	City of Dallas	Pleasant Grove Library Dallas GeoThermal Sys Leaks	$3,310.00
02-10527-14-223	8/27/2014	SERVICE	1776737	City of Dallas	Lancaster Kiest Library CHK CHW HW Valves AHU2	$5,843.45
02-10527-14-224	8/27/2014	SERVICE	1791052	City of Dallas	Court & Detention Services Exhaust System	$2,500.00
02-10527-14-225	9/2/2014	SERVICE	1792103	City of Dallas	Dallas Convention Center Boiler Pipe Repair	$3,122.00
02-10527-14-226	9/2/2014	SERVICE	1792836	City of Dallas	City of Dallas Oak Cliff Municipal Center 2014 Ann	$9,813.00
02-10527-14-227	9/2/2014	SERVICE	1792628	City of Dallas	Dallas Central Library 2014 Annual Inspection	$18,688.00
02-10527-14-230	9/4/2014	TURNKEY	1790673	City of Dallas	Dallas Convention Center AHU CHW and HW Isoltion	$124,127.27

02-10527-14-232	9/12/2014	SERVICE	1798563	City of Dallas	Dallas Convention Center Boiler Retube	$30,430.00
02-10527-14-233	9/12/2014	SERVICE	1791782	City of Dallas	Prairie Creek Library Install Trane Controllers	$37,823.00
02-10527-14-234	9/15/2014	SERVICE	1798650	City of Dallas	Reverchon Recreation Center RMS Hot Comm Issues	$2,204.18
02-10527-14-235	9/16/2014	SERVICE	1798640	City of Dallas	Love Field Parking Garage AHU B 5 Down	$6,296.00
02-10527-14-236	9/16/2014	SERVICE	1798627	City of Dallas	Dallas Fire Station 46 Comm Down AC1&AC2	$316.91
02-10527-14-237	9/17/2014	SERVICE	1798645	City of Dallas	Dallas Street Services Dept RTU Off in Afternoon	$24,984.00
02-10527-14-238	9/17/2014	SERVICE	1798620	City of Dallas	Dallas Museum of Art Inst Disconnect Switch in VFD	$1,760.55
02-10527-14-239	9/17/2014	SERVICE	1798622	City of Dallas	Dallas Police Property Bldg No Control Over Bldg	$1,759.00
02-10527-14-240	9/19/2014	SERVICE	1800817	City of Dallas	Fair Park Cotton Bowl Stadium 9 27 Event Standby	$1,609.20
02-10527-14-241	9/19/2014	SERVICE	1802116	City of Dallas	Fair Park Cotton Bowl Stadium 10 11 Event Standby	$1,931.00
02-10527-14-242	9/22/2014	TURNKEY	1790673	City of Dallas	Dallas Convention Center AHU CHW and HW Isoltion	$124,142.00
02-10527-14-243	9/25/2014	SERVICE	1798614	City of Dallas	Dallas City Hall 2 Boilers Down	$1,538.00
02-10527-14-247	10/1/2014	SERVICE	1800412	City of Dallas	Jack Evans Police Headquarters Dallas Replace ABB	$6,333.00
02-10527-14-248	10/1/2014	SERVICE	1798593	City of Dallas	Martin Luther King Jr Community Center CH 2 Repair	$2,588.00
02-10527-14-249	10/1/2014	SERVICE	1798596	City of Dallas	Dallas Water Utilities Bachman Control Not Working	$713.00
02-10527-14-250	10/2/2014	SERVICE	1808042	City of Dallas	Dallas Executive Airport 2015 FM WT Contract	$8,292.00
02-10527-14-251	10/2/2014	1 YEAR SERVICE AGREEMENT	1808055	City of Dallas	Dallas Executive Airport Maintenance 2015 FM Contr	$63,948.00
02-10527-14-254	10/2/2014	SERVICE	1798589	City of Dallas	Meyerson Symphony Center CH 2 Surging on Start	$3,538.00
02-10527-14-255	10/7/2014	SERVICE	1798562	City of Dallas	Love Field Central Plant Troubleshoot AHU Drive	$3,382.00
02-10527-14-256	10/8/2014	SERVICE	1798557	City of Dallas	Dallas City Hall AHU C 1 Supplies 4th Floor	$6,641.00
02-10527-14-258	10/9/2014	SERVICE	1798548	City of Dallas	Dallas Fair Park Aquarium TShoot & Repair York CH	$2,862.00
02-10527-14-259	10/10/2014	SERVICE	1798545 / 14-4052035	City of Dallas	Bachman Recreation Center Pool Area Hot	$1,612.91

02-10527-14-261	10/10/2014	SERVICE	1798470	City of Dallas	West Dallas Multipurpose Center Comm Issues	$1,262.36
02-10527-14-262	10/13/2014	SERVICE	1798427	City of Dallas	Arcadia Park Library Carrier Chiller Down	$486.00
02-10527-14-264	10/13/2014	SERVICE	1798539	City of Dallas	Mattie Nash Myrtle Davis Recreation Ctr Jace Issue	$3,985.82
02-10527-14-265	10/13/2014	SERVICE	1798403	City of Dallas	Southside Wastewater Plant York Comp Tripping	$1,034.00
02-10527-14-266	10/13/2014	SERVICE	1810659	City of Dallas	Forest Green Library Unit 2 Not Running Cooling	$1,632.18
02-10527-14-267	10/13/2014	SERVICE	1810651	City of Dallas	Grauwyler Park Branch Library Troubleshoot WSHP	$1,796.00
02-10527-14-268	10/13/2014	SERVICE	1810655	City of Dallas	Fair Park Grand Place Leak in Terminal Plate	$4,334.00
02-10527-14-270	10/15/2014	SERVICE	1783373	City of Dallas	Meyerson Symphony Center Chiller 2 Repairs	$7,050.00
02-10527-14-272	10/15/2014	SERVICE	1814582	City of Dallas	Love Field Parking Garage AHU1 & Vault Rm115 Insul	$5,168.90
02-10527-14-274	10/20/2014	SERVICE	1816355	City of Dallas	MLK Community Center Tower Pipe Replacement	$27,066.00
02-10527-14-280	10/22/2014	SERVICE	1818156	City of Dallas	Dallas Museum of Art Valve Replacement	$12,665.00
02-10527-14-281	10/23/2014	SERVICE	1817877	City of Dallas	Fair Park Womens Museum Lochniv AR Boilers	$433.00
02-10527-14-282	10/23/2014	SERVICE	1817144	City of Dallas	Dallas Street Services Department Phase 2 Repairs	$19,330.00
02-10527-14-283	10/22/2014	SERVICE	1817159	City of Dallas	Love Field E Satellite Bldg Chiller Down	$300.00
02-10527-14-284	10/24/2014	SERVICE	1817156	City of Dallas	Thanksgiving Square Internal Thermal Overload	$835.00
02-10527-14-285	10/24/2014	SERVICE	1818778	City of Dallas	City of Dallas Parks and Rec Pegasus Fountain	$1,532.00
02-10527-14-287	11/6/2014	SERVICE	1825252	City of Dallas	Meyerson Symphony Center Chiller 1 Leak Repair	$11,031.00
02-10527-14-288	11/13/2014	SERVICE	1827962	City of Dallas	Dallas Fire Station 28 Split System Installation	$20,971.00
02-10527-14-290	11/24/2014	SERVICE	1833238	City of Dallas	Dallas City Hall Split System & Exhaust Fan Repair	$28,936.00
02-10527-14-292	11/24/2014	SERVICE	1832658	City of Dallas	Dallas Convention Center MIG Replacement	$9,978.00
02-10527-14-293	11/25/2014	SERVICE	1833621	City of Dallas	Dallas Police HDQS Professional Engineer Study	$9,260.00
02-10527-14-294	11/26/2014	SERVICE	1834141	City of Dallas	Fair Park Centennial Hall BAS Failure Checkout	$1,088.00

TCPN Proposal #	Date	Job Type	Trane Order #	Customer Name	Job Description	Job Total
02-10527-14-295	12/4/2014	SERVICE	1836650	Dallas City of	City of Dallas City Hall Lieberts	$36,273.00
02-10527-14-296	11/21/2014	SERVICE	1832435	Dallas City of	Prairie Creek Library Sub Johnson Look at Controls	$2,748.00
02-10527-14-299	11/21/2014	SERVICE	1832431	Dallas City of	Love Field Central Plant AHU A1 Drive Down	$2,261.00
02-10527-14-302	12/9/2014	SERVICE	1838998	Dallas City of	City of Dallas Majestic Theatre Building Load	$5,812.00
02-10527-14-304	12/11/2014	SERVICE	1839850	City of Dallas	Meyerson Symphony Center Self Contained Unit Repla	$21,922.00
02-10527-14-307	12/19/2014	SERVICE	1844233	City of Dallas	Dallas City Hall Threadolet Repair	$2,823.00
02-10527-14-308	12/26/2014	SERVICE	1844870	City of Dallas	Elm Fork Water Treatment Plant Alarm Lights On	$451.00
02-10527-14-309	12/26/2014	SERVICE	1844871	City of Dallas	Love Field Central Plant Chillers Not Cycling Off	$757.00
02-10527-14-310	12/26/2014	SERVICE	1840259	City of Dallas	Dallas Animal Control RTU 6 Heat Won't Run	$957.00
02-10527-14-311	12/26/2014	SERVICE	1840244	City of Dallas	Bachman Lake Library Geo Thermal Pump Repurge	$1,200.00
02-10624-14-001-F	7/14/2014	PARTS	N/A	City of Dallas Equipment & Bld	Parts Program	$929.31
02-10624-14-001-H		PARTS	N/A	City of Dallas Equipment & Bld	Parts Program	$32,389.00
02-10624-14-001-I		PARTS	N/A	City of Dallas Equipment & Bld	Parts Program	$40,944.75
02-10624-14-001-M	12/1/2014	PARTS	N/A	City of Dallas Equipment & Bld	2014 Parts Program	$14,326.08
02-10631-14-001-A (1/2015)		PARTS	N/A	City of Dallas - Aviation	Parts Program	$8,493.60
02-10631-14-001-F	7/14/2014	PARTS	N/A	City of Dallas - Aviation	Parts Program	$139.04
02-10631-14-001-M	12/1/2014	PARTS	N/A	City of Dallas - Aviation	2014 Parts Program	$5,281.00
02-10644-14-001-F	7/14/2014	PARTS	N/A	City of Dallas Parks and Recreation	Parts Program	$12,552.06
02-10644-14-001-H		PARTS	N/A	City of Dallas Parks and Recreation	Parts Program	$7,438.38
02-10644-14-001-M	12/1/2014	PARTS	N/A	City of Dallas Parks and Recreation	2014 Parts Program	$3,482.20
02-40527-14-009-I		PARTS	9711384	CITY OF DALLAS EQUIPMENT & BLD		$901.83

02-618972-14-001	4/14/2014	TURNKEY	1711557	Gregg County	Gregg County, CS Energy	$3,204,717.00
02-618972-14-002	4/30/2014	SERVICE	1729040	Gregg County	Gregg County Courthouse AHU 1-5 Repairs	$8,800.00
02-618972-14-005	12/17/2014	1 YEAR SERVICE AGREEMENT	1843228	Gregg County	Gregg County Jail & Probation 2015 PM Contract	$12,856.00
02-618972-14-006	12/17/2014	1 YEAR SERVICE AGREEMENT	1843151	Gregg County	Gregg County Courthouse 2015 PM Contract1	$19,608.00

TCPN Proposal #	Date	Job Type	Trane Order #	Customer Name	Job Description	Job Total
43-10250-12-001	1/3/2012	EQUIPMENT	E520184	City of Newport News	Ranger Station & Achievable Dream split job this only Ranger	$4,109.00
43-10250-12-001A	2/24/2012	EQUIPMENT		City of Newport News	Achievable Dream	$6,472.72
43-10250-12-003	5/2/2012	EQUIPMENT		City of Newport News	Doris Miller Packaged Unitary Cooling Rooftop	$6,381.81
43-10250-12-004	8/6/2012	SERVICE		City of Newport News	Newport News Police Headquarters RTU Platform	$2,321.00
43-10250-12-005	8/10/2012	SERVICE		City of Newport News	NNPD it HVAC Unit and Controls	$99,890.00
43-10250-13-001	1/28/2013	EQUIPMENT	E530091	City of Newport News	Ranger Station 2013	$4,218.00
43-10250-13-002	4/15/2013	EQUIPMENT		City of Newport News	Grissom Library Replacement Chiller	$49,742.00
43-10250-13-003	5/21/2013	SA-MULTI		City of Newport News	Multiple Buildings Service Agreement	$2,002,270.00
43-10250-13-004	6/13/2013	EQUIPMENT		City of Newport News	Justice Building Gas Line Relocation	$10,575.00
43-10250-13-005	7/16/2013	T&M	49493/49494	City of Newport News	Insulation Repairs	$7,283.45
43-10250-13-006	9/13/2013	TURNKEY	NA	City of Newport News	HVAC Repair Rouse Tower Innovent MAU Repairs	$47,480.00
43-10250-13-007	9/18/2013	TURNKEY	NA	City of Newport News	Police Headquarters Forensics Makeup Air Unit Controls	$8,000.00
43-10250-13-009	9/18/2013	TURNKEY	NA	City of Newport News	Public Safety Duct Cleaning 4th, 5th, 6th, 7th Floors	$89,379.00
43-10250-13-011	10/9/2013	SERVICE	NA	City of Newport News	Newport News Discovery Center	$5,392.00
43-10250-13-012	10/9/2013	SERVICE	NA	City of Newport News	Deer Run Tent Ductwork	$6,897.00
43-10250-13-013	10/16/2013	SERVICE AGREEMENT	NA	City of Newport News		$19,471.09
43-10250-13-014	12/2/2013	EQUIPMENT	NA	City of Newport News	Vehicle Maintenance	$12,719.00
43-10250-13-015	12/3/2013	SERVICE	NA	City of Newport News	Gas Island	$5,952.00
43-10250-14-001	2/7/2014	TURNKEY	RS13-52	City of Newport News	Circuit Courts 1&2	$171,805.00
43-10250-14-002	1/20/2014	TURNKEY	RS13-66	City of Newport News	replave the HVAC system at the Denbigh Annex Building	$319,540.00
43-10250-14-003	1/30/2014	EQUIPMENT	E540064	City of Newport News	Warehouse Packaged Unit	$6,363.64

43-10250-14-004	2/12/2014	SERVICE	RS14-10	City of Newport News	clean the ductowork in the Main Street Library	$33,072.73
43-10250-14-006	4/14/2014	SERVICE	n/a	City of Newport News	AdultDetention-ExpediteHPSplit	$4,353.00
43-10250-14-008	6/11/2014	EQUIPMENT	E5-52972-1/E540916	City of Newport News	War Museum Cooling Rooftop	$11,818.18
43-10250-14-009	6/25/2014	SERVICE	n/a	City of Newport News	Main Street Library	$59,709.00
43-10250-14-010	7/22/2014	EQUIPMENT	n/a	City of Newport News	Newport News Firestation #10	$28,327.27
43-10250-14-011	8/4/2014	EQUIPMENT	N/A	City of Newport News	Gas Island – Adapter Curb	$1,214.00
43-10250-14-012	8/8/2014	SERVICE	RS14-57A	City of Newport News	Grissom Library Duct and Insulation Repair	$72,249.00
43-10250-14-016	10/7/2014	SERVICE	RS14-82	City of Newport News	Safety Office Trailer Duct Cleaning	$3,763.00
43-10250-14-019	12/1/2014	EQUIPMENT	N/A	City of Newport News	Fire Station #4	$16,220.00
43-10250-14-020	12/18/2014	EQUIPMENT	RS14-81	City of Newport News	replace the HVAC system at the Fire Marshall's Office	$101,444.00

TCPN Proposal #	Date	Job Type	Trane Order #	Customer Name	Job Description	Job Total
02-10647-13-001	10/14/2013	TURNKEY	1569700	Reeves County	Reeves County Detention Center	$140,000.00
02-614841-14-001	4/21/2014	TURNKEY	1569700	Reeves County of	Reeves County Detention Center	$1,374,407.64

TCPN Proposal #	Date	Job Type	Trane Order #	Customer Name	Job Description	Job Total
02-10645-13-001	8/30/2013	EQUIPMENT	NA	Andrews County	Ace Arena	$1,350,000.00

TCPN Proposal #	Date	Job Type	Trane Order #	Customer Name	Job Description	Job Total
07-73104-13-001	11/21/2013	EQUIPMENT		University of Arkansas Little Rock	University of Arkansas at Little Rock, UALR	$2,194,002.16
07-73104-14-001	9/22/2014	EQUIPMENT	K313881	University of Arkansas Little Rock	UALR DSC Pool AHU's	$42,472.73
07-73104-14-003	11/11/2014	SERVICE	BRL141114A	University of Arkansas Little Rock	Replace/Balance lower assembly	$23,455.00

TCPN Proposal #	Date	Job Type	Trane Order #	Customer Name	Job Description	Job Total
15-10017-12-001	12/7/2012	SERVICE	NA	University of Washington	2000T Evapco Cooling Tower Replacement	$595,000.00
15-10017-13-001	8/22/2013	SERVICE	NA	University of Washington	UW Tower Chiller Replacement Project	$61,438.00
15-10017-13-002	11/14/2013	EQUIPMENT	CRM 1640956/W028017	University of Washington	UW Chiller Replacement (60T)	$635,509.00

TCPN Proposal #	Date	Job Type	Trane Order #	Customer Name	Job Description	Job Total
01-10253-13-001	2/1/2013	TURNKEY	NA	UTMB Galveston	M6 Standby 1000kW Diesel Generator Set	$364,206.70
01-10253-13-001	2/1/2015	TURNKEY	HT00004683-MM	UTMB Galveston		$6,668.00
01-10253-13-006	9/16/2013	EQUIPMENT	L4-V71-DRB-TCPN-MC102216	UTMB Galveston	Stanby 1000kW Diesel Generator Sets	$1,438,905.34

TCPN Proposal #	Date	Job Type	Trane Order #	Customer Name	Job Description	Job Total
27-10010-12-003	5/17/2012			University of Montevallo	Palmer Hall Project	$275,418.00
27-10010-12-004	5/17/2012		CRM 1340474	University of Montevallo	Valve Project	$62,082.00
27-10010-12-02A	12/17/2012	EQUIPMENT	NA	University of Montevallo	Main Hall Chilled Water Riser Replacement	$33,732.00
27-10010-13-002	2/20/2013			University of Montevallo	Willis Hall Changeover Valve Replacement	$6,500.00
27-10010-13-004	2/20/2013	TURNKEY	PID00022464 / CRM 1493035	University of Montevallo	Main Hall Renovation	$2,866,525.20
27-10010-13-008				University of Montevallo		$169,987.00
27-10010-14-001	1/17/2014	EQUIPMENT	1673075	University of Montevallo	UM Speech and Hearing steam Coil	$1,318.00
27-10010-14-003	4/21/2014	TURNKEY	1723545	University of Montevallo	University of Montevallo April 2014 Farmer Hall	$58,738.00
27-10010-14-004	4/22/2014	SERVICE	1724615	University of Montevallo	University of Montevallo Music Building Steam Coil	$2,187.00
27-10010-14-005	9/5/2014	TURNKEY	1627649	University of Montevallo	University of Montevallo Summer 2014 Projects	$821,466.91
27-10010-14-006	9/5/2014	TURNKEY	1779394	University of Montevallo	University of Montevallo Brooke Hall Cold Water	$1,576.00
27-10010-14-007	9/5/2014	TURNKEY	1779514	University of Montevallo	University of Montevallo Farmer H add one fancoil	$5,571.09
27-10010-14-008	9/5/2014	TURNKEY	1740470	University of Montevallo	University of Montevallo Myrick HW Pipe Insulatio	$3,312.91
27-10010-14-009	9/5/2014	TURNKEY	1736262	University of Montevallo	University of Montevallo Brooke Hot Water Heater	$49,966.91

TCPN Proposal #	Date	Job Type	Trane Order #	Customer Name	Job Description	Job Total
12-10106-12-001	7/23/2012	SERVICE		Gloucester County College	Herbert Building 2nd Floor Office Install (2) 1.5 Ton A/C	$15,183.81
12-10106-13-001	1/3/2013	EQUIPMENT	NA	Gloucester County College	GCC-Cafeteria Addition RTU	$54,983.00

12-10106-13-002	1/3/2013	EQUIPMENT	D255897	Gloucester County College	GCC-Cafeteria Addition Controls Under Tozour Trane Building	$14,221.50
12-10106-13-006	7/25/2013	EQUIPMENT	NA	Gloucester County College	GCC-Adult Center for Transition (ACT)	$104,550.00
12-10106-13-007	7/26/2013	EQUIPMENT	PO #P0021513 – Job #D2-57474	Gloucester County College	GCC-Adult Center for Transition portion	$109,961.00
12-10106-13-008	8/7/2013	EQUIPMENT	PO #P0021512 – Job #D2-57290	Gloucester County College	GCC-Nursing and Allied Health-	$289,723.00
12-10106-13-009	8/7/2013	EQUIPMENT	NA	Gloucester County College	GCC-Nursing and Allied Health-Controls	$144,726.00
12-10106-13-010	8/29/2013	EQUIPMENT	NA	Gloucester County College	GCC-Law and Justice	$47,170.00
12-10106-13-011	9/3/2013	EQUIPMENT	PO #P0021511 – Job #D2-57475	Gloucester County College	GCC-Law and Justice Center Commercial Rooftop Air Conditioning	$104,353.00
12-10106-13-012	10/31/2013	EQUIPMENT	N/A	Gloucester County College	GCC-Student Services Building	$128,858.00
12-10106-13-013	11/7/2013	EQUIPMENT	PO #P0021510 – Job #D2-57291	Gloucester County College	GCC- Student Services Building	$135,125.00
12-10106-14-001	3/19/2014	EQUIPMENT	N/A	Gloucester County College	GCC-Day Care	$31,549.00
12-10106-14-002	4/14/2014		N/A	Gloucester County College	GCC-S/S Job 1	$6,399.00
12-10106-14-003	4/14/2014		N/A	Gloucester County College	GCC-S/S Job 2	$10,781.82
12-10106-14-004	4/14/2014		N/A	Gloucester County College	GCC-S/S Job 3	$7,818.18
12-10106-14-005	5/1/2014		N/A	Gloucester County College	GCC-S/S Job 4	$16,163.64
12-10106-14-006	5/23/2014		N/A	Gloucester County College	Tracer ES Upgrade and Energy Metering	$224,398.00
12-10106-14-008	8/14/2014	EQUIPMENT	N/A	Gloucester County College	condensing unit replacement	$6,575.00

Appendix G:

VALUE ADD

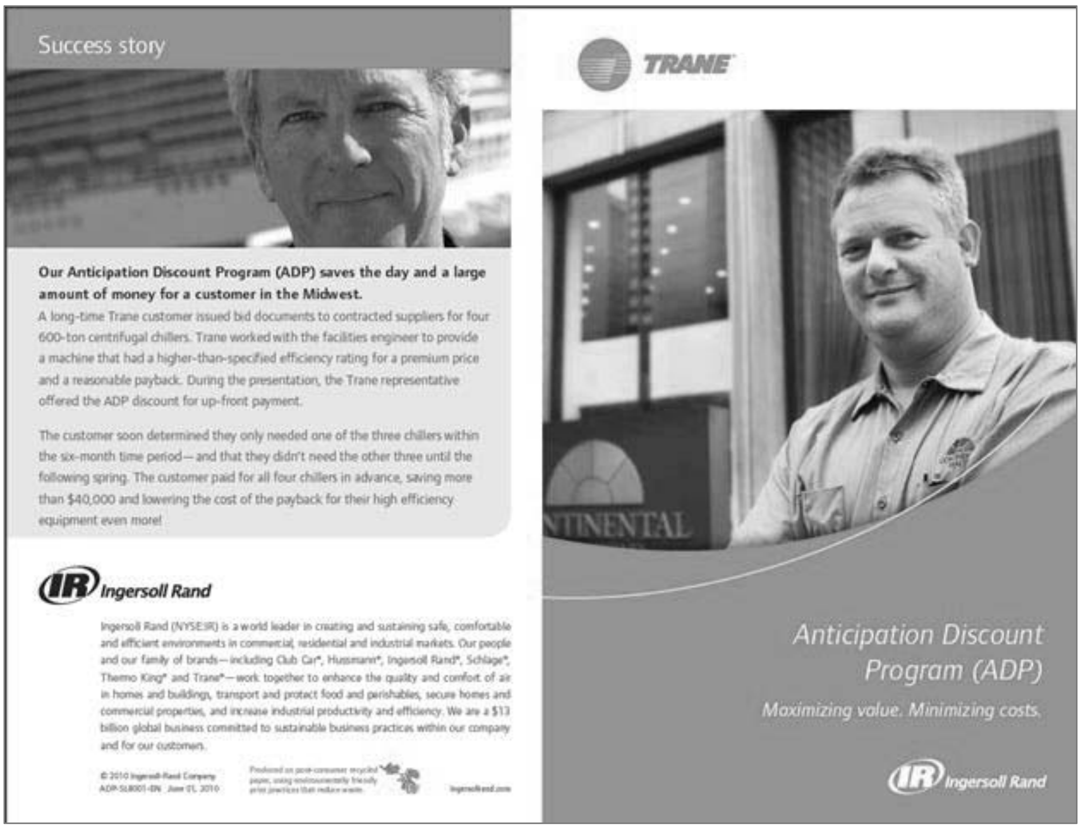
Please include any additional products and/or services not included in the scope of the solicitation that you think will enhance and/or add value to this contract for participating agencies.

Any Additional Information Relevant to the Additional Products and/or Services Offered in the RFP Response

We chose to highlight the following additional products and services within this section:

- Anticipation Discount Program
- Energy Optics
- Lighting
- Trane Building Advantage – our energy services and controls offerings
  - Building Controls & Automation
  - Energy Management Systems & Services
  - Energy Contracting
  - Renewable Energy & Power Solutions
  - Energy Procurement & Management Services
- Intelligent Services

Anticipation Discount Program



Success story

Our Anticipation Discount Program (ADP) saves the day and a large amount of money for a customer in the Midwest.

A long-time Trane customer issued bid documents to contracted suppliers for four 600-ton centrifugal chillers. Trane worked with the facilities engineer to provide a machine that had a higher-than-specified efficiency rating for a premium price and a reasonable payback. During the presentation, the Trane representative offered the ADP discount for up-front payment.

The customer soon determined they only needed one of the three chillers within the six-month time period—and that they didn't need the other three until the following spring. The customer paid for all four chillers in advance, saving more than $40,000 and lowering the cost of the payback for their high efficiency equipment even more!

Ingersoll Rand

Ingersoll Rand (NYSE:IR) is a world leader in creating and sustaining safe, comfortable and efficient environments in commercial, residential and industrial markets. Our people and our family of brands—including Club Car®, Hussmann®, Ingersoll Rand®, Schlage®, Thermo King® and Trane®—work together to enhance the quality and comfort of air in homes and buildings, transport and protect food and perishables, secure homes and commercial properties, and increase industrial productivity and efficiency. We are a $13 billion global business committed to sustainable business practices within our company and for our customers.

ingersollrand.com

TRANE

Anticipation Discount Program (ADP)

Maximizing value. Minimizing costs.

Ingersoll Rand

Adding value. Saving money.
Creating a better indoor environment.

Trane has always led the way in improving operating efficiencies and meeting the needs of high performance buildings. And now we've created an easy way to make owning Trane HVAC equipment an even better value: The Trane Anticipation Discount Program (ADP).

Designed to help you create an indoor environment that promotes comfort and productivity as cost-effectively as possible, Trane's ADP helps you save a significant amount on your HVAC equipment, controls, installation and services. . . when you pay in advance.

Flexible and customizable program designed for all Trane customers

All Trane customers with current accounts are eligible for the program. ADP is designed to be flexible and customizable, so you can create the program that meets your needs. Trane will work with your budget and your board to create the best program for your facility.

The idea is simple. You'll save significantly on your HVAC equipment, installation and services just by paying in advance.

Here's how the program works

Trane will discount your equipment purchase when you pay prior to shipping. It's as flexible and customizable as you want. Your discount depends on:

- How much you pay
- When you pay
- The discount rate
- The date the equipment ships

HVAC equipment

$$D = \frac{R \times P \times T/360}{1 + (R \times T/360)}$$

D = Discount, R = Discount Rate, P = Payment, T = Number of Days between payment and shipment + 30 days (standard terms).

Do the math:

For example: Your equipment is valued at $100,000. You pay for it 15 weeks prior to shipment at an annualized prepayment rate of 5%. The actual discount amount can be calculated using this formula:

$$\$1{,}840.49 = \frac{.05 \times 100{,}000 \times 135/360}{1 + (.05 \times 135/360)}$$

The prepayment earned an immediate discount of $1,840.49.

What happens if the equipment ships later or earlier than estimated?

We will adjust the discount using the formula outlined if the equipment is shipped more than five days later than expected. If the equipment ships early at our discretion, you will receive the full discount.

Savings on service contracts

You can also save when you pre-pay for all service contracts. Whether you have a 12-month contract, or up to a 5-year contract, Trane will give you a straight percentage discount when you pay in advance!

1-year contract: save 3% with ADP.
2-year contract: save 4.2% with ADP.
3-year contract: save 5.8% with ADP.
4-year contract: save 7.5% with ADP.
5-year contract: save 10% with ADP.

ADP. Immediate savings. Lower long-term costs.

As you can see, our ADP lowers the cost of owning and maintaining Trane HVAC equipment, controls and provides benefits to building owners and managers by:

- Reducing project costs
- Discounting service and installation costs
- Giving immediate equipment discounts
- Providing an attractive rate of return

Best of all, this unique program helps reduce the capital investment required to implement facility improvements, which means building owners/managers can invest capital into other activities.

You'll also get the benefit of immediate order approval and enhanced credit standing.

And ultimately, you'll be able to cost-efficiently create an indoor environment that promotes comfort and productivity.

Energy Assessment with Trane Energy Optics

Any efforts toward improvement begin with understanding where we are starting from – to provide focus, prioritize resources and begin to establish expectations. This is particularly true for energy performance where stakeholders are trying to optimize and cut costs that are intangible. The energy use in any given building or process is rarely "seen" by the people controlling or using it, much less any opportunities to reduce waste, cut costs, and move toward a more sustainable operation.

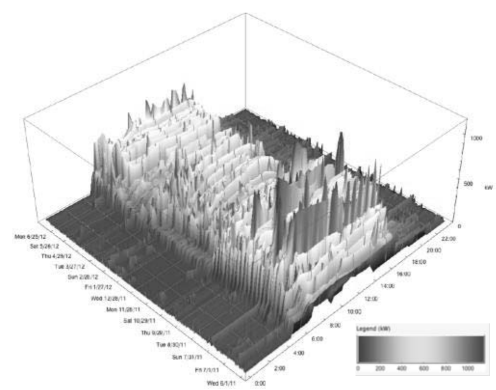
In fact, the *majority* of facilities do not operate at peak efficiency. In part, this is due to continuous development of options for optimizing energy performance. Most owners are focused on other aspects of their operations and are rarely energy professionals. Often routine utility analysis remains on the "to do" list through lack of training, lack of resources or lack of access to the tools and skills that make energy assessments cost effective. Sometimes below average energy performance is simply a matter of deferred maintenance or inefficient equipment operation. Trane offers a solution set that is scalable to meet YOUR needs, leveraging proprietary as well as industry tools, literally hundreds of energy professionals, and over 100 years of Trane experience.

Trending Analysis

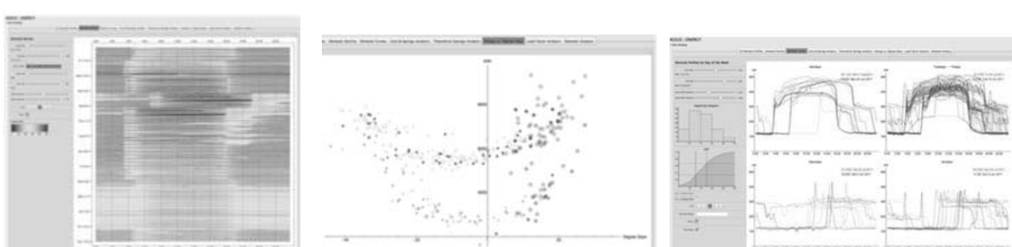
"Trending" critical data points helps to identify performance problems within the facility. The resulting data helps Trane diagnose problems, and devise effective corrective actions.

Energy Assessment with Trane Energy Optics

Trane professionals will study your historic energy use in the context of your facility details, your operations, and your peers by region and facility use. This information will be used to develop a unique baseline energy model (**Figure 1**) that accurately represents your operations and serves as a foundation for further analysis and recommendations. The dynamic graphics and ability to filter by day of the week, date range, time of day and weather factors allows for a deeper dive into actual performance for more detailed analysis. Trane will help you "see" in graphical format your intangible energy use, translating data into information that you can use.



: Sample annual electricity demand profile



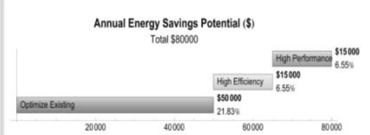
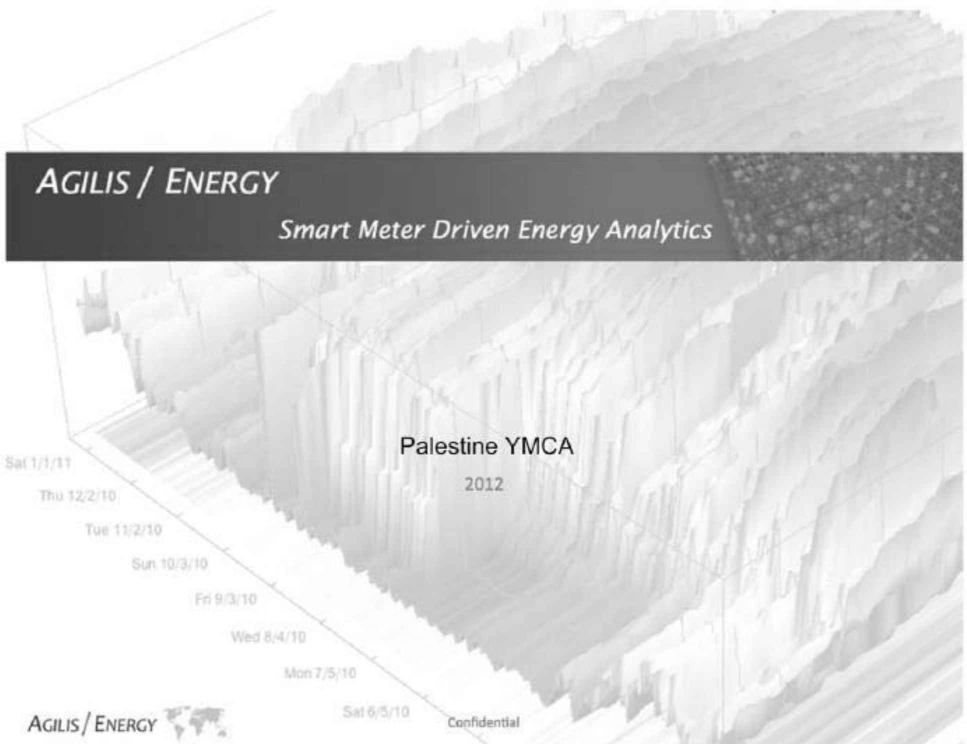
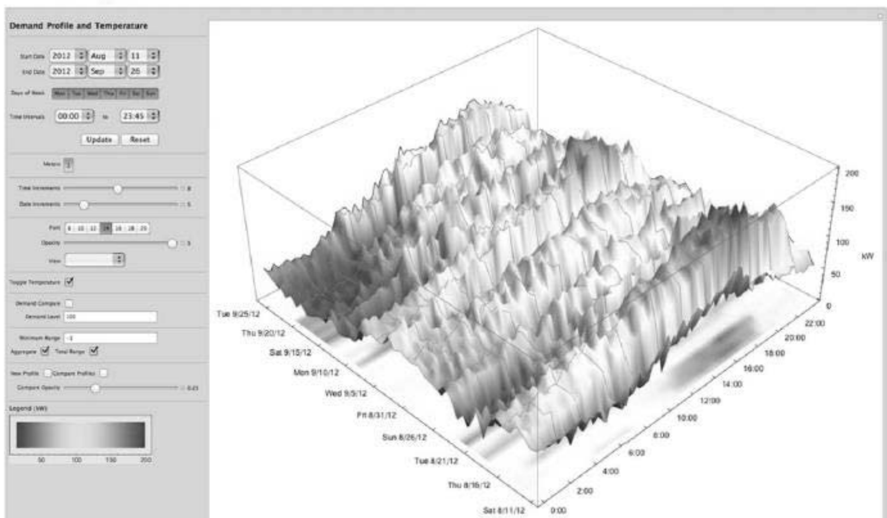


Figure 2: Additional analysis outputs

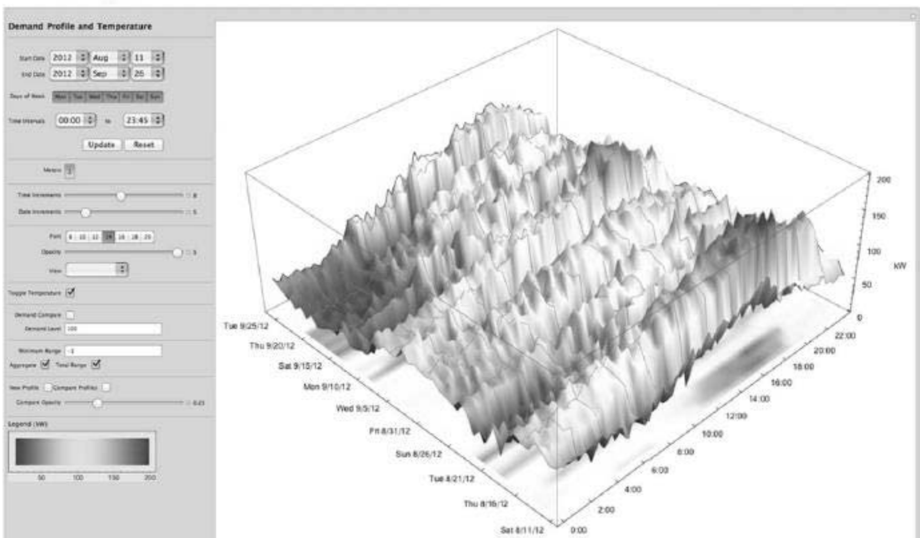
The next few pages reflect a sample Energy Optics run.


AGILIS / ENERGY
Smart Meter Driven Energy Analytics
Palestine YMCA
2012
Sat 1/1/11
Thu 12/2/10
Tue 11/2/10
Sun 10/3/10
Fri 9/3/10
Wed 8/4/10
Mon 7/5/10
Sat 6/5/10
Confidential
AGILIS / ENERGY

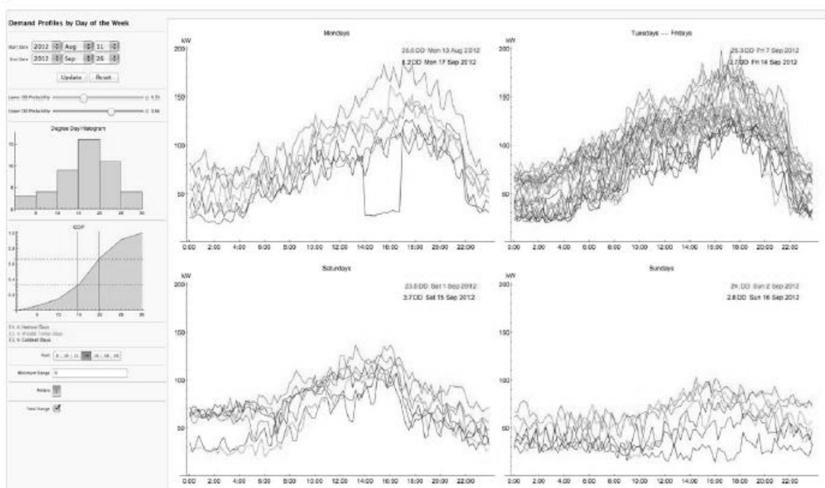
3D Load Profiles



3D Load Profiles

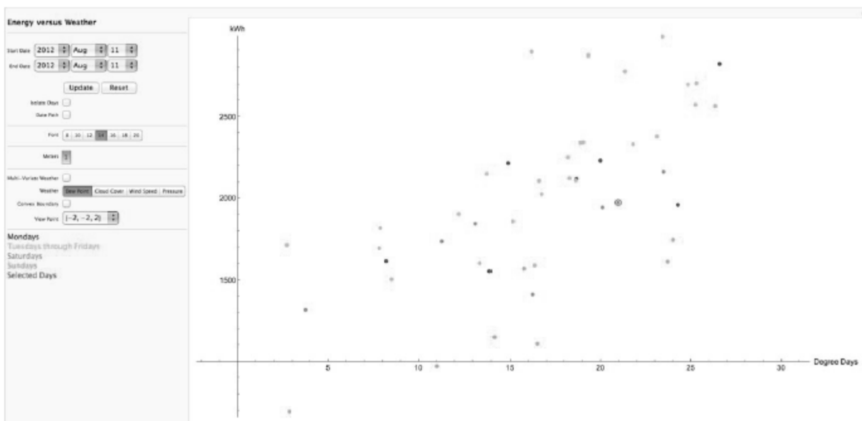


Daily Demand Profiles



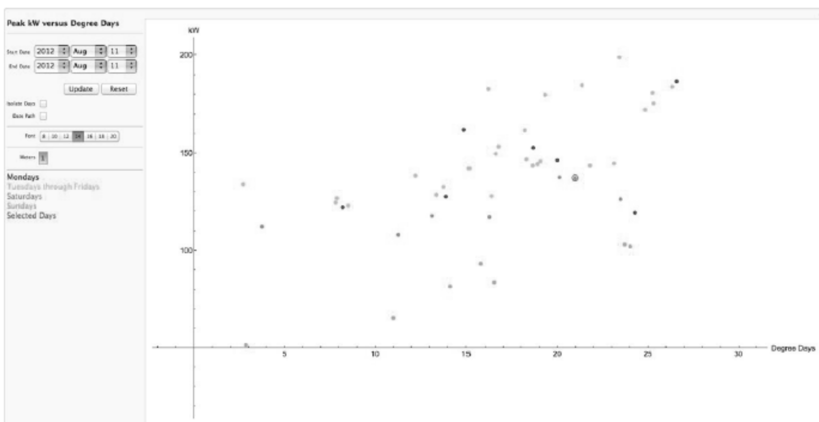
Palestine YMCA

Energy Usage versus Degree Days

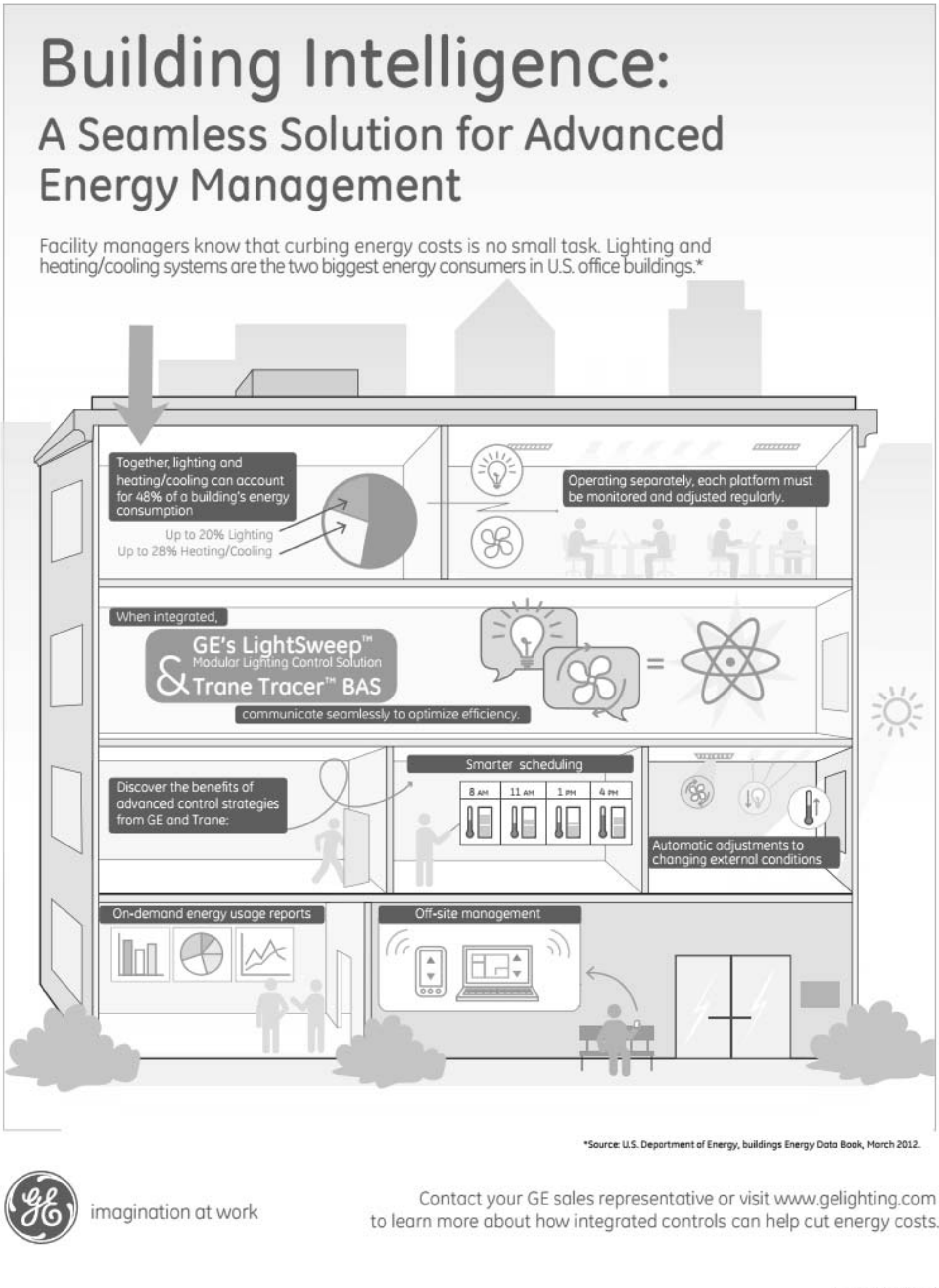


Palestine YMCA

Daily Peak Demand versus Degree Days



Lighting
Trane and GE's Partnership



The following few pa

LED Replacement Lamps

The bright white radiance of GE's LED replacement lamps is not just something you see, it's something you feel. Whether you're in the retail, hospitality, office, or healthcare market segment, we have an entire family of GE LED replacement lamps. LED lamps save energy and have significantly longer rated life hours than incandescent or halogen lamps, plus our ENERGY STAR® products can provide you with additional savings via utility rebate programs.

Perfect for retail applications, GE's **LED lamps** with **reveal®** Whiter White technology combines brightening power similar to ceramic metal halide technology with a precisely tuned spectrum to deliver brilliant colors, while complemented with GE's patented Visual Comfort Lens. The end result? Merchandise appears rich, colorful, and vibrant without the harsh glare associated with many other LED products.

Experience the advantages of LED lighting with a simple switch. **LED Plug-In** replacement lamps from GE allow you to replace inefficient CFLs without tools or a costly upgrade. Available in horizontal and vertical configurations, LED Plug-Ins from GE are rated for 50,000 hours vs 20,000 hours for a typical CFL. Using 13 watts to replace a 26-watt CFL, LED Plug-Ins cut energy use by 50%.

Click...click...click! GE offers **LED A-Line 3-way** lamps as excellent replacements for standard 30/70/100-watt and 50/100/150-watt incandescent lamps. For example, when using the 22 watt setting, save over $350 in energy costs over the rated life of the lamp versus a standard 150-watt incandescent lamp based on $0.11 per kWh. Energy efficiency and long life mean fewer lamp replacements versus standard incandescent or halogen light sources.

GE offers dimmable **LED A-Line** lamps as an excellent option for energy savings in your fully enclosed fixtures like the Jelly Jar. For example, using only 12 watts of energy, save $172 in energy costs over the rated life of the lamp versus a standard 75-watt incandescent lamp based on $0.11 per kWh. Up to 25,000 hours rated life and dims from 100% to as low as 10%. These lamps are rated for an ambient temperature of ≥ -20°C to ≤ 70°C inside a fixture.

ENERGY STAR PARTNER

www.gelighting.com

The Venetian/ The Palazzo

Las Vegas, Nevada

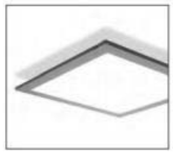
New LED lighting from GE will help Las Vegas Sands Corp. save nearly 4.1 million kilowatt hours (kWh) of electricity a year in its meeting rooms as part of its Sands ECO 360° Green Meetings program. As a result of GE's energy-efficient lighting solutions, Las Vegas Sands Corp. has now reduced its annual lighting spend by about $2 million overall including new savings in meeting spaces and in guest suites at The Venetian/The Palazzo Las Vegas since 2010.

Ingersoll Rand

Ingersoll Rand is committed to advancing quality of life by creating comfortable and efficient environments for its customers, and it has applied the company mission to renovations of building at its North American headquarters in North Carolina by using LED indoor lighting fixtures, which will reduce power density by more than 36%.

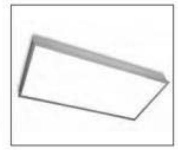
Lumination™ LED Luminaires

GE Lighting continues to evoke the imagination of architects and lighting designers with LED luminaires that inspire new commercial ceiling landscapes.

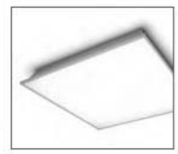


Lumination™ ET Series LED Luminaires with Intrinsx™ technology is a commercial recessed ceiling troffer utilizing an advanced LED optical system to achieve exceptional application performance. It provides high uniformity, excellent efficiency, improved spacing criteria, and low glare. The ultra-thin form factor maximizes ceiling space and installs easily in very shallow ceiling plenums. It is suitable for indoor general lighting.

Cookie-cutter ceilings are a thing of the past. The **Lumination™ BL Series LED Luminaires** open up a world of distinctive design possibilities. Unlike traditional fluorescent troffers that require larger, boxier shapes dotting a ceiling landscape, these sleek LED fixtures provide a crisp, clean visual alternative with no hotspots or socket shadows at the end of the fixtures. They are designed to install in long continuous rows into integrated ceiling systems like Logix™ from USG. The effect is striking and modern. These breakthrough fixtures bring a fresh new perspective to distinctive ceiling design.



The Lumination™ BR Series LED Luminaires are the affordable way to retrofit fluorescent fixtures with LED recessed troffers that include dimming options. Designed to install quickly and easily in T-bar ceiling grids, these systems deliver all the energy-saving and long-life advantages of LED in a fixture accessible from below the ceiling plane. Perfect for new construction or retrofit, they deliver beautiful, even LED light to a wide range of commercial applications.



The Lumination™ BT Dimmable Series LED Luminaire is a commercial ceiling troffer that provides high uniformity, excellent efficiency and low glare in 2x2 and 2x4 T-grid ceiling applications. The improved lumen maintenance of L70 initial lumens at 50,000 hours of operation, allows lower maintenance costs over time than traditional systems. It is suitable for indoor general lighting.

2

www.gelighting.com

Lumination™ Architectural LED Troffers including BV Series, AB Series, AC Series and AD Series bring a designer touch to any drop ceiling landscape. For new construction or retrofit, these distinctive fixtures provide a beautiful aesthetic in an easy-to-install LED solution. They feature curving and delineated details with the express purpose of creating added visual interest without sacrificing performance.

Lumination™ EL Series LED Luminaire offers striking minimalist design with an exceptionally thin profile that appears to float across your ceiling landscape. Impressively bright, uniform white light is delivered both vertically and horizontally with the help of Intrinsx™ technology, an advanced LED optical system. A clear transition zone between the frame and light-emitting portion of the fixture creates the intriguing illusion of light floating in mid-air. The dramatic impression continues when the fixture is off—it appears almost transparent. It's all the economy and performance of LED lighting in a package that opens up a new world of striking design possibilities.

Lumination™ IS Series Suspended LED Fixtures bring a modern, clean appearance to any setting with an open ceiling design. These sleek, streamlined fixtures are perfect for low bay retail, warehouse and industrial settings where brand image and performance are priorities. The fixtures are easy to install by mechanically snapping together without the use of additional tools and deliver an impressive 123-136 lumens per watt (LPW). Available in 1x4 and 1x8 models, they install easily and work seamlessly with energy management lighting control systems.

The Lumination™ EP Series LED Luminaire – a chic, ultra-thin fixture unlike anything seen before – aims to redefine office, retail and hospitality environments with captivating form and function. The Lumination™ Suspended LED Luminaire opens the door to a world of decorative potential by delivering remarkable light output in a low-profile, provocative design. A clear, narrow band surrounds the edge of the ceiling fixture, making the light source appear to 'float' in the center of the luminaire. When illuminated, it produces a perfectly even glow. While off, it is nearly transparent.

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Walmart

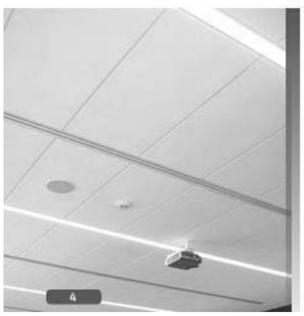
South Euclid, Ohio

With a commitment to reducing energy in all its locations, Walmart worked towards its goal and installed new GE LED Lighting at their first LEED certified store in South Euclid, Ohio. Improvements included installing energy-efficient lighting throughout the whole Supercenter including the parking lot, sales floor and refrigerated display cases. GE's LED technology helped the South Euclid Walmart achieve a LEED Silver certification from the U.S. Green Building council. Walmart's first all LED-lit U.S. Supercenter helps further the retailer's goal to reduce energy use in its buildings globally by 20 percent by 2020.

3

GE & USG

USG and GE Lighting are redefining ceiling design with an integrated ceiling and LED lighting system designed to work together. USG partnered with GE Lighting for the ease of installation, energy and maintenance savings, and an innovative ceiling system. USG reduced its lighting fixture count by 20 percent by replacing 25 2' x 2' U-lamp fluorescent fixtures with GE's 4' Lumination BL Series LED lighting fixtures, arranged in four rows measuring 20 feet across. The innovative ceiling system combines USG's Logix Integrated Ceiling System acoustical tiles with GE Lumination LED linear recessed luminaires, uniting aesthetics and performance by transforming the ceiling plane into a design element without the constraints of traditional ceilings.



4

Lumination™ LED Luminaires

Lumination™ DI Series LED Downlights – are changing the way lighting designers, and architects think about downlighting. The Lumination DI Series features Infusion™ technology, a breakthrough modular design that allows for tool-free LED upgrade as LED technology advances, ensuring the lowest total cost of ownership. Choose the perfect lumen output, color temperature, and optical distribution for your project. Discover great color rendering and consistency, operational savings and long life in a leading edge LED fixture...with a changeable lighting module that can be scaled for your environments.

Lumination™ RI Series LED Downlights. Convert any 6, 8 or 10 inch commercial or industrial downlight to LED with the new Lumination RI Series retrofit LED downlight. Powered by the Infusion LED downlight module, the RI series delivers exceptional efficacy and 90+ CRI across all lumen packages and color temperatures. Custom engineered, spec-grade optical system provide an exceptional aesthetic with 45° cutoff and no glare. Tool-free installation from below the ceiling in just minutes. 50,000 hour life virtually eliminates maintenance costs. Output up to 3600 lumens is ideal for high-ceiling applications.

Lumination™ RS Series LED Downlights. The Lumination RS Series LED downlights install in just minutes into most four-inch and six-inch recessed housings, making the RS series ideal for use in both retrofit and new construction applications. The RS series delivers 700 lumens at 70 lumens per watt, bringing significant energy savings to residential, light commercial, and hospitality environments. All downlights in the RS family have instant-on, standard 120V dimming, and a uniform lit appearance, delivering premium performance in a compact, economical package.

Lumination™ Track Lights and Recessed Multiples. Lumination Track Lighting and multi-head recessed track lighting are designed to deliver a superior aesthetic, efficiency and performance lighting for commercial retail applications. These fixtures have a long rated life and deliver 80 lumens per watt (LPW), allowing for lower maintenance and operating costs. Specific color points centered slightly below the black body to mimic CMH deliver crisp white light while the Visual Comfort Lens™ minimizes glare.

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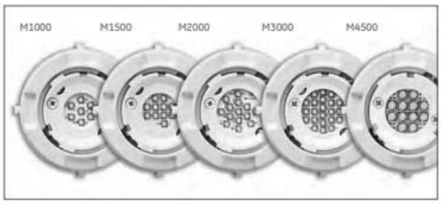
Infusion™ LED Modules

Infusion™ NPM
(Narrow Punch Module)

Infusion™ DLM
(Downlight Module)

GE's Infusion™ LED module opens up a world of new lighting possibilities. The long-lasting, low maintenance, twist-in LED module is one of the most flexible lighting solutions available today–and tomorrow. Because as LED technology advances, your luminaires can easily house future generations of the Infusion LED module. It's the perfect energy-saving solution for retail, gallery and other environments where quality of light is critical.



Infusion™ M1000-M4500 Series

In addition to the Narrow Punch Module (NPM) and Downlight Module (DLM), GE offers a wide range of lumen packages from 850 to 4,500 lumens in five module series (M1000, M1500, M2000, M3000, M4500) to meet a variety of lighting needs – whether an application calls for intense, bright light or low light settings.

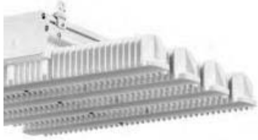
The Infusion™ LED module range provides the flexibility to meet the needs of diverse applications from a single range of socket compatible modules, such as in retail or hospitality settings, where color consistency and quality of light are critical.

www.gelighting.com

next

As part of its commitment to reduce energy consumption, Next has made the leap from traditional lighting to the latest LED technology. The retailer chose a range of luminaires from Luxonic Lighting and utilized GE Lighting's Infusion™ LED Modules as part of an overall solution, which will help it to achieve a 40% energy saving, reduce maintenance and at the same time - improve light quality in the Next stores.

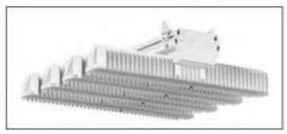
5



Price Chopper, a chain of 128 grocery stores in six states throughout the Northeast, had a goal to dramatically improve the quality and quantity of light for employees, save money on energy costs, achieve central control of all lighting systems and to curb its environmental impact. At its freezer warehouse in Rotterdam, NY, GE's Albeo LED high bay fixtures were installed throughout loading docks, ice cream and frozen food freezer space.

Albeo™ LED Luminaires

The **Albeo™ ALC4-Series LED Luminaire** from GE is the next generation to the popular C3-Series. Albeo ALC4-Series is an advanced LED linear lighting system for general lighting applications. It includes integrated control modules for motion, day lighting and network control. The ALC4-Series is a versatile, energy efficient, long-life alternative to fluorescent fixtures. A mercury-free choice for warehouse, industrial, garage and operation critical applications, the Albeo ALC4-Series LED luminaire provides excellent light levels with a 5 times longer maintenance cycle than standard fluorescent systems.



The **Albeo™ ABH2-series LED Luminaire** utilizes innovative heat-sinking and cutting-edge LED technology to deliver a wide range of light outputs that replace 250W-1,500W HID and four-to-eight lamp T5/T8 high intensity fluorescent (HIF) fixtures in high bay applications. The ABH2-series offers more lumens from fewer LED modules than previous generations, and can be matched with motion, daylight and wireless controls for increased energy savings, lower maintenance costs and shorter paybacks.

GE introduces the **Albeo™ ABV1 Series LED Luminaire**. The industrial-grade ABV1 Series LED high bay lighting fixture provides tremendous energy efficiency and affordability. Offering a faster return on investment than other high bay lighting fixtures, the ABV1 Series is built with a robust, high quality design and is ideal for replacing 250-watt to 1500-watt high-intensity discharge (HID) and four- to eight-lamp T5/T8 high-intensity fluorescent lighting. Its high brightness LEDs make it an ideal lighting solution for a variety of industrial spaces, particularly warehouses, distribution centers and light-manufacturing.

GE's **Albeo™ ABR1 Series LED High Bay Fixture** delivers high efficacy for heavy industrial and wet applications. Building on its award-winning Albeo™ LED high bay portfolio, GE introduces the Albeo™ ABR1 Series LED luminaire, an IP66 rated fixture suitable for heavy industrial and wet applications. The Albeo ABR1 Series LED high bay lighting fixture provides energy efficiency and affordability in the most unforgiving climates and demanding areas. Specifically, this new LED lighting fixture is designed to thrive in rugged areas from wet locations to high ambient conditions up to 65°C.

Evolve™ Outdoor Lighting

The **GE Evolve™ LED Scalable Cobrahead's** advanced reflective optic system design offers hundreds of photometric combinations and is optimized to meet both luminance or illuminance requirements. Advantages include reduced glare, high coefficient of utilization and an optional adaptive controls solution that can easily be upgraded in the future to GE's LightGrid Wireless Control System.

The **GE Evolve™ LED Canopy Light** is a bright solution to efficiently illuminate petroleum canopies. This fixture balances the technical needs of a sophisticated LED system with the functional demands of a robust outdoor fixture facing year round weather hazards. Surface and recessed mounting options available for both new construction and retrofit requirements.

The **Evolve™ LED Security Light**, is designed for such applications as outdoor work yards, commercial and roadside establishments, and roadway lighting in rural areas. It provides significant energy savings compared to HID security lighting and with a lumen maintenance rating of L70 at 100,000 hours, this fixture will significantly reduce maintenance costs.

The **GE Evolve™ LED Scalable Area Light** delivers outstanding performance, while adding greater flexibility, style and scalability. Using an advanced reflective optic system design, GE offers exceptional vertical illuminance and uniformity, while minimizing glare as fixture lumens increase. Reducing energy and maintenance expenses, this solution enables significant operating cost benefits over the life of each fixture.

The **GE Evolve™ LED N Series** Area Lights, Flood Lights and Wall Packs make it easier to optimize space for visibility, security and operational savings while creating a consistent and contemporary look. Evolve LED N Series Area Lights are used for site, area and general lighting applications. The Evolve LED N Series Flood Light is a bright solution for building facades, flag poles, billboard signage and other traditional flood applications. Evolve LED N Series Wall Packs are designed to efficiently illuminate walkways and general areas and to balance the need for scalability with workhorse performance.

City of San Diego, CA

Last year, San Diego became the first U.S. city to widely use GE's LED lighting fixtures with LightGrid™ outdoor wireless controls technology. The technology, deployed on more than 3,000 city street lights, saves the city more than $254,000 annually in energy and maintenance costs.

Recently the City of San Diego announced that it is the world's first city to partner with GE Lighting on a pilot of its Intelligent Cities platform—a software-defined lighting technology that will help San Diego solve some of the city's infrastructure challenges.

www.gelighting.com

7

Lighting Controls

LightGrid™ is a groundbreaking outdoor wireless control system for street and roadway lights. The unique technology inside this system allows for remote operation and monitoring of all fixtures through a Web-enabled central management system. Designed with municipalities, multi-site companies, and transportation departments in mind, LightGrid offers many features.

LightSweep™ Modular Lighting Control System

When broad range connectivity and flexibility are your objectives, look no further than LightSweep™. A comprehensive, advanced lighting control system, LightSweep™ is ideal for office, education and retail spaces.

Aware™ Occupancy Sensors

Occupancy sensors go a step beyond scheduling by detecting motion within a space and switching the lights On and Off as needed. Occupancy sensors are ideal for spaces that are intermittently occupied. Because of their easy installation, user convenience and maintenance-free operation, occupancy sensors are one of the most preferred lighting control solutions.

Our line of Aware Occupancy Sensors allows you to conserve energy and save money when illumination isn't necessary, while minimizing occupant annoyance caused by false activations or scheduling. Designed with flexibility in mind, Aware Occupancy Sensors can be used as stand-alone units for local control or as part of a greater unit, like LightSweep Modular Lighting Control System.

The design of the room and the amount of activity happening within the space will determine the level of sensitivity needed in the sensor. Finding the appropriate solution is easy because Aware Occupancy Sensors are available in three distinct technologies – Ultrasonic, Passive Infrared and Dual Tech.

Refit Solutions

Complete package for LFL system efficiency upgrades

Refit Solutions from GE convert your existing linear fluorescent to LED without needing a comprehensive reinstall. Each package comes fully stocked with all of the components for each application. It is, quite simply, the easiest solution in lighting upgrades.

Lumination™ LED Door Kit

The Lumination™ LED door kit is the ultimate refit solution. It serves as an upgrade to Linear Fluorescent Fixtures that provides high uniformity, excellent efficiency and reduced glare in 2'x2' and 2'x4' applications. The lumen maintenance at L70 of initial lumens at 50,000 hours of operation, allows lower maintenance costs over time. It is suitable for indoor general lighting.

Recessed Fixture Retrofit

The Lumination™ LED Luminaire Retrofit is a commercial ceiling fixture that provides high uniformity and excellent efficiency applications. The improved lumen maintenance of L85 of initial lumens at 79,000 hours of operation, allows lower maintenance costs over time.

LED Tubes

For the highest energy savings with minimal install time, choose the benefits of LED lighting without any extras. Solutions include one- or two-lamp replaceable LED solutions. Our LED Tubes and GE Lightech™ drivers provide additional benefits like higher efficiency and improved system performance.

Type A Integrated LED Tubes – LED tube with Integrated Lightech™ driver wired to existing LFL ballast.

Type C Standard LED Tubes – LED tube with remote Lightech™ driver.

www.gelighting.com 9

Monroe Building
Richmond, Virginia

Project Scope

- 25 story State building
- $6MM + energy efficient retrofit project
- Included: lighting, water fixtures, controls, pumps, variable speed drives, & 12 new boilers
- 15 year performance contract

Customer Solution / Experience

- Addresses total energy equation with guaranteed savings
- Operating & maintenance contract supported by Trane & GE warranties provide significant value to the building owner

Customer Value

- $0.5MM energy & $0.1MM operating savings annually
- $8MM savings over 15 years

Partnership Value

- Trane $6MM
- GE Lighting $1.5MM

imagination at work

10

Ingersoll Rand

Trane Building Advantage

It's Time to Think Beyond

TRANE BUILDING ADVANTAGE

Our Belief

- Buildings should be an asset to your organizational goals
- All operations are unique, and all should demand optimal performance

Our Experience

- Over 100 years of forward-thinking expertise and cutting-edge technology
- An industry leader in equipment, controls, and services and NAESCO certified

Our Commitment

- Straight forward solutions that meet you where you are
- Communicate outcomes

NAESCO ACCREDITED ENERGY SERVICE PROVIDER

The first is making sure we represent the breadth of what we do. And here we are laying out what capabilities we are representing under the Trane Building Advantage brand. With the launch of Trane Building Advantage, we also took a look at how we refer to our solutions and capabilities and communicate them to the customers. One thing we noticed and heard is that our use of internal vernacular and over use of acronyms was actually harming our exposure in the market place. Representing these vast capabilities will be one important step in building equity in the Trane Building Advantage brand.

TRANE BUILDING ADVANTAGE

CORE CAPABILITIES

- Building Controls & Automation
- Energy Management Systems & Services
- Energy Contracting
- Renewable Energy & Power Solutions
- Energy Procurement & Management Services

Building Automation and Controls

TRANE BUILDING ADVANTAGE

- Enterprise Controls
- Building System Controls
- Equipment and Unit Controls
- Wireless Communication
- Energy Systems Integration Solutions
- Intelligent Services

Energy Management Systems and Services

- Assessment and Advisory
- Intelligent Services
  - Energy Performance
  - Building Performance
  - Active Monitoring

Energy Contracting

- Performance Guarantee Contracting
- Energy Savings Performance Contracting
- Design and Build Turnkey Projects
- Asset Renewal
- Existing Building Commissioning

Renewable Energy and Power Solutions

- Co-gen
- Photovoltaic
- Biomass
- Biogas
- Compressed NG (fuel switch)
- District Energy Plants
- Solar Thermal
- Wind Power

Energy Procurement and Management Services

- Energy Sourcing
- Energy Price Risk Management
- Energy Data Management
- 24/7 Power Control Center
- Utility Base Line Review

FellonMcCord
Knowledge in Energy

Impact Stories

FINANCIAL STATEMENT SERVICES, INC.
Santa Ana, California

TRANE BUILDING ADVANTAGE

IMPACT STORY

The Energy Conservation Measures (ECM) had a payback of less than one year and cut annual operating costs by nearly $72,000.

IMPROVEMENT

- Replaced lighting throughout FSSI, slashing energy demands by 40% while increasing overall illumination.
- Implemented advanced technology and analytics that collect, interpret, and act on building data.

SAVINGS

- ECMs reduced operating costs by nearly $72,000.
- FSSI benefited from a one-time rebate of $53,000 from Southern California Edison.

IMPACT

- Enhanced ability to meet client expectations while staying committed to environmental responsibility.
- FSSI reinvested savings in equipment and operations to grow business.

FINANCIAL STATEMENT SERVICES, INC

SPECTRUM HEALTH

West Michigan and Chicago, Illinois

TRANE BUILDING ADVANTAGE

IMPACT STORY

By replacing outmoded equipment and completing a series of energy-efficient improvements, Spectrum Health System was able to save nearly $1,227,000 in annual operating costs across nine hospitals and more than 180 service sites.

IMPROVEMENT	SAVINGS	IMPACT
Extensive sub-metering capabilities provide detailed information on energy consumption at The Lemmen-Holton Cancer Pavillion. Bloggett Hospital installed an ice storage system to provide energy efficiency.	Chiller plant, control upgrades, and other improvements are expected to save nearly $1.2 million annually. Butterworth Hospital alone qualified for over $100,000 in utility rebates, resulting in over $450,000 in annual savings.	Enhanced safety and quality, providing exceptional experiences for patients as well as staff. Improvements reduced operating expenses while augmenting environmental conditions.

SPECTRUM HEALTH

CITY OF VESTAVIA HILLS

City of Vestavia Hills, Alabama

TRANE BUILDING ADVANTAGE

IMPACT STORY

The City of Vestavia Hills funded energy improvements with a performance contract that enabled them to utilize future savings to finance the improvements, putting them in the black within one year.

IMPROVEMENT

- Replaced decades-old light fixtures with high-efficiency, concentrated lighting.
- Installed automated controls that allow maintenance staff to regulate lights remotely.
- Ran wiring underground and installed advanced low-maintenance controls.

SAVINGS

- Reduced annual energy costs by nearly $60,000.
- Cut number of light fixtures from 1,400 to 700, drastically reducing energy and fixture costs and manpower hours.

IMPACT

- Maintenance staff regulates lighting using automated, remote controls, saving manpower, electricity, and cost.
- Improved safety for players and increased visibility for fans, resulting in more desirable sports facilities.

CITY OF VESTAVIA HILLS

PACIFIC PALMS RESORT

City of Industry, California

TRANE BUILDING ADVANTAGE

IMPACT STORY

By conducting a comprehensive energy audit of its facilities, Pacific Palms Resort identified areas of improvement and upgrades that resulted in more than $540,000 in annual savings when completed.

IMPROVEMENT	SAVINGS	IMPACT
Energy-efficient, modular units replaced old steam boilers to lower energy use and increase guest comfort. Thermal energy storage tanks are charged at night when energy is less expensive and discharge energy during the day in response to system demand.	Recently completed infrastructure upgrades generated first-year savings of more than $540,000. Reaped additional savings of nearly $500,000 in one-time rebates from electrical and gas companies.	Improvements generated significant energy savings while providing a reliably comfortable environment. Upgrades aligned with commitment to environmental stewardship and sustainability.

PACIFIC PALMS RESORT

BUDD INLET
Olympia, Washington

IMPACT STORY

LOTT's cogeneration system converts methane gas to heat and energy for use in numerous structures, giving the site status as a district heating plant. The system eliminates the need to burn off excess gas and greatly reduces emissions.

IMPROVEMENT

- Installed a custom, high-efficiency cogeneration system that reduces the energy required for treatment processes.
- New system utilizes treatment by-products such as methane gas, which was previously flared into the atmosphere.

SAVINGS

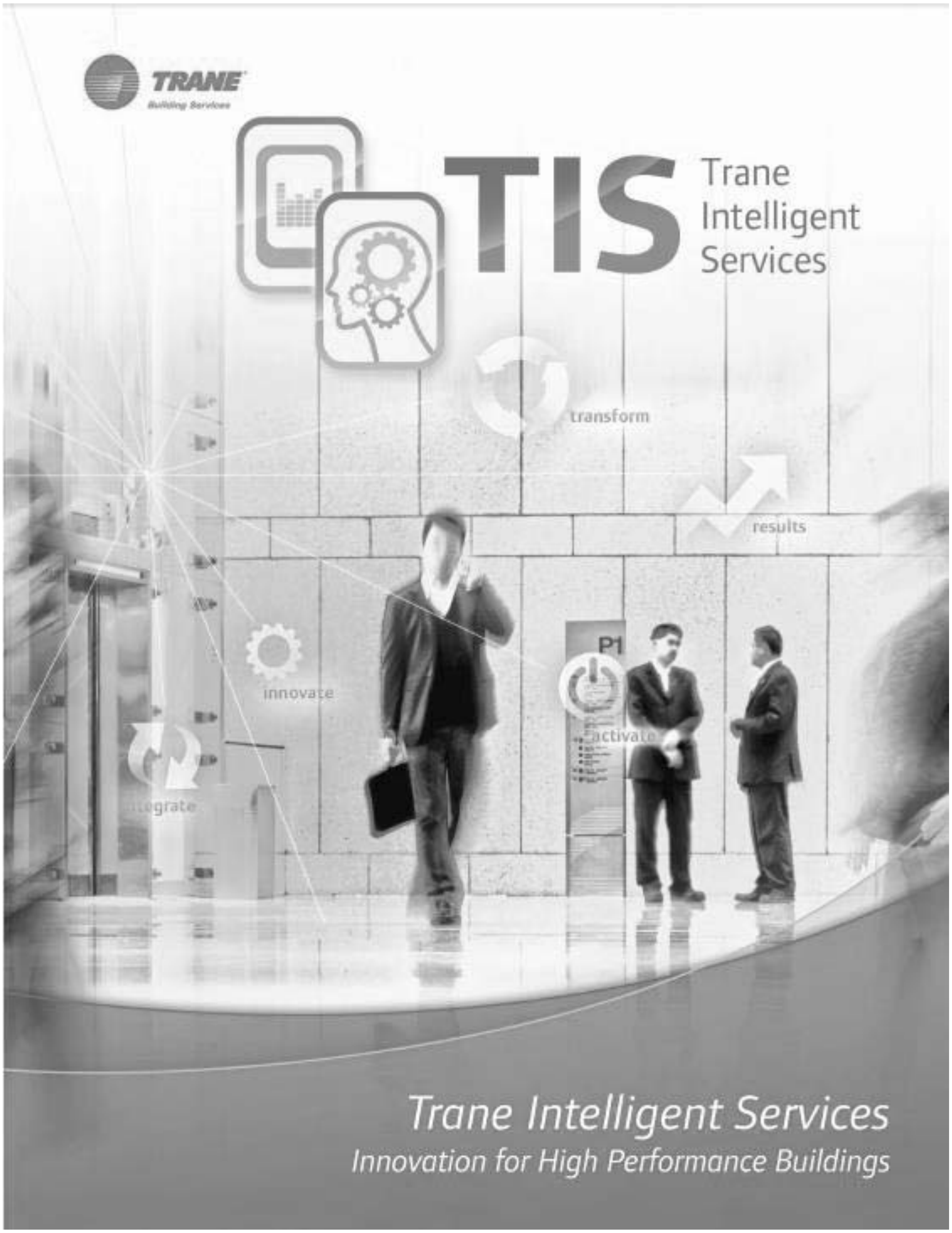
- Using treatment by-products as fuel is expected to save the LOTT Cleanwater Alliance more than $228,000 annually.
- Puget Sound Energy provided a $1.7 million Energy Conservation Grant, saving energy customers money.

IMPACT

- The cogeneration system greatly reduced annual emissions including over 1,800 metric tons of carbon dioxide.
- Improvements saved more than 2.8 million kilowatt hours of energy per year—enough to power more than 210 homes.

BUDD INLET

Intelligent Services



Active Intelligence:

The Next Generation of Innovation

In today's energy-aware environment, Trane Intelligent Services has broken the traditional building-service model. TIS is the revolutionary integration of technology, proprietary analytics and Trane expertise that continuously collect, interpret and act on building data to improve the performance of the building's systems.

The outcome is improved energy efficiency and reduced costs—the hallmarks of Trane High Performance Buildings. By definition, Trane High Performance Buildings provide year-over-year benefits for building owners. Achieving year-over-year benefits requires the kind of active intelligence produced by TIS.

Enable Your Mission 24/7

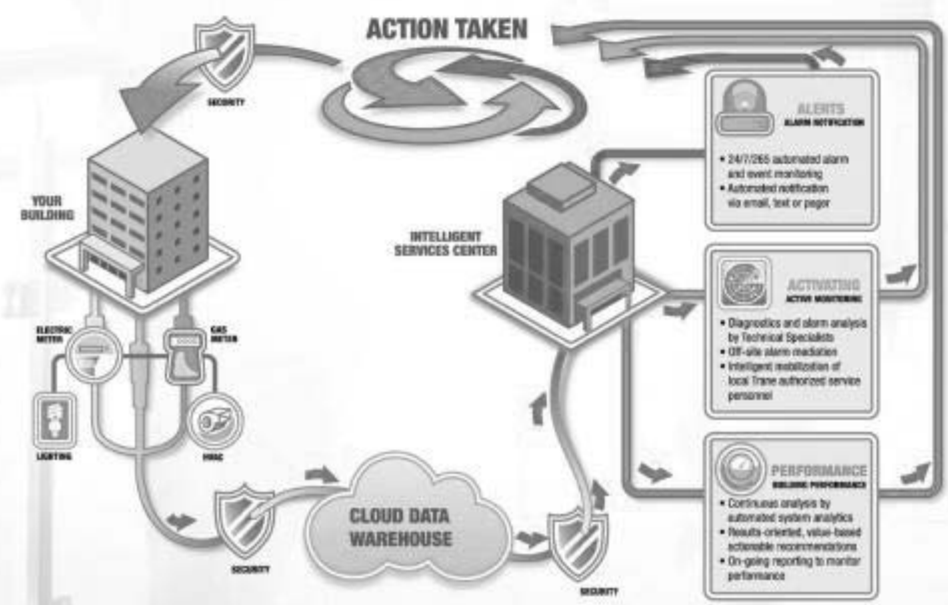
When it comes to meeting desired performance goals related to energy efficiency, buildings perform in a range from very poorly to relatively well. At the same time, building owners/operators have different expectations, missions and budgets for their buildings. So Trane Intelligent Services offers performance enhancements to meet each building's specific needs: Alarm Notification, Active Monitoring and Building Performance.

Trane's Active Intelligence is at work in your building 24/7/365, translating your building's critical data and empowering you to make informed, educated decisions using the most reliable, up-to-the-minute information possible.

How Trane Intelligent Services Work

Trane's Active Intelligence management system takes the data produced through building system information and converts it into meaningful knowledge to enhance and elevate your building's performance.

Active Intelligence is enabled by connectivity: the web-based linking of building controls to the Trane Intelligent Services Center, where imperative information is filtered by our exclusive software analytics and knowledgeable Technical Specialists and action is taken.



Intelligent Services to Meet Your Needs

Alarm Notification

Alarm Notification is included with all Trane Service Agreements.

Alarm Notification features:

- Customer-defined data-collection points
- 24/7/365 automated alarm and event monitoring
- Automated notification via email, text or pager
- Archiving of critical alarm data
- Bi-monthly scheduled backup

Benefits to the customer:

Every notification is customized to meet the customer's needs, and assure that the right person is being alerted if there is a system malfunction

- Immediate and timely notification allows you to take prompt action to resolve the problem and avoid interruptions in your operation
- Trane Intelligent Services offers customers peace of mind, knowing that the fully automated alarm system's responsiveness means a customer is never out of touch with the systems and working environment of their buildings

Active Monitoring

Active Monitoring includes Alarm Notification, plus the benefits of immediate diagnostic and responsive action capabilities

Active Monitoring features:

- Diagnostics and alarm analysis by Technical Specialist
- Off-site alarm mediation if possible
- Intelligent Mobilization of local Trane authorized service personnel
- Alarm documentation and reporting (daily, weekly, monthly, quarterly)

Benefits to the customer:

- Faster detection means faster resolution saving critical time and money
- 40% of the critical alarms are resolved within 30 minutes of the alarm sounding, which gets your system operational more quickly
- Triple redundancy ensures your system and operations are safe and secure

Building Performance

This performance-focused offer includes all of the features of Active Monitoring coupled with analyzed data and performance-driven recommendations and actions enabling high performance operating conditions.

Building Performance features:

- Initial system-wide assessment
- Continuous analysis by automated system analytics
- Results-oriented, value-based actionable recommendations
- On-going commissioning reporting to monitor parameters

Benefits to the customer:

- Alarm Notification and Active Monitoring now are performance-enhanced to interpret every thing occurring in your building at all times
- Intelligence in action - warning when a system malfunctions and translating data into actionable solutions to enhance building performance
- Anticipating problems and proactively solving them dramatically reduces downtime and increases productivity
- Trane Intelligent Services is the customer's safety net for occupant comfort and satisfaction
- Savings can be measured through efficient operations, again making the building a performance center rather than a loss leader

Getting Started with Active Intelligence

We like to think of the continuous translation of your building's critical data into real time results as Active Intelligence. Exclusive technology and expertise empower Trane to filter through infinite data, discover relevance to your organization's mission, and deliver optimal performance. TIS utilizes Active Intelligence to positively impact productivity, sustainability, occupant comfort and safety, risk management, cost avoidance, and resource allocation. Most importantly, through its evolving application of technology and data analysis, TIS is an enabler of your high performance building, making immediate and long-term improvements throughout the life of your facility.

DOC #1

Clean Air and Water Act

I, the Vendor, am in compliance with all applicable standards, orders or regulations issued pursuant to the Clean Air Act of 1970, as Amended (42 U.S. C. 1857 (h), Section 508 of the Clean Water Act, as amended (33 U.S.C. 1368), Executive Order 117389 and Environmental Protection Agency Regulation, 40 CFR Part 15 as required under OMB Circular A-102, Attachment O, Paragraph 14 (1) regarding reporting violations to the grantor agency and to the United States Environment Protection Agency Assistant Administrator for the Enforcement.

Potential Vendor: Trane U.S. Inc

Title of Authorized Representative: TCPN Strategic Program Leader

Mailing Address: 800-A Beaty Street, Davidson, NC 28936

Signature:

DOC #2

Debarment Notice

I, the Vendor, certify that my company has not been debarred, suspended or otherwise ineligible for participation in Federal Assistance programs under Executive Order 12549, "Debarment and Suspension", as described in the Federal Register and Rules and Regulations.

Potential Vendor: Trane U.S, Inc

Title of Authorized Representative: TCPN Strategic Program Leader

Mailing Address: 800-A Beaty Street, Davidson, NC 28036

Signature:____

DOC #3

LOBBYING CERTIFICATION

Submission of this certification is a prerequisite for making or entering into this transaction and is imposed by Section 1352, Title 31, U.S. Code. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Any person who fails to file the required certification shall be subject to civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The undersigned certifies, to the best of his/her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of a Federal contract, the making of a Federal grant, the making of a Federal loan, the entering into a cooperative agreement, and the extension, continuation, renewal, amendment, or modification of a Federal contract, grant, loan, or cooperative agreement.

2. If any funds other than Federal appropriated funds have been or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract or cooperative agreement, the undersigned shall complete and submit Standard Form LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all covered sub-awards exceeding $100,000 in Federal funds at all appropriate tiers and that all sub-recipients shall certify and disclose accordingly.

Signature of Respondent — 4-28-2015 Date

Greg Spencer
TCPN Strategic Program Leader

DOC #4

CONTRACTOR CERTIFICATION REQUIREMENTS

Contractor's Employment Eligibility

By entering the contract, Contractor warrants compliance with the Federal Immigration and Nationality Act (FINA), and all other federal and state immigration laws and regulations. The Contractor further warrants that it is in compliance with the various state statues of the states it is will operate this contract in.

Participating Government Entities including School Districts may request verification of compliance from any Contractor or subcontractor performing work under this Contract. These Entities reserve the right to confirm compliance in accordance with applicable laws.

Should the Participating Entities suspect or find that the Contractor or any of its subcontractors are not in compliance, they may pursue any and all remedies allowed by law, including, but not limited to: suspension of work, termination of the Contract for default, and suspension and/or debarment of the Contractor. All costs necessary to verify compliance are the responsibility of the Contractor.

The offeror complies and maintains compliance with the appropriate statutes which requires compliance with federal immigration laws by State employers, State contractors and State subcontractors in accordance with the E-Verify Employee Eligibility Verification Program.

Contractor shall comply with governing board policy of the Region 4 ESC Participating entities in which work is being performed.

Fingerprint & Background Checks

If required to provide services on school district property at least five (5) times during a month, contractor shall submit a full set of fingerprints to the school district if requested of each person or employee who may provide such service. Alternately, the school district may fingerprint those persons or employees. An exception to this requirement may be made as authorized in Governing Board policy. The district shall conduct a fingerprint check in accordance with the appropriate state and federal laws of all contractors, subcontractors or vendors and their employees for which fingerprints are submitted to the district. Contractor, subcontractors, vendors and their employees shall not provide services on school district properties until authorized by the District.

The offeror shall comply with fingerprinting requirements in accordance with appropriate statutes in the state in which the work is being performed unless otherwise exempted.

Contractor shall comply with governing board policy in the school district or Participating Entity in which work is being performed.

Business Operations in Sudan, Iran

In accordance with A.R.S. 35-391 and A.R.S. 35-393, the Contractor hereby certifies that the contractor does not have scrutinized business operations in Sudan and/or Iran.

Signature of Respondent

4. 28. 2015

Date

Greg Spencer

TCPN Strategic Program Leader

DOC #5

ANTITRUST CERTIFICATION STATEMENTS

(Tex. Government Code § 2155.005)

I affirm under penalty of perjury of the laws of the State of Texas that:

(1) I am duly authorized to execute this contract on my own behalf or on behalf of the company, corporation, firm, partnership or individual (Company) listed below;

(2) In connection with this proposal, neither I nor any representative of the Company has violated any provision of the Texas Free Enterprise and Antitrust Act, Tex. Bus. & Comm. Code Chapter 15;

(3) In connection with this proposal, neither I nor any representative of the Company has violated any federal antitrust law; and

(4) Neither I nor any representative of the Company has directly or indirectly communicated any of the contents of this proposal to a competitor of the Company or any other company, corporation, firm, partnership or individual engaged in the same line of business as the Company.

Vendor Trane U.S., Inc

Offeror See below
Signature
Greg Spencer
Print Name
TCPN Strategic Program Leader
Position with Company

Address 800-A Beaty Street
Davidson
North Carolina 28036

Phone 469-442-6055

Fax 972-243-1398

Authorizing Official

Signature
Greg Spencer
Print Name
Strategic Program Leader
Position with Company

DOC #6

OWNERSHIP DISCLOSURE FORM

(N.J.S. 52:25-24.2)

Pursuant to the requirements of P.L. 1999, Chapter 440 effective April 17, 2000 (Local Public Contracts Law), the offeror shall complete the form attached to these specifications listing the persons owning 10 percent (10%) or more of the firm presenting the proposal.

Company Name: Trane U.S, Inc

Street: 800-A Beaty Street

City, State, Zip Code: Davidson, NC 28036

Complete as appropriate:

I ______________________________, certify that I am the sole owner of ______________________________, that there are no partners and the business is not incorporated, and the provisions of N.J.S. 52:25-24.2 do not apply.

OR:

I ______________________________, a partner in ______________________________, do hereby certify that the following is a list of all individual partners who own a 10% or greater interest therein. I further certify that if one (1) or more of the partners is itself a corporation or partnership, there is also set forth the names and addresses of the stockholders holding 10% or more of that corporation's stock or the individual partners owning 10% or greater interest in that partnership.

OR:

I ______________________________, an authorized representative of ______________________________, a corporation, do hereby certify that the following is a list of the names and addresses of all stockholders in the corporation who own 10% or more of its stock of any class. I further certify that if one (1) or more of such stockholders is itself a corporation or partnership, that there is also set forth the names and addresses of the stockholders holding 10% or more of the corporation's stock or the individual partners owning a 10% or greater interest in that partnership.

(Note: If there are no partners or stockholders owning 10% or more interest, indicate none.)

Name	Address	Interest

Trane U. S, Inc. is a wholly owned subsidiary of Ingersoll-Rand, pic. There are no stockholders owning a 10% or more interest in Ingersoll-Rand, pic.

I further certify that the statements and information contained herein are complete and correct to the best of my knowledge and belief.

4-28-2015
Date

Authorized Signature and Title
Strategic Program Leader-North America

TRANE BUILDING ADVANTAGE

DOC #7

NON-COLLUSION AFFIDAVIT

Company Name: Trane U.S., Inc.
Street:800-A Beaty Street
City, State, Zip Code: Davidson, NC 28396

State of Texas

County of Dallas

I, Greg Spencer *of the* Dallas
Name *City*

in the County of Dallas *, State of* Texas
_______________ *of full age, being duly sworn according to law on my oath depose and say that:*

I am the TCPN Strategic Program Leader *of the firm of* Trane, U.S.
Title *Company Name*

the offeror making the Proposal for the goods, services or public work specified under the Harrison Township Board of Education attached proposal, and that I executed the said proposal with full authority to do so; that said offeror has not directly or indirectly entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free, competitive bidding in connection with the above proposal, and that all statements contained in said proposal and in this affidavit are true and correct, and made with full knowledge that the Harrison Township Board of Education relies upon the truth of the statements contained in said proposal and in the statements contained in this affidavit in awarding the contract for the said goods, services or public work.

I further warrant that no person or selling agency has been employed or retained to solicit or secure such contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, except bona fide employees or bona fide established commercial or selling agencies maintained by

Trane U.S., Inc.
Company Name

Authorized Signature & Title
TCPN Strategic Program Leader-NA

Subscribed and sworn before me
this 28 day of April , 2015

Maria Solis
Notary Public of ~~New Jersey~~ Texas
My commission expires May 02 , 2019

SEAL

MARIA SOLIS
My Commission Expires
May 2, 2019

DOC #8

AFFIRMATIVE ACTION AFFIDAVIT

(P.L. 1975, C.127)

Company Name: Trane U.S., Inc

Street: 800-A Beaty Street

City, State, Zip Code: Davidson, NC 28036

Proposal Certification:

Indicate below your compliance with New Jersey Affirmative Action regulations. Your proposal will be accepted even if you are not in compliance at this time. No contract and/or purchase order may be issued, however, until all Affirmative Action requirements are met.

Required Affirmative Action Evidence:

Procurement, Professional & Service Contracts (Exhibit A)
Vendors must submit with proposal:

1. *A photo copy of their Federal Letter of Affirmative Action Plan Approval*

OR

2. *A photo copy of their Certificate of Employee Information Report* XXX

OR

3. *A complete Affirmative Action Employee Information Report (AA302)*

Public Work – Over $50,000 Total Project Cost:

A. No approved Federal or New Jersey Affirmative Action Plan. We will complete Report Form AA201-A upon receipt from the Harrison Township Board of Education B. Approved Federal or New

Jersey Plan – certificate enclosed

I further certify that the statements and information contained herein, are complete and correct to the best of my knowledge and belief.

4-28-2015
Date

Authorized Signature and Title
TCPN Strategic Program Leader-NA

P.L. 1995, c. 127 (N.J.A.C. 17:27)

MANDATORY AFFIRMATIVE ACTION LANGUAGE

PROCUREMENT, PROFESSIONAL & SERVICE CONTRACTS

During the performance of this contract, the contractor agrees as follows:

The contractor or subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, sex, affectional or sexual orientation. The contractor will take affirmative action to ensure that such applicants are recruited and employed, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, sex, affectional or sexual orientation. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Public Agency Compliance Officer setting forth provisions of this non-discrimination clause.

The contractor or subcontractor, where applicable will, in all solicitations or advertisement for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, sex, affectional or sexual orientation.

The contractor or subcontractor, where applicable, will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer advising the labor union or workers' representative of the contractor's commitments under this act and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

The contractor or subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer pursuant to P.L. 1975, c. 127, as amended and supplemented from time to time and the Americans with Disabilities Act.

The contractor or subcontractor agrees to attempt in good faith to employ minority and female workers trade consistent with the applicable county employment goal prescribed by N.J.A.C. 17:27-5.2 promulgated by the Treasurer pursuant to P.L. 1975, C.127, as amended and supplemented from time to time or in accordance with a binding determination of the applicable county employment goals determined by the Affirmative Action Office pursuant to N.J.A.C. 17:27-5.2 promulgated by the Treasurer pursuant to P.L. 1975, C.127, as amended and supplemented from time to time.

The contractor or subcontractor agrees to inform in writing appropriate recruitment agencies in the area, including employment agencies, placement bureaus, colleges, universities, labor unions, that it does not discriminate on the basis of age, creed, color, national origin, ancestry, marital status, sex, affectional or sexual orientation, and that it will discontinue the use of any recruitment agency which engages in direct or indirect discriminatory practices.

The contractor or subcontractor agrees to revise any of it testing procedures, if necessary, to assure that all personnel testing conforms with the principles of job-related testing, as established by the statutes and court decisions of the state of New Jersey and as established by applicable Federal law and applicable Federal court decisions.

The contractor or subcontractor agrees to review all procedures relating to transfer, upgrading, downgrading and lay-off to ensure that all such actions are taken without regard to age, creed, color, national origin, ancestry, marital status, sex, affectional or sexual orientation, and conform with the applicable employment goals, consistent with the statutes and court decisions of the State of New Jersey, and applicable Federal law and applicable Federal court decisions.

The contractor and its subcontractors shall furnish such reports or other documents to the Affirmative Action Office as may be requested by the office from time to time in order to carry out the purposes of these regulations, and public agencies shall furnish such information as may be requested by the Affirmative Action Office for conducting a compliance investigation pursuant to Subchapter 10 of the Administrative Code (NJAC 17:27).

____
Signature of Procurement Agent

DOC #9

C. 271 POLITICAL CONTRIBUTION DISCLOSURE FORM

Public Agency Instructions

This page provides guidance to public agencies entering into contracts with business entities that are required to file Political Contribution Disclosure forms with the agency. **It is not intended to be provided to contractors.** What follows are instructions on the use of form local units can provide to contractors that are required to disclose political contributions pursuant to N.J.S.A. 19:44A-20.26 (P.L. 2005, c. 271, s.2). Additional information on the process is available in Local Finance Notice 2006-1 (www.nj.gov/dca/lgs/lfns/lfnmenu.shtml).

1. The disclosure is required for all contracts in excess of $17,500 that are **not awarded** pursuant to a "fair and open" process (N.J.S.A. 19:44A-20.7).
2. Due to the potential length of some contractor submissions, the public agency should consider allowing data to be submitted in electronic form (i.e., spreadsheet, pdf file, etc.). Submissions must be kept with the contract documents or in an appropriate computer file and be available for public access. **The form is worded to accept this alternate submission.** The text should be amended if electronic submission will not be allowed.
3. The submission must be **received from the contractor and** on file at least 10 days prior to award of the contract. Resolutions of award should reflect that the disclosure has been received and is on file.
4. The contractor must disclose contributions made to candidate and party committees covering a wide range of public agencies, including all public agencies that have elected officials in the county of the public agency, state legislative positions, and various state entities. The Division of Local Government Services recommends that contractors be provided a list of the affected agencies. This will assist contractors in determining the campaign and political committees of the officials and candidates affected by the disclosure.
   a. The Division has prepared model disclosure forms for each county. They can be downloaded from the "County PCD Forms" link on the Pay-to-Play web site at www.nj.gov/dca/lgs/p2p. They will be updated from time-to-time as necessary.
   b. A public agency using these forms **should edit them to properly reflect the correct legislative district**(s). As the forms are county-based, **they list all legislative districts** in each county. **Districts that do not represent the public agency should be removed from the lists.**
   c. Some contractors may find it easier to provide a single list that covers all contributions, regardless of the county. These submissions are appropriate and should be accepted.

d. The form may be used "as-is", subject to edits as described herein.

e. The "Contractor Instructions" sheet is intended to be provided with the form. It is recommended that the Instructions and the form be printed on the same piece of paper. The form notes that the Instructions are printed on the back of the form; where that is not the case, the text should be edited accordingly.

f. The form is a Word document and can be edited to meet local needs, and posted for download on web sites, used as an e-mail attachment, or provided as a printed document.

5. It is recommended that the contractor also complete a "Stockholder Disclosure Certification." This will assist the local unit in its obligation to ensure that contractor did not make any prohibited contributions to the committees listed on the Business Entity Disclosure Certification in the 12 months prior to the contract. (See Local Finance Notice 2006-7 for additional information on this obligation) A sample Certification form is part of this package and the instruction to complete it is included in the Contractor Instructions.

NOTE: This section is not applicable to Boards of Education.

C. 271 POLITICAL CONTRIBUTION DISCLOSURE FORM
Contractor Instructions

Business entities (contractors) receiving contracts from a public agency that are NOT awarded pursuant to a "fair and open" process (defined at N.J.S.A. 19:44A-20.7) are subject to the provisions of P.L. 2005, c. 271, s.2 (N.J.S.A. 19:44A-20.26). This law provides that 10 days prior to the award of such a contract, the contractor shall disclose contributions to:

- any State, county, or municipal committee of a political party
- any legislative leadership committee*
- any continuing political committee (a.k.a., political action committee)
- any candidate committee of a candidate for, or holder of, an elective office: o of the public entity awarding the contract
    - of that county in which that public entity is located
    - of another public entity within that county
    - or of a legislative district in which that public entity is located or, when the public entity is a county, of any legislative district which includes all or part of the county. The disclosure must list reportable contributions to any of the committees that exceed $300 per election cycle that were made during the 12 months prior to award of the contract. See N.J.S.A. 19:44A-8 and 19:44A-16 for more details on reportable contributions.

N.J.S.A. 19:44A-20.26 itemizes the parties from whom contributions must be disclosed when a business entity is not a natural person. This includes the following:

- individuals with an "interest" ownership or control of more than 10% of the profits or assets of a business entity or 10% of the stock in the case of a business entity that is a corporation for profit
- all principals, partners, officers, or directors of the business entity or their spouses
- any subsidiaries directly or indirectly controlled by the business entity
- IRS Code Section 527 New Jersey based organizations, directly or indirectly controlled by the business entity and filing as continuing political committees, (PACs). When the business entity is a natural person, "a contribution by that person's spouse or child, residing therewith, shall be deemed to be a contribution by the business entity." [N.J.S.A. 19:44A-20.26(b)] The contributor must be listed on the disclosure. Any business entity that fails to comply with the disclosure provisions shall be subject to a fine imposed by ELEC in an amount to be determined by the Commission which may be based upon the amount that the business entity failed to report. The enclosed list of agencies is provided to assist the contractor in identifying those public agencies whose elected official and/or candidate campaign committees are affected by the disclosure requirement. It is the contractor's responsibility to identify the specific committees to which contributions may have been made and need to be disclosed. The disclosed information may exceed the

minimum requirement. The enclosed form, a content-consistent facsimile, or an electronic data file containing the required details (along with a signed cover sheet) may be used as the contractor's submission and is disclosable to the public under the Open Public Records Act. The contractor must also complete the attached Stockholder Disclosure Certification. This will assist the agency in meeting its obligations under the law.

NOTE: This section does not apply to Board of Education contracts.

* N.J.S.A. 19:44A-3(s): "The term "legislative leadership committee" means a committee established, authorized to be established, or designated by the President of the Senate, the Minority Leader of the Senate, the Speaker of the General Assembly or the Minority Leader of the General Assembly pursuant to section 16 of P.L.1993, c.65 (C.19:44A-10.1) for the purpose of receiving contributions and making expenditures."

C. 271 POLITICAL CONTRIBUTION DISCLOSURE FORM

Required Pursuant To N.J.S.A. 19:44A-20.26

This form or its permitted facsimile must be submitted to the local unit no later than 10 days prior to the award of the contract.

Part I – Vendor Information

Vendor Name: Trane U.S., Inc.
Address: 800-A Beaty Street
City: Davidson State: NC Zip:28036

The undersigned being authorized to certify, hereby certifies that the submission provided herein represents compliance with the provisions of N.J.S.A. 19:44A-20.26 and as represented by the Instructions accompanying this form.

Greg Spencer TCPN Strategic Program Leader

Signature Printed Name Title

Part II – Contribution Disclosure

Disclosure requirement: Pursuant to N.J.S.A. 19:44A-20.26 this disclosure must include all reportable political contributions (more than $300 per election cycle) over the 12 months prior to submission to the committees of the government entities listed on the form provided by the local unit.

❑ Check here if disclosure is provided in electronic form.

Contributor Name	Recipient Name	Date	Dollar Amount

❑ Check here if the information is continued on subsequent page(s)

Continuation Page

C. 271 POLITICAL CONTRIBUTION DISCLOSURE FORM

Required Pursuant To N.J.S.A. 19:44A-20.26

Page ___ of___

Vendor Name:

Contributor Name	Recipient Name	Date	Dollar Amount

❑ Check here if the information is continued on subsequent page(s)

List of Agencies with Elected Officials Required for Political Contribution Disclosure

N.J.S.A. 19:44A-20.26

County Name:
State:

Governor, and Legislative Leadership Committees

Legislative District #s:

State Senator and two members of the General Assembly per district.

County:

Freeholders	County Clerk	Sheriff
{County Executive}	Surrogate	

Municipalities (Mayor and members of governing body, regardless of title)

USERS SHOULD CREATE THEIR OWN FORM, OR DOWNLOAD FROM WWW.NJ.GOV/DCA/LGS/P2P A COUNTY-BASED, CUSTOMIZABLE FORM.

DOC #10

STOCKHOLDER DISCLOSURE CERTIFICATION

Name of Business:

- ☐ I certify that the list below contains the names and home addresses of all stockholders holding 10% or more of the issued and outstanding stock of the undersigned.

OR

- ☒ I certify that no one stockholder owns 10% or more of the issued and outstanding stock of the undersigned.

Check the box that represents the type of business organization:

- ☐ Partnership
- ☒ Corporation
- ☐ Sole
- ☐ Proprietorship
- ☐ Limited Partnership
- ☐ Limited Liability Corporation
- ☐ Limited Liability Partnership
- ☐ Subchapter S Corporation

Sign and notarize the form below, and, if necessary, complete the stockholder list below.

Stockholders:

Name: Home Address:	Name: Home Address:
Name: Home Address:	Name: Home Address:
Name: Home Address:	Name: Home Address:

Subscribed and sworn before me this 28 day of April, 2015.

(Notary Public) Maria Solis

My Commission expires: May 2, 2019

MARIA SOLIS
My Commission Expires
May 2, 2019

NOTARY PUBLIC
STATE OF TEXAS

(Affiant)

Greg Spencer-Strategic Program Leader
(Print name & title of affiant)
(Corporate Seal)

ACKNOWLEDGMENT AND ACCEPTANCE OF REGION 4 ESC's OPEN RECORDS POLICY

Signature below certifies complete acceptance of Region 4 ESC's Open Records Policy, except as noted below (additional pages may be attached, if necessary).

Check one of the following responses to the Acknowledgment and Acceptance of Region 4 ESC's Open Records Policy below:

☐ We acknowledge Region 4 ESC's Open Records Policy and declare that no information submitted with this proposal, or any part of our proposal, is exempt from disclosure under the Public Information Act.

(*Note: All information believed to be a trade secret or proprietary must be listed below. It is further understood that failure to identify such information, in strict accordance with the instructions below, will result in that information being considered public information and released, if requested under the Public Information Act.)*

☒ We declare the following information to be a trade secret or proprietary and exempt from disclosure under the Public Information Act.

(Note: Offeror must specify page-by-page and line-by-line the parts of the response, which it believes, are exempt. In addition, Offeror must specify which exception(s) are applicable and provide detailed reasons to substantiate the exception(s).

Tab 6 – Pricing (Pages 1 – 16)

Tab 9 – Appendix – Pricing Schedules

1. TCPN Discount Schedule 2015 RFP.xlsx
2. TCPN Labor Wage Chart Template.xlsx
3. Labor Rates for Zones 1 - 57.xlsx
4. Pricing Compliance Flow Chart.xlsx

4-28-2015
Date

TCPN Strategic Leader
Authorized Signature & Title

Case study
January 2013

Boles Independent School District
Trane best-value TCPN contract enables construction of new science lab building
Quinlan, Texas

Boles Independent School District's (ISD) elementary, middle and high school campuses are located thirty-five miles east of Dallas, on 36,700 acres of land on beautiful Lake Tawakoni. The district's student enrollment is approximately 500 students, with nearly 400 of the students transferring from thirteen other school districts. The mission of Boles ISD is to provide an educational environment in which all students can learn and acquire the skills to be productive citizens. And while Boles ISD is financially the poorest district in Texas, it is rich in academics, as demonstrated by its number of students who have graduated from high school with an Associates Degree, and successfully continued on to major universities.

Challenge

Over the last several years, Boles ISD has experienced a large increase in student population. To accommodate the growing enrollment, a new building was opened at the high school, another building was opened at the middle school and a gymnasium was constructed. Boles newest challenge was fulfilling its need for a science building. As the state of Texas cut school budgets, funding was tight for the state's poorest school district. Boles applied for and obtained a TEA grant, only to find they did not have enough money to move forward with their architect's plans.

The new science lab building is adjacent to, and designed to look like, an old airplane hangar, which Boles ISD converted to a gym.

Solution

After learning of Boles ISD's dilemma, a Trane Comprehensive Solutions representative called on the school district to see if Trane could be of assistance. Trane reviewed the original architectural drawings, engaged in discussions to learn more about the new building and its uses, and presented an alternative to the original architect's method of construction. The school board adopted Trane's recommendation, which allowed the district to move forward with a completely funded science lab, as well as have reserves to furnish the interior, and provide twenty-five laptops for the students.

Saving time and money

Trane discussed with Boles ISD the value of purchasing through an interlocal agreement and introduced Boles school board to The Cooperative Purchasing Network (TCPN), which allows large and small government entities such as schools, colleges, cities, counties, non-profits and governmental entities to leverage their purchasing power to ensure they are getting a good value for every dollar they spend on products and services. All TCPN contracts are competitively bid and evaluated by a government entity. Best-value contracts are awarded to national vendors in accordance with purchasing procedures mandated by state procurement laws and regulation, and are based on quality, proven performance, customer satisfaction and pricing. The standardized rates provided by TCPN made the bidding process easier for Boles ISD, ensuring them best pricing, while saving them the time of developing a request for bid, bidding out the project and evaluating potential suppliers.

Meeting needs inside and out

Boles ISD assembled a building committee, which consisted of the district's superintendent, teachers and coaches, and a Trane volunteer chairman. The committee put together a wish list and priorities were set. They designed the building from the inside out, considering the total cost of ownership versus first cost. Acting as the general contractor, Trane pulled together a team to design a science lab building that would meet the needs of the school district, both in functionality and budget. Trane managed the science lab construction, and also assisted with unique ways of furnishing the building with equipment and laptops.

Maximizing energy use and efficiency

In designing the building, energy efficiency led the team. Two Trane 7 ½ ton rooftop units and controls were installed. The high-performance, reliable rooftop units help to maximize energy efficiency and enhance indoor air quality and comfort for students and staff. The units operate quietly so there is no disruption to the classrooms. With easier installation, less maintenance required, reduced operating costs and less upfront expense, the rooftops provide the district with a lower total cost of ownership.

Results

Using the TCPN cooperative to ensure the best use of its dollars, Boles ISD was able to enlist the help of Trane to build a new science lab building for its high school. The new building was designed and built, while reducing first cost and total cost of ownership for the district.

In addition to building the science lab, Trane also assisted with furnishings, equipment and laptops.

"The building is a fully functioning science lab," said Dr. Graham Sweeney, Boles Independent School District Superintendent. "We use it for our high school classes. We also use it for our robotics team, which recently received second place in the robotics competition."

"Our new science lab building sits next to our gym, an old airplane hangar moved on-site in 1949," said Sweeney. "While building the science building, Trane helped us plan ahead for our next project, which is to refurbish the hangar gym. We installed a large transformer that not only supplies enough electricity to the science lab building, but will also take care of all future needs of the gym. Looking ahead allowed us to take some actions now that will reduce our costs when we are able to move forward with the gym improvements, enabling us to provide our students with a more comfortable environment years down the road."

"It has been a professional honor to have worked with Trane," Sweeney added.

CASE-SLX343-EN January 11, 2013

Case study
April 2013

TRANE

Homestead-Wakefield Elementary
TCPN speeds chiller replacement for increased efficiency, energy savings
Bel Air, Maryland

The 50-year-old Homestead-Wakefield Elementary school is part of the Harford County Public School District. With more than 1,000 students, the school has been identified as one of the three largest elementary schools in Maryland. The district's mission to nurture and inspire learning is evident at Homestead-Wakefield, as assessments continue to show outstanding student achievement and continuous improvement.

Challenge
Installed in the 1960s, the HVAC system at Homestead-Wakefield Elementary school was reaching the end of its useful life, compromising the comfort of students, teachers and staff. In order to maintain an optimal learning environment in which to carry out its mission, the school sought to replace its failing reciprocating chiller quickly, before the cooling season began.

Solution
Having worked with Trane on other projects within the school district, the Harford County facilities manager contacted Trane regarding their HVAC challenge. Knowing speed of installation was paramount, Trane recommended that the school use The Cooperative Purchasing Network (TCPN) for an easier and faster resolution.

TCPN allows large and small government entities such as schools, colleges, cities, counties, non-profits and governmental entities to leverage their purchasing power to ensure they are getting a good value on products and services. All TCPN contracts are competitively bid and evaluated by a government entity. Contracts are awarded to national vendors in accordance with purchasing procedures mandated by state procurement laws and regulation, and are based on quality, proven performance, customer satisfaction and pricing. Using TCPN saved Homestead-Wakefield the time of developing a request for bid, bidding out the project and evaluating potential suppliers, while also ensuring them the best value.

Using The Cooperative Purchasing Network (TCPN) helps ensure Harford County Public School District the best value for each dollar they spend.

Improving reliability and efficiency

Trane developed a chiller plant optimization plan that included replacing the failing chiller with a high efficiency, 100-ton Trane Water-cooled Series R™ Chiller - Model RTWD. The advanced design and low speed/direct drive compressor of the RTWD helical rotary chiller provide the school high reliability and improved energy efficiency. With a compact design so narrow it can actually fit through a standard door opening, the RTWD was easy to install, helping the school to meet its tight deadlines.

Optimizing chiller performance

A web-based Trane Tracer™ SC System Controller allows Homestead-Wakefield facility managers to access their HVAC system from any personal computer that meets system requirements, even from a remote location. Using both Trane equipment and controls made for a seamless integration and faster installation. Facility managers can use the Tracer SC for scheduling system operation to increase energy efficiency, monitoring data for optimal performance and troubleshooting for quick issue resolution.

A new 100-ton high efficiency Trane water-cooled chiller saved Homestead-Wakefield Elementary 10 percent in electricity in its first summer of operation.

Results

Using TCPN to speed the procurement process, Homestead-Wakefield Elementary installed a 100-ton Trane RTWD Water-cooled Series R™ Chiller prior to the onset of warm weather. The efficient system saved the school 10 percent in electricity its first summer alone, even though it was the hottest recorded summer in Maryland to date.

A web-enabled Trane Tracer SC System Controller provides facility managers with convenient, remote system access to optimize building performance and manage energy consumption. The upgrades are providing a comfortable environment, students, teachers and staff can count on to enhance learning.

"Trane submitted the TCPN contract for a turnkey replacement of an existing chiller at Homestead-Wakefield Elementary School and met all our requirements with no problems," said Mohan Kohli, project manager, Harford County Schools. "It was a pleasure working with the company, and we look forward to future projects."

Ingersoll Rand

Ingersoll Rand (NYSE:IR) is a world leader in creating and sustaining safe, comfortable and efficient environments in commercial, residential and industrial markets. Our people and our family of brands—including Club Car®, Ingersoll Rand®, Schlage®, Thermo King® and Trane®—work together to enhance the quality and comfort of air in homes and buildings, transport and protect food and perishables, secure homes and commercial properties, and increase industrial productivity and efficiency. We are a $14 billion global business committed to sustainable business practices within our company and for our customers. For more information, visit www.ingersollrand.com.

CASE-SLX356-EN April 04, 2013

Case study
February 2013

Larimer County Courthouse Offices
TCPN project answers comfort needs, reduces energy costs nearly $15,000/yr
Ft. Collins, Colorado

Larimer County, located in north central Colorado, includes several mountain communities, as well as Rocky Mountain National Park. The county encompasses 2,640 square miles of irrigated farms, vast stretches of scenic ranch lands, thick forests and high mountain peaks. The beautiful area provides a wide spectrum of recreational opportunities for residents and visitors.

Challenge
When the Larimer County Courthouse Offices building was originally designed, it was generally only open during regular daytime business hours. As needs of the rapidly growing region changed, three large conference rooms on the first floor of the building were converted to community rooms, where area citizens could attend evening government-related business meetings. The four Trane IntelliPak rooftop units, used to provide a comfortable workplace during the day, had to remain in occupied mode at night to keep temperatures right for first-floor visitors. Wasting a considerable amount of energy and tax-payer dollars, Larimer County sought a solution to answer its after-hours comfort needs.

Built in 2003, the five-story Larimer County Courthouse Offices building provides 156,000 square feet of office space.

Solution
To begin its upgrade project, Larimer County turned to the The Cooperative Purchasing Network (TCPN), a purchasing cooperative for schools, colleges, cities, counties, non-profits and governmental entities. TCPN allows its members to leverage their purchasing power to ensure they are receiving a good value for every dollar they spend on products and services. All TCPN contracts are competitively bid and evaluated by a government entity. Best-value contracts are awarded to national vendors in accordance with state procurement laws and regulation, and are based on quality, proven performance, customer satisfaction and pricing. Ensuring standardized rates, TCPN helped Larimer County obtain the best value, while also saving its limited staff the ordeal of a lengthy bidding process. Pleased with the value it provided on previous projects, Larimer County selected Trane, a TCPN partner, for its upgrade.

Evaluating the options

Trane worked with Larimer County and its local engineering consultant to evaluate a variety of options in order to determine the best solution for the Larimer County Courthouse Offices building. An energy analysis, with cost per kilowatt data, completed by the City of Fort Collins, was used to narrow choices. Ease of maintenance, project payback and return on investment (ROI) were evaluated for each option.

Meeting specific comfort demands

A new energy-efficient Trane 15-ton rooftop unit was added to keep visitors comfortable during after-hours meetings, while the existing Trane Intellipak units continue to provide an optimal indoor building environment during the day. With only the one unit in occupied mode at night, the county was able to substantially reduce its energy costs.

Reducing installation costs

Rather than installing the new rooftop unit on top of the building, a loading dock overhang on the second floor was chosen for its location. Using the existing structure allowed the county to avoid the expense of running duct work from the rooftop and helped to maintain the building aesthetics.

The installation team was able to intercept the main duct work of the building for the new unit, with a Trane VAV terminal unit controlling the first-floor conference room temperature. The factory-installed and engineered VAV unit helped to simplify installation and commissioning, resulting in faster start-up. A system-level controller ties the individual VAV terminal unit to the rooftop unit controllers, providing a coordinated system operation.

System integration

The standardized Trane controls in Larimer County's Courthouse Offices and its other twenty-seven buildings integrate seamlessly for simplified facilities and energy management. A Trane Tracer Summit® building automation system (BAS) gives county facility managers an online, enterprise-wide view and control over all of its buildings and systems from any computer on its network, and enables users to perform daily tasks such as scheduling, alarm management and data analysis.

A Trane rooftop unit was installed on the second floor loading dock overhang to reduce installation costs and maintain building aesthetics.

Results

A Trane rooftop VAV system answered the specific comfort and energy saving needs of the Larimer County Courthouse Offices building. The project is reducing energy use by more than 119,000 kWh a year, resulting in an electricity cost savings of nearly $15,000 annually.

"Getting the best value; that's what I look for," said Troy Griffin, Larimer County Government, facilities maintenance manager. "Trane being a TCPN partner also saved us a lot of work, and a lot of time."

"The system is easy to maintain, which is important, because we have a limited staff taking care of twenty-eight buildings. With the integration of all of our controls into one building automation system, my technicians can look at the Tracer Summit and easily see what service or preventive maintenance needs to be done that day."

"The project provided what we wanted," Griffin added. "And it has worked out flawlessly."

CASE-SLX349-EN February 11, 2013

Case study

March 2015

Murfreesboro School District

TCPN helps meet tight funding deadlines, allows reinvestment in community with selection of local contractors • Murfreesboro, Arkansas

Murfreesboro School District is located in South Pike County in Murfreesboro, Arkansas, a small town of approximately 1600 people. The school district includes two elementary and one high school that serve just over 550 students in grades K through 12.

Challenge

When heat exchangers on the rooftop units at the Murfreesboro School District high school cracked, administrators knew they had to act quickly. Without a budget to completely finance an upgrade, the district would need to rely on state matching funds, which would be lost if the project was not under contract by October. The district sought to move quickly in order to obtain the necessary funding, and to complete the work over Christmas break so as not to disturb classroom activity.

Upload Front Image

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Solution

Murfreesboro School District discussed the upgrade with their mechanical engineer. Knowing that, by the time plans were drawn up, bids evaluated and contractors selected, the district would be outside the deadline for matching funds, the mechanical engineer suggested using The Cooperative Purchasing Network (TCPN). The mechanical contractor contacted Trane, a preapproved TCPN vendor, and a site visit was conducted to evaluate the school's needs. A proposal for equipment and labor was presented by the engineer and accepted by the district prior to the funding deadline.

Leveraging purchasing power

TCPN allows large and small government entities such as schools, counties and non-profits to leverage their purchasing power. All TCPN contracts are competitively bid and evaluated by a government entity and awarded to national vendors in accordance with purchasing procedures mandated by state procurement regulations. Contract awards are based on quality, proven performance, customer satisfaction and pricing. Using TCPN allowed Murfreesboro School District to mitigate costs and ensure they were receiving a good value.

Improving productivity

By using TCPN, the Murfreesboro School District was able to significantly reduce the traditional six to eight week vendor selection process, which includes developing specifications, bidding out the project, evaluating proposals, selecting a supplier and negotiating price. The more efficient TCPN vendor selection process freed up district facilities staff, affording them more time to address other school needs.

Reducing vendor selection risk

Selecting a preapproved TCPN vendor allowed the school district to reduce its risk in supplier selection, and increased the engineer's confidence in achieving quality work that met design specifications. Trane supplied the equipment, and along with the mechanical engineer and the district facilities manager, selected a local contractor for installation, reinvesting in the Murfreesboro community.

Meeting tight deadlines and comfort needs

To speed installation, thirty Trane Precedent™ rooftop units, selected to replace the aging equipment at the high school, were shipped and staged at the site. The preconfigured units come with factory-installed options to eliminate expensive and time-consuming field installations. When ready to proceed, the crew worked quickly to have all but three units in place within three days, allowing the team to move forward with the electrical, gas, startup and controls setup.

The efficient Precedent™ rooftop units deliver high reliability to keep students and staff comfortable. The units do not have belts and feature direct-drive fan motors, reducing maintenance requirements and operating costs. With MERV 13 filtration, the Precedent units also help to remove the amount of particles in the air to improve indoor air quality and use an ultra-quiet plenum fan to deliver a quieter environment, conducive to learning.

Streamlining operations

With no controls system in place at the high school, the district took the opportunity to install a Trane Tracer SC™ building automation system to streamline facility operations to improve efficiency, increase comfort and reduce energy costs. The web-based Tracer SC provides facility managers with flexibility to monitor and control building systems from any PC or mobile device with internet connection. Facility managers use the Tracer SC to perform daily operations such as scheduling, changing set points, programming, troubleshooting, alarm management and data analysis.

Upload Back Image

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Results

Using TCPN as a procurement tool, Murfreesboro School District significantly reduced the time required for the procurement process, allowing the district to meet tight state funding deadlines and complete upgrades during the district's Christmas break, so as not to disturb classroom activities. Working with Trane, a preapproved TCPN vendor, the district's engineering contractor replaced the aging equipment with Trane Precedent rooftop units and added a Trane Tracer SC building automation system according to design specifications. The district was able to reinvest in the community by selecting local labor to complete the upgrade project. Pleased with the cost, efficiency and flexibility of the project, Murfreesboro School District plans to use TCPN to complete work at another district school during the summer.

 CASE-SLX407-EN March 07, 2015

Case study

March 2015

Osseo Area Schools - ISD #279

TCPN helps complete procurement process in one-third of normal working time, enables desired brand and vendor selection • Maple Grove, MN

Osseo Area Schools - ISD #279 is an award-winning school system that inspires and prepares its students with the confidence, courage, and competence to achieve their dreams; contribute to community; and engage in a lifetime of learning. The district serves more than 20,000 students in seventeen elementary schools, four junior highs, three senior highs, an area learning center, two early childhood centers, two special program sites, and an adult education/enrollment center. Racially and culturally diverse, the students of Osseo Area Schools reflect the global community, coming from homes where more than eighty dialects or languages other than English are spoken.

Challenge

The aging, unreliable boilers at two Osseo area elementary schools were in need of replacement. In addition, the district's obsolete controls system offered no scheduling or monitoring capabilities, causing facility managers to take a problem-resolution-based approach to daily operations, rather than a proactive building management approach.

Although the school district had access to a pool of State and Federal funds, they were required to use the money to design, advertise work, select contractors, and get projects completed within a short timeframe. The district often found that by the time they had a contractor on board, they had run out of time to get the work done. Osseo Area Schools sought a fast solution to their upgrade needs.

Solution

Faced with completing the critical upgrades for Osseo Area Schools under a compressed schedule, the district's engineering consultant determined that using The Cooperative Purchasing Network (TCPN) would provide the best value for the district and enable them to complete the work in the allotted timeframe. The school district moved forward with the upgrade, with the engineering consultant selecting Trane, a preapproved TCPN vendor for the project.

The fifth largest district in the state, Osseo Area Schools serves more than 20,000 students in grades K-12.

Leveraging purchasing power

TCPN allows large and small government entities such as schools, cities, counties and non-profits to leverage their purchasing power. All TCPN contracts are competitively bid and evaluated by a government entity. Contracts are awarded to national vendors in accordance with purchasing procedures mandated by state procurement laws, and are based on quality, proven performance, customer satisfaction and pricing. Using TCPN helped the Osseo school district to ensure they were receiving a good value for every dollar they spent on products and services.

Streamlining brand and vendor selection process

Using TCPN helped Osseo Area Schools streamline procurement, decreasing the normal eight week process to just two weeks. Together, Osseo Area Schools and Trane selected potential subcontractors, which included local suppliers that were familiar to the district and that offered desired brands. Trane handled the bidding process and together the district and Trane assembled a team of trusted equipment, electrical and plumbing subcontractors known for their quality work and their ability to meet expectations.

Implementing a complete turnkey solution

Using TCPN enabled the district to broaden the project scope to include replacing steam boilers at the two elementary schools with condensing hot water boilers, as well as installing hot water heaters, piping, pumps, coils and valves. At one district high school, sixty-five dual duct variable-air-volume (VAV) units with pneumatic controls were replaced with VariTrane™ VAV units with wireless controls. Approximately 300 lighting fixtures were also replaced with high-efficiency lighting at the high school.

Using wireless technology for a faster upgrade

A new web-based Trane® Tracer SC™ building automation system (BAS) allows facility managers remote access to HVAC systems to monitor operations, view reports and trends, and perform tasks such as scheduling, alarm management, troubleshooting and data analysis. Trane® Air-Fi™ wireless technology eliminated the need to install communication wires between the system and unit controllers enabling a faster, more cost-effective controls upgrade. The redundant, self-repairing mesh technology of Air-Fi maintains wireless communication, even when signals are disrupted, rerouting around obstacles to eliminate the risk of disconnection.

The Trane turnkey solution included replacing steam boilers, hot water heaters, pumps, coils, valves, VAV units and lighting, as well as a complete controls upgrade.

Results

Using TCPN for critical upgrades at three district locations, Osseo Area Schools was able to leverage purchasing power to enable an expanded scope of work to be completed. The streamlined procurement process was completed in a third of the normal time, allowing the district to meet tight funding and construction deadlines. The district was able to select desired brands and support the community by choosing local vendors for the construction work. Wireless controls technology and a Tracer SC BAS enable the district to better manage building operations, helping to create a more comfortable learning environment.

"If the boilers aren't up and running by October, it's cold," said Dale Carlstrom, director of facilities and transportation operations, Osseo Area Schools. "Without TCPN, we would have had to add weeks or months to complete a sealed bid, and that would have been without a lot of control of the outcome. Using TCPN, we have a pre-negotiated contract, you can look at your options, select the products and vendors you want, and know what you are getting."

Case study

October 2013

Washburn Tech

Rigorous curriculum and advanced technologies better prepare tomorrow's workforce
Topeka, Kansas

Washburn Tech (WT) is a nationally recognized innovator in career and technical education designed to enhance lives and strengthen the communities it serves. WT's Midwest Training Center (MTC) provides training in current and emerging climate and energy control technologies. Backed by a system of connected and stackable credentials, the center offers existing technicians, new students and displaced workers a multitude of programs in a variety of industry sectors including energy, transportation, and advanced manufacturing. MTC's goal is to provide the workforce with the training needed to enable regional business growth. The center also provides train-the-trainer opportunities to secondary and post-secondary instructors throughout the Midwest.

Challenge

With forecasts indicating continued growth in the climate control industry, Washburn Tech was challenged to provide the advanced training needed to prepare its students for the growing and changing demands of the industry. The heating, ventilation and air conditioning (HVAC) equipment in the training labs was outdated, with many of the pieces more than fifteen years old, often donated by area residents and supporting mechanical contractors. At the same time, the institute recognized the aging technical work force and the need for a state-of-the-art curriculum incorporating the latest technologies. WT sought to upgrade its HVAC program and labs to meet the needs of its students and the industry. School administrators knew that enhancing their program would require significant capital, a way to mitigate construction costs and a functional team, and like many educational institutions, budgets at WT were tight.

Solution

WT contacted Trane, an HVAC industry leader, for assistance with its curriculum and technology upgrade. Trane worked with WT to seek funds through various grant programs, providing data for their justification and helping to complete applications. WT was awarded grants from the Kansas State Energy Sector Partnership Training, the Jobs & Innovative Industry Skills Training and the Ingersoll Rand Foundation.

The new Midwest Training Center includes a state-of-the-art controls lab to support WT's enhanced curriculum and focus on climate and energy control technologies.

Mitigating construction costs using TCPN

WT used The Cooperative Purchasing Network (TCPN) to mitigate construction costs and to provide a faster, easier resolution to its lab upgrade. TCPN allows large and small government entities such as schools, colleges, cities, and non-profits to leverage their purchasing power to ensure they are getting a good value on products and services. All TCPN contracts are competitively bid and evaluated by a government entity and awarded to national vendors based on quality, proven performance, customer satisfaction and pricing. TCPN provided WT with a means to directly negotiate procurement, which greatly reduced change orders and construction costs.

Enhanced curriculum closes the skills gap

WT and Trane, along with the National Coalition of Certification Centers (NC3), formed a strong public-private partnership to bridge the gap between education and industry workforce needs. The team sought to enhance the institute's HVAC program by elevating training to the level required by industry.

NC3, a network of education providers and corporations that validate new and emerging technology skills to advance workforce development, has served hundreds of thousands of students nationwide. Working hand-in-hand with WT and Trane, the organization supplied the substance to the WT curriculum, based on their history of developing, standardizing, and implementing sustainable certifications across the nation. To enhance its HVAC program, WT added instruction in building automation controls and functioning commercial HVAC systems, which were not previously part of the college's offering.

Advanced technologies upgrade training labs

Once the HVAC program's new direction was established, work began to update the institute's training labs in order to complete the transformation. WT administrators knew that in order to enable its students to meet the industry's emerging challenges, it was important to offer them the opportunity to gain experience with the latest technology.

Trane and WT worked together to select the lab equipment that would best fit their enhanced curriculum and prepare the workforce of tomorrow. Trane replaced the aging equipment with advanced, high-efficiency HVAC systems, including rooftop units, furnaces, and a variable air volume system with a simulated boiler and chiller loop, along with Trane Tracer Summit® building automation systems. The training pieces, provided by Trane pro bono, included both traditional wired equipment, as well as advanced wireless technologies, creating a technically advanced HVAC Center of Excellence.

Washburn Tech administrators cut the ribbon at the new Midwest Training Center, established to enhance career and technical training.

Results

Washburn Tech, Trane and NC3 are working in partnership to better prepare the workforce of tomorrow. The functional collaboration of this team achieved their common goal of enhancing career and technical training by creating the Midwest Training Center, complete with advanced HVAC classrooms and working labs, to improve desired outcomes for the students. A rigorous curriculum, combined with updated training labs featuring the newest equipment and advanced technologies, are ensuring that graduates possess the skills, training and validation required by the industry.

CASE-SLX369-EN October 28, 2013

TRANE AND NAESCO

Demonstrating core competencies in all technical and business aspects of performance contracting, Trane earned accreditation as an Energy Services Company (ESCO) in May 2004 from the National Association of Energy Services Companies (NAESCO).
Trane proudly displays this official recognition of good standing with NAESCO. It assures our new customers that standard contracting business practices through Trane's PACT™ performance contracting offering meet or exceed the high quality standards established by the industry's most recognized leader.

A committee of NAESCO members accredited Trane following a rigorous evaluation of our capabilities, track record, policies and practices. While this is not an endorsement or a guarantee of results, it does show that Trane provides its customers with demonstrated competency and accepted industry practices proven to deliver successful projects.

How it Works – The NAESCO committee, comprising industry experts unaffiliated with any ESCO, reviewed detailed documentation submitted by Trane and investigated customer references. They reviewed several areas of Trane ESPC operations, including: (1) the precise nature of our business; (2) the range of measures and services offered to customers; (3) the availability of a performance-based project approach; (4) our commitment to ethical business practices; (5) capabilities for project engineering and design, financing, project management, operations, and maintenance; and (6) the capability of verifying and monitoring energy cost savings.

What It Means –

- The technical and managerial competence to develop comprehensive energy-efficiency projects including lighting, motors/drives and HVAC
- The technical and managerial competence to provide a full range of energy services, such as energy audits, design engineering, arranging project financing, O&M services, and verification of energy savings
- The regular business practice of developing performance-based projects, defined to mean projects for which the developer's compensation is contingent on real, verified cost savings

Benefits for You – NAESCO Accreditation simply means you're working with a company that is recognized for competence as an ESCO. It's an indispensable tool for immediately summarizing our qualifications. Think of it as a benchmark for performance contracting, too. Trane is proud of our NAESCO review and acceptance by an independent panel of industry experts. We work hard on honing our technical and managerial competence every day—so it's an honor to be recognized for that effort.

NAESCO ACCREDITED ENERGY SERVICE COMPANY

Certificate of Accreditation

This is to certify that

Trane

has participated in the Accreditation Program and Review and has been recognized by the National Association of Energy Service Companies to be an Accredited ESCO.

Adam Procell
Chairman

Terry E. Singer
Executive Director

June 2009
Certification of Accreditation covers a period of 36 months from date of issuance.

Accredited since 2004.

Trane's Environmental Commitment:

At Trane, we are working to create greener, sustainable communities by bringing superior HVAC systems to all buildings. Energy efficiency, better indoor air quality, and quieter surroundings all contribute to greater comfort and a cleaner, greener environment.

Trane TRACE® 700 was the first of only 4 software programs recognized by the Internal Revenue Service as *qualified* software to calculate energy savings for the tax credit given in the Energy Policy Act (EPACT) of 2005. **Trane literally wrote the book on energy efficiency computer models with the TRACE® energy analysis program.** Originally developed in 1973, Trane Air Conditioning Economics (TRACE®) was the first program to analyze building loads, systems, and energy consumption. It has become a de facto standard in the Heating, Ventilation, and Air-Conditioning (HVAC) industry with thousands of licensed copies currently in-use world-wide. TRACE® will analyze the entire building at once, showing the interactions of all of the buildings systems on any given type of day.

Trane employs over 500 LEED Accredited Professionals including many in the Texas offices.

Trane is a national sponsor of the United States Green Building Council (USGBC) LEED for Schools program. The LEED for Schools Rating System recognizes the unique nature of the design and construction of K-12 schools. Based on the LEED for New Construction rating system, it addresses issues such as classroom acoustics, master planning, mold prevention and environmental site assessment.

By addressing the uniqueness of school spaces and children's health issues, LEED for Schools provides a unique, comprehensive tool for schools that wish to build green, with measurable results. LEED for Schools is the recognized third-party standard for high-performance schools that are healthy for students, comfortable for teachers, and cost-effective.

Recognition & Awards

Trane enjoys a strong reputation and proven track record. We have received wide spread recognition and awards; following are examples which display Trane's excellent reputation and performance capabilities in the areas of energy, utility and air quality.

- **Design Star Award** for Trane's Zone Sensor Receives by The Agency for the Promotion of Industrial Creation (APCI) in coordination with the *Observeur du design* in France. The zone sensor is a state-of-the-art module acting as a human-machine interface for piloting fan coil units equipped with ZN523 Trane zone controllers. (Oct. 2007)
- **Frost & Sullivan Emerging Company of the Year** to Trane in India for building technologies excellence, energy management services category. (October 2007)
- **Best of the Best Award** for Trane's CenTraVac™ by the U.S. Environmental Protection Agency (EPA). Selected from a field of past Strategic Ozone Protection Award winners. (Sept. 2007)
- **2007 HVAC Product of the Year** to the 15 SEER (Seasonal Energy Efficiency Ratio) Precedent from *Consulting & Specifying Engineer* magazine. (Sept. 2007)
- **David Weekley Homes Partner of Choice** for the third year in a row for service and product performance. Trane is one of only six manufacturers – and the only HVAC brand – to be so honored. (Aug. 2007)
- **2007 Excellence in Design Silver Award** to Trane CleanEffects® by *Appliance Design Magazine.* It was the only HVAC product to receive recognition. (June 2007)
- **2007 Silver Dealer Design Award** for Trane Integrated CleanEffects. Presented by the Air Conditioning, Heating & Refrigeration News trade publication based on judging by an independent panel of judges. The judges were impressed that the one-inch filter that fits in the existing air handler removes up to 99% of airborne allergens from the air. (July 2007)
- **Building of America Plaque of Honor** to Trane's St. Louis district office for its work on Busch Stadium by Real Estate and Construction Review magazine. Trane supplied comfort systems for the new stadium, including a Tracer Summit™ BAS and 1,800 tons of AC (April 2007)
- **Frost & Sullivan Product Innovation of the Year** to Trane's Custom Climate Changer™ with CDQ™ (Cool, Dry, Quiet). Presented to the company demonstrating excellence in new products and technologies within their industry. (March 2007)
- **Best in Class** to TRANE HVAC Systems by *Professional Remodeler* magazine, based on its annual survey of Interior Products. (Dec. 2006)
- **R&D 100 Awards** by *R&D Magazine* for Trane's excellence in innovation on a global scale. Honored for our advances in humidity control using the Trane CDQ™ (Cool, Dry, Quiet) desiccant dehumidification system, (Nov. 2006)

- **National Save Energy Award** by the Mexico National Commission for Energy Conservation to Trane in Mexico. (Sept. 2006)
- **Intel Certified Supplier Award** by Intel Corporation recognizing Trane for product and service quality. (June 2006)
- **First Place** in the HVAC/Indoor Air Quality category by *Today's Facility Manager* annual buyer's guide. Presented for Trane's products, systems expertise and service. (Feb 2006)

Industry Leadership – Trane is affiliated with the following organizations:

- **ASHRAE**
  - American Society of Heating, Refrigeration, and Air-conditioning Engineers
- **U.S. Green Building Council**
  - LEED – Leadership in Energy & Environmental Design with over 170 LEED accredited professionals employed at Trane
- **U.S. Environmental Protection Agency**
  - Energy Star Program
- **U.S. Department of Energy**
  - Rebuild America
- **Sustainable Building Industry Council**
- **Clinton Climate Initiative**
  - One of 4 firms chosen to participate

To search: Click on “Edit” in tool bar and then “Find”.

NOTE: The following sales offices are listed by District Name (yellow box), followed by main office, area office(s) and parts center(s), with page breaks between districts.

ATLANTA DISTRICT	Last updated January 1, 2013

ATLANTA, GA (G1)
ATLANTA DISTRICT
(See also Augusta, Macon &, Savannah area offices and Parts Centers, including Marietta, Forest Park & Duluth, listed below)
(404) 321-7500 – Receptionist
(404) 321-7500 – After Hours
(404) 836-2XXX – Direct-Dial
FAX: (404) 636-5204
4000 Dekalb Technology Parkway, Suite 100
Atlanta, Georgia 30340
STEVE MICLETTE, DISTRICT MGR. (ext. 1701)
ERIC SNYDER CONTRACTING BUS LDR (ext. 1779)
SCOTT MANLEY, PARTS BUS. LDR. (ext. 1791)
JIM BRIA, DISTRICT FIN. LDR (ext. 1718)
PAM ALTERI, DIR. MARKETING/TRAINING (ext. 1782)
RAY GALLIMORE, SAFETY MGR. (ext. 1028)
JULIE MULLANEY HR BUS LDR (ext. 1754)
LORI ROGERS, ADMIN. ASST. & FACILITIES COORDINATOR (ext. 1704)
JACK DEYTON, IT MGR. (ext. 1770)
EQUIP./SYSTEMS/CONTROLS SALES
CLAY BAGBY, INDIRECT SALES MGR. (G2-M37) (ext. 1179)
MARK SCHNETZKA, DIRECT SALES MGR. (G1-M19) (ext. 1152)
JOHN LADD, LCU SALES MGR. (G1-N29) (ext. 1651)
BILL FAULKNER, CONT. MKTG. MGR. (G1-M42) (ext. 1102)
Kim Alexander, Inside Sales (G1-M12) (ext. 1158)
Conrad Bishop, AE (G1-M72) (ext. 1105)
Landon Bixler (G1-N20) (ext. 1150)
Jack Cali (G1-N16) (ext. 1661)
Steve Caveness (G1-M78) (ext. 1107)
Giancarlo Cicero (G1-M09) (ext. 1144)
Ken Gilbert (G1-M30) (ext. 1147)
Rich Granelli (G1-M47) (ext. 1133)
Cameron Griffith (G1-N41) (ext. 1737
Jim Hubert (G1-M23) (ext. 1734)
Craig Jones (G1-M39) (ext. 1113)
Isaac Lockett (G1-N23) (ext. 1136)
Ed Metzger, NAE (G1-M80) (ext. 1106)
Robert Owen (G1-N26) Duluth (ext. 1905)
Pat Richardson (G1-m87) (ext. 1119)
Michael Snow (G1-N19) (ext. 1123)
Becky Sanborn (G1-M49) (ext. 1140)
Joe Wright (G1-M71) (ext. 1104)
Don Yochum (G1-N25) (ext. 1139)
Winston Arnold (G1-N56) (ext. 1745)
Tucker Biffell (G1-N55) (ext. 1181)
Blaine Terry (G1-N54) (ext. 1155)
SHARON DONALDSON, EQUIPMENT SOLUTIONS MANAGER (ext. 1149)
Theresa Attina, PM (ext. 1153)
Apryl Bennings, PM (ext. 1114)
Darin Cline, AS (ext. 1163)
Georgeanne Davidson, PM (ext. 1170)
David Folsom, Estimator (ext. 1167)
Kim Fukagawa, Bid Coordinator (ext. 1164)
Judy Mann, PM (ext. 1166)
Duane Rodgers, AS (ext. 1146
Bonnie Rodi, PA (ext. 1731)
Alex Shear, Estimator (ext. 1131)
Candace Burkhalter, PM (ext. 1169)
Susan Blackmon, PM (ext. 1652)
Marilyn Philbert, PM (ext. 1109)

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EXISTING BUILDING SERVICES
JEFF HORVATH, SERVICE SOLUTIONS MGR. (ext. 1707)
KEVIN COX, ASM NORTHEAST GA (ext. 1740)
REGGIE LASTINGER, ASM NORTHWEST GA (ext. 1706)
TOM NELSON, ASM SOUTHEAST GA (ext. 1752)
MIKE WRIGHT, ASM NORTHEAST GA (ext. 1742)
STEVE BRIGMAN, ASM NORTHWEST (ext. 1757)
RAY MICHELETTI, EBS SALES MGR. (G1-M94) (ext. 1730)
Herbert Brickhouse (G1-N22) (ext. 1776)
Candy Davis, PA (ext. 1142)
Lynn Adams, PA (ext. 1743)
Jeremy Galvin (G1-M35) (ext. 1736)
Jon Galvin (G1-M38) (ext. 1744)
Mike Muglia (G1-N42)
Jeff Kellner (G1-M33) (ext. 1151)
Jimmy Kirby (G1-N10) (ext. 1474)
Eric Stenzel (G1-N32) (ext. 1720)
Dave Toole (G1-N31) (ext. 1796)

AUGUSTA, GA (G2)
ATLANTA DISTRICT
(706) 738-8157
FAX: (706) 733-7842
3342 Commerce Drive
Augusta, Georgia 30909
EQUIP./SYSTEMS/CONTROLS SALES
Jeff Perry, Sales/PM (G2-M12)
Rhonda Holshouser, PM/PA

MACON, GA (G3)
ATLANTA DISTRICT
(478) 743-5429
FAX: (478) 743-2731
125 Macon West Dr.
Macon, Georgia 31210-5652
EQUIP./SYSTEMS/CONTROLS SALES
Rick Frame (G3-M75)

SAVANNAH, GA (G6)
ATLANTA DISTRICT
(912) 965-0313
FAX: (912) 965-0314
3609 Ogeechee Blvd., Suite A
Savannah, Georgia 31405
EQUIP./SYSTEMS/CONTROLS SALES
Doug Smith (G6-M48)
Brian Thorstad (G6-M13)
LaWanda Allen, PA

PARTS CENTERS:

FOREST PARK, GA
Trane Parts
(404) 366-6560
FAX: (404) 366-6551
5021Old Dixie Hwy., Ste.500
Forest Park, Georgia 30297
James (Buddy) Lane – Team Leader

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ATLANTA, GA
Trane Parts
(404) 728-4310
FAX: (404) 315-8916
1535 Northeast Expressway
Atlanta, Georgia 30329
Steve Simpson, Team Leader

AUGUSTA, GA
Trane Parts
(706) 481-9600
FAX: (706) 481-0436
3342 Commerce Dr.
Augusta, Georgia 30909
Dennis Holshouser, Team Leader
Brian Murphy, Outside Parts Sales

MACON, GA
Trane Parts
(478) 742-5646
FAX: (478) 742-4878
125 Macon West Dr.
Macon, Georgia 31210-5652
Jon Jeter, Team Leader

MARIETTA, GA
Trane Parts
(770) 859-0707
FAX: (770) 850-9070
3061 Kingston Court Suite C
Marietta, Georgia 30067
Steve Shumate, Team Leader

SAVANNAH, GA
Trane Parts
(912) 965-0309
FAX: (912) 965-0310
3911 Old Louisville Rd
Savannah, Georgia 31408
Scott Partin – Store Team Leader

DULUTH, GA
Trane Parts
(678) 713-3080
(678) 713-3087
2625 Pinemeadow Ct., NW Ste. A
Duluth, Georgia 30096
Cliff Barner, Team Leader

KENNESAW, GA
Trane Parts
(770) 250-2020
FAX: (770) 250-2028
FAX: (770) 250-2039(Parts)
3850 Kennesaw Pkwy., Ste. 270
Kennesaw, Georgia 30144
Martin Story, Team Leader
David Grubbs, Inside Sales

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COLUMBUS, GA
Trane Parts
(706) 225-5206
3547 Gentian Blvd.
Columbus, Georgia 31907
Jason Outz – Team Leader

To search: Click on “Edit” in tool bar and then “Find”.

BALTIMORE DISTRICT **Last updated January 1, 2013**

BALTIMORE, MD (E1)
BALTIMORE DISTRICT
(See also Parts Center listed below)
(410) 403-2200
(410) 403-2210 – Service After Hours
FAX: (410) 403-2225
10947 Golden West Drive, Suite 100
Hunt Valley, Maryland 21031

DANIEL SWEET, DISTRICT LEADER (E1-A00) 410-403-2195
Denise Yocum, District Human Resources Leader 410-403-2193
Jennifer Hunt, District Finance Leader 412-747-4561
Mike Cassino, District EHS Manager 443-286-6786
Laura Worker, Marketing Leader
Tim White, Sales Manager Complex 412-728-6581

SALES, INDIRECT
Marc Randell, Sales Manager Indirect 410-403-2200
Noelle Caldwell, Receptionist 410-403-2200
Connor Blood, Account Manager 410-403-2197
Jim Brown, Account Manager (E1-B03) 410-271-3587
Matt Burger, Account Manager (E1-A92) 410-403-2152
Darryl Hockstra, Account Manager (E1-A82) 410-403-2154
Andrew Garay, Account Manager
Jon Olmstead, Account Manager (E1-A70) 410-403-2156
Andrew Schmugge, Account Manager (E1-A36) 410-403-2157
Jon Stavinski, Account Manager (E1-A93) 410-403-2158
Jonathan Urso Account Manager (E1-B12) 410-403-2147
Kirk Rizzolla, LCU Sales (E1-B06) 410-403-2190
Leroy Thomas, Rental Sales

SALES, DIRECT
Frank Troy, Sales Manager Direct 410-403-2200
Richard Faychak, Account Manager (E1-A85) 410-403-2149
Robert Lee, Account Manager (E1-B04) 410-403-2169
Marco Cerasi, Account Manager (E1-B05) 410-403-2160
Jeanine Lannon, Account Manager (E1-B07) 410-403-2150
Mark Diodato, Account Manger 443-293-6098
Susan Locke, Customer Service/Inside Sales Direct 410-403-2189

EQUIPMENT FULFILLMENT
MARC RANDELL, EQUIPMENT FULFILLMENTLEADER 410-403-2200
Becky Kaduk, Project Manager Equipment, Team Leader 410-403-2167
Joe DiFonso, Project Manager Equipment 410-403-2161
Donna Foxwell Windstein, Light Commercial Unitary Sales Specialist 410-403-2170
Candy Hann, Bid Coordinator 410-403-2166

Tom Price, Application Specialist, 410-403-2168
Suzanne Schwab, Project Administrator 410-403-2171
Dawn Walker, Project Administrator 410-403-2172

CONTRACTING SOLUTIONS
Bill Moore, Contracting Solutions Leader 717-585-7710
Gary Reif, Area Contracting Manager 410-403-2196
Anne Breymaier, Project Administrator 410-403-2180
Don Jones, Project Manager 410-403-2178
Carlo Lucila, Project Engineer 410-403-2177
Jon Nguyen, Project Manager 410-403-2179
Clayton Myatt, Estimator 410-403-2174

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SERVICE
Eric Archinal, District Service Leader 410-403-2192
Randy Thompson, Area Service Manager 410-403-2187
Sean Kerns, Area Service Manager 410-403-2186

TRANE PARTS CENTERS MD/PA

Dennis Shaw, District Parts Leader
Dale Myles, Parts Sales Manager
Jen Turner, Outside Sales
Bill Nusz, Outside Sales
Jim Rebisa, Outside Sales

TIMONIUM STORE
(410) 252-9550
FAX: (410) 252-9436
2208 Greenspring Drive
Timonium, Maryland 21093
Erik Smith, Parts Store Manager
Dave Case, Store Team Leader
Tony Seville, Inside Sales
Ellen Landefield, Inside Sales
Kevin Blizzard, Inside Sales
Chris VanCamp, Warehouse Coordinator
Wil D’Addario, Driver

MILLERSVILLE STORE
(410) 729-4230
FAX: (866) 788-5383
8229 Cloverleaf Drive
Bldg. 5 Ste. 455
Millersville, Maryland 21108
Erik Smith, Parts Store Manager
Greg Heck, Store Team Leader
Ed Payne, Inside Sales
Chris Knight, Inside Sales

HARRISBURG, PA
Trane Parts Center
(717) 541-1570
FAX: (717) 541-1577
491 E. Blue Eagle Ave.
Harrisburg, Pennsylvania 17112
Lee Hunt, Parts Store Manager (ext. 302)
Greg Rohrer, Inside Sales
Damian Croce, Inside Sales
Ron Engle, Inside Sales
Richard Schoffstall, Inside Sales
John Kim, Driver
Joe Acri, Warehouse Coordinator

PITTSBURGH, PA
Pittsburgh Trane
(412) 394-9030
FAX: (412) 394-9031
3042 New Beaver Avenue
Pittsburgh, Pennsylvania 15233
Brian Sellew, Parts Store Manager
Lisa Conte, Inside Sales
John Sullivan, Inside Sales
John Maratta, Inside Sales
Carey Barnes, Inside Sales
Mike Hrusko, Inside Sales
Debra Modrak, Parts Admin

To search: Click on “Edit” in tool bar and then “Find”.

Pat Tyler, Warehouse Coordinator and Driver

NORTH HUNTINGDON, PA

Trane Parts Center
(412) 816-1701
FAX: (412) 823-8389
15091 Rt. 30
North Huntingdon, Pennsylvania 15642
Todd Weaver, Parts Store Team Leader
Adam Lambert, Inside Sales

To search: Click on “Edit” in tool bar and then “Find”.

BIRMINGHAM DISTRICT	**Last updated January 1, 2013**

BIRMINGHAM, AL (J4)
BIRMINGHAM DISTRICT
(See also Huntsville and Montgomery area offices and Parts Centers listed below)
(205) 747-4000
(205)747-4040 – **After Hours**
FAX: (205) 747-4004 Sales Dept.
FAX: (205) 747-4081 Service Dept.
FAX: (205) 747-4006 General Fax
1030 London Drive, Suite 100
Birmingham, Alabama 35211

Chuck Bowers, Area Manager (205) 747-4036
Indirect Sales
Joe King, Indirect Sales Manager (205) 747-4041
Kristin Counts, Project Admin. & Bid Coordinator (205) 747-4047
Kim Patterson, Project Manager (205) 747-4046
Scott Bourgeois, Account Manager. (205) 747-4039
Chandler McGarrah, Account Manager (205) 747-4029
Billy Faulkner, Account Manager (205) 747-4034
Riley Blair, Account Manager 205-747-4000
Jessica Hilton Account Manager 205-747-4000
Adam Seale, Account Manager (205)260-4043
Cameron Clower LCU Estimating (205) 747-4049
Hannah Price, Equipment Estimating (205) 747 4001
Joe Hoggle, Equipment Estimating (205) 747-4050
Direct Sales
Keith Roszell, Team Leader Direct Sales (205) 747-4023
Bill Thomas, Account Manager Direct Controls (205) 747-4042
Louise Corscadden, Account Manager (J4-R37) (205) 747-4045
CONTRACTING
Steve Ingram, PM – Turnkey (205) 747-4064
Alan Martin, Sr. PM (205) 747-4056
John Madonia, Proj. Mgr. (205) 747-4057
Art Riley, Project Development (J4-R85) (205) 747-4055
Laura Morris, Proj. Admin. (205) 747-4058
Joey Tanner, Proj. Engr. Team Leader (205) 747-4052
Bobby Hodge, Controls Estimator (256) 421-5708
PACT SALES
Rick Carson, PACT Acct. Exec. (205) 747-4033
Carla Parker, PACT Acct. Exec. (205 747-4082
Laura Morris, Proj. Admin. (205) 747-4058
SERVICE
Fax: (205) 747-4081
Lance Langley, Area Service Manager (205) 260-4088
Dana Hanson, Service Coord. (205) 747-4012
Lisa Kuhnke, Service Estimating (205) 747-4061

HUNTSVILLE, AL (J8)
BIRMINGHAM DISTRICT
(256) 837-1030
(256) 837-1030 – After Hours
(256) 837-5244 – Voice Mail + extension number
Fax: (256) 837-2058
4825 Commercial Drive
Huntsville, Alabama 35816

Indirect Sales
Lisa Cathey, Account Manager & N.A.J.C. (256) 421-5705
Eddy Gardner, Account Manager (256) 421-5703
Trevor Wright, Account Manager (256) 421-5707
Janette Spence, PA Equipment & Bid Coordinator (256) 421-5701Direct Sales
Lauri Wowk, EBS (256) 421-5715

To search: Click on “Edit” in tool bar and then “Find”.

Paul Reutter, EBS (256) 421-5706
CONTRACTING
Vic Keeling, Project Manager (256) 421-5711
Bobby Hodge, Controls Estimator (256) 421-5708
Ann Land, Proj. Admin. (ext. 302)

SERVICE
Roddy George, Area Service Manager (334) 215-2919
Pat Hernandez, Service Coord. (205) 747-4091
Lisa Kuhnke, Service Estimating (205) 747-4061

MONTGOMERY, AL (S4)
BIRMINGHAM DISTRICT
(334) 215-2900
FAX: (334) 215-2901
915 Lagoon Business Loop
Montgomery, Alabama 36117

Indirect Sales
Jeff Williams, Account Manager (334) 482-2910
John Jeffcoat, Account Manager (334) 482-2914
Direct Sales
Callie Hill, Account Manager (334) 482-2955
Craig Elliott, Account Manager (334) 482-2911
Wade Burt, Account Manager (205) 260-4032
SERVICE
Roddy George, Area Service Manager (ext. 2922)
Pat Hernandez, Service Coord. (205) 747-4091
Lisa Kuhnke, Service Estimating (205) 747-4061
CONTRACTING
Gordon McWhorter, Project Manager (334) 482-2918
Laura Morris, Proj. Admin. (205) 747-4058
Bobby Hodge, Controls Estimator (256) 421-5708

PARTS CENTERS:

Trane Parts Center of Birmingham
(205) 747-4100
(800) 582-8878
FAX: (205) 747-4101
1030 London Drive, Suite 100
Birmingham, Alabama 35211
Brian Cook, Store Manager and Alabama’s Area Parts Store Mgr.

Huntsville Trane Parts Center
(256) 837-1790
FAX: (256) 837-0543
(888) 627-2670
4825 Commercial Drive
Huntsville, Alabama 35816
Terry Reid, Parts Store Mgr.

Montgomery Trane Parts Center
(334) 215-2950
FAX: (334) 215-2951
(866) 886-5995
915 Lagoon Business Loop
Montgomery, Alabama 36117
Brandon Smith, Parts Store Mgr.

To search: Click on “Edit” in tool bar and then “Find”.

BOSTON DISTRICT	**Last updated July 1, 2012**

BOSTON, MA (A1)
BOSTON DISTRICT
(See also Portland, ME, Providence, RI, Springfield, MA and Manchester, NH area offices and Parts Centers listed below)
Direct Dial (781) 305-ext.
(781) 938-9700 – Sales & Service
(781) 721-1858 – After Hours
(781) 932-0423 – Parts
FAX: (781) 938-8912 or (781) 932-5843
225 Wildwood Avenue
Woburn, Massachusetts 01801
JACK BORGSCHULTE, DISTRICT MGR. (A1-B00) (ext. 1312)
ANDREA RAGO, INDIRECT SALES MANAGER (A1-B51) (ext. 1318) RI office 401-435-1405
Ali Corvino, Equipment Solutions Manager (ext. xxxx)
Beth Doyle (A1-B96) (ext. 1376)
Ken Duchi (A1-B06) (ext. 1302)
Greg Furst (A1-B92) (ext. 1304)
Geoff Magargal (A1-B39) (ext. 1381)
Dave Martin (A1-B22) (ext. 1322)
Tom Stockbridge (A3-B22) (ext. 1370)
Rob Wettach (A1-B08) (ext. 1325)
Brian Workman (A1-B55) (ext. 1360)
Jacque Lavoie, Application Specialist (ext. 1385)
Jonathan Ralys, Associate Account Manager (ext. 1335)
Ben Hiller, (A1-B83) (ext. 1363)
Anne Insogna, Administrative Manager-Equipment (ext. 1367)
Renee O'Donnell, Project Administrator-Equipment (ext. 1340)
Tracy Conklin, Bid Desk (ext. 1310)
EXISTING BUILDING SALES
TOM NASTRO, DIRECT SALES MANAGER (207-239-3426)
Nathan Ali (A1-B89)) (ext. 1349)
Mike Burke (A1-B72) (ext. 1384)
Woody Foster (A1-B23) (ext. 1323)
Andrew Krushelynski (ext. 1332)
Sean Smith (A1-B88)) (ext. 1317)
Rich Steidle (A1-B47) (ext. 1313)
Greg Larson, Rental Services Business Development Leader (ext. 1336)
Javier Noguchi, Associate Account Manager (ext. 1364)
Connie Goodwin, Associate Account Manager (ext. 1319)
Renee Ingalls, Administrative Manager-Direct Sales (ext. 1355)
SERVICE
ANDY WILLIAMSON, SERVICE MANAGER (ext. 1368)
Darlene Spugnardi, Area Service Manager (ext. 1342)
Rich O’Connell, Area Service Manager (ext. 1387)
CONTRACTING
JOHN ALMQUIST, CONTRACTING MANAGER (ext. 1366)
Greg Anderson, Contracting Mgr. (ext. 1330)
Brian Stanieich, BAS Ops Manager (ext. 1308)
Dan Tran, BAS Ops Manager (ext. 1371)
Mike McHugh, BAS Engineering Manager (ext. 1366)
Mike Barber, BAS Service Operations Manager (cell 207-776-1035)
Tara Hailey, Admin. Team Leader Controls (ext. 1301)
COMPREHENSIVE SOLUTIONS
CHRIS MARSHALL, GENERAL MANAGER-COMPREHENSIVE SOLUTIONS (ext. 1386)
Mark Helinski, Complex Projects Team Leader (ext. 1372)
William Moriarty, -Project Developer (ext. 1408)
Leo McNeil, Regional Director Customer Solutions (A1-B66) (ext. 1346)
Nikki Ranwell, Project Administrator (ext. 1315)
BAS SALES
KURT SVETAKA, SALES MANAGER-CONTRACTING
Mike Bardsley, (A1-B95) (ext. 1303)
Mike Sommers (A1-B68) (ext. 1389)
Dan Sweeney (A1-B82) (ext. 1321)

To search: Click on “Edit” in tool bar and then “Find”.

Rachael Pick, BAS/Service Business Leader (ext. 1382)
ENABLING
Patrick Butler, Financial District Leader (603-263-2067
Kristina Regonini, Marketing Coord.-PACT (ext. 1350)
Colleen Manfredi, HR Business Partner (ext. 1343)
Thom Gorham, Safety Manager (ext. 1314)

PORTLAND, ME (A2)
BOSTON AREA OFFICE
BOSTON DISTRICT
Direct Dial: (207) 239-ext.
(207) 828-1777 – Sales & Service
(207) 828-1777 – After Hours
(207) 828-1555 – Parts
FAX: (207) 828-1511 – Sales & Service
860 Spring Street, Unit 1
Westbrook, Maine 04092
DAN BRODERICK, NES TEAM LEADER (A2-B16) (ext. 3412)
ANDY WILLIAMSON, SERVICE MANAGER (ext. 3400)
Jeff Charette (A2-B23) (ext. 3401)
Caron Caiazzo, Project Administrator-Equipment (ext. 3414)
Peter Morrill, Application Specialist. (ext. 3411)
Jason Tucker, Account Manager-Service (A2-B19) (ext. 3421)
Mark Power, Account Manager-Service (A2-B29) (ext. 3419)
Nick Perras, Associate Account Manager
Don Taylor, BAS Sales (A2-B24) (ext. 3410)
Mellisa Schryer, Area Service Manager (ext.

PROVIDENCE, RI (A5)
BOSTON DISTRICT
Direct Dial (401) 435-ext.
(401) 434-3145
(401) 434-3258 – After Hours
FAX: (401) 434-8537
50 Vision Blvd.
East Providence, Rhode Island 02914
MICHAEL KELLY, NES TEAM LEADER (A1-B62) (ext. 1406)
Sheila Fluet, Project Administrator-Equipment (ext. 1423)
Carolyn Light, Applications Specialist (ext. 1425)
John Connors, Account Manager-Service (A5-C04) (ext. 1410)
Laurie Brandt, Account Manager-Service (A5-C14) (ext. 1409) On LOA
Kristen Dale, Associate Account Manager (ext. 1424)

Jim Nott, Area Service Manager (ext. 1403)

SPRINGFIELD, MA (A3)
BOSTON DISTRICT
(413) 746-3090
FAX: (413) 746-0537
90 Carando Drive
Springfield, Massachusetts 01104
MATT CAPEN, NES TEAM LEADER (A3-B21) (ext. 1007)
Dan Lavoie, Associate Account Manager (A3-B28) (ext. 1006)
Robyn Callahan, Project Administrator-Equipment (ext. 1005)
Mackenzie Langley, Account Manager-Service (ext. 1009)
Rich O’Connell, Area Service Manager (ext.1011)

BEDFORD, NH (D0)
BOSTON DISTRICT
(603) 263-2060
FAX: 603-263-2062
47 Constitution Drive
Bedford, New Hampshire 03110
NICK VECCHIONE, NES TEAM LEADER (A2-B25) 603-263-2066
Chris Koutalidis (D0-A02) 603-263-2065

To search: Click on “Edit” in tool bar and then “Find”.

Matt Wilson, Account Manager-Direct, 603-263-2069
Lisa Roy, Project Administrator-Equipment, 603-263-2064

PARTS CENTERS:
PAULA CONCANNON, PARTS MANAGER (603-421-2780)

BOSTON, MA
Trane Parts Center of New England
(781) 932-0423
FAX: (781) 938-9038
96 E. Commerce Way
Woburn, Massachusetts 01801
Eric Heltzel, Store Mgr.
Donna Sheeran, Outside Sales (ext. 2104)

PORTLAND, ME
Trane Parts Center
(207) 828-1555
FAX: (207) 871-7234
860 Spring Street, Unit 1
Westbrook, Maine 04092
Laura Edwards, Store Mgr.

PROVIDENCE, RI
Trane Parts Center
(401) 434-3145
FAX: (401) 431-5257
50 Vision Blvd.
East Providence, Rhode Island 02914
Maureen Muir, Store Mgr. (ext. 1422)
Tom Francis, Outside Sales (ext. 1413)

MANCHESTER, NH
Trane Parts Center
(603) 421-2780
FAX: (603) 421-2787
1050 Holt Avenue, Unit 11
Manchester, New Hampshire 03109
Joe Posik, Store Mgr.

BRAINTREE, MA
Trane Parts Center
(781) 794-9922
FAX: (781) 794-9970
100S Messina Drive
Braintree, Massachusetts 02185
Eric Heltzel, Store Mgr.

SPRINGFIELD, MA
Trane Parts Center
(413) 271-3001
FAX: (413) 241-2464
90 Carando Drive
Springfield, Massachusetts 01104
Butch Carter, Store Mgr.

To search: Click on “Edit” in tool bar and then “Find”.

BUFFALO DISTRICT **Last updated January 1, 2013**

BUFFALO, NY (TSO) (C3)
BUFFALO DISTRICT
(See also Parts Center listed below)
(716) 626-1260
(716) 626-1260 – After Hours
(716) 626-XXXX – Direct dial extensions
FAX: (716) 626-9412
45 Earhart Drive, Suite 103
Buffalo, New York 14221

RONALD A. GERSTER, DISTRICT MGR. (C3-G00) (ext. 7502)
David W. Birkinbine, NSS MGR. & N.A.J.C. (C3-G50) (ext. 7506) cell (716)-818-6288
George A. Ulrich (C3-G51) (ext. 7508)
Andrew J. Sickau (C3-G54) (ext. 7547)
Jacob Muller (C3-G60) (ext. 7514)
Kathryn Phelps, HR Mgr. (ext. 7593)
Patrick Burger, Financial Mgr. (ext. 7570)
Doug Phillips, Safety Mgr. (ext. 7521)
EXISTING BUILDING SALES
Richard J. Crowley, Oper. Mgr. (ext. 7520)
Ronald E. Swanson, EBS Mgr. (ext. 7522)
Joseph P. Goungo, Sales Rep. (ext. 7589)
David J. Halady, Sales Rep. (ext. 7591)
Jason Hoover, Sales Rep. (ext. 7529)
Dennis Schultz, Sales Rep. (ext. 7523)
BAS
Ronald E. Swanson, BAS Sales Mgr. (ext. 7570)
Dale E. Sovereign, BAS Oper. Mgr., cell (716) 818-6220
ENERGY SERVICES
Steven D. Aughey, Energy Services Mgr. (ext. 7516)
Peter J. Egloff, Energy Services Eng. (ext. 7524)
ENGINEERING
Scott Vitko, PE, Proj. Eng. (ext. 7511)
Tony Scarpace, PE, Proj. Eng. (ext. 7525)

PARTS CENTER:

(716) 626-1260
FAX: (716) 626-7545
45 Earhart Drive, Suite 103
Buffalo, New York 14221
Peter Murphy, Parts Mgr. (ext. 7538)

DEALER SALES
Gerster Equipment Co., Inc.
(716) 626-1382
Fax: (716) 626-7539
45 Earhart Drive, Suite 103
Buffalo, New York 14221
Paul F. Mikida, Sales Mgr. (ext. 7513) cell (716) 818-6302

To search: Click on “Edit” in tool bar and then “Find”.

CALGARY DISTRICT	**Last updated January 1, 2013**

CALGARY, ALBERTA (CS)
CALGARY DISTRICT
(403) 301-0090
(403) 301-0090 – After Hours
FAX: (403) 301-0092
Bay #157, 10905 – 48th Street SE
Calgary, Alberta T2C 1G8

STEVE ZAKRESKI, DISTRICT MGR. & N.A.J.C. (CS-Z21)
Frank Nishimura, EBS & NES Sales Administrator

NES
Ryan Armstrong, NES Sales
Adam Zakreski, NES Sales
Calvin Mortley, NES Sales

INDUSTRIAL SALES
Todd Storey, Industrial Sales Manager

EBS
Rod Desjardins, EBS Sales
Neil Lauzon, EBS Sales
Evan Michalchuk, EBS Contracts Administrator

SERVICE AND CONTRACTING
Clint Cathers, Manager, Service and Contracting
Cheryl Card, Service Dispatch
Barb Monahan, Service Invoicing
Colleen Bouvier, Contract Administration
Greg Anderson, Contracting
Rod Millar, Contracting

BAS
Craig McDonald, BAS Manager
Brad Gunn, BAS Operations
Jenn Flug, BAS Administrator

PARTS
Mike Burke, Parts Manager

ADMINISTRATION
Vipin Sharma, Controller

Connie Anderson, Accounting Asst.
Darlene Newson, S.A.
Adam Plywaczewski, NES Inside Sales
Adam Zakreski, LAN Administrator
Raymond Nattress, Human Resources

To search: Click on “Edit” in tool bar and then “Find”.

CAROLINA DISTRICT **Last updated January 1, 2013**

GREENVILLE, SC (F5)
CAROLINA DISTRICT
(See also Asheville and Charlotte offices and Parts Centers listed below)
(864) 672-6000 – Sales
(864) 672-6000 – After Hours
(864) 672-6015 – Service
(864) 672-6005 – Parts
FAX: (864) 672-6001 – Sales
FAX: (864) 672-6020 – Service
FAX: (864) 672-6010 – Parts
288 Fairforest Way
Greenville, South Carolina 29607

RON PAYNE
DISTRICT GENERAL MANAGER
SALES ACQUISITION
JOSEPH T. CAIN, III, GENERAL SALES MGR. Greenville (F5-D03)
NEW SYSTEMS SALES
Jay Hannah, S.E. (F5-D19)
Paul Jensen, S.E. (F5-D04)
Dan Polstra, S.E. (F5-D26)
Doug Wadas, S.E.
Grant Wiegman, S.E.
DA Borders, Rental Service Leader as of 1/1/11
EQUIPMENT FULFILLMENT
Cindy Butler, PM
Donna Lutz, Admin.
Michelle Welter, District Equipment Fulfillment Leader
EXISTING BUILDING SALES
Andy Nelson, A.M. (F5-D23)
Jim Cree, A.M.
Cary Galloway, Area Contracting Manager
Peter Arsenault, A.M.
Brad Davis, A.M.
SERVICE OPERATIONS
JOHN BASSETT, SERV. MGR.
Bo Coffey, Team Lead
Daryl Straw, ASM
Christy Lawter, Serv. PA
Mindy Messer, Serv. Coord.
Aimee Eccles, Serv. PA
Beth Knies, Serv. P.A.
Mandy Ledford, Serv. Coord
Robin Breazeale, Serv. Admin. TL
CONTRACTING SOLUTIONS
Open, DISTRICT CONTRACTING MANAGER
BRIAN JONES, DISTRICT ESTIMATOR LEADER

James Amrien, Engineer
Bobby Jones, Turnkey P.M.
Chris Pulliam, Controls P.M.
Chris Jordan, T&B P.M.
Leslie Price, PA
Randy Jones, Engineer
Bobby Roper, Estimator
Annette Barker, Estimator
TRANE PARTS CENTERS
NEAL TARLETON, PARTS MGR.
Jeff Akers, Sales Manager
Allen Heath, Store Mgr.
Brian Hardin, Outside Sales
Ryan Hackett, Inside Sales
Matthew Ballenger, Inside Sales

To search: Click on “Edit” in tool bar and then “Find”.

Renee Cass, Administrative Assistant
Richard Cansler, Warehouse Coordinator
FINANCE & ENABLING
HENRICK GADE
Becky Stone, Greenville Receptionist
HUMAN RESOURCES
Tricia Wolfe, District HR Leader
Denish Kish, Interim Safety Manager
MARKETING/TRAINING
BOBBIE LANGLEY, MKTG Manager

ASHEVILLE, NC (F6)
CAROLINA DISTRICT
(828) 277-8664
FAX: (828) 277-5848
1400 Sweeten Creek Road
Asheville, North Carolina 28803
OPEN, DISTRICT GENERAL MANAGER
Adam Kaufman, S.E. (F5-D27)
Bill Frazzetto, EBS A.M.
Phyllis Poteete, Administrative Assistant
Joyce Ramsey, Service P.A.
Angela Rash, Equipment P.M.

TRANE PARTS CENTER
NEAL TARLETON, PARTS MGR.
Debbie Burkett, Store Mgr.
Jason Oldson, Outside Sales
Scott Reed, Inside Sales
Jason Slade, Inside Sales

CHARLOTTE, NC (F1)
CAROLINA DISTRICT
(704) 525-9600
(704) 525-0434 – After Hours
FAX: (704) 525-8582 – Sales
FAX: (704) 521-6881 – Parts
FAX: (704) 527-7654 – Service
4501 South Tryon Street
P.O. Box 240605 (28224)
OPEN, DISTRICT GENERAL MANAGER
SALES ACQUISITION
RON CAMPBELL, GENERAL SALES MGR. (F1-A31)
NEW SYSTEM SALES – INDIRECT
Bobby Allison, S.E. (F1-A02)
Richard Archer, S.E. (F1-A13)
Matt Baskerville, S.E. (F1-A04)
Mark Campbell, S.E. (F1-A05)
Matthew Deitz, S.E.

Chuck Honeycutt, General Sales Manager (F1-A07)
David Nenon, S.E. (F1-J17)
Brian Hunter S.E. (F1-A08)
Vu Pham, S.E.
Jeff Tettambel, S.E.
EXISTING BUILDING SALES
Michael Guacci, A.M.
John Hawker, A.M.
Jeff Ulander, A.M.
Chris Snyder, A.M.
Dan Makarewicz, A.M.

Richard Penner, Account Mgr. – Complex Solutions

EQUIPMENT SALES – FULFILLMENT
Deane Pinchak, A.S. (F1-A32)

To search: Click on “Edit” in tool bar and then “Find”.

William Auten, A.S.
Steve Tarlton, P.M.
Maryanne Hahn, P.M.
Michelle Welter, Equipment Fulfillment Manager
SERVICE OPERATIONS
JOHN BASSETT, SERVICE SOLUTIONS MANAGER
Robert Collins, Serv. Team Lead
David Brown, Service Team Lead
Walt Brysiak, ASM
Scott Ryan, ASM
CONTRACTING SOLUTIONS
Open, District CONTRACTING Leader (F1-A97)
Jeff Antman, Area Contracting Manager
Walt Davis, PE
Dennis Kish, P.M.
John O’Brien, Turnkey P.M.
Frank Donohue, Controls PM
Joe Riggi, Controls P.M.
Joan McClure, P.A.
Randy Thompson, P.M.
Estimator

TRANE PARTS CENTER
NEAL TARLETON, PARTS MGR.
JEFF AKERS, PARTS SALES MANAGER
Chuck Prince, Store Mgr. (Tryon Street)
Jack Wilcher, Store Mgr. (Matthews)
Terry Emory, – Outside Sales (Matthews)
Dennis Deese, Inside Sales (Matthews)
Trey Long, Store Mgr. (Airport Park)
David Crisp, Inside Sales (Airport Park)
David Perkins, Inside Sales (Airport Park)
John Cassidy, Store Mgr. (Hickory)
Rick Gilbert, Inside Sales (Hickory)
Mark Edwards, Outside Sales (Hickory)
Shelley Hall, Outside Sales
Rich Pilkington, Outside Sales
Patrick Barwick, Inside Sales (Tryon Street)
William Baty, Warehouse Coordinator
Gregory Prince, Inside Sales (Tryon Street)
Tonya Perkins, Parts Administrator
FINANCE & ENABLING
HENRIK GADE
Ellen Bullard, Receptionist Charlotte
HUMAN RESOURCES
Tricia Wolfe, District HR Leader
Dennis Kish, Interim District Safety Manager
MARKETING
BOBBIE LANGLEY, MKTG.MANAGER

PARTS CENTERS:

ASHEVILLE, NC
Trane Parts Center
(828) 277-8664
FAX: (828) 277-5848
1400 Sweeten Creek Road
Asheville, North Carolina 28803
NEAL TARLETON, PARTS MGR.
Debbie Burkett, Store Mgr.

To search: Click on “Edit” in tool bar and then “Find”.

CHARLOTTE, NC

Trane Parts Center
(704) 523-4730
FAX: (704) 521-6881
4501 South Tryon Street
P. O. Box 240605 (28224)
Charlotte, North Carolina 28217
NEAL TARLETON, PARTS MGR.
Chuck Prince, Store Mgr.
Patrick Barwick, Inside Sales
Greg Prince, Inside Sales

Trane Parts Center
(704) 893-2090
FAX: (704) 893-2092
12857-B Independence Blvd.
Matthews, North Carolina 28105
NEAL TARLETON, PARTS MGR.
Jack Wilcher, Store Mgr.
Dennis Deese, Inside Sales

Trane Parts Center
(704) 697-9006
FAX: (704) 697-9007
8610 AirPark West Drive
Charlotte, North Carolina 28214
NEAL TARLETON, PARTS MGR.
Trey Long, Store Mgr.
David Crisp, Inside Sales Rep.
David Perkins, Inside Sales Rep.

GREENVILLE, SC

Trane Parts Center
(864) 672-6005
FAX: (864) 672-6010
288 Fairforest Way
Greenville, South Carolina 29607
NEAL TARLETON, PARTS MGR.
Allen Heath, Store Mgr.
Ryan Hackett, Inside Sales
Matthew Ballenger, Inside Sales

HICKORY, NC

Trane Parts Center
(828)267-5697
FAX: (828)267-5698
1265 19th Street Lane NW
Hickory, NC 28601
NEAL TARLETON, PARTS MGR.
John Cassidy, Store Mgr.
Rick Gilbert, Inside Sales

To search: Click on “Edit” in tool bar and then “Find”.

CENTRAL AND NORTH FLORIDA DISTRICT **Last updated January 1, 2013**

ORLANDO, FL (H3)
Central and North Florida District
(See also Jacksonville and Tallahassee offices and Parts Centers listed below)
(407) 660-1111 or 407-551- then ext. # – Dial in Direct
FAX: (407) 660-0303
2301 Lucien Way
Suite 430
Maitland, Florida 32751

FERNANDO LAGOMASINO, DISTRICT GENERAL MANAGER
TODD MOORE, AREA MANAGER (ext. 1124)
INDIRECT SALES
OS-2 Team (H3-F84)
ERIK SMEDAL, INDIRECT SALES MANAGER (ext. 1156)
Randy Proudfit (ext. 1167)
Bob Hyttel (ext. 1159)
Peter McDonough (ext. 1192)
Kelly Stokes (ext. 1187)
Metro 2 Team (H3-F85)
Ben Cherry (ext. 1136)
Tyler Gesse (ext. 1108)
Inside Sales (H3-F72)
Liz Labato, Inside Sales, Team Leader (ext. 1164)
Melissa Miller (ext. 1162)
Holly Hendricks (ext. 1186)
Equipment Fulfillment (H3-F71)
Stacey Abbott, Nat’l Account Coordinator (ext. 1158)
Angela Richards, Equipment Solutions Manager (ext. 1166)
Greg Cook, Application Specialist (ext. 1122)
Judy Snyder, Application Specialist (ext. 1106)
Tammy Pease, Project Manager, National Accounts (ext. 1128)
Kim Davan, Project Manager, National Accounts (ext. 1178)
Julia Strang, Project Manager (ext. 1130)
Carol Woolfolk, Project Manager (ext. 1149)
Ken Shepardson, Project Manager (ext. 1195)
DIRECT SALES
MARTY HARDIN, DIRECT SALES MANAGER (H3-F41) (ext. 1147
Chris St. John, Account Manager (H3-F28) (ext. 1116)
Jason Aki, Government Vertical Market Leader (H3-F57) (ext. 1146)
Jason Cardone, Retail Vertical Market Leader (H3-F64) (ext. 1163)
Sera Sahibzada, Project Administrator (ext. 1111)
Allison Hunt, Industrial Vertical Market Leader (H3-F69) (ext. 1182)
Mark Sabia, Property Management Vertical Market Leader (H3-F35) (ext. 1152)
Kevin Schif, Healthcare Vertical Market Leader (H3-F53) (ext. 1120)
Colin Sharman, Account Manager (ext. 1168)
Drew Thorp, Account Manager (ext. 1183)
Alex Saxon, Account Manager, (H3-G29) (ext. 1175)
Bob Powell, Account Manager (ext. 2032)
Jeremy Sockwell, Account Manager – Rental Services (ext. 1127)
Matt Medina, Account Manager (H3-G24) (ext. 1173)
SERVICE OPERATIONS
RUSSELL CHILDS, DISTRICT SERVICE SOLUTIONS MANAGER (ext. 1185)
Russell Childs, Area Service Manager II (ext. 1185)
Mike Opal, Area Service Manager (ext. 1191)
James Kenast, Area Service Manager
Lee Futch, Area Service Manager
Deborah Otten, Service Coordinator (ext. 1144)
Melissa Simpson, Service Coordinator (ext. 1172)
Michelle Rosado, Service Coordinator (ext. 1193)
Lauren Pursley, Service Coordinator (ext. 1110)
CONTRACTING SOLUTIONS
JACK WALSH, DISTRICT CONTRACTING OPERATIONS MANAGER (ext. 1105)
Mark Milligan, Project Manager Team Leader (ext. 1177)

To search: Click on “Edit” in tool bar and then “Find”.

Mike Corbeil, Project Manager (ext. 1138)
Jose Diaz, District Project Engineer Team Leader (ext. 1153)
Will Jayne, Estimator II (ext. 1142)
Gene Johnson, Project Manager (ext. 1161)
Jeff Manon, Project Administrator (ext. 1171)
Nojan (NJ) Nowakhtar, Project Engineer (ext. 1174)
Paul Stayton, Project Manager (ext. 1190)
Jorge Santiago, Project Engineer, (ext. 1160)
Joie Kelley, Project Manager (ext. 1151)
FINANCE & ADMINISTRATION
ROGER HERZOG, DISTRICT FINANCE LEADER (ext. 1119)
Scott Gerard, District Safety Leader (ext. 1141)
Linda Williams, Receptionist (ext. 1100)

JACKSONVILLE, FL (H2)
Central and North Florida District
(904) 363-6088 or **(904) 596- then ext. # – Dial in Direct**
FAX: (904) 363-1134
8929 Western Way, Suite 1
Jacksonville, Florida 32256
FERNANDO LAGOMASINO, DISTRICT GENERAL MANAGER
RON PAYNE, AREA MANAGER (ext. 4104)
Kimberly Richardson, Admin Asst (ext. 4122)
INDIRECT SALES
Joe Follenweider, Sales Team Leader (ext. 4158)
Randy Orr, Account Manager (Controls) (ext. 4162)
Joe Nagy, Account Manager (ext. 4102)
Jeremy Kittinger, Account Manager (ext. 4147)
EQUIPMENT FULFILLMENT
Eric Schmidt, Account Manager (ext. 4151)
Kathy Failla, Project Manager (ext. 4173)
Jan Schmitz, Project Manager (ext. 4145)
DIRECT SALES
Randy Hawkins, Sales Team Leader (ext. 4163)
Bert Bost, Account Manager – Turnkey (H2-C88) (ext. 4153)
Walt Herndon, Account Manager (H2-C51) (ext. 4211)
Richard Schollenberger, Account Manager (no ext. #)
Cathy Disbrow, Business Development Manager (ext. 4106)
CONTRACTING SOLUTIONS
JACK WALSH, DISTRICT CONTRACTING OPERATIONS MANAGER (ext. 4163)
Mark Milligan, Project Manager Team Leader (ext. 1177)
Mike Hart, Project Engineer (ext. 4134)
Janette Rivera, Project Administrator (ext. 1196)
Mark Stone, Project Manager (ext. 4161)
Robert Livingston, Project Manager (ext. 4164)
SERVICE OPERATIONS
SERVICE OPERATIONS MGR. (ext. 2495)
Alan Fridley, Area Service Manager (ext. 4205)
Lindsay Mills, Service Administrator, Team Leader (ext. 4154)
Juli Newton, Service Coordinator (ext. 4203)
Duncan Goodrich, Service Coordinator (ext. 4139)
FINANCE & ADMINISTRATION
ROGER HERZOG, DISTRICT FINANCE LEADER (ext. 1119)

TALLAHASSEE, FL (H7)
CENTRAL AND NORTH FLORIDA DISTRICT
(850) 574-1726
FAX: (850) 575-5880
109 Hamilton Park Drive, Suite 1
Tallahassee, Florida 32304
INDIRECT SALES
Mike Cunniff, Account Manager (ext. 2503)
James Vanoy, Account Manager (ext. 2507)
SERVICE OPERATIONS
Len Martin, Area Service Manager (ext. 2504)
Nicole Adlay, Service Coordinator (ext. 2500)

To search: Click on “Edit” in tool bar and then “Find”.

DIRECT SALES
Don Massey, Account Manager (ext. 2501)

PARTS CENTERS:

ORLANDO, FL

North Orlando Parts Center
(407) 660-1212
FAX: (407) 670-6000
1151-A North Keller Road
Orlando, Florida 32810
John Jensen, Area Parts Store Manager (ext. 2479)

Melbourne Parts & Equipment
(321) 473-1111 – DSO Equipment
FAX: (321) 473-1228
(321) 473-1212 – CSO Parts
FAX: (321) 473-1227
5150 Industry Drive
Melbourne, Florida 32940

South Orlando Parts Center
(407) 351-8060
FAX: (407) 351-8066
9424 Southridge Park Court Suite 100
Orlando, Florida 32819

JACKSONVILLE, FL

Jacksonville Parts Center
(904) 596-0707
FAX: (904) 363-3970
8929 Western Way, Suite 1
Jacksonville, Florida 32256
Nathan Dellinger, Area Parts Store Manager (ext. 4169)

Daytona Parts Center
(386) 274-0270
FAX: (386) 274-0275
970 N. Clyde Morris Blvd. Suite100
Daytona Beach, Florida 32117

TALLAHASSEE, FL

Tallahassee Parts Center
(850) 574-6044
FAX: (850) 575-5880
109 Hamilton Park Drive, Suite 1
Tallahassee, Florida 32304
Nathan Dellinger, Area Parts Store Manager (ext. 4169)

Ocala Parts Center
(352) 237-0136
FAX: (352) 237-2694
4500 S W 40th Avenue
Ocala, Florida 34474

To search: Click on “Edit” in tool bar and then “Find”.

CHARLESTON, WV DISTRICT	**Last updated January 1, 2013**

CHARLESTON, WV (E7)
CHARLESTON WV DISTRICT
(See also Parts Center listed below)
(304) 346-0549
(304) 346-0549 – After Hours
FAX: (304) 346-8920
540 Leon Sullivan Way (25301)
P.O. Box 627
Charleston, West Virginia 25322

HARRY N. CASTO, DISTRICT MGR. (E7-F00)
WILLIAM B. McELROY, SALES MGR. (E7-F07)
Kenneth Young, S.E. (E7-F15)
Pamela Jacobs, S.A. & LAN Admin.
Marcia Morgan, S.A.
HARRY N. CASTO, JR., SERV. GENERAL MGR. (E7-F16)
Chris Pierce, Service Manager
GRANT SPENCER, DIRECT SALES MANAGER
EXISTING BUILDING SALES
Traci Ray (E7-F18)
Dan Nolte (E7-F12)
Dana Sargent (E7-F19)
Scott Haddox (E7-F20)
Antonio Ritter (E7-F17)
OPERATIONS MANAGER
Tim Sneeringer
BAS
RICHARD SLATER, BAS MANAGER
Greg Koontz
Grant White
FINANCIAL MANAGER
Thomas Epps
HUMAN RESOURCES
Amanda Doss
PARTS
Charlie Quick

PARTS CENTER
Casto Technical Services
(304) 346-0549
FAX: (304) 346-8920
540 Leon Sullivan Way
Charleston, West Virginia 25301
Charlie Quick, Parts Mgr.

To search: Click on "Edit" in tool bar and then "Find".

CHICAGO/WEST MICHIGAN DISTRICT	Last updated January 1, 2013

CHICAGO, IL (R1)
CHICAGO/WEST MICHICAN DISTRICT
See also Parts Centers listed below
(630) 734-3200
(630) 455-9900 – Parts
(630) 734-3200 – After Hours
To reach a DID number, dial direct (630) 734-3200
FAX: (630) 323-9040 – Sales
FAX: (630) 323-7480 – Service
FAX: (630) 323-7420 – Parts
7100 South Madison Street
Willowbrook, Illinois 60527-5505

C. CHRIS COMPERCHIO, DISTRICT MANAGER R1-B00 (630) 734-6005
LAURA PRICE, DISTRICT HR LEADER (630) 734-6024
TIM MORRELL, DISTRICT MARKETING LEADER (630) 734-6023
JUSTIN SMITH, DISTRICT EHS MANAGER (630) 734-6180
NEW SYSTEM SALES
ALFRED K. SONDEJ, NEW SYSTEMS BUSINESS LEADER (630) 734-6066, cell: (630) 400-4320
Michael Abbott, Commercial Systems Sales Engineer (630) 734-6060
Imran "Mo" Alikhan, Commercial Systems Account Manager Technical Engineer (630) 734-6074
Dave Ferrigan, Commercial Systems Sales Engineer (630) 734-6070
Rob Leibow, Commercial Systems Team Leader (630) 734-6080
Laura Michel, Commercial Systems Account Manager (630) 734-6044
Jon Nyhuis, Commercial Systems Sales Engineer (630) 734-6063
James P. Olesky, Commercial Systems Sales Engineer (630) 734-6041
Mike Petri, Commercial Contract Sales Account Manager (630) 734-6017
Chris Seda, Commercial Systems Sales Engineer (630) 734-6073
Patrick Vonesh, Commercial Systems Account Manager (630) 734-6133
Matt Witte, Commercial Systems Account Manager (630) 734-6134
INSIDE SALES SUPPORT
Ken Braun, New Systems Operations Leader-Chicago (630) 734-6050
Michael Adams, Equipment Estimator – Team Leader (630) 734-6051
Monique Cade, Commercial Systems Project Manager (630) 734-6043
Laura Christensen, Commercial Systems Project Manager (630) 734-6061
Missy Duffy, Commercial Systems Project Manager (630) 734-6048
Walter Putts, Commercial Systems Project Manager (630) 734-6098
Tom Krusinski, Commercial Systems Technical Support/Sales (630) 734-6062
Kevin Maher, Commercial Systems Technical Support/Sales (630) 734-6011
Margaret Dircken, Commercial Systems Project Assistant (630) 734-6021
CONTRACTING SALES
Jim McKeown, Controls and Intelligent Services Business Leader (630) 734-6087
Dan Brandolino, District Strategic Contracting Sales Leader (630) 734-6026
Bill Bellair, District Strategic Contracting Operations Leader (630) 734-6018
Steve Blau, Commercial Sales Solutions Engineer (630) 734-6083
Jon Dunlap, Strategic Solutions Account Executive (630) 734-6127
Laura McGettrick, Strategic Solutions Sales Executive (630) 734-6033
Bill Denton, Commercial Sales Solutions Engineer (630) 734-6143
Ray Lesnik, Comprehensive Solutions Senior Project Developer (630) 734-6122
John Morairs, Strategic Business Developer (630) 734-6092
Daniel Burrows, Strategic Sales Executive (630) 734-6020
Joe Trnka, Commercial Sales Solutions Engineer (630) 734-6106
DALE DOCEKAL, CONTROLS CONTRACTING OPERATIONS LEADER (630) 734-6088
Diane Anderson, Building Automation, Project Administrator (630) 734-6027
Michele Rehfeldt, Building Automation Project Administrator (630) 734-6104
Linda Pakenas, Contracting Project Specialist (630) 734-6079
Bill Allison, Building Automation Project Manager (630) 734-6102
Terry Brown, Controls Estimator (630) 734-6112
Keith Maser, Building Automation Project Engineer (630) 734-6125
Tony Perkins, Building Automation Engineering Manager (630) 734-6124
John Reichardt, Building Automation Project Manager (630) 734-6116
John Burrows, Building Automation Sales Specialist (630) 734-6045

To search: Click on "Edit" in tool bar and then "Find".

NATIONAL ACCOUNTS
Lauri Frankowski, Commercial Sales National Account Engineer (630) 734-6055
Nirmal Sekhri, Commercial Sales National Account Engineer (630) 734-6047
William Biloon, Global National Accounts Executive, (630) 734-6047
Jill Elias, Commercial Sales National Account Sales Coordinator (630) 734-6058
Angela Lucarelli, Commercial Sales National Account Solutions Project Manager (630) 734-6057
BUILDING SERVICES SALES
PAUL MICHALEK, BUILDING SERVICES BUSINESS LEADER (630) 734-6171
Rich Yoshimura, Area Building Services Manager-Chicago (630) 734-6166
Deb Knodell, Service Administration Manager (630) 734-6170
Skip Mackey, Service/Aftermarket Coordinator (630) 734-6158
Ed Harding, Service Sales Account Executive (630) 734-6165
Jason Jellison, Service Sales Account Executive (630) 734-6150
Mark Musial, Service Sales Account Executive (630) 734-6148
David Ross, Service Sales Account Executive (630) 734-6145
Patrick Heneberry, Account Executive (630) 734-6149
Ken Fresh, Service (EBS), Account Manager, (630) 734-6075
Susan Johnson, Service Project Administrator (630) 734-6076
SUPPLY BUSINESS
DAVE MCCORMICK, DISTRICT TRANE SUPPLY BUSINESS LEADER R1-A99 (630) 734-7900
Edward Zylstra, District Trane Supply Operations Leader (616) 971-1456
Mike Osgood, Territory Manager, (630) 400-4336

PARTS CENTERS:

CHICAGO

Trane Aftermarket Supply Willowbrook Central Branch
(630) 455-9900
FAX: (630) 323-7420
7100 South Madison Street
Willowbrook, Illinois 60527-5505
Patricia Marshall, Aftermarket Inside Sales Willowbrook Manager (630)455-9900 ext. 270
Charles Passarelli, Account Manager cell phone (630) 418-8128

Trane Aftermarket Supply Aurora West Branch
(630) 499-9650
FAX: (630) 499-9789
1585 Beverly Court #117
Aurora, Illinois 60502
Tim McKay, Aftermarket Inside Sales Aurora Manager (630) 734-7904 ext. 256
Sean Welch, Aftermarket Outside Sales Territory Mgr. cell phone (630) 400-4332

Trane Aftermarket Supply Buffalo Grove North Branch
(847) 229-1671
FAX: (630) 734-7975
1322 Barclay Blvd.
Buffalo Grove, Illinois 60089
Aftermarket Inside Sales Buffalo Grove Manager
Mike Osgood, Aftermarket Outside Sales Territory Mgr. cell phone (630) 400-4336

Trane Aftermarket Supply Tinley Park South Branch
(708) 532-8004
FAX: (708) 532-6140
18450 South Westcreek Drive
Tinley Park, Illinois 60477
Manuel Guerrero, Aftermarket Inside Sales Tinley Park Manager (708) 532-8004 ext. 253
Adam Oertley, Account Manager (708)465-8265

GRAND RAPIDS, MI (M5)
CHICAGO/WEST MICHIGAN DISTRICT
(See also Chicago)
(See also Parts Centers listed below)
(616) 971-1400 – Sales & Service
(616) 971-1400 – After Hours
FAX: (616) 971-1401

To search: Click on “Edit” in tool bar and then “Find”.

5005 Corporate Exchange Boulevard S.E.
Grand Rapids, Michigan 49512
C. CHRIS COMPERCHIO, DISTRICT MGR. (M5-C00)
JOHN ATSMA – WEST MICHIGAN AREA MANAGER
ACCOUNT MANAGERS
William P. Barnhart (M5-C88)
Christopher C. Duryee (M5-C84)
Charles F. Fischer (M5-C26)
Brian S. Langerak (M5-C05)
Michael L. Maleski (M5-C17)
Daniel J. Pabst (M5-C93)
Michael P. LoMonaco (M5-C07)
PROJECT ENGINEERS
Megan J. Mayle
Corey VanDenBerg
INSIDE SALES
Kathy L. Fessenden
Holly L. Hubbard
CONTRACTING OPERATIONS LEADER
Ryan M. Polter
PROJECT MANAGERS
Bill J. Bockheim
Matt B. Earl
Andrew R. Tjoelker
Matthew J. Bloem
ESTIMATING
Scott A. Moorlag, Team Leader
Jeffrey R. Block
Chad Nyenhuis
TURNKEY DEVELOPMENT
Greg R. Bleeker
Joel T. Knibbe
SERVICE
Michael A. Austin, Area Building Service Manager
Gene O. Hulst, BAS Service Leader
Ronald D. Strick, South Team Leader
James E. Triplett, North Team Leader
EXISTING BUILDING SALES
Colin A. Fenton, Service Sales (M5-C77)
Jeremy M. Langerak (M5-C97)
Ross A. Porter, Service Sales (M5-C96)
James A. Spero, Service Sales (M5-C75)
DISTRICT FINANCE LEADER
Robert H. Katerberg
TRANE CREATIVE SOLUTIONS SALES SUPPORT
Dale A. Hulst, Operations Leader
Richard D. Kingston, Sales and Marketing Leader (M5-C18)
Matt L. Latchaw, Sales and Marketing Engineer
Craig R. Mulder, Sales and Marketing Engineer
AFTERMARKET PARTS BUSINESS
DAVE J. MCCORMICK, DISTRICT AFTERMARKET PARTS AND SUPPLY LEADER (R1-A99) (630) 734-7900
EDWARD J. ZYLSTRA, DISTRICT AFTERMARKET OPERATIONS LEADER

PARTS CENTERS:

GRAND RAPIDS
Trane Aftermarket Supply– Grand Rapids
(616) 234-5641
FAX: (616) 234-5643
1200 Monroe Avenue NW
Grand Rapids, MI 49505
Mark J. Goshorn, Store Manager
Jacqueline K. Sauser, Territory Manager (M6-A01)

Trane Aftermarket Supply– Kalamazoo
(269) 226-2806

To search: Click on “Edit” in tool bar and then “Find”.

FAX: (269) 226-2807
5111 E. M.L. Avenue, Suite A100
Kalamazoo, Michigan 49048
Mark J Goshorn, Store Manager
Karl J. Cunigan, Territory Manager (M5-C79)

To search: Click on “Edit” in tool bar and then “Find”.

CHICOUTIMI DISTRICT	**Last updated January 1, 2013**

CHICOUTIMI, QUEBEC (CD)
CHICOUTIMI DISTRICT
(418) 549-5735
(418) 543-3565 – After Hours
FAX: (418) 549-5738
644, rue des Actionnaires
Chicoutimi, P.Q. G7J 5A8

GLENN PARKS, DISTRICT MGR. & N.A.J.C. (CD-P01) (ext. 221), cell (418) 812-3721
Pierre Lavoie, Sales Mgr. (CD-P03) & LAN Admin. (ext. 222), cell (418) 540-5189
Luc Nadeau, BAS (ext. 223), cell (418) 540-5687
Sonia Potvin, Controller (ext. 0)
Edith Blackburn, Receptionist (ext. 0)
Philippe Gagnon, BAS Tech (ext. 224)
Eric Girard, Parts (ext. 226)
Marc Lapointe, BAS Tech (ext. 224), cell (418) 540-8735
Sébastien Gagné, Bas Tech (ext. 232) cell (428) 812-4885
Jean-Michel Guerin, BAS Tech (ext. 224)

To search: Click on “Edit” in tool bar and then “Find”.

CLEVELAND DISTRICT **Last updated January 1, 2013**

CLEVELAND, OH (N3)
CLEVELAND DISTRICT
(See also Akron-Canton area office and Parts Center listed below)
(440) 248-3400 24 hours a day
(440) 248-3400 – After Hours enter the extension number to reach your party.
FAX: (440) 349-6980
31200 Bainbridge Road
P.O. Box 76129
Solon, Ohio 44139

WILLIAM H. GARDINER, DISTRICT MGR./OWNER (N3-F00) (ext. 1544)
BOB CASE, GEN. MGR./PRESIDENT/DM (N3-F39) (ext. 1545)
KIM GELLER, EXECUTIVE ASSIST. (ext. 1528)
RICK REDER, TREASURER & ORDER FULFILLMENT PROCESS OWNER (ext. 1552)
KIM GELLER, EXECUTIVE ASSIST. (ext. 1528)
NEW SYSTEMS SALES
MIKE BALL, SALES TEAM LEADER (N3-F10) (ext. 1548)
Andy English (N3-F54) (ext. 1468)
Paul Hinman, A.E. (N3-F05) (ext. 1530)
Mike Hendricks (ext. 1560)
Mike Morehouse (ext. 1538)
Jim Sutton (N3-F24) (ext. 1562)
Scott Sutton (N3-F65) (ext. 1505)
Laura Whelan, S.A. (ext. 1480)
Barb Trusnik, S.A. (ext. 1464)
Lisa Deboe, S.A. (ext. 1568)
Dan Nish (ext. 1523)
COMPREHENSIVE SOLUTIONS
NATIONAL ACCOUNTS
Bob McClintock, N.A.E. & N.A.J.C. (N3-F51) (ext. 1494)
Harry Hakenson (ext. 1547)
Sharon Dorn, S.A. (ext. 1490)
HUMAN RESOURCES
Kristie Gallagher (ext.1539)
MARKETING
Jim Wajciechowski, Marketing Leader (ext. 1567)
Courtney Bacik, Mktg. Coord. (ext. 1573)
Jason Lockett (ext. 1534)
OWNER DIRECT SALES
Brent Jividen, OWNER DIRECT SALES MGR. (ext. 1470)
Cory Kiewatt (ext. 1491)
Bob Mehling (ext. 1509)
John Owens (ext. 1479)
Bob Pelc (ext. 1483)
Brian Riegel (ext. 1463)
Eric Swain (ext. 1315)
Willie Thompson (ext. 1578)
Lora Atherton (ext. 1504)
Steve Bigach (ext. 1556)
Jeff Covert (ext. 1314)
Kristin LaFine (ext. 1518)
Mike Gersper (ext. 1529)
Mike Bailey (ext. 1554)
VERTICAL MARKET BUILDING SALES
Amy Golson, Admin. Asst. (ext. 1542)
Dennis Herbst, Energy Engineer (ext. 1414)
Tom Whitehead, Strategic Projects/Healthcare Leader (ext. 1561)
Todd Barnhart, Financial Solutions/Education Leader (N3-F45) (ext. 1496)
John Scott, Government Solutions (ext. 1527)
Eric Swain, Industrial Solutions (ext. 1488)
BAS SALES
DON SABETTA, SALES MGR. (ext. 1543)
Ted Bedell, BAS Sales (ext. 1565)

To search: Click on “Edit” in tool bar and then “Find”.

Kevin Pugely, BAS Sales (ext. 1517)
Mark Witkoski, BAS Sales (ext. 1575)

ORDER FULFILLMENT
Jim Wajciechowski, Intelligent Control Services Business Leader (ext. 1567)
Mike Reindel, Service Operations Leader – West (ext. 1535)
Rich Vaccariello, Service Operations Leader – East (ext. 1579)
Dave Weber, Existing Building & Automation & Controls Operations Leader (ext. 1516)
Mike McMichael, Energy Service Operations Mgr. (ext. 1531)
Del Turnbull, BAS/Interoperability Leader (ext. 1580)
Carole Dienes, BAS Proj. Coord. (ext. 1587)
Pamela Johnson, BAS Admin. Asst. (ext. 1559)
Allan Dynes, LAN Admin. (ext. 1563)

AKRON – CANTON, OH (N8)
CLEVELAND DISTRICT
(330) 896-9358
FAX: (330) 896-4158
1530 Corporate Woods Parkway Suite 200
Uniontown, Ohio 44685
BRAD LEHMAN, SALES TEAM LEADER (N8-F41) (ext. 1303)
David Adler (N8-F55) (ext. 1306)
Ray Barnhart, A.E./N.A.E. (N8-F37) (ext. 1304)
Brian Wild (N8-F31) (ext. 1305)
Nancy Newman, S.A. (ext. 1301)
Lori Lawton, Sales Assistant. (ext. 1302)
Donna Szink, Admin. (ext. 1300)

PARTS CENTERS:

Gardiner Trane HVAC Parts & Supplies
(440) 248-3400
(440) 394-4000 Direct Line
FAX: (440) 528-0009
31225 Bainbridge Road, Suite M
Solon, Ohio 44139

Gardiner Trane HVAC Parts & Supplies
(330) 896-9358
FAX: (330) 896-4158
1530 Corporate Woods Parkway, Suite 300
Uniontown, Ohio 44685
Nancy Guepfer, Parts Mgr. (ext. 1474)

To search: Click on "Edit" in tool bar and then "Find".

COLUMBIA DISTRICT	Last updated January 1, 2013

COLUMBIA, SC (F2)
COLUMBIA DISTRICT
(See also Charleston, SC area office and Parts Centers listed below)
(803) 936-4700
FAX: (803) 936-4715
111 Lott Court
West Columbia, South Carolina 29169

OPEN, DISTRICT GENERAL MANAGER
KENNY BOLIN, General Manager (F2-D15) (ext. 4703)
MICHELLE DUNCAN, District LCU Team Leader (ext. 4730)
Open, District Contracting Leader (ext. 4708)
NEAL TARLETON, District Parts Leader
HEATHER SEWELL, BUSINESS DEVELOPMENT MANAGER (ext. 4702)
Business Development
Vertical Market Sales
Henry Knight, Government Business Development (ext. 4784)
Indirect Account Managers
Spencer Phillips, Indirect Sales (F2-D07) (ext. 4742)
Larry Talbert, Indirect Sales (F2-D02) (ext. 4731)
John M. Toney, Indirect Sales (F2-D01) (ext. 4732)
Michael Boone, Indirect Sales (F2–D16) (ext. 4743)
Kent Koehn, Controls Sales (F2-D28) (ext. 4804)
Equipment Solutions Team
Chandler Whisnet, Applications System Engineer (ext. 4785)
Lynn Benasutti, Project Manager (ext. 4782)
Juanita Sumter, Project Admin/ Receptionist (ext. 4700)
Derek Haigler, Estimator III (Equipment) (ext. 4502)
Direct Account Managers
Jim Brodeur, Direct Sales (F2-D55) (ext. 4705)
Cecil Derrick, Direct Sales (F2-D24) (ext. 4736)
Jeff Peter Direct Sales (F2-D11)
David Loadholt, Direct Sales
Natalie Henderson, Estimator-Service
Contracting Solutions
Bill Robinson, Project Manager (ext. 4801)
Jeff Kindle, Project Manager
Susan Eichler, Project Admin. (ext. 4780)
Charlie Stroud – Estimator I Controls
Service Solutions
Trent Speers – Area Service Manager Columbia
Tina Trapp, Resource Coordinator (ext. 4706)
Jennifer Smith, Project Admin. Columbia (ext. 4734)

CHARLESTON, SC (F8)
COLUMBIA DISTRICT
(843) 375-4775
FAX: (843) 375-4776
2011 Clements Ferry Road
Charleston, South Carolina 29492-7728
DEAN HACKETT, GENERAL MANAGER CHARLESTON (ext. 4312)
Bobby Williams, LCU Specialist - Outside
Business Development
Vertical Market Sales
Indirect Account Managers
Rob Craft, Indirect Sales (F8-D07) (ext. 4320)
Scott Peak, Indirect Sales (F8-D46) (ext. 4304)
Jeff Strunk, Estimator III – Equipment (ext. 4319)
Philip Garcés, Indirect Sales (F8-D25) (ext. 4301)
Equipment Solutions Team
Amanda Loff, Project Manager (ext.4305)
Direct Account Managers
Bill Collar, Direct Sales (F8-D43) (ext. 4306)

To search: Click on “Edit” in tool bar and then “Find”.

Mark Siwik, Direct Sales (F8-D52) (ext. 4309)
Contracting Solutions
Mark Atwood, Area Contracting Manager (ext. 4323)
Neil Monk, Project Manager (ext. 4310)
Service Solutions
Scott Ryan, Area Service Manager (ext. 4303)
Leila Conklin, Project Admin. Charleston (ext. 4331)
Serena Darnell, Resource Coordinator

PARTS CENTERS:

Columbia Trane Parts Center
(803) 256-0727
FAX: (803) 256-6845
121 Midlands Ct.
West Columbia, South Carolina 29169
John Miller, Store Manager (ext. 4764)
Bryan Bouknight, Inside Sales (ext. 4762)
Robert Small, Outside Sales (ext. 4768)
Kevin Watts, LCU Specialist
Brady Derrick, Inside Sales

Charleston Trane Parts Center
(843) 740-7011
FAX: (843) 747-9880
4760 Goer Dr., Suite D
North Charleston, South Carolina 29406
Gary Gremillion, Parts Store Leader
Tony Edmonds, Inside Sales
John Saunders, Inside Sales

Florence Trane Parts Center
(843) 669-3730
FAX: (843) 669-0020
1208 Broughton Street
Florence, South Carolina 29501
Jesse Payne, Outside Sales

Myrtle Beach Parts Center
(843) 215-3407
Fax: 843-213-3439
Richard Brown, Parts Store Leader
Timothy Clemons, Inside Sales
Daniel Carter, Parts Account Manager

To search: Click on “Edit” in tool bar and then “Find”.

CONNECTICUT-NEW YORK-VERMONT DISTRICT **Last updated January 1, 2013**

ROCHESTER, NY (C4)
CONNECTICUT-NEW YORK-VERMONT DISTRICT
(See also Albany, Burlington, Corning, Hartford & Syracuse offices and Parts Centers listed below)
(585) 256-2500 – General
(607) 936-8116 – Corning
(585) 783-6019 – After Hours
FAX: (585) 256-0067 – General
FAX: (585) 256-0384 – Parts
75 Town Centre Drive, Suite 300
Rochester, New York 14623

MIKE CAREY, DISTRICT MGR. (Albany)
Bill Seward, Indirect Sales Mgr. (Albany)
Doug Young, Contracting Sales Mgr. (Albany)
Ed Maruszczak, Contracting Operations Mgr. (Syracuse)
Jim Goodness, Service Sales & Operations Manager
Heather Maxwell, Controls Sales Leader (Albany)
John Roseboom, Parts Mgr. (Syracuse)
Steve Cammett, Business Financial Leader (Albany)
Kathleen Backenson, Director of Marketing (Albany)
Becky Wolfe, Human Resources (Albany)
Bill Pfeiffer, Environmental Health & Safety (Hartford)
INDIRECT SALES
Dick Barrett, Acct. Mgr., N.A.E. & N.A.J.C. (C4-A01)
Mark Mallie, Acct. Mgr. (C4-A04)
Pat Whelan, Acct. Mgr. (C4-A17)
EQUIPMENT FULFILLMENT
Christina Walters, Proj. Admin.
Bob Terborg, Proj. Admin.
DIRECT SALES
Justin DelVecchio, CCS Acct. Mgr.
Steve Gosier, Acct. Mgr. (C4-A25)
Chris Bulawa (C4-A33)
Mark Bowler (C4-A34)
CONTRACTING
Steve Sleight, Local Contracting Business Leader
Ken Pruner, BAS Acct. Mgr.
Jeffrey Vick, BAS Proj. Mgr.
Matt Dollard, Proj. Mgr.
Neal Reaser, Proj. Mgr.
Jim Merrill, Proj. Admin.

ALBANY, NY (C1)
CONNECTICUT-NEW YORK-VERMONT DISTRICT
(518) 785-1315
(518) 785-6486 – After Hours
(518) 785-6486 – Service
FAX: (518) 785-4359 – General
FAX: (518) 785-4315 – Service
301 Old Niskayuna Road
Latham, New York 12110-2214
MIKE CAREY, DISTRICT MGR.
Bill Seward, Indirect Sales Mgr. (C1-C06)
Doug Young, Contracting Sales Mgr.
Ed Maruszczak, Contracting Operations Mgr. (Syracuse)
Jim Goodness, Service Sales& Operations Manager (Rochester)
Heather Maxwell, Controls Sales Leader (Albany)
John Roseboom, Parts Manager (Syracuse)
Steve Cammett, Business Financial Leader
Kathleen Backenson, Director of Marketing
Becky Wolfe, Human Resources
Bill Pfeiffer, Environmental Health & Safety (Hartford)
INDIRECT SALES

Jim Melanson, Acct. Mgr. (C1-C08)
Brad Juneau, Acct. Mgr. (C1-C32)
Sara Miceli, Acct. Mgr. & N.A.E. & N.A.J.C. (C1-C18)
David Isenhart, Acct. Mgr. (C1-C35)
EQUIPMENT FULFILLMENT
Evelyn Daley, Proj. Mgr.
Josh Littell, Applications Specialist
DIRECT SALES
Scott Miller, Acct. Mgr. (C1-C05)
Bill Willows, Acct. Mgr. (C1-C31)
Matt Cross (C1-C41)
John Roylance (C1-C42)
Jeff Rickard (C1-C43)
Katie Morrissey, Sales. Admin.
CONTRACTING
Steve Young, Proj. Dev.
Todd Turcotte, BAS Acct. Mgr.
Joe Fuda, Proj. Mgr.
Mike Gerus, Local Contracting Business Leader
Patrick Lloyd, Energy Engineer
Janet Jordan, Proj. Admin.
SERVICE
Emil Kreiger, Area Service Manager
Bob Wilcox, Area Service Manager

SYRACUSE, NY (C5 & C7)
CONNECTICUT-NEW YORK-VERMONT DISTRICT
(315) 234-1500
(315) 434-6333 – After Hours
FAX: (315) 433-9120
FAX: (315) 433-1939 – Parts
15 Technology Place
East Syracuse, New York 13057
MIKE CAREY, DISTRICT MGR. (Albany)
Bill Seward, Indirect Sales Mgr. (C1-C06) (Albany)
Doug Young, Contracting Sales Mgr. (Albany)
Ed Maruszcak, Contracting Operations Mgr.
Jim Goodness, Service Sales & Operations Mgr. (Rochester)
Heather Maxwell, Controls Sales Leader (Albany)
John Roseboom, Parts Manager
Steve Cammett, Business Financial Leader (Albany)
Kathleen Backenson, Director of Marketing (Albany)
Becky Wolfe, Human Resources (Albany)
Bill Pfeiffer, Environmental Health & Safety (Hartford)
INDIRECT SALES
Ryan Byrd, Acct. Mgr. (C5-A10)
Shey Doane, Acct. Mgr. (C5-A27)
Chris Devins, Acct Mgr.
EQUIPMENT FULFILLMENT
Judy Empie, Proj. Mgr.
Dolores Thompson, Proj. Admin.
DIRECT SALES
Tom Nicholson, CCS Acct. Mgr.
Dave Taylor, Acct. Mgr. (C5-A34)
Gene Waldbauer, Acct. Mgr. (C5-A16)
Gabe Agnello (C5-A43)
CONTRACTING
Louis Williams, Local Contracting Business Leader
Glenn Roberts, BAS Acct. Mgr. (C5–A30)
Matt Pinczes, Energy Engineer

To search: Click on “Edit” in tool bar and then “Find”.

HARTFORD (ROCKY HILL) CT (B2)
CONNECTICUT-NEW YORK-VERMONT DISTRICT
(See also Parts Centers listed below)
(860) 616-6600
Toll Free: (800) 959-9092
Service: 860-263-2200 or (800) 959-7236
FAX: (860) 616-6599
716 Brook Street, Suite 130
Rocky Hill, Connecticut 06067
MIKE CAREY, DISTRICT MGR. (Albany)
Rick Salon, Indirect Sales Leader (ext. 6572)
Doug Young, Contracting Sales Manager (Albany)
Josh Tucker, Service Sales & Operations Manager
Ed Maruszczak, Contracting Operations Mgr. (Syracuse)
Heather Maxwell, Controls Sales Leader (Albany)
John Roseboom, Parts Manager (Syracuse)
Steve Cammett, Business Financial Leader (Albany)
Kathleen Backenson, Director of Marketing (Albany)
Becky Wolfe, Human Resources (Albany)
Bill Pfeiffer, Environmental Health & Safety (ext. 6546)
CONTRACTOR SALES
Alan C. Romaniello, Account Manager (B2-D03) (ext. 6515)
Neil Abed, Account Manager (B2-D35) (ext. 6522)
Dan Stanek, Account Manager (B2-K02) (ext. 6512)
Tom Pisano, Account Manager (B2-K01) (ext. 6561)
ENGINEERING SALES
Cary Mandeville, Account Manager (B2-K19) (ext. 6523)
Ken Scanlon, Account Manager (B2-D42) (ext. 6534)
DIRECT SALES
David Ford, Account Executive, Comprehensive Solutions (B2-D23) (ext. 6513)
Kevin Rice, Account Executive, Comprehensive Solutions (B2-D) (ext. 6511)
Alan Berard, Account Manager (B2-D08) (ext. 6514)
Joel Champany, Account Manager (B2-D41) (ext. 6556)
Jeff Polisky, Account Manager (B2-D36) (ext. 6555)
Mike Whitford, Account Manager/Rentals Champion (B2-E10) (ext. 6557)
EQUIPMENT FULFILLMENT
Janelle Pelletier, Project Manager (ext. 6520)
Erik Emanuele, Project Manager (ext. 6528)
Karen Mayne, Project Manager (ext. 6518)
Doreen Summa, Project Manager (ext. 6519)
Xanthea Mazzoccoli, Project Manager (ext. 6521)
CONTRACTING
Jeff Haddock, Estimator (Turnkey/Controls) (ext. 6571)
Jim DiLieto, Project Manager (Turnkey) (ext. 6574)
David Giarrusso, Project Manager (ext. 6570)
Russell Tischofer, Project Engineer (ext. 6554)
Danielle Ocasio, Project Engineer (ext. 6553)
Laura Seaburg, Proj. Admin. (ext.6569)
John Bouchard, Account Manager-Controls (ext. 6566)
Kerry Eisenlau, Account Manager (B2-D31) (ext. 6567)
SERVICE
Corey Pedersen, Area Service Manager (ext. 6547)
Rick Patnaude, Area Service Manager (ext. 6535)
Joyce Parker, Project Administrator (ext. 6538)

BURLINGTON, VT (C2)
CONNECTICUT-NEW YORK-VERMONT DISTRICT
(802) 864-3816
FAX: (802) 864-5093
175 Leroy Road
Willston, Vermont 05495
MIKE CAREY, DISTRICT MGR. (Albany)
Bill Seward, Indirect Sales Manager (C1-C06) (Albany)
Doug Young, Contracting Sales Manager (Albany)
Ed Maruszczak, Contracting Operations Mgr. (Syracuse)
Jim Goodness, Service Sales & Operations Mgr. (Rochester)

To search: Click on “Edit” in tool bar and then “Find”.

Heather Maxwell, Controls Sales Leader (Albany)
John Roseboom, Parts Manager (Syracuse)
Steve Cammett, Business Financial Leader (Albany)
Kathleen Backenson, Director of Marketing (Albany)
Becky Wolfe, Human Resources ((Albany)
Bill Pfeiffer, Environmental Health & Safety (Hartford)
INDIRECT SALES
Brian Frary, Acct. Mgr. – Team Leader (C1-C13)
Tom Zoller, Acct. Mgr. (C1-C22)
EQUIPMENT FULFILLMENT
Mike Paustian, Proj. Admin.
SERVICE
Bob Wilcox, ASM
CONTRACTING
Mike Gerus, Local Contracting Business Leader (Albany)
Marc Quail, CCS Acct. Mgr. (Albany)
Ray Spears, BAS Acct. Mgr/Proj. Mgr.

PARTS CENTERS:

ALBANY, NY
(518) 453-6005
FAX: (518) 453-1394
51 Railroad Avenue
Albany, New York 12205
John Roseboom, Parts Mgr. (Contact in Syracuse)

ROCHESTER, NY
(585) 256-1028
FAX: (585) 256-0384
460 Buffalo Road
Rochester, New York 14623
John Roseboom, Parts Mgr. (Contact in Syracuse)

SYRACUSE, NY
(315) 432-9119
FAX: (315) 433-1939
6211 East Molloy Road
East Syracuse, New York 13057
John Roseboom, Parts Mgr.

HARTFORD, CT

Hartford
(860) 541-1721
FAX: (860) 541-1722
Toll Free: 1-800-423-8965
485 Ledyard Street
Hartford, Connecticut 06114
John Roseboom, Parts Mgr. (Contact in Syracuse)

Norwalk
(203) 295-2170
FAX: (203) 229-0178
Toll Free: 1-800-544-1642
47 Harbor View Ave.
Norwalk, Connecticut 06902
John Roseboom Parts Mgr. (Contact in Syracuse)

New London
(860) 437-6208
FAX: (860) 440-2516
Toll Free: 1-866-538-7263
571 Broad Street
New London, Connecticut 06320
John Roseboom, Parts Mgr. (Contact in Syracuse)

To search: Click on “Edit” in tool bar and then “Find”.

DAYTON DISTRICT	**Last updated January 1, 2013**

DAYTON, OH (N5)
(N5) DAYTON DISTRICT
(See also Parts Center listed below)
(937) 264-4343
(937) 264-4345 – After Hours
FAX: (937) 264-4360
815 Falls Creek Drive
Vandalia, Ohio 45377
DAVE WAIBEL, DISTRICT MGR.
DAVE CROSLEY, GENERAL MGR.
Mark H. Rapier, NSS (N5-W01)
Kyle Kurtz, NSS (N5-W42)
Evan Nutt, NSS (N5-W45)
Julie Todd, Bid Coord. (N5-W06)
Michelle Willis, S.A. (N5-W23)
Mike Cooper, LAN Admin.
Robert Parker, CFO, Safety
Lea Ann Sears, HR
EXISTING BUILDING SERVICES
Rodney Rhoades, EBS Sales Mgr.
Steve Bates, Operations Mgr.
Phil Riesenberg, Service Operations
Christi Elkins, Service Operations
Nancy Arlotta, Service Coord.
Christen Zimmerman, Service Coord.
Ralph Goubeaux, Energy Engr. (N5-W51)
Nathan Lammers, Energy Engr.
Jeremy Adams, EBS
Vic Brahm, EBS
Kevin Kincaid, EBS, Health Care (N5-W48)
Tom Lee, EBS
Shay Moran, EBS, Ed. (N5-W34)
Roy Tam, EBS (N5-W25)
Joe Thacker, EBS

BAS/ICS
Pierce Ferriter, Special Projects
Joe Zimmerman, BAS Leader
Rodney Rhoades, Solutions Sales
Jason Day, Field Project Mgr.
Dave Dipple, Field Project Mgr.
Jerry Gray, Sr. Proj. Engr.
Dan Lackey, Controls Proj. Engr.
ICS Team (N5-W13)

PARTS CENTER

Waibel Trane Specialty Products
(937) 264-4333
FAX: (937) 264-4336
811 Falls Creek Drive
Vandalia, Ohio 45377
Alex Waibel, Distribution Mgr.
Keith Fasnacht, Parts Sales Leader
Frank Evora, Sales
Denver Haas, Sales
Lea Ann Sears, Sales
Ben Wissman, Sales
Paulette Day, Sales
Chris Myers, Sales

To search: Click on “Edit” in tool bar and then “Find”.

DES MOINES DISTRICT **Last updated January 1, 2013**

DES MOINES, IA (R5)
DES MOINES DISTRICT
(See also Parts Center listed below)
(515) 270-0004
(515) 270-0004 – After Hours
(515) 309-4500 – Service
FAX: (515) 270-3835
2220 NW 108th Street
Clive, Iowa 50325

PAUL HALVORSON, DISTRICT MGR. (R5-H00)
GREG GRANDGEORGE, GENERAL MGR.
DAVE HANSEN, HR LEADER
Ron Engelhardt (R5-H21), Sales Manager
Quenten Meyer (R5-H21)
Dave Wisnieski (R5-H21)
Mike Spargo (R5-H21)
Joe Fields (R5-H21)
Haley Burns, Project Engineer
Travis Roseberry, Project Engineer
Doug Allen, Project Engineer
Megan Minnick, Project Administrator
Terri Brown, Controller/LAN Admin.
BAS
STEVE BRIMEYER, BAS MANAGER
Tom Peters, BAS Sales Engineer New Construction
Doug Stephens, BAS Sales Engineer Existing Buildings
Kit Cartwright, ES Sales Engineer
SERVICE
STEVE CROCKER, SERVICE MANAGER
EXISTING BUILDING SALES
Brian Dugan, Service Sales Manager
Travis Harris, Service Sales
Jay Herter, Service Sales

PARTS CENTER

Trane Des Moines Parts Center
515-309-4520
FAX: 515-270-3835
2220 NW 108th Street
Clive, Iowa 50325
ERIC SAYRE, PARTS MANAGER
Kathy Bishop, Counter Sales

To search: Click on “Edit” in tool bar and then “Find”.

FLINT DISTRICT	**Last updated January 1, 2013**

FLINT, MI (M2)
FLINT DISTRICT
(See also Lansing area office and Parts Center listed below)
(810) 767-7800
(810) 767-7801 – After Hours
FAX: (810) 767-9058
5335 Hill 23 Drive
Flint, Michigan 48507
JAY N. NELSON, DISTRICT MGR. (M2-N00)
JUDITH RAPPUHN, VP Finance & Operations
PARRY HUGHES, VP & GM of SALES, N.A.E. (M2-N23)
Matthew Krusniak Flint & Lansing Sales Market Team Leader (M2-N37)
John LaMarre, Unitary Sales (M2-N48)
Chris Burleigh, S.A.
Tricia Barry, S.A.
EXISTING BUILDING SALES/PACT
Kurt Trierweiler (M2-N35)
John Schmidt (M2-N44)
Dean Weber (M2-N45)
Andy Nurenberg (M2-N49)
OPERATIONS (FULFILLMENT)
Judy Rappuhn, VP & GM of Fulfillment (Operations)
Dale Mayle, BAS Team Leader
Michael Toth, Mgr., Technical Services
Bob Parsons, Service Team Leader
Jody Denison, Service Team Leader

LANSING, MI (M3)
FLINT DISTRICT
(517) 337-6517
(800) 771-2105
FAX: (517) 337-9493
3350 Pine Tree Road
Lansing, MI 48911
Thomas E. Johnson (M3-N18)
Beth Murphy, S.A.

PARTS CENTER:

Trane Parts Center
(810) 767-7800
FAX: (810) 767-9609
5335 Hill 23 Drive
Flint, Michigan 48507
Judy Rappuhn, GM of Parts
Michelle Pescatello, Flint Store Manager

Trane Parts Center
517-913-3100
FAX: 517-913-3109
3350 Pine Tree Road
Lansing, Michigan 48911
Anthony Gallagher, Lansing Store Manager

To search: Click on “Edit” in tool bar and then “Find”.

GREAT FALLS DISTRICT	Last updated January 1, 2013

GREAT FALLS, MT (Y7)
GREAT FALLS DISTRICT
(See also Billings area office and Parts Centers listed below)
(406) 727-5111
(406) 248-4882 – After Hours
FAX: (406) 727-3660
422 9th Street S. (59405)
P.O. Box 2642
Great Falls, Montana 59403

ROLLIE L. ARMACOST, DISTRICT MGR. & N.A.J.C. (Y7-A01)
JEFF CRAIG, SALES MGR. (Y1-A02)
Jon Dullum (Y7-A04)
Tom Dunbar, Serv. Mgr.
Sherman Brown, EBS Sales (Y7-A02)
Marsha Costello, Controls/LAN Admin
Wendy Garner, Accting./S.A.
PARTS – Reference Billings Office

BILLINGS, MT (Y1)
GREAT FALLS DISTRICT
(406) 248-4882
(406) 248-4882 – After Hours
FAX: (406) 248-5196
3311 4th Ave. North, Suite #4 (59101)
P.O. Box 22742
Billings, Montana 59104
JEFF CRAIG, SALES MGR. (Y1-A02)
Tom Dunbar, Serv. Mgr.
Stacy Uecker, EBS Sales
Jared Keller, LAN Admin./Parts

PARTS CENTERS:

BILLINGS, MT
Armacost Trane Service Co.
(406) 252-0907
FAX: (406) 248-4882
3311 4th Ave. N, Suite 4
P. O. Box 22742 (59104)
Billings, Montana 59101
Jared Keller, Parts Mgr.

GREAT FALLS, MT
Armacost Trane Service Company
(406) 727-5111
FAX: (406) 761-5173
P. O. Box 2642 (59403)
422 9th Street South
Great Falls, Montana 59405
Rollie Armacost, Mgr.

To search: Click on “Edit” in tool bar and then “Find”.

GREAT NORTHERN PLAINS	Last updated January 1, 2013

TWIN CITIES, MN (S3)
GREAT NORTHERN PLAINS DISTRICT
(See also Wisconsin District, Fargo, Rapid City and Sioux Falls Areas Offices and Parts Centers listed below)
(651) 468-2700) – Main line
(651) 468-2700 – After Hours
(651) 468-2800 – Service
(651) 468-2710 – National Accounts
FAX: (651) 468-2720
775 Vandalia Street
St. Paul, MN 55114
MITCHELL FARRELL, DISTRICT MANAGER (ext. 2701)
KEVIN STOSS, DISTRICT FINANCIAL LEADER (ext. 2708)
, DISTRICT ENVIRONMENTAL HEALTH AND SAFETY MANAGER (ext. 2706)
KIMBERLY HEISER, MARKETING MANAGER/EXECUTIVE ASSISTANT (ext. 2702)
Jason Stein, LAN Administrator III (ext. 2751)
TARA RUSSELL, DISTRICT HUMAN RESOURCES LEADER (ext. 2703)
INDIRECT SALES
CHRIS TANAKA, DISTRICT INDIRECT SALES LEADER (S3-S35) (ext. 2706)
Brad Harmon, Application Specialist/ Estimator – Equipment (ext. 2774)
Bryant Johnson, Account Manager (ext. 2797)
Dustin Gabert, Account Manager (ext. 2712)
Jim Kandels, Lead New Equipment Estimator (ext. 2744)
Jeff Peterson, Engineering Team Lead - Equipment (S3-P83) (ext. 2757)
Justin Strain, Lead New Equipment Estimator (ext. 2769)
Mark Rekowski, Account Manager - Equipment (S3-T00) (ext. 2761)
Matt Spresser, Engineering- Equipment (S3-T01) (ext. 2771)
Mike Spears, Bids Coordinator (ext. 2730)
Nate Illies, Equipment Fulfillment Team Lead - Equipment (ext. 2740)
Paul Babinchak, Project Developer (ext. 2723)
Randy Schock, Account Manager - Equipment (S3-T00) (ext. 2765)
Rick Youngdahl, Account Manager - Equipment (S3-T01) (ext. 2778)
Ryan Freeman, Account Manager (ext. 2766)
Seth Degeest, Account Manager - Equipment (S3-T00) (ext. 2732)
Spencer Ingaldson, Account Manager – Equipment (ext. 2741)
DIRECT SALES
CHRIS TANAKA, CORPORATE SOLUTIONS MANAGER (ext. 2783)
Charlie Holt, Account Manager – Turnkey (ext. 2738)
Denice Moen, Sales Administration Team Lead, (ext.2754)
Jake Quinn, Account Manager - Turnkey (S3-S44) (ext. 2760)
Jay Behnken, NA Sales Team Lead - Metro - Complex (S3-P78) (ext. 2715)
John Sandok, Project Estimator – Controls (ext. 2763)
Matt Medvec, NA Account Manager - Complex (S3-P77) (ext. 2716)
(ext. 2768)
Randy Benedict, Account Manager - Turnkey (S3-S12) (ext. 2725)
Renae Holthaus, Project Manager - Equipment (ext. 2739)
Russ Prososki, Account Manager - Own Dir. Ctrl. (S3-S41) (ext. 2759)
Sharon Schnittgen, District Project Administrator - Controls (ext. 2764)
Steve Grandelis, Equipment Solutions Leader (S3-P40) (ext. 2737)
Valerie Mac Alpine, Project Developer – (ext. 2750)
CONTRACTING AND SERVICE OPERATIONS
ROD COOK, OPERATIONS LEADER (ext. 2788)
Bill Nicol, Area Contracting Manager (ext. 2705)
Bill Amann, Account Manager - Service (S3-S33) (ext. 2721)
(ext. 2742)
Bob Rosenberg, Project Engineer(ext. 2762)
, District Project Engineering Specialist (ext. 2792)
Brian Kirkman, Contracting Project Manager (ext. 2713)
Dan Hakala, Service Coordinator (ext. 2802)
Dane Sandvik, Contracting Project Manager (ext. 2714)
David Bakke, Account Manager - Service (S3-S10) (ext. 2724)
Ed Zepeda, Sales Team Lead – surrounding area – Service (ext. 2717)
Jamie Holmes, Service Project Admin II (ext. 2804)
Karen Burgett, Equipment Project Manager (ext. 2729)

To search: Click on “Edit” in tool bar and then “Find”.

Kevin Endres, Warehouse (ext. 2735)
Logan Petersen, Service Project Admin (ext. 2775)
Emily Erickson, Service Project Admin – WI, Dakotas (ext. 2784)
Marco Hunt, Account Manager (ext. 2733)
Margaux George, Project Manager (ext. 2736)
Michele Larson, Area Service Manager – Service (ext. 2801)
Mike Witzel, Area Service Manager (East) (ext. 2776)
Mitch Elness, Estimator – Service (ext. 2734)
Paul Hartmann, Operations Parts Service (ext. 2805)
Steve Gunning, Service Coordinator (ext. 2807)
Susan Antolik, Contracting Admin (ext. 2722)

FARGO, ND (S1)
GREAT NORTHERN PLAINS DISTRICT
(701) 235-0521
FAX: (701) 293-3136
300 45th Street So Suite 110
Fargo, North Dakota 58103
MITCHELL FARRELL, DISTRICT MANAGER
INDIRECT SALES
RUSS SCHELL, INDIRECT SOLUTIONS LEADER
Fargo Sales Team (S1-K18)
Scott Carlson, BAS Sales Account Manager
Sarah Franson, PM Equip. Appl. Specialist
Bryan Ficek, PM Account Manager
Clint Wolf, S.E. Account Manager
Rachel Vanderplaats, Equip. Project Manager
Shane Eskelson, Account Manager
Tyler Johnson, Account Manager
Nancy Paulson, Area Service Manager
OWNER DIRECT SALES
RUSS SCHELL, DIRECT SOLUTIONS LEADER
Doug Rapske, Owner Sales, Owner Direct Account Executive
SERVICE SOLUTIONS
BOB DAVIS, SERVICE SOLUTIONS LEADER
CONTRACTING
STAN DAVIS. CONTRACTING OPERATIONS LEADER
Jason Hemmer, Construction Project Manager
FINANCE
Stacy Krabbenhoft, District Productivity Leader
Diane Spaeth, Administrative Assistant

RAPID CITY, SD (R6)
GREAT NORTHERN PLAINS DISTRICT
(605) 342-7929
FAX: (605) 342-7930
6807 Sturgis Road
P O Box 469
Black Hawk, South Dakota 57718
MITCHELL FARRELL, DISTRICT MANAGER
, GENERAL MANAGER

SIOUX FALLS, SD (R6)
GREAT NORTHERN PLAINS DISTRICT
(605) 336-8500
(605) 336-8500 – After Hours
FAX: (605) 336-0824
3500 South First Avenue, Suite 150
Sioux Falls, South Dakota 57105
MITCHELL FARRELL, DISTRICT MANAGER
, GENERAL MANAGER
BRENT TJEERDSMA, SALES MANAGER (R6-V04) (ext. 13)
Rob Marshall, Account Manager (R6-V04) (ext. 17)
Jeff Horstmeyer, Account Manager (R6-V04) (ext. 12)
Joel Bornhoft, Account Manager

To search: Click on “Edit” in tool bar and then “Find”.

Paul Bezdicek, Account Manager - Turnkey
Jonathan Feuchtenberger, Account Manager
Corey Ulrickson, Account Manager EBS (ext. 14)
Cheryl Edblom, Estimator - Equipment (ext. 20)
Kacie Schneider, Estimator - Equipment
Matthew Davelaar, Equipment Solutions Mgr. (ext. 29)
Richard Ames, Construction Project Manager
Brenda Weeks, Contracting Project Admin
Randy Bruscher, Contracting Project Specialist

PARTS CENTERS

TWIN CITIES, MN
(612) 861-1705
FAX: (952) 767-0436
7860 12th Avenue South
Bloomington, Minnesota 55425
BILL STEWART, DISTRICT PARTS SOLUTIONS LEADER (ext. 7311)
CHERYL HALLUM, PARTS STORE MANAGER (ext. 7306)Josh Magistad, Warehouse Coordinator (ext. 2205)

Trane HVAC Parts and Supplies
(651) 468-2200
FAX: (651) 468-2237
720 Vandalia
St. Paul, MN 55114
CHERYL HALLUM, PARTS STORE MANAGER (ext. 7306)JAY MICHAUD, DISTRICT PARTS MANAGER (ext. 2204)
Bob Oakes, Parts Sales (ext. 2202)
Luke Maus, Parts Sales (ext. 2208)

FARGO, ND
Trane
701-235-7290
FAX: 701-799-0813
300 45th St S
Fargo, North Dakota 58103
BILL STEWART, DISTRICT PARTS MANAGER (ext. 7311)
Al Hill, Team Lead (ext. 7291)
Baxter Pearson, Parts Sales (701-212-2312)
Nate Johnson, Parts Sales (ext. 7290)

SIOUX FALLS, SD
Trane Company of Sioux Falls
605-373-8167
FAX: 605-334-4053
609 N. Kiwanis
Sioux Falls, South Dakota 57104
BILL STEWART, DISTRICT PARTS MANAGER (ext. 7311)
Curt Floyd, Store Mgr. (ext. 18)
Chad Lupkes, Parts Sales (ext. 23)

To search: Click on “Edit” in tool bar and then “Find”.

GREENSBORO DISTRICT **Last updated January 1, 2013**

GREENSBORO, NC (F3)
GREENSBORO DISTRICT
(See also Raleigh and Wilmington, NC area offices and Parts Centers listed below)
(336) 378-0670
(800) 594-3010 – After Hours Emergency Service
FAX: (336) 274-7487 – Sales
FAX: (336) 378-0677 – Service/EBS/Marketing
FAX: (336) 379-9336 – Finance & Admin.
FAX: (336) 510-6399 – Controls
1915 Church Street (27405)
P.O. Box 13587 (27415-3587)
1916 Church Street (27405) – Shipping Address
Greensboro, North Carolina

DONALD J. BRADY, DISTRICT MGR. (F3-R00)
ALFRED T. KUHNEMANN, SALES MGR. (F3-R06)
Jack Krawczyk (F3-R17)
Clarence E. Young (F3-R08)
Doug Ecklund – Controls Sls. Mgr.
Bryan Holcomb (F3-R51)
TJ Bell (F3-R53)
Kevin Barnwell (F3-R57)
Wanda Durham, S.A (Young, Barnwell)
Andrea Furr, S.A. (Krawczyk, Bell)
Michelle Ruleman, S.A.
Kevin Fischer, S.A. (Holcomb)
Brenda Smith (Fulfillment Team Leader)
Crystal Owens & Danny Shutt, LAN Admin.
JIM BRADY, GEN. MGR., SERV.
DICK WELLS, TECH. SERV. MGR.
EXISTING BUILDING SALES
Marty Bare, EBS Sales Manager
Joe Brady, Solutions A.E.
Mike Koontz, EBS Sales
Mandy Moody, EBS Sales
Hank Henning, EBS Sales
Crystal Cole, NBD
Juanita Wheeler, NBD
Carroll Miller, Inside Sales
John Wilson, Controls Sales
FINANCE
WAYNE THOMPSON, CONTROLLER

RALEIGH, NC (F4)
GREENSBORO DISTRICT
(919) 781-0458
(800) 594-3010 – After Hours Emergency Service
FAX: (919) 781-9195
401 Kitty Hawk Drive
Morrisville, North Carolina 27560

ALFRED T. KUHNEMANN, SALES MGR. (Contact in Greensboro office)
RANDY KATZ, GENERAL MGR, RALEIGH AREA
Evan Bundros (F4-T02)
David McDaniel (F4-T28)
Jeff Mitchell (F4-T29) (Takeoff/Estimating)
Jeff Wotnosky (F4-T01)
JD Howard, N.A.J.C. (F4-T06)
Adam Sippel (F4-T37)
Dan Suchy, (F4-T57)
Rob Armstrong, Project Engineer
Elizabeth Arrington, S.A. (Wotnosky)
Janice Booker, S.A. (Bundros, McDaniel)

To search: Click on “Edit” in tool bar and then “Find”.

Pam Bradford, S.A. (Sippel)
Dee Lewis, S.A. (Howard, Suchy)
Crystal Owens & Danny Shutt, LAN Admin. (Contact in Greensboro office)
EXISTING BUILDING SALES/CONTROLS
(919) 828-9165
FAX: (919) 828-6841
401 Kitty Hawk Drive
Morrisville, NC 27560
Marty Bare, EBS Sales Mgr. (Contact in Greensboro office)
Tim Gasper, Solutions Engineer
Mike Bradley, EBS Sales
Mark Yeatts, EBS Sales
Brian Creede, EBS Sales
Janet Hall, NBD
Candy Skinner, NBD
John Hanes, Controls Sales

WILMINGTON, NC (F9)
GREENSBORO DISTRICT
(910) 792-0339
(800) 594-3010 – After Hours Emergency Service
FAX: (910) 792-0466
6736 Netherlands Dr., Suite A
Wilmington, North Carolina 28405
ALFRED T. KUHNEMANN, SALES MGR. (Contact in Greensboro office)
John Suggs (F9-W02)
Eric Cassidy, N.A.J.C. (F9-W06)
Brian Woodhouse (F9-W05) Inside Sales
Susanne Cox, S.A.
Crystal Owens & Danny Shutt, LAN Admin. (Contact in Greensboro office)

EXISTING BUILDING SALES
(910) 792-0233
(800) 594-3010 – After Hours Emergency Service
FAX: (910) 792-0722
201 Atilles Ct.
Wilmington, North Carolina 28405
Marty Bare, EBS Sales Mgr. (Contact in Greensboro Office)
Tim Copeland, EBS Sales
Jessica Blanton, EBS Sales
Debbie Brewer, NBD

PARTS CENTERS:

GREENSBORO, NC
Brady Trane Parts
(336) 379-0267
FAX: (336) 274-7149
3101 South Elm/Eugene Street
Greensboro, North Carolina 27406
Ken Qualls, Parts Mgr.
Chris Sharp, Store Mgr.

RALEIGH, NC
Trane Parts Center
(919) 828-9040
FAX: (919) 832-7434
4437 Beryl Road
Raleigh, North Carolina 27606
Mike McAllister, Store Mgr.

To search: Click on “Edit” in tool bar and then “Find”.

WILMINGTON, NC
Wilmington Parts – Brady
(910) 792-1498
(800) 604-4822
FAX: (910) 792-7777
6736 Netherlands Dr.
Suite B
Wilmington, North Carolina 28405
Teresa Haralson, Store Mgr.

FAYETTEVILLE, NC
(910) 323-5131
FAX: (910)-323-4644
626 Winslow St.
Fayetteville, North Carolina 28302
Johnnie Moore, Store Mgr.

To search: Click on “Edit” in tool bar and then “Find”.

GULF SOUTH DISTRICT **Last updated January 1, 2013**

NEW ORLEANS, LA (K4)
GULF SOUTH DISTRICT
(See also Baton Rouge, Gulfport, Mobile and Pensacola area offices and Parts Centers listed below)
(504) 733-6789
(504) 889-4823 – After Hours
FAX: (504) 731-0833
530 Elmwood Park Blvd.
Harahan, Louisiana 70123

ED FRENCH, DISTRICT MGR.
JASON EMERY, SALES MGR.
David Vienneau, Service Solutions Mgr.
NEW SYSTEMS SALES
Russell Bernard (K4-B18)
Kimberly Guerin (K4-B20)
Ryan Aucoin (K4-B30)
Tyler Schmitz
EXISTING BUILDING SALES
Michael Barbot (K4-B16)
Tim Goatley (K4-B22)
Nick Helinski
OPEN (K4-B31)
BAS and CONTRACTING
Tom Mondi, Contracting Solutions Manager
Larry Larson, Team Leader
SALES SUPPORT
Mike Determann, Equipment Solutions Mgr.
Kim McConnell
Bachar Chawki
Janet Bell, HR Strategic Business Partner

BATON ROUGE, LA (K6)
GULF SOUTH DISTRICT
(225) 298-4280
(504) 889-4823 – After Hours
FAX: (225) 291-9472
11534 Cloverland (70809-4280)
Baton Rouge, Louisiana 70879-8158
NEW SYSTEMS SALES
Nelson Davenport, Team Leader (K6-B02)
Mike Basalla (K6-B08)
EXISTING BUILDING SALES
Chris Kirk (K4-B28)
Jeff Harrison
Casey Kirk
BAS AND CONTRACTING
Ja Kirkland, Proj. Mgr.
Tim Forbus, Proj. Mgr.
SALES SUPPORT
Tiffany Kendrick
Rachel Lacinak
Renee Gidel (K6-B12)

MOBILE, AL (J5)
GULF SOUTH DISTRICT
(251) 665-2999
FAX: (251) 665-2920
4932 Tufts Road
Mobile, Alabama 36619

NEW SYSTEMS SALES
Chris Broders (J5-K19)
Matt Gurley (J5-K40)

To search: Click on “Edit” in tool bar and then “Find”.

Justin Moore
Kyle Hightower
SALES SUPPORT
James Rogers
Susan Daley
EXISTING BUILDING SALES
Joe Breland (J5-K38)
Bryan Hall
Jen Tyler
OPEN
BAS and Contracting
John Nickerson, Proj. Mgr.
Marketing/Training Leader
Krista Gagnet

PARTS CENTERS:
TODD SONNIER, PARTS MGR.

BATON ROUGE, LA (K6)
Baton Rouge Parts Center
(225) 298-4280
FAX: (225) 298-4295
11534 Cloverland
Baton Rouge, Louisiana 70809-4280
Jeff Taylor, Parts Store Mgr.
Ronnie FontenotArthur Braud
Rus Bahlinger, Outside Sales West

MOBILE, AL
Mobile Parts Center
(251) 665-2999
FAX: (251) 665-2936
4932 Tufts Road
Mobile, Alabama 36619
Alan Smith, Parts Store Mgr.
Ben Harris

NEW ORLEANS, LA
New Orleans Parts Center
(504) 733-6789
FAX: (504) 733-8601
530 Elmwood Park Blvd.
Harahan, Louisiana 70123
Guy Coniglio, Parts Store Mgr.
Milton West
Keith Lay
Brad Schaus – Outside Sales N.O. and MS Gulf Coast

GULFPORT, MS
Gulfport Parts Center
(228) 863-4445
FAX: (228) 863-4441
14231 Seaway Road
Building E, Unit 2
Gulfport, Mississippi 39503
Lawrence Misko, Parts Store Manager
Lydia Baker

PENSACOLA, FL
Pensacola Parts Center
(850) 473-3840
FAX: (850) 505-9915
580 East Burgess Road
Pensacola, Florida 32504
Kevin Legnon, Parts Store Mgr.
Zoel Williamson

To search: Click on “Edit” in tool bar and then “Find”.

Chris Forster (Temp)
Brian Connell, Parts Sales Manager/Outside Sales East

Lake Charles, LA
Lake Charles Parts Center

FAX; (
1145 E. McNeese Street
Lake Charles, LA 70607-4753
Mitch Fabacher, Parts Team Leader
Glenn Meaux

I don’t have a phone number for this store yet.

To search: Click on "Edit" in tool bar and then "Find".

HALIFAX DISTRICT **Last updated July 1, 2012**

HALIFAX, NOVIA SCOTIA (CB)
HALIFAX DISTRICT
(See also St. John's Newfoundland & Saint John New Brunswick area offices and Parts Centers listed below)
(902) 835-7491
(902) 835-7491 – After Hours
FAX: (902) 835-0484
109 Williams Avenue, Suite 5
Dartmouth, Nova Scotia B3B 2E3
BRIAN CHIASSON, AREA FINANCIAL LEADER (902) 835-7491 (ext. 3044)
WAYNE CHIASSON, General Manager, P. ENG. SALES & OPERATIONS – NS (CB-C01) (902) 835-7491 (ext. 3042)
Shawn Dorosh, LAN Administrator
Brad Matheson, P.E. (CB-C10)
Jeff MacNeil, P.E.
Salah Khadra, EIT
Steven MacDougall, Account Manager
John Warren, Service Solutions Leader
Norma Levesque, Marketing Coordinator

SAINT JOHN, NEW BRUNSWICK
HALIFAX DISTRICT
Rob Carvell, P. Eng. S.E. & N.A.E. General Manager NB – Phone (506) 633-2303 – Fax (506) 633-2310
Lawrence McGrath, BAS NB – Phone (506) 633-2304 – Fax (506) 633-2310
Bob Ervin, EBS Sales – Phone (506) 633-2301 – Fax (506) 633-2310
John Allen, EBS Sales – Phone (506) 633-2302 – Fax (506) 633-2310
Craig Brown, Sales Engineer – Phone (506) 633-2307 – Fax (506) 633-2310
Dan Egilsson, Sales Engineer – Phone (506)633-2306 – Fax (506) 633-2310
Jenna Lyons, EIT, PM Contracting – Phone (506) 633-2307 – Fax (506) 633-2310
Andrew Williamson, Sales Engineer – Phone (506)633-2308 – Fax (506)633-2310
Cathy Dochstader, P. Eng. EBS Sales – Phone (506)633-2313
David Toner, P. Eng. Contracting – Phone (506)633-2309

PARTS – Saint John, NB
Andrew Allen - Phone (506)633-2300 – Fax (506)633-2310
John Lagonikos – Phone (506) 633-2300 – Fax (506) 633-2310

FREDERICTON, NEW BRUNSWICK
Roger Drost, EBS Sales – Phone (506)506-454-3555 – Fax (506)633-2310

MONCTON, NEW BRUNSWICK
Eric Guimond, Phone – (506)860-6644

ST. JOHN'S NEWFOUNDLAND (CA)
HALIFAX DISTRICT
Jon Hare, P. Eng., S.E. & N.A.E. Sales & Operation NL phone – (709) 753-8678 – Fax (709) 754-3029
1-866-338-7263 – After Hours
Roy Hollett, EBS Sales – Phone (709)753-8678 – Fax- (709)754-3029 (Cell) (709)727-1284
Mailing Address:
46 Pippy Place, P.O. Box 13728
St. John's, Newfoundland A1B 4H7

PARTS CENTER:

HALIFAX, NOVA SCOTIA
Trane Parts Center
(902) 468-5885
FAX: (902) 468-0660
109 Williams Avenue, Suite 6
Dartmouth, Nova Scotia B3B 2E3
Chris Hopewell, Parts Solution Leader (PSL) Atlantic Canada
Susan Waye, Parts Mgr.
Newfoundland Parts Center

To search: Click on “Edit” in tool bar and then “Find”.

(709) 753-8678
46 Pippy Place
St. John’s, Newfoundland A1B 4H7

Saint John, New Brunswick Parts Center
(506) 633-2300
120 McDonald Street, Suite G
Saint John, New Brunswick E2J 1M5

To search: Click on "Edit" in tool bar and then "Find".

HOUSTON DISTRICT	**Last updated January 1, 2013**

HOUSTON, TX (L4)
HOUSTON DISTRICT
(See also Parts Center listed below)
(713) 266-3900 – Equipment Sales
(713) 643-8336 – Service & After Hours
(713) 644-9296 – Specialty Products
(713) 266-3551 – Parts
FAX: (713) 266-7011 – Sales
FAX: (713) 640-2619 – Service/EBS
FAX: (713) 267-5752 – Parts
FAX: (713) 267-5718 – R.O. Hunton
10555 Westpark Drive
Houston, Texas 77042
RICHARD O. HUNTON, DISTRICT MGR. (L4-H00)
RICHARD HUNTON JR., President & COO
FAX: (713) 267-5763
Claire Hutchins, Asst. to the President
Bruce Seher, CFOJohn Edwards, Credit & Collections Mgr.
Debra Lewis, ControllerAlbert Mireles, HR Director
Stacy Westmoreland, HR Administration
Briony Gannon, Mktg. Coordinator
KEVIN MURPHY, VP & GM of APPLIED EQUIP. and ICS SALES (L4-H32)
Kurt McCulloch, Sales Manager (L4-V64)
Ben Federman, Operations Team Leader
Mark Westwood, Senior Systems Sales Engineer (L4-H35)
Randy Barnett, Senior Systems Sales Engineer (L4-V71)
Greg McMeans, Systems Sales Engineer (L4-H25)
Jason Bishop, Systems Sales Engineer (L4-V48)
Elliott Sutter, Systems Sales Engineer (L4-V20)
Cory Grant, Systems Sales Engineer (L4-V36)
Jeff Armstrong, Systems Sales Engineer (L4-V41)
Kaleb Caldwell, Systems Sales Engineer (L4-V42)
Brett Lutz, Systems Sales Engineer (L4-V43)
Mark Minyard, Systems Sales Engineer (L4-V19)
Matt Quinlan, Systems Sales Engineer (L4-V66)
Joe Miller, Systems Sales Engineer (L4-V72)
Adam Castillo, Systems Sales Engineer Trainee
Michael Johnson, Director, Market Development TCACS/Genesis Air (L4-V67)
Leslie Hendrex, Bid Admin. Assistant
Sue Slade, Bid Coordinator
SERVICE & SOLUTIONS
BRAD LACY, SR. V.P. & GENERAL MANAGER (L4-H28)
Stephanie Fry, Sr. Administrative Assistant
CONTRACTING SOLUTIONS
Kris Hardin, Solutions Leader
Kevin Beck, IAQ
SERVICE
Chris Toepfer, Service Manager
BAS
Klint Nunn, GM & Sales Manager
SPECIALTY PRODUCTS
RON SHEPHERD, V.P. & GEN. MANAGER
DISTRIBUTOR PRODUCT SALES
(832) 747-2000
FAX: (832) 747-2197
CRAIG BECKER, PRESIDENT & GEN. MGR.
MIKE NEWMAN, HDG OPERATIONS MGR.
ROBERT TYLER, V.P. EQUIPMENT SALES
CHARLIE HUNTON, V.P. DEALER DEVELOPMENT
Chris Stanziale, Houston Sales Manager
Steve Acker, Houston Sales Leader
Vincent Montalbano, LCU Territory Manager
Dennis Hansel, LCU Support Supervisor (L4-H48)

To search: Click on “Edit” in tool bar and then “Find”.

CARL D'ANGIO, OKLAHOMA CITY SALES MGR.
MATT RISTER, SALES MGR., WEST TEXAS
DAVID SEGURA, SALES MGR, EL PASO
PARTS SALES
JOHN DEARMAN, V.P. PARTS
JACK DENNIS – PARTS SALES MGR.

PARTS CENTER

Westpark Drive Parts Center
(713) 266-3551
FAX: (713) 267-5752
10555 Westpark Drive
Houston, Texas 77042
Mike Downey – Store Manager

Central Greens Blvd. Parts Center
(281) 443-4502
FAX: (281) 443-2231
16335 Central Greens Blvd
Houston, Texas 77032
Jack Dennis – Store Manager

Lubbock Office
(806) 788-1100
FAX (806) 795-0640
6020 43rd Street
Lubbock, Texas 79407
Matt Rister

Oklahoma City Office
(405) 949-7940
FAX (405) 949-7958
357 N. Harvard St.
Oklahoma City, Oklahoma 73127
Carl D'Angio (L4-H65)

To search: Click on "Edit" in tool bar and then "Find".

INDIANA DISTRICT	**Last updated January 1, 2013**

INDIANAPOLIS, IN (P1)
INDIANA DISTRICT
(See also Ft. Wayne and South Bend area offices and Parts Centers listed below)
(317) 255-8777
(317) 255-0312 – After Hours
FAX: (317) 251-8556
5355 N. Post Road
Indianapolis, Indiana 46216

JOHN DORN, DISTRICT MGR. (P1-C00)
INDIRECT SALES
ROGER PENN, INDIRECT SALES MANAGER
Brad Auger, Indirect Sales (P1-C79)
Nick Baker, Indirect Sales (P1-D03)
Tony Cornell, Indirect Sales (P1-C67)
Shane Labuzan, Indirect Sales (P1-C71)
Brian Lohman, Indirect Sales (P1-C65)
Brian Thorne, Indirect Sales (P1-C70)
DIRECT SALES
Ed Budreau, Direct Sales (P1-C84)
Mason Dangler, Direct Sales (P1-C75)
Lori Ramirez, Direct Sales (P1-C87)
Mark Sundstrom, Direct Sales (P1-C83)
Chris Phillips, Direct Sales
PACT SALES
BRIAN PICKERING, COMPREHENSIVE SOLUTIONS MANAGER
Burney Scoles
Sen. Ron Alting
Michael Moorlag, Energy Engineer
CONTRACTING
DENNY LICHT, CONTROLS SALES MANAGER
NATE ALLEN, CONTROLS OPERATIONS MANAGER
EQUIPMENT FULFILLMENT
Jim Stamm, PM Equipment
Diane Cameron, PM Equipment
Debra Cope, PA Contracts
Michell Dailey, PA Equipment
Jessica Staley, PA Equipment
Dave McCullaugh, Engineering Application Specialist
PARTS
FRED HESS, PARTS MANAGER
SERVICE
STEVE JENKINS, SERVICE SOLUTIONS MANAGER
Mike Smith, Service ASM
ENABLING
DENNY SCOTT, HR MANAGER
PAUL JONES, DISTRICT FINANCIAL LEADER
Brittany Castner, Administrative Assistant/ Bid Coordinator
Becky Duke, Receptionist
MARKETING
Denise Slack, Marketing & Training Coordinator

FORT WAYNE, IN (N7)
INDIANA DISTRICT
(260) 489-0884 – Sales
(260) 489-0984 – Parts
(260) 489-0884 – Service & After Hours
FAX: (260) 489-5117
6602 Innovation Blvd.
Fort Wayne, Indiana 46818
JOHN DORN, DISTRICT MANAGER

To search: Click on “Edit” in tool bar and then “Find”.

INDIRECT SALES
ROGER PENN, INDIRECT SALES MANAGER
Gerald Calengor, Indirect Sales (N7-A08)
David Jackson, Indirect Sales (N7-A11)
Matt Eckhart, Indirect Sales (N7-A21)
DIRECT SALES
Joan Garbaciak, Direct Sales (N7-A19)
Matt Manor, Direct Sales
EQUIPMENT FULFILLMENT
Kristen Hayden, Equipment Sales Estimator
Ken Kever, PM Equipment
MARKETING
Denise Slack, Marketing & Training Coordinator

SOUTH BEND, IN (P2)
INDIANA DISTRICT
(574) 288-4914 – Sales
(574) 282-4880 – Service & After Hours
(574) 282-4914 – Parts
FAX: (574) 282-4874
2301 N. Bendix Drive, Suite 400
South Bend, Indiana 46628
JOHN DORN, DISTRICT MANAGER
INDIRECT SALES
ROGER PENN, INDIRECT SALES MANAGER
Kyle Moore, Indirect Sales (P2-A10)
Phil Nemeth, Indirect Sales (P2-A16)
DIRECT SALES
Russ Fairburn, Direct Sales (P2-A17)
EQUIPMENT FULFILLMENT
Michael J. Schreiner, PM Equipment
MARKETING
Denise Slack, Marketing & Training Coordinator

PARTS CENTERS:

INDIANAPOLIS, IN
Central Indiana Parts
(800) 285-2487
FAX: (317) 466-3315
5355 N Post Road
Indianapolis, Indiana 46216
FRED HESS, PARTS MGR.

BLOOMINGTON, IN
Trane Parts Center
(800) 285-2487
2325 Industrial Drive
Bloomington, Indiana 47404
FRED HESS, PARTS MGR.

DALEVILLE, IN
Trane Parts Center
(800) 285-2487
14301 Commerce Drive
Daleville, Indiana 47334
FRED HESS, PARTS MGR.

FORT WAYNE, IN
Trane Parts Center
(800) 285-2487
FAX: (260) 489-5117
6602 Innovation Dr.
Fort Wayne, Indiana 46818
FRED HESS, PARTS MGR.

To search: Click on “Edit” in tool bar and then “Find”.

LAFAYETTE, IN
Trane Parts Center
(800) 285-2487
FAX: (765-448-6151
717 Farabee Court S
Lafayette, Indiana 47905
FRED HESS, PARTS MGR.

PLAINFIELD, IN
Trane Parts Center
(800) 285-2487
2363 Hadley Road, Suite 140
Plainfield, Indiana 46168
FRED HESS, PARTS MGR.

SOUTH BEND, IN
Trane Parts Center
(800) 285-2487
FAX: (574) 282-4874
2301 N. Bendix Drive, Suite 400
South Bend, Indiana 46628
FRED HESS, PARTS MGR.

To search: Click on “Edit” in tool bar and then “Find”.

JACKSON DISTRICT **Last updated July 1, 2012**

JACKSON, MS (K1)
JACKSON DISTRICT
(See also Parts Center listed below)
(601) 956-9211
FAX: (601) 957-9340
Mailing address:
P.O. Box 1557
Ridgeland, Mississippi 39158
Office location:
746 S. Ridgewood Road
Ridgeland, Mississippi 39157
DENNY A. TERRY, DISTRICT MGR. (K1-T00)
FORD TERRY, OPERATIONS MGR. (K1-T07)
SHELBY WATTS, SALES MGR. (K1-T03)
Drew Godfrey, N.A.J.C. (K1-T04)
Stan Read (K1-T05)
Rob Thomas (K1-T10)
Joe Blalock, Inside Sales Engineer
Tim Chennault, Inside Sales
Elise Hunt, Sales Assistant
Angela Rogers, Sales Assistant
Nancy Jolly, LAN Admin.
EXISTING BUILDING SALES
Billy Boykin, EB Sales (K1-T09)
Mark Malley, EB Sales (K1-T11)
BAS
Ferrell Spicer, BAS Mgr.
SERVICE
David Jolly, Service Operations Mgr.
IT
Jason Mann

PARTS CENTER

Terry Trane Parts Center
(601) 956-9211
FAX: (601) 956-7717
P.O. Box 1557 (39158-1557)
746 South Ridgewood Road
Ridgeland, Mississippi 39157

To search: Click on “Edit” in tool bar and then “Find”.

KANSAS/NEBRASKA/OKLAHOMA DISTRICT	Last updated January 1, 2013

KANSAS CITY, KS (Q2)
KANSAS CITY DISTRICT
(See also Springfield, MO, Omaha, NE, Lincoln, NE, Oklahoma City, OK and Tulsa, OK area offices and Parts Centers listed below)
(913) 599-4664 – Sales/Service
(913) 599-4664 – After Hours
FAX: (913) 599-4669
8014 Flint
Lenexa, Kansas 66214

TREY FRUGÉ, DISTRICT MGR. (Q2-A20)
INDIRECT SALES/DIRECT SALES
TOBIN BAILEY, KANSAS CITY GENERAL SALES MANAGER (Q2-A88)
Team A
Robert Colombe, Team Leader (Q2-A84)
Greg Schnakenberg (Q2-A79)
Jeremy Lee (Q2-A85)
Phil Yates (Q2-A87)
Scott Yates (Q2-A86)
Team B
Sara Holmes, K-12 Specialist/Team Leader (Q2-A56)
Cory Powell (Q2-A89)
Noel Hankins (Q2-A91)
Chris Smith (Q2-A90)
Team C
Jeremy Brock Team Leader (Q2-A93)
Matt Kornfeind (Q2-A94)
David Hansen (Q2-A95)
Larry Cook (Q2-A-96)
Andrew Price (Q2-A97)
INSIDE SALES SUPPORT
Jenny Osipik, Proj. Admin.Team Lead
Gina Rudy, Project Manager & Team Leader
Tom O’Neill, Application Specialist
Joshua White, Project Manager Equipment
George Newton, Project Manager Equipment
Don Stapp, Equipment Estimator
CONTROLS SALES
Dan Ketelle (Q2-A46)
Albert Jones (Q2-A68)
Michael Gilbert
PACT SALES
Mike Hines, Sales Leader
Chad Remboldt (Q2-A81)
Keven Ward (Q2-A82)
ENABLING
LARRY JABARA, DISTRICT FINANCE MANAGER
WENDY HAWKINS, DISTRICT HR MANAGER
CONTRACTING
RICK KRAUSE, DISTRICT CONTRACTING SOLUTIONS MANAGER
, Proj. Mgr. & Team Leader
Shane Dempsey, Area Contracting Manager
Mark Rawson, Construction Proj. Mgr.
Todd Coleman, Proj. Mgr.
Kim Jochim, Proj. Eng.
Jeff Sherr, Proj. Eng.
Paul Sinclair, Proj. Eng.
Brandi Sweaton, Project Admin.
Mike Mahoney Team Lead, PE, Comprehensive Solutions
Randy Jameson, Project Developer
Chad Althouse, Project Developer
Brad VanArsdale, Project Energy Engineer
Paul Sinclair, Proj. Eng.

To search: Click on “Edit” in tool bar and then “Find”.

Nate Whitney, Proj. Mgr.
Greg Votaw, Proj. Mgr.
SERVICE
Scott Ullrich, District Service Solutions Leader
Jesse Pugh, Area Service Mgr.
Corey Emmons, Area Service Manager
Paul Wilson, Area Service Manager
ADMINISTRATION
Linda Willis, Receptionist
Stephanie Leslie, Admin./Marketing
Angie Gensler, Marketing Specialist
Robin Beck, Marketing Coordinator
Tracie Rossi, Service Coordinator
Cherie Croskie, Proj. Admin.
Mike Burger, Service Estimator

SPRINGFIELD, MO (Q8)
KANSAS CITY DISTRICT
(417) 863-2110
FAX: (417) 863-2111
540 N. Cedarbrook
Springfield, Missouri 65802-6324
Rich Branham, S.E. (Q8-A06)
Stewart Rogers, S.E. (Q8-A07)
Rick Baldwin, Direct Sales
Kristen Rippe, Equip. Proj. Mgr.
Kerry McCarthy, Service Coordinator

OMAHA, NE (Q4)
KANSAS CITY DISTRICT
(See also Lincoln area office and Parts Center listed below)
(402) 331-7111
(402) 331-7111 – After Hours
FAX: (402) 331-5200
5720 S. 77th Street
Ralston, Nebraska 68127-4202
TREY FRUGE, DISTRICT MGR. (Q4-A00) (ext. 201)
SALES
DANNY SZEGDA, AREA MANAGER
Jamie Klootwyk, Omaha General Sales Manager
Al Grosskurth (Q4-M24) (ext. 203)
Scott Messing, BAS Sales
Erin Rau, BAS Sales (Q2-A71)
Mike Sockrider, EBS
Kaylinn Nienhueser, EBS
Troy Gibler, EBS (ext. 239)
Doyle Gill, EBS (Q4-M03) (ext. 229)
David Ellenburger, Area Service Manager
Mike McElligott, Service Estimator (ext. 217)
Dave Raymond, PACT
Jerry Hummel, Service Team Leader. Mgr. (ext.218)
Darryl Whisenhunt, Service Dispatcher (ext. 258)
BAS
Gary Stessman, NE Area Contracting Solutions Manager (ext. 223)
Tom Billingsley, Proj, Mgr.
Eric Buter, Proj. Eng.
Greg Winkelmann, Proj. Mgr.
Brent Jackson, Proj. Mgr.
Don Tabor, Proj. Mgr.
Jacob Klima, Proj. Eng.
MARKETING/SAFETY
Glynda Grap (ext. 204)
ADMINISTRATION
Gina Sand, Contracting Project Admin
Robin Gentry, Equipment Project Admin
Danielle Schneekloth, Service Proj. Admin.

To search: Click on “Edit” in tool bar and then “Find”.

Wendy Hamman, Service Dispatcher

LINCOLN, NE (Q4)
OMAHA DISTRICT
(402) 438-9220
FAX: (402) 438-9221
7800 O Street, Suite 101
Lincoln, Nebraska 68540
SALES
Josh Clausen (Q4-M30) (ext. 209)
Stacey McWilliams (Q4-M29) (ext. 206)
Jan Madsen, Estimator
BAS
Gary Voss, Project Manager

OKLAHOMA CITY, OK (L1)
OKLAHOMA DISTRICT
(See also Tulsa area office and Parts Centers listed below)
(405) 787-2237
(405) 787-2237 – 24-Hour Service
FAX: (405) 787-0752 – Sales
FAX: (405) 789-0887 – Administrative
305 Hudiburg Circle
Oklahoma City, Oklahoma 73108
TREY FRUGE, DISTRICT MGR.
Wendell Rames, Sales Mgr. (405) 717-7600
NEW SYSTEM SALES
Bryan Garcia, Sales Engineer (N.A.J.C.) (L1-R52) (ext. 614)
Cathy Suffridge, S.A. (ext. 612)
Matt Price, Equipment Manager (ext. 613)
Tony Arango, Sales Engineer (L1-R66) (ext. 611)
EXISTING BUILDING SALES
Rhonda Going, Service Admin./Dispatch (ext. 602)
BAS
Denise Myers, BAS Admin. Asst. (ext. 647)
Denise Myers, Contracting Project Admin. (ext. 647)
FINANCE/ENABLING
LARRY JABARA, DISTRICT FINANCE MANAGER

TULSA, OK (L2)
OKLAHOMA DISTRICT
(918) 250-5522
(918) 250-5522 – 24 Hour Service
FAX: (918) 250-5419
2201 N. Willow Avenue
Broken Arrow, Oklahoma 74012
TREY FRUGE, DISTRICT MGR.
Mike Presson, Sales Mgr. (ext. 226)
NEW SYSTEM SALES
Matt Price, Equipment Manager (405) 787-7613
Chad Marazas, Sales Engineer Leader (L2-R64) (ext. 230)
Scott Sherwood (ext. 231)
EXISTING BUILDING SALES
Matt Meier (ext. 247)
Rob Wullenweber, Proj. Manager (ext. 239)
FINANCE/ENABLING
LARRY JABARA, DISTRICT FINANCE MANAGER

PARTS CENTERS:

KANSAS CITY, KS
Trane Parts Center
(913) 281-4222

To search: Click on “Edit” in tool bar and then “Find”.

FAX: (913) 281-9865
2700 Bi-State Drive Suite 700
Kansas City, Missouri 64108
Tom Kirker, Store Mgr.
Todd Padgett
Dennis Yancey, Portable Cooling Specialist
Bradley Roberts, Inside Parts Sales
Dina Ax, Inside Sales
Melissa Ward, Outside Parts Sales

LENEXA, KS
Trane Parts Center
(855) 256-6015
FAX: (
14930 West 101st Terrace
Lenexa, Kansas 66215

SPRINGFIELD, MO
TPC of Springfield
(417) 863-8888
FAX: (417) 863-8898
540 N. Cedarbrook
Springfield, Missouri 65802-6324
Mike Hampton, Store Mgr.
Chuck Smith, Inside Sales

TOPEKA, KS
Topeka Trane Parts Center
(785) 234-1333
FAX: (785) 379-9000
3820 NW 14th St.
Topeka, Kansas 66618
Lee Collard, Customer Service Representative

OMAHA, NE
Nebraska Trane Parts Center
(402) 331-7111
FAX: (402) 331-5200
5720 S. 77th Street
Ralston, Nebraska 68127
STEVE MCCARTY, Parts Mgr. (ext. 229)
Don Schroeder, Store Mgr. (ext. 230)

Dave Ommen, Outside Sales

OKLAHOMA CITY, OK
Oklahoma Trane Parts Center
(405) 787-2354
FAX: (405) 789-5681
305 Hudiburg Circle
Oklahoma City, Oklahoma 73127
Jeremy Alcon, Store Manager (ext. 629)

TULSA, OK
Oklahoma Trane Parts Center
(918) 250-5522
FAX: (918) 250-5419
2201 N. Willow Avenue
Broken Arrow, Oklahoma 74012
Alan Kizer, Store Manager

To search: Click on “Edit” in tool bar and then “Find”.

LAS VEGAS DISTRICT	**Last updated January 1, 2013**

LAS VEGAS, NV (W4)
LAS VEGAS DISTRICT
(See also Parts Center listed below)
(702) 876-7530
(702) 876-5255 – After Hours
FAX: (702) 876-5106
3036 S. Valley View Blvd.
Las Vegas, Nevada 89102

THOMAS C. LAWYER, DISTRICT MANAGER (W4-R00)
JOHN KOTEK, SALES MANAGER, N.A.E. (W4-R12)
Jeff Austin, NSS Business Dev. (W4-R44)
Jay Nutting (W4-R35)
Bradd Robison (W4-R05)
Lance Robinson (W4-R27)
Mike Aslanides (W4-R46)
Justin Klunk, Inside S.E.
Kyle Schoen, Inside S.E.
BAS
Kwame “KC” Coleman
Chris Peterson, Proj. Mgr., LAN Admin.
Energy Services
Kwame “KC” Coleman
EXISTING BUILDING SALES
Paul Dugan
J.J. Jackson
Dennis Downing
Jackie Finley, S.A.
Sharon Linder, S.A,
SERVICE
Randy Tussing, Service Mgr.
Roger Derrick, Service Supervisor
Marketing
Marisa Finetti
FINANCE
William Luthy, Controller

PARTS CENTER
AC Systems Supply/Las Vegas Parts Center
William Luthy, Manager
Lauren Sardina, Outside Sales

(702) 257-2787
FAX: (702) 876-8714
3036 S. Valley View Boulevard
Las Vegas, Nevada 89102

To search: Click on "Edit" in tool bar and then "Find".

LITTLE ROCK DISTRICT	**Last updated January 1, 2013**

LITTLE ROCK, AR (K3)
LITTLE ROCK DISTRICT
(See also Springdale area office and Parts Centers listed below)
(501) 661-0621
(501) 661-1058 – After Hours
FAX: (501) 661-9109
1501 Westpark Drive, Suite 9
Little Rock, Arkansas 72204-2482
WILLIAM A. HARRISON, DISTRICT MGR. (K3-H00) (ext. 3223)
MIKE McCLELLAN, President. (K3-H06) (ext. 3232)
Greg Blair, NSS Sales Team Leader (K3-H27) (ext. 3230)
Chris Ahne, EBS (K3-H28) (ext. 3256)
Melissa Freeman, NSS (K3-H31) (ext. 3246)
Bill Simpson, NSS (K3-H36) (ext. 3253)
Jake Skinner, NSS (K3-H42) (ext. 3255)
Coby Sutton, EBS (K3-H33) (ext. 3271)
Billy Lewis, EBS (K3-H37) (ext. 3240)
Glen Irvin, EBS (K3-H43) (ext. 3287)
David True, EBS (K3-H44) (ext. 3286)
Joe Ison, EBS (ext. 3250)
Angie Hoofman, EBS Sales Administrator, (ext. 3226)
Todd Castleberry, Inside Sales Team Leader (ext. 3237)
Tammy Hatfield, Inside Sales Administrator, (ext. 3231)
Beth Barber, Inside Sales Administrator, (ext. 3247)
Brian Swindle, CFO (ext. 3265)
Terry C. Thompson, Human Resources Director (ext. 3234)
Will Stevens, Human Resources Coordinator, (ext. 3259)
Brett Bolan, LAN Admin. (ext. 3241)
Cortney Herbst, Marketing Team Leader (ext. 3242)
Morgan Adams, Marketing Coordinator (ext. 3667)
Frank Mayfield, Vice President of Energy Services and Solutions
Drew Harrison, Vice President of Operations

SPRINGDALE, AR (G5)
LITTLE ROCK DISTRICT
(479) 361-2030
(479) 361-5994 – After Hours
FAX: (479) 361-5977
2499 S. Maestri Road
Springdale, Arkansas 72762
James C. Bradford, Sales Team Leader (G5-H03) (ext. 224)
Sam Browning, NSS (G5-H21) (ext. 223)
Tom Calhoun, EBS (G5-H25) (ext. 236)
Ben Dye, BAS Sales (G5-H23) (ext. 230)
Shaun Penny, EBS (G5-H26) (ext. 240)
Anders Hallstrom, BAS Sales (G5-H28)
Mark Raabe, Inside Sales Team Leader, N.A.J.C. (ext. 227)
Adam Frankenberger, Inside Sales, LAN Admin. (ext. 244)
Shanna Harrington, Customer Service (ext. 228)
Frank Mayfield, Vice President of Energy Services and Solutions (ext. 235)
Sheldon Jensen, BAS Mgr. (ext. 233)

PARTS CENTERS:

Parts Center Admin. for all 4 Locations
1501 Westpark Drive, Ste. 9
Little Rock, Arkansas 72204
(501) 661-0667
501-537-0678 – Fax
Virginia Green, Sales Manager
Doug King, Operations Manager
Brian Swindle, Finance Manager
Tracy Fort, Accounting

To search: Click on “Edit” in tool bar and then “Find”.

Tanya Martin, Warranty Administrator

LITTLE ROCK, AR

Trane HVAC Parts & Supplies
(501) 661-0667 (ext. 2 then 3)
FAX: (501) 666-2409
19 Colonel Glenn Plaza Drive, Ste. 100
Little Rock, Arkansas 72210
Virginia Greene, Parts Manager (ext. 602)
Pam Gangluff, Store Manager
Anthony Slater, Warehouse Coordinator
Chris Noblett, Outside Sales & Rentals
Monroe Relford, Inside Sales
Bill Houston, Inside Sales
Monty Anderson, Inside Sales
Brad Ratliff, Outside Sales

SPRINGDALE, AR

Trane HVAC Parts & Supplies
(479) 725-1390
FAX: (479) 725-1395
616 Madison Street
Springdale, Arkansas 72762
David Chase, Outside Sales
Allen Grigg, Warehouse/Driver

FORT SMITH, AR

Trane HVAC Parts & Supplies
(479) 424-2444
FAX: (479) 424-2446
4500 Phoenix Avenue
Fort Smith, Arkansas 72903
Zachary Zitzmann, Store Manager
Tito Villarreal/Warehouse/Inside Sales

TEXARKANA, TX

Trane HVAC Parts & Supplies
(903) 838-0521
(903) 838-0522
FAX: (903) 838-0523
3101 West 7th
Texarkana, TX 75501
Andrew Brewer, Store Mgr.
B. J. Begoon, Warehouse/Inside Sales
Danny McNeely, Warehouse/Driver

To search: Click on “Edit” in tool bar and then “Find”.

LONDON DISTRICT	**Last updated January 1, 2013**

LONDON, ONTARIO (CM)
LONDON DISTRICT
(See also Windsor, ON area office and London Parts Store listed below)
(519) 453-3010
(519) 453-3010 – After Hours
FAX: (519) 453-3024
8 Belleisle Court
London, Ontario N5V 4L2
NORM CLARKE, DISTRICT MGR. (CM-C07)
Greg Keyes, EBS
Dan Spiegelberg, Service Mgr.
Victor Bispo, BAS Mgr.
Nathan Brhelle, LAN Admin.
Sue Keating, Finance & Operations Manager

WINDSOR, ONTARIO (CM)
LONDON DISTRICT
(519) 256-7922
(519) 256-8519 – After Hours
FAX: (519) 256-4063
6210 Hawthorne Drive
Windsor, Ontario N8T 1J9
Josh Palubiski, S.E. (CM-C09)
Jon Palmer, S.E. (CM-C09)
Rebekah Macklin, S.A.
Tyler Cunningham, S.A.

Ali Farhat, EBS

PARTS STORE (CM)
LONDON DISTRICT
(519) 951-8635
FAX: (519) 951-9977
607 Industrial Road, Unit #7
London, ON N5V 1V2
Bob Hayes, Parts Mgr.
Cheryl Anderson, Outside Parts Sales
Lisa Chomos, Inside Parts Sales
Louis Goldenberg, Inside Parts Sales

To search: Click on “Edit” in tool bar and then “Find”.

LOUISVILLE DISTRICT	Last updated January 1, 2013

LOUISVILLE, KY (P3)
LOUISVILLE DISTRICT
(See also Evansville & Lexington offices and Parts Centers listed below)
(502) 499-7000
(502) 499-0716 – Voice Mail
(502) 499-7003 – After Hours
FAX: (502) 499-7870
12700 Plantside Drive
Louisville, KY 40299-6387

W. FRANK HARSHAW, DISTRICT MGR. (P3-H00) (ext. 7757)
RICHARD PICKREN, VICE PRESIDENT – FINANCE (ext. 7839)
TOM ABELE, VICE PRESIDENT – BUSINESS DEV. (ext. 7700)
LOU ZACCONE, VICE PRESIDENT (ext. 7848)
SYSTEMS BUSINESS
JEFF AKIN, AREA SALES MGR. (ext. 7743)
Jim Aigner, Sales Engr. (P3-H37) (ext. 7771)
Marty Cusick, N.A.E. (P3-H44) (ext. 7776)
Greg Faltin, Sales Engr. (P3-H52) (ext. 7779)
Jay Faltin, Sales Engr. (P3-H57) (ext. 7707)
Jonathan Henkel, Sales Engr. (ext. 7834)
Andy Bidwell, Inside Sales (ext. 7830)
Aaron Burgin, Inside Sales T/L (ext. 7772)
Rick Speak, Inside Sales (ext. 7846)
Donna LaVon, N.A. Cust. Serv. Spec. (ext. 7780)
MARKETING
GINNY HARSHAW, VICE PRESIDENT – MARKETING (ext. 7768)
Laura Whitus, Marketing & Communications Leader (ext. 7770)
INFORMATION TECHNOLOGY
Chris Miller, IT Mgr. (ext. 7767)
SERVICE
RANDY CUMMINS, DISTRICT SERVICE MANAGER (ext. 7778)
DANNY TAYLOR, EBS SALES COACH. (ext. 7752)
Kurt Barrett, Serv. Sales (ext. 7744)
Jeff Bennett, Serv. Sales (ext. 7607)
John Faith, Serv. Sales (ext. 7746)
Steve Hampton, Serv. Sales (ext. 7748)
Kyle Johnson, Serv. Sales (ext. 7749)
Christy McGuire, Sales Engr. (ext. 7797)
Lou Nasti, Serv. Sales (ext. 7792)
Candy Weddington, Serv. Sales (ext. 7722)
TRANE HVAC PARTS & SUPPLIES
RICK BURCH, PARTS CTR. MGR. (ext. 7851)
Jeromy Hobbs, Store Mgr. LVL (ext. 7808)
Tom Contratto, Distribution Operations Mgr.
Michael Aines, Outside Sales LEX (ext. 4017)
Tony Balmer, Outside Sales LVL (ext. 7850)
Keith Blanford, Outside Sales EVS (ext. 4610)
Marc Meshell, Outside Sales LVL (ext. 7856)
Brad Niehaus, Outside Sales EVS (ext. 5234)
Jim Patterson, Outside Sales LEX (ext. 4030)
Tim Richardson, Outside Sales BG (ext. 7610)
Philip Schaaf, Outside Sales LVL (ext. 7872)
Chad White, Outside Sales LVL (ext. 7865)
ENERGY SERVICES
TOM ABELE, VICE PRESIDENT – BUSINESS DEV. (ext. 7700)
Ty Vierling, Energy Services Business Leader (ext. 7847)
Joe Hatton, Controls Team Leader (ext. 7796)
Mark Begle, Sales Appl. Eng. (ext. 7701)
Jeff Carpenter, Project Developer (ext. 7774)
A J Grome, Acct. Mgr. (ext. 7789)
Kevin Heuser, Acct. Mgr. (ext. 7709)
Brian Kelly, Sales Appl. Eng. (ext. 7703)

To search: Click on “Edit” in tool bar and then “Find”.

Brandon Marcum, Sales Eng. (ext. 7705)
Ernie Tacogue, Sales Eng. (ext. 7708)
Glen Thomas, BAS Proj. Mgr. (ext. 7725)
Frank Weiss, Acct Mgr. (ext. 7786)

EVANSVILLE, IN (P6)
LOUISVILLE DISTRICT
(812) 421-8725
FAX: (812) 421-8735
1024 E. Sycamore Street
Evansville, Indiana 47714
Brad Barton, Sales Engr. (ext. 5206)
Larry Davis, Serv. Sales (ext. 7463)
Jim Hirsch, Strategic Acct. Dev. (ext. 5204)
Darren Savage, Inside Sales & N.A.J.C. (ext. 5210)
Kerry Wilkinson, Serv. Sales (ext. 5211)

LEXINGTON, KY (P5)
LOUISVILLE AREA OFFICE
LOUISVILLE DISTRICT
(859) 514-7000
FAX: (859) 514-7870
2350 Fortune Drive
Lexington, Kentucky 40509-4125
CHRIS DUCAS, AREA SALES MGR. (ext. 4024)
Scott Sandberg, Sales Engr. (ext. 4009)
Dawn Ecklar, Outside Sales Rep. (ext. 4039)
Eric Wilson, Sales Engr. (ext. 4043)
Doug Donaldson, Inside Sales & N.A.J.C. (ext. 4004)
Matt Ihle, Inside Sales (ext. 4041)
Jon Lehr, Serv. Sales (ext. 4019)
Joe Sykes, Serv. Sales (ext. 4003)

TRANE HVAC PARTS & SUPPLIES:

BOWLING GREEN, KY
Trane Parts Center
(270) 846-7611
FAX: (270) 846-7601
141 Center Street
Bowling Green, Kentucky 42101
Rick Burch, Parts Mgr.

EVANSVILLE, IN
Trane Parts Center
(812) 421-8700
FAX: (812) 421-8730
1024 E. Sycamore Street
Evansville, Indiana 47714
Rick Burch, Parts Mgr.

LEXINGTON, KY
Trane Parts Center
(859) 514-7011
FAX: (859) 514-7870
Turner Business Center
2350 Fortune Drive
Lexington, Kentucky 40509
Rick Burch, Parts Mgr.

To search: Click on “Edit” in tool bar and then “Find”.

LOUISVILLE, KY - EAST
The Trane Parts Center
(502) 499-7011
FAX: (502) 499-0307
12850 Plantside Drive
Louisville, Kentucky 40299
Rick Burch, Parts Mgr.

LOUISVILLE, KY – DOWNTOWN
The Trane Parts Center
(502) 410-7998
FAX: (502) 587-9850
1000 East Market Street, Suite B
Louisville, Kentucky 40206
Rick Burch, Parts Mgr.

To search: Click on “Edit” in tool bar and then “Find”.

MEMPHIS DISTRICT	**Last updated October 1, 2012**

MEMPHIS, TN (K2)
MEMPHIS DISTRICT
(See also Parts Centers listed below)
(901) 345-6000
(901) 345-6000 – After Hours & Voice Mail
FAX: (901) 345-2803
1775 Pyramid Place, Suite 100
Memphis, Tennessee 38132
BRIAN DURR, DISTRICT MANAGER – (410) 967-9837
JOEL WINSTEAD, SALES MANAGER (2822) (901) 568-6028
TAMEKA HOLDER, DISTRICT HUMAN RESOURCES MANAGER (615) 585-3514
SONDA LONG, DISTRICT FINANCE LEADER (615) 594-9470
MIKE BOEHM, DISTRICT EQUIPMENT SOLUTIONS MANAGER (615) 828-6446
MIKEL CARR DISTRICT SERVICE SOLUTIONS LEADER (804) 467-4714
ERIC SIMON DISTRICT CONTRACTING SOLUTIONS LEADER (615) 624-0586
DAVID VITT DISTRICT SAFETY LEADER (615) 406-9590
INDIRECT SALES
Russ Phillips (K2-H63) (ext. 2853)
Jeff McAlexander (K2-H12) (ext.2898)
Shawn Bodkin (K2-H31) (ext. 2825)
Ryan Stephens (ext. 2878)
Forrest Exley (ext. 2885)
Shanna Poe, Project Manager (ext. 2829)
OWNER DIRECT SALES
Martin Petrusek (K2-H70) (ext. 2832)
Jerry Barham (K2-H75) (ext. 2854)
Jim Crone (K2-H89) (ext. 2824)
Howell Evans (K2-H92) (ext.2993)

Andrew Oppenheim (ext. 2830)
Jamie Geralds, Area Service Manager (ext. 2817)
)
Sharon Lucas, Service Estimator (ext. 2992)
Ida Johnston, Service Coordinator (ext. 2870)
Sara Joyner Project Administrator – Service (ext. 2856)
CONTRACTING SOLUTIONS
Jack Blurton, Turnkey Project Mgr. (ext. 2893)
Jason Kiper, Control Solutions Sales (ext.2849)

Maryam Acklin, Administrative Assistant (ext. 2000)

PARTS CENTERS:

SCOTT PARSONS – DISTRICT PARTS MANAGER – cell (901) 590-6592

Trane Parts Center of Memphis
(901) 345-6091
FAX: (901) 345-6092
5222 Pleasant View Road
Memphis, Tennessee 38134
Jamon Gabriel, Inside Sales (ext. 140
Keith Nance, Inside Sales (ext. 135
Caton Brooks, Inside Sales (ext. 141)
Nathan Dixon, Outside Sales (ext. 146)
Tray Spann, Outside Sales (ext. 145)
Terry Johnson, Warehouse Coordinator

To search: Click on “Edit” in tool bar and then “Find”.

Trane Parts Center of Jackson
(731) 424-0200
FAX: (731) 423-2586
138 Commerce Center Circle, Suite 100
Jackson, Tennessee 38301

Michael Holt, Inside Sales
Tracy Laster, Inside Sales

Trane Parts Center of Jonesboro
(870) 268-0281
FAX: (870) 268-6581
2905 Caprice Parkway
Jonesboro, Arkansas 72404
John Owens, Store Manager
Michael Poppleton, Outside Sales
Jeremy Vestal, Inside Sales

To search: Click on “Edit” in tool bar and then “Find”.

MIAMI DISTRICT **Last updated January 1, 2013**

MIAMI, FL (H4)
MIAMI DISTRICT
(See also West Palm Beach area offices and Parts Centers listed below)
(305) 592-0672 (Dade)
(305) 592-0672+6 During Recording – After Hours
(954) 499-6900 (Broward)
(954) 499-6900+6 During Recording – After Hours
FAX: (954) 499-6901 – Main (Broward)
FAX: (305) 592-7373 – Main (Dade)
FAX: (305) 592-0221 – Sales
FAX: (305) 592-2969 – BAS
FAX: (305) 470-9318 – Service
Miramar Park of Commerce
2884 Corporate Way
Miramar, Florida 33025

FERNANDO LAGOMASINO, DISTRICT GENERAL MGR. (ext. 71157)
Jack Walsh, Contracting Solutions Mgr. (ext. 71184)
Mike Levine, Service Solutions Mgr. (ext. 71146)
Nelson Ulloa, Sales Manager Controls (ext. 71107)
ACQUISITION – INDIRECT SALES
Kenyon Holmes, Area Sales Manager (ext. 71195)
Carlos Soberon, Controls Team Leader (ext. 71122)
Al Martinez, LCU Sales Spec. (ext. 71827)
Cherie Fleming-Erbrick, Acct. Mgr. (ext. 71123)
Jose Perez, Sr. Acct. Mgr. (H8-T66) (ext. 71197)
Mike Balko, Acct. Mgr. (ext. 71123)
Vivian Varela, LCU Sales Spec. (ext. 71821)
Renny Urdaneta, Acct. Mgr. (ext. 71152)
Michael Davidson, Acct. Mgr. (H4-T62) (ext. 71121)
Arman Pradhan, Acct. Mgr. (ext. 71757)
Rafael Del Valle, Acct. Mgr. (ext. 71134)
Jordan Azis, Acct. Mgr. (71156)
Shayla Hernandez, LCU Sales Spec. (ext. 71317)
ACQUISITION – DIRECT SALES
Alvaro Hernandez, Acct. Mgr. (H8-T82) (ext. 71733)
David Toll, Acct. Mgr. (H8-T92) (ext. 71104)
David Wills, Acct. Mgr. (ext. 71113)
Rick Becraft, Sr. Acct. Mgr. (H8-T70) (ext. 71118)
Roberto Masson, Acct. Mgr. (H8-T74) (ext. 71106)
Brad Ruzycki, Acct. Mgr. (ext.71743)
Brian Irvine, Acct. Mgr. (ext. 71725)
Tomas Vignale, Acct. Mgr. (ext. 71192)
Manny Vargas, Acct. Mgr. (ext. 71727)
Reed Frary, Acct Mgr. (ext. 71102)
Edward Blair, Acct, Mgr. (ext. 71128)
Gil Ruberte, Acct. Mgr. (ext. 71140)
Michael Gillis, Acct. Mgr. (ext. 71735)
Stefanie Goltiao, Acct. Mgr. (ext. 71105)
Ozzie Fortun, Acct. Mgr. (ext. 71191)
Dayam Roque, Acct. Mgr. (ext. 71180)
BUSINESS DEVELOPMENT
Tom Graham, Business Development Leader (ext. 71179)
Steve Corson, Acct. Mgr. (H6-T47) (ext. 71731)
Bob Tronu, Acct. Executive
FINANCE & ADMINISTRATION
Roger Herzog, District Financial Leader (ext. 71141)
HUMAN RESOURCES
Selma Afong, District HR Mgr. (ext. 71153)
MARKETING/TRAINING
MIS
Laubner Siquiera, Office Infrastructure Services
Sales and Distribution IT/IS (ext. 71752)

To search: Click on “Edit” in tool bar and then “Find”.

WEST PALM BEACH, FL (H6)
MIAMI DISTRICT
(561) 683-1521
(561) 683-1521+6 During Recording – After Hours
FAX: (561) 697-8714
6965 Vista Parkway North
Suite 11
West Palm Beach, Florida 33411
ACQUISITION – INDIRECT SALES
Chris Cowling, Acct. Mgr. (H4-T62) (ext. 71340)
Joseph Neri, Acct. Mgr. (ext. 71304)
ACQUISITION – DIRECT SALES
Robert Lewis, Acct. Mgr. (ext. 71319)
Marty Moss, Acct. Mgr. (H6-T50) (ext. 71316)
James DeSousa, Acct. Mgr. (ext. 71321)
Kyle Del Piano, Acct. Mgr. (ext. 71305)

PARTS CENTERS:
Betsy Savino, Parts Mgr. (ext. 71142)

POMPANO BEACH, FL
Trane Parts Center of South Florida
(954) 360-7707
FAX: (954) 360-7666
2103 SW 3 Street
Pompano Beach, Florida 33069
Dan Cromer, Parts Store Leader (ext. 71252)

MIAMI, FL
Trane Parts Center of South Florida
(305) 470-2300
FAX: (305) 470-2319
2660 NW 89 Court
Miami, Florida 33172
Julio Ruiz, Parts Store Leader (ext. 71808)

WEST PALM BEACH, FL
Trane Parts Center of South Florida
(561) 683-3306
FAX: (561) 683-8805
6965 Vista Parkway North, Suite 11
West Palm Beach, Florida 33411
Jimmy Carden, Parts Store Mgr. (ext. 71345)

PORT ST. LUCIE, FL
Trane Parts Center of South Florida
(772) 621-3200
Fax: (772) 621-3201
400 NW Enterprise Drive
Port St. Lucie, Florida 34986
Jimmy Carden, Parts Store Mgr. (ext. 71003)

MIRAMAR, FL
Trane Parts Center of South Florida
(954) 447-6540
Fax: (954) 447-6555
11600 Miramar Parkway, Suite 500
Miramar, FL 33025
Craig McDonell, Parts Store Mgr. (ext. 71636)

To search: Click on “Edit” in tool bar and then “Find”.

NEW YORK_NEW JERSEY DISTRICT	**Last updated January 1, 2013**

NEW YORK, NY (B3)
NEW YORK_NEW JERSEY DISTRICT
(See also Long Island, North Jersey and Westchester area offices and Parts Centers listed below)
(718) 269-3600
FAX: (718) 269-3601
45-18 Court Square
Long Island City, New York 11101-4347

STEPHEN F. WEY – DISTRICT MANAGER
ALICE BLUME-YACKAVAGE, OPERATIONS LEADER
ANDREW MERRILL – INDIRECT TEAM LEADER
Stuart L. Gaffin (B3-A07)
Lisa Hawkins (B3-B08)
J. Timothy Lomax (B3-A50)
Anton Nicaj, Comprehensive Solutions Acct. Specialist
Stuart Gomez, City Desk (New York)
Grant B. Winston
Anthony Sannazzaro
Louis Martinelli
Ian Premak
Joseph Evangelista
Joey Schmitz
Kelli Kaskiw
Ben Santagata
Taylor Reese
Mohammad Baig – ICS Sales
Karl Rudow – ICS Sales
Giovanni Aller – Bid Coordinator
Emily Caporale – PA/PM
Darnell Barton – PA/PM
Lisa Sperling PA/PM
Jane A. Esposito, Marketing/Training Manager

Application Engineering Team

Erica Ocasio
Ken Spurgin
Emrah Celik

John Christ BAS Operations Manager NY/NJ
Marc Murren – BAS Service Operation Leader NJ

NEW YORK SERVICE SALES
George J. Elia (B3-A39)
Peter J. Gunther (B3-A19)
Brandon Bennett
Anthony Carey
John M. Esposito
Lauren Spinnelli
Parrish Johnson
Lisa Sperling – PA/PM
Jacques Alexandre
Kevin Rodrigo - GTP

TODD COULARD – ENERGY SERVICE MANAGER
Paul M. Ramoino, S.E. (B3-A69) in Energy Services
John Campbell
Fred Limpert

SCOTT LEWIN – Comprehensive Solution Manager
Greg Cassio – Project Mgr.
Erin Latillladi
Daniel Palino – Project Mgr. NY

To search: Click on “Edit” in tool bar and then “Find”.

Kurt Framhein – Project Mgr. NJ
William Coffey – Project Mgr. NY
Atul Gupta, NJ
Greg Fisher - Project Developer

Human Resources
THERESA MCGLINCHEY– HUMAN RESOURCE MANAGER

LONG ISLAND, NY (B4)
NEW YORK_NEW JERSEY DISTRICT
(718) 269-3600
FAX: (718) 269-3758
245 Newtown Road, Suite 500
Plainview, NY 11803
RICHARD I. HALLEY, AREA MANAGER, LONG ISLAND
Andrew Wallace (B4-A64)
James Hanna, Account Manager
Monique Ortiz, PA/PM
Gregory Greig, Team Leader Fulfillment
Christopher Zaccone, Application Engr.
Yusuf Murat, Account Manager
Brian Daigle, Account Manager
John Reilly ICS Sales LI
Ron Kilcarr, ICS Sales LI

SERVICE SALES
Gary W. Anderson, Serv. Group Leader (B3-A18)
Christopher Teller, Acct. Mgr.
Steve Kropp-Account Manager
Dan Cilla – Account Manager

WESTCHESTER, NY (B5)
NEW YORK_NEW JERSEY DISTRICT
(914) 593-0303
FAX: (914) 593-7222
12 Skyline Drive
Hawthorne, New York 10532
Steve Obstein, Indirect Team Leader
Ed Szott – Westchester
Thomas Reyes, Account Manager (ext. 12121)
Beverly Brito, PM (ext. 109)

NORTH JERSEY, NJ (B6)
NEW YORK_NEW JERSEY DISTRICT
(973) 887-8800 – Sales & Service
(973) 887-8800 – After Hours
FAX: (973) 887-8844
4 Wood Hollow Road
Parsippany, New Jersey 07054
STEPHEN F. WEY – DISTRICT MANAGER
ALICE BLUME-YACKAVAGE, OPERATIONS LEADER
STEVE OBSTEIN INDIRECT SALES MANAGER
Don Reid – Water Treatment Specialist
Team 1
Thomas Reyes (B6-A69) (ext. 12121)
Faycal Sidhoum (B6-A88) (ext. 12177)
Team 3
James Kish (B6-A48) (ext. 12117)
Keith Jandora (B6-A16) (ext. 12128)
Team 4
Al Metzger, A.E. (B6-A18) (ext. 12125)
Christopher Baker, A.E. (B6-A58) (ext. 12118)
Kevin Padnes (B6-A51) (ext. 12169)
Marie D’Arienzo, PM (ext. 12127)
Team 5 – Fulfillment Team

To search: Click on “Edit” in tool bar and then “Find”.

Beverly Brito, PM (ext. 12122)
Bernadette Halpin, PA (ext. 12129)
Jessica Italiano, PM (ext. 12133)
Karen Schulze, PM (ext. 12123) – Team Leader
Chiller Rental
Kirk Cerkanowicz
Wally Macko
Application Engineering Team
Christopher Banko, Application Specialist (ext. 12182)
Kimberly Gould, Application Project Administrator (ext. 12154)
Philip Quense, New Equipment Sales Estimator (ext.
Chris Zimmermann, Application Spec. (ext. 12116)
OWNER DIRECT
Art Roberts, Direct Sales Leader, Energy Services Manager
Frank Barriero (B6-A62) (ext. 12159)
Steve Beaulieu (B6-A63) (ext. 12158)
Joe Biondi (B6-A) (ext. 12141)
Shannon Bongiorno (B6-A67) (ext. 12143)
Eric Girtanner (ext. 12156)
Greg Hueston (B6-A61) (ext. 12157)
Lewis Ischinger (B6-A92) (ext. 12185)
Lita Mitchell, PA (ext. 12142)
CONTRACTING SOLUTIONS – BAS/ICS
Marc Murren – Operations Team Leader
Wayne Gough, PM (ext. 12166)
Todd Hafer, PM. (ext. 12176)
Dan O’Connor, Account Mgr., Team Leader Project Developer Turnkey, Energy and PACT
Carmine Sammarco, Estimator (ext. 12165)
Kent Silveria, Account Mgr. (ext. 12120)
Tony Blunt, PM, Area Manager Service (ext. 12183)
Randall Post, Account Mgr. (ext. 12163)
Atul Mody, Team Leader, Operations and Productivity Controls
Brian Gilligan, PM (ext. 12174)
MARKETING & COMMUNICATIONS
Kristin Kubicki, Marketing Manager (ext. 12136)
COMPREHENSIVE SOLUTIONS
Anton Nicaj

PARTS CENTERS:

NEW YORK
Trane New York Parts
(718) 269-3600
FAX: (718) 269-3684
45-18 Court Square
Long Island City, New York 11101-4347

John Stanchak, District Operations Parts Leader
Doug Witters – Operation Leader NY/NJ
Osland Borrowes – Team Leader
Timothy Waldron – Inside Sales
Anthony Minieri – Inside Sales
Ronald Poarangan – Outside Sales
Helen Hristoforatos – Outside Sales
Ben Bogan – Refrigeration Sales

Trane New York Parts
(914) 593-0303
FAX: (914) 593-7222
12 Skyline Drive
Hawthorne, New York 10532
Doug Witters, Team Leader
Eiton Kamelgarn, Inside Sales (ext. 103)

Trane New York Parts
631-952-9477

To search: Click on “Edit” in tool bar and then “Find”.

FAX: 631-952-9466
245 Newtown Road, Suite 500
Plainview, NY 11803
John Patterson – Team Leader Parts
John A. Smith, Outside Sales
Kurt Paeper, Inside Sales
Greg Ludyny, Inside Sales

NEW JERSEY

Trane Parts Center of New Jersey
(973) 882-3220
FAX: (973) 882-5592
P. O. Box 154
26 Chapin Road
Pine Brook, New Jersey 07058
John Stanchak, District Operations Parts Leader

Bruce Hanna, Manager of Pine Brook
Ken Burnett, City Desk (973) 882-1229
Robert White

Trane Parts Center of New Jersey
(908) 412-1001
FAX: (908) 412-1331
107 H Corporate Blvd.
South Plainfield, New Jersey 07080
Steve Mazzola, Parts Team Leader
Joseph Grego, Outside Sales

Trane Parts Center of New Jersey
(201) 489-9001
FAX: (201) 489-8429
800 Huyler Street
Teterboro, New Jersey 07608
Adam Makarewicz, Parts Team Leader

To search: Click on “Edit” in tool bar and then “Find”.

NORFOLK DISTRICT	**Last updated January 1, 2013**

NORFOLK, VA (E5)
NORFOLK DISTRICT
(See also Parts Centers listed below)
(757) 558-0200
(757) 558-0200 – After Hours
FAX: (757) 558-9715
1100 Cavalier Blvd.
P.O. Box 6276
Chesapeake, Virginia 23323

DON DAMUTH, DISTRICT MGR. (E5-K00) (ext. 309)
CLINT DAMUTH, PRES./G.M. (E5-K17) (ext. 322)
Bill Mitchell, Chief Financial Officer (ext. 372)
Charles Mitchell, Information Technology Coordinator (ext. 350)
Jean Williamson, Mktg./Training Leader (ext. 306)
Sarah Mirkle, Human Resources (ext. 303)
SYSTEM SOLUTIONS SALES
DAVID C. WILKINS, INDIRECT TEAM LEADER (ext. 386)
Roger Damuth, S.E. (E5-K62) (ext. 416)
Joe F. DiPaola, S.E. (E5-K07) (ext. 417)
Eric Jones, S.E. & N.A.J. C. (E5-K78) (ext. 390)
David Morgan, S.E. (E5-K87) (ext. 349)
Mike Nifong, BAS Sales (ext. 365)
Joerg Paul, BAS Sales (E5-K64) (ext. 413)
Brandon Rouse, S.E. (E5-K74) (ext. 412)
Phil Rouse, S.E. (E5-K13) (ext. 411)
Todd Whitesell, S.E. (E5-K92) (ext. 355)
Jacob Spirer, S.E. (ext. 302)
Kim Landry, P.A. (ext. 421)
Christie Pettry, P.C. (ext. 425)
Annette Saylor, P.C. (ext. 418)
Nicole Waybright Ingham, P.C. (ext. 428)
Cathi Urick, P.C. (ext. 424)
Diane Casey, P.C. (ext. 430)

Amanda Garrenton, P.C. (ext. 321)
SERVICE SOLUTIONS SALES
PHIL DAMUTH, Direct Sales Team Leader (E5-K80) (ext. 415)
Roger Shull, Energy Solutions (E5-K15) (ext. 414)
Roy Black (ext. 333)
John Butler (E5-K61) (ext. 312)
Nick Clark (E5-K85) (ext. 407)
Buddy Hamblin (E5-K88) (ext. 410)
Keith Hopkins (E5-K60) (ext. 311)
David Peffley (E5-K72) (ext. 329)
David Washburn (E5-K73) (ext. 326)
Jay Wargo (ext. 327)
Kim Siddens (ext. 314)
Scott Rudd (ext. 375)
Katie Hulse, S.E. (E5-K96) (ext. 359)
Miriam DaSilva (ext. 429)
Jacinda Iadonisi, S.A. (ext. 405)
Shalyn Phillips, S.A. (ext. 379)
OPERATIONS
Bob Gunderson, Service Operations Manager (ext. 369)
Keith Forbes, Technical Center of Excellence (ext. 331)
Vince Constande, Safety Coordinator (ext. 391)
CONTRACTING
SERVICE
Mark Jennings, Field Team Leader (ext. 342)
Ray Steffens, Field Team Leader (ext. 338)
Joe Ingham, BAS Service Team Leader (ext. 373)

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PARTS CENTERS:

Trane HVAC Parts & Supplies
(757) 558-8585
FAX: (757) 558-9713
1104 Cavalier Blvd.
Chesapeake, Virginia 23323

Matt Kurz, Parts Manager
Angie Jones, Team Leader
Maria Merritt, Parts Distribution Product Sales

Trane Parts Center
(757) 490-2390
FAX: (757) 490-2937
230 Clearfield Avenue, Suite 126
Virginia Beach, Virginia 23462

Terry Thompson, Team Leader

Trane Parts Center
(757) 369-9400
FAX: (757) 369-9401
311 Ed Wright Lane, Suite E
Newport News, Virginia 23606

Terry Thompson, Team Leader

To search: Click on “Edit” in tool bar and then “Find”.

NORTHWEST/ALASKA/HAWAII DISTRICT **Last updated January 1, 2013**

SEATTLE, WA (Y3)
NORTHWEST / ALASKA / HAWAII DISTRICT
(See also Anchorage area office, Honolulu Area Office and Parts Centers listed below)
(425) 643-4310
(425) 643-4317 – After Hours
FAX: (425) 643-4314
2021 152nd Avenue NE
Redmond, Washington 98052
WARREN MICHELSEN, DISTRICT MGR.
EQUIPMENT
DAVID HULL, INDIRECT SALES MANAGER (Y3-R11)
STEVE SAVORY, OPERATIONS MGR.
Chris Muench, Acct. Mgr. Equip. Controls (Y3-Y27)
Jeffery J. Meyer, Acct. Mgr. Equip. Controls (Y3-Y18)
Travis “Blake” Thedford, Acct. Mgr. Equip. Controls (Y3-Y30)
Eric Holmquist, Acct. Mgr. Equip. Controls (Y3-Y03)
Michael Woods, Acct. Mgr. Equip. Controls (Y3-Y31)
Frank Pawul, Acct. Mgr. Equip. Controls (Y3-Y25)
Michael Elger, Associate Account Manager (Y3-Y40)
Tiffany Zimmer, Acct. Mgr. Equip. Controls (Y3-Y36)
Jacob Klehr, Associate Account Manager
Trey Clemmer, Associate Account Manager
EXISTING BUILDING SALES
DON MITCHELL, STRATEGIC SALES LEADER
Angie Estey, Account Manager – Complex
Eric Bauer, Strategic Sales Executive
Jim Kershner, Acct. Mgr. Turnkey (Y3-Y16)
Debbie Chambers, Project Developer
Andy Alcorn, N.A.E. & N.A.J.C. Acct. Mgr.-Team Leader (Y3-R23)
Brian Drake, Account Manager - Indirect I (Y3 – Y43)
Sarah Brown, Associate Account Manager
ALEXANDER PERAN, SALES MANAGER – OWNER DIRECT
Leo Messling, Acct. Mgr. Service (Y3-Y05)
Eric Jensen, Acct. Mgr. Owner Direct Controls (Y3-Y33)
Gabrial Winkler, Account Manager Service
Scott Laidlaw, Account Manager – Controls
Ronald Hall, Account Manager – Service (Y3-Y55)
Robert Rasmussen, Account Manager – Service (Y3-Y52)
Rock Keller, Outside Parts Sales
STEVE SAVORY, SERVICE OPERATIONS MGR.
Abe Houdak, Area Service Manager
Emily Riel, Project Manager – Service
James Anderson, Service Estimator
Lisa Thomas, Service PA
Sherry King, Service PA
Perna Reagan, Service PA
Catherine Meehan, Service Coordinator
CONTRACTING
SHAWN KELLEY, CONTRACTING SOLUTIONS LEADER
Andrew Palm, Construction Project Manager I
Pat Collins, Area Contracting Manager
Tony Jackson, Engineering Specialist III
Chris Ruef, Estimator III – Controls (Y3-Y22)
John Fish, Controls Tech
Dave Fulton, Controls Tech
Tina Mlay, Project Admin. Contracting
Mary Hogan, Principal Engineering Specialist
Keith Doran, Construction Project Mgr II
Ben Vivanco, Construction Project Manager I
Scott Eisenhauer, Construction Project Mgr II
James Sutull, Construction Project Manager II
Eric Manchion, Proj Admin Controls
Matt Clark, Construction Project Specialist

To search: Click on “Edit” in tool bar and then “Find”.

Jessica Northrup – Construction Project Manager I
William Porter, Engineering Specialist II
Derek McClellen, Engineering Specialist II
Pam Whitelam, EQUIPMENT SOLUTIONS LEADER
Ashley Warnken, Project Manager – Equipment / Estimator – Controls
Peri Menees, Project Administrator – Contracting
Carol Slack, Project Administrator – Equipment
Meredith Darvie, Project Administrator – Equipment
Meredith Darvie, Equip. PM/PA
Carol Slack, Equip. PM/PA
So’o Kobayashi, Equip PA
HUMAN RESOURCES & FINANCE
Kathleen Norton, Human Resources Leader
Michael Feinstein, Finance Leader
Brad Swanson, Environmental, Health & Safety Leader

ANCHORAGE, AK (Y8)
NORTHWEST / ALASKA / HAWAII DISTRICT
(907) 267-7400
FAX: (907) 267-7481
12101 Industry Way, Bldg. C1
Anchorage, Alaska 99515
Jordan Privoznik, Acct. Mgr. Equip. Controls (Y8-Y03)
Mike Burgess, Project Manager – Controls
Kody Bull, Controls Technician
Tonnie Unsel, Admin Asst

HONOLULU, HI (W1)
NORTHWEST / ALASKA / HAWAII DISTRICT
(See also Parts Center listed below)
(808) 845-6662 – Sales
(808) 845-9791 – Service & After Hours
(808) 845-6061 – Parts
FAX: (808) 845-2168 – Sales
FAX: (808) 842-4006 – Service
FAX: (808) 847-2219 – Parts
2969 Mapunapuna Pl, Ste. 101
Honolulu, Hawaii 96819-2269
WARREN MICHELSEN, DISTRICT MGR.
STEVE SAVORY, OPERATIONS MGR.

SALES
DEAN OAKLEY, AREA MANAGER
Indirect Sales
Mark Hashimoto Account Manager - Equipment (W1-M17) (ext. 250)
Daryl Kitagawa, Account Manager - Equipment (W1-M09) (ext. 249)
Matt Liang, Account Manager - Equipment (W1-M23) (ext. 246)
Herman Siu, Account Manager - Equipment (W1-M13) (ext. 248)
Sheryl Lucena, Project Specialist - Equipment (ext. 255)
Direct Sales
Masen Nakasone (ext. 236)
William Tanruther (ext. 235)
Pam Roth (ext. 227)
Control Sales
David Hill, Account Manager - Controls (W1-M29) (ext. 233)
SERVICE
Tom Moody, Area Service Manager (W1-M20) (ext. 223)

To search: Click on “Edit” in tool bar and then “Find”.

CONTRACTING
R.J. RITTER, AREA CONTRACTING MANAGER & LAN ADMIN. (W1-M19) (ext. 243)
Steve Steiner, Construction Project Manager II (ext. 241)
Wyatt Apple, Construction Project Manager II (ext. 247).

PARTS CENTERS

Trane Parts Center of the Northwest
(425) 455-4148
FAX: (425) 451-1248
12031 N. E. Northup Way
Suite 106
Bellevue, Washington 98005
Brandon Maxfield, Inside Parts Sales
Bryant Case, Inside Parts Sales

Trane Parts Center of the Northwest
(206) 748-0500
FAX: (206) 447-0171
4408 4th Avenue South
Seattle, Washington 98134
Daniel Pewtress, Seattle Parts Store Team Leader
Dave Wright, Inside Parts Sales
Jim Beckman, Inside Parts Sales

Trane Parts Center of the Northwest
(253) 896-0550
5009 Pacific Highway East #5
Fife, Washington 98424
Adam Niemeyer, Tacoma Parts Store Team Leader
Orv Saylor, Inside Parts Sales

Trane Distribution Center
(808) 845-6061
FAX: (808) 847-2219
2969 Mapunapuna Pl, Ste 113
Honolulu, Hawaii 96819-2269
LaVerne Behic, Account Manager - Parts
Shawna Huddy, Parts Store Team Leader
Loren Okamura, Inside Parts Sales
Bryce Okimoto, Inside Parts Sales

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OHIO DISTRICT **Last updated January 1, 2013**

COLUMBUS, OH (N4)
OHIO - DETROIT DISTRICT
(See also Cincinnati, Detroit and Toledo offices and Parts Centers listed below)
(614) 473-3500
(614) 473-3400 – Service
FAX: (614) 473-3501
2300 CityGate Drive
Suite 100
Columbus, Ohio 43219-3652

KEVIN COLBERT, DISTRICT GENERAL MGR. (ext. 5100) (608)-235-2315
JOHN HOFMANN, GENERAL SALES MANAGER (614) 783-7156
MARY CRESPY, DISTRICT MARKETING DIRECTOR/TRAINING (ext. 5202) (614) 202-7151
David Kaiser, P.E. LEED AP, CEM, Controls Account Manager (ext. 5612)
Rod Mayo, Sr., Indirect Acct. Mgr. (N4-B58) (ext. 5103)
Brian McGann, LEED AP, Indirect Acct. Mgr. (N4-B61) (ext. 5125)
Mike Robinson, Indirect Acct. Mgr. (N4-B86) (ext. 5110)
Tim Sample, LEED AP, Engineering Team Leader. (N4-B81) (ext. 5199)
Andrew Stotz, Acct. Mgr. (N4-B87) (ext. 5216)
Drew Sherman, LEED AP, Applications Specialist – Bid Coordinator (ext. 5143)
Patty Strohm, Project Mgr. (ext. 5112)
Andrew Walsh, LEED AP, Acct. Mgr. (N4-B78) (ext. 5107)
KEVIN HUBERT, TRANE INTELLIGENT SERVICES/BAS CHAMPION – (513) 748-4815
NATIONAL ACCTS TEAM
JOHN D'AGOSTINO, EQUIPMENT SOLUTIONS MANAGER NATIONAL ACCOUNTS (ext. 5124)
Jim Hoovler, LEED AP BD+C, N.A.E. & N.A.J.C. (N4-B21) (ext. 5121)
Donna Lavon, Project Manager (502-753-7780)
Ruthann McCracken, Proj. Administrator (502) 753-7784
Kris Ryan, Project Manager (ext. 5154)
Jody Sowers, Applications Specialist (ext. 5217)
Natalie Smith, Proj. Administrator (ext. 5149)
Glenva McKinley, Proj. Administrator (ext. 5201)
EXISTING BUILDING SALES
Tim Bugg, LEED AP, Direct Acct. Manager (N4-B79) (ext. 5122)
Mark DiDonato, Direct Acct. Mgr. (N4-B85) (ext. 5148)
Blake Moore, LEED AP, CEM, Direct Acct. Mgr. (N4-B64) (ext. 5150)
Bill Whitmeyer, CEM, LEED AP Direct Acct. Mgr. (N4-B41) (ext. 5141)
Mark Witte, P.E., LEED AP Direct Acct. Mgr. (N4-B23) (ext. 5123)
CONTRACTING
SAM PARISE, PE, PMP, DISTRICT CONTRACTING OPERATIONS LEADER (734) 890-9252
Timothy Belknap, Contracting Turnkey Project Manager (ext. 5144)
Rob Bell, Proj. Tech.
Becky Cummings, Estimator (ext. 5605)
Gina Gary, Proj. Admin. (ext. 5600)
Jeremy Rex, P.E. Project Engineering Team Leader (ext. 5604)
Garry Ryan, Proj. Engineer (ext. 5606)
Denny Schertzer, Project Manager
Rolland Scott, Proj. Tech
Nate Whitt, Proj. Tech.
Joe Yaney, Project Manager (ext. 5601)
PROJECT DEVELOPMENT
JIM PABST, CEM, SOLUTIONS SALES MANAGER (N4-B90) (ext. 5611) (614) 419-0134
Richard Daedelow, Project Developer Manager (ext. 5142)
Lee Hill Adamcik, LEED AP, CEM, Project Developer – Energy Engineering (ext. 2426) (513) 426-4198
Jim Zavesky, Vertical Market Leader – Education and Government (N4-B45) (ext. 5128)

John Hambel, LAN Admin. (ext. 5220)

SERVICE
BOB HUCKABONE LEED AP, DISTRICT OPERATIONS LEADER (ext. 8267) (248) 521-9022
Kenneth Schlaegel, Area Service Manager (ext. 5522)
Becky Cummings, Service Estimator (ext. 5605)
Johnna Harris, Resource Coordinator (ext. 5502)

To search: Click on “Edit” in tool bar and then “Find”.

Colleen Phillips, Proj. Administrator (ext. 5209)
Doug Webb, Proj. Administrator (ext. 5550)
ENABLING
TERRY D’AGOSTINO, DISTRICT FINANCE LEADER (ext. 5208) (614) 419-8105
EILEEN PICOTTE, DISTRICT HUMAN RESOURCES

Jeff Martin, Environmental Health & Safety Manager (ext. 5159)

CINCINNATI, OH (N2)
OHIO DISTRICT
(513) 771-8884
FAX: (513) 772-7281
10300 Springfield Pike
Cincinnati, Ohio 45215-1118
KEVIN COLBERT, DISTRICT GENERAL MGR. (608) 235-2315
JOHN HOFMANN, GENERAL SALES MANAGER (614) 783-7156
MARY CRESPY, DISTRICT MARKETING DIRECTOR (ext. 2465) (614) 202-7151
Jeff Betz, Indirect Acct. Mgr. (N2-A50) (ext. 2467)
Nathan Hull, LEED AP, Indirect Acct. Mgr. (N2-A62) (ext. 2433)
David M. Patterson, Sr. Indirect Acct. Mgr. (N2-A48) (ext. 2423)
Steve Simpson, LEED AP, Indirect Acct. Mgr. (N2-A53) (ext. 2421)
Dan Schondelmayer, LEED AP BD+C, Sr. Project Manager (ext. 2422)
Scott Stevenson, Project Manager (ext. 2489)
Linda Brune, Proj. Administrator (ext. 2430)
Patty Smith, Training Coordinator/Event Coordinator (ext. 2428)
NATIONAL ACCTS TEAM
JOHN D’AGOSTINO, EQUIPMENT SOLUTIONS LEADER NATIONAL ACCOUNTS (ext. 5124)
Scott Crabtree, LEED AP, N.A.E. (N2-A05) (ext. 2429)
Donna Lavon, Project Manager (502-753-7780)
Ruthann McCracken, Proj. Administrator (502) 753-7784
Jody Sowers, Applications Specialist (ext. 5217)
Natalie Smith, Proj. Administrator (ext. 5149)
Glenva McKinley, Proj. Administrator (ext. 5201)
EXISTING BUILDING SALES
KEVIN HUBERT, TRANE INTELLIGENT SERVICES/BAS CHAMPION – Cincinnati (ext. 2451)
Bob Haun, LEED AP, CEM, Direct Acct. Mgr. (N2-A41) (ext. 2438)
Tom Imhoff, LEED AP, Direct Acct. Mgr. (N2-A29) (ext. 2439)
Jay Roark, Direct Acct. Mgr. (N2-A69) (ext. 2432)
Kevin Taylor, Direct Acct. Mgr. (N2-A70) (ext. 2436)
Donald W. Webber, LEED AP, CEM, Owner Sales Manager (N2-A27) (ext. 2437)
Bob Walters, Direct Acct. Mgr. (N2-A57) (ext. 2493)
SERVICE
BOB HUCKABONE, LEED AP, DISTRICT OPERATIONS LEADER (248) 521-9022
Jack Yeazel, Area Service Manager (ext. 2495)
Joe Clay, Service Coordinator (ext. 2457)
Dan Haag, Service Estimator (ext. 2425)
Sarah Owen, Proj. Administrator (ext. 2475)
CONTRACTING
SAM PARISE, PE, PMP, DISTRICT CONTRACTING OPERATIONS LEADER (734) 890-9252
Jeremy Rex, Engineering Team Leader (614) 419-0135
Dave Batdorf, Contracting Turnkey Project Manager (ext. 2462) (513) 616-2336
Steve Baumann, Construction Proj. Manager (ext. 2461) (513) 200-6941
Angela Blaisdell, Proj. Admin (ext. 2487)
Bob Cartwright, Proj. Mgr. (ext. 2492
Kevin McCarthy, Proj. Tech. (513) 222-4313
Rick McDonald, Proj. Tech (513) 312-7485
Kyle Hurtt, Proj. Tech. (ext. 2495) (513) 335-9719
Tom Schulten, Proj. Tech. (ext. 2456) (513) 616-1604
PROJECT DEVELOPMENT GROUP
JIM PABST, CEM, SOLUTIONS SALES MANAGER (ext. 5611) (614) 419-0134
Richard Daedelow, Project Development Manager (ext. 5142)
Bob Haun, LEED AP, CEM, Acct. Mgr. (N2-A41) (ext. 2438)
Lee Hill Adamcik, LEED AP, CEM, Project Developer – Energy Engineering (ext. 2426) (513) 426-4198
Jim Zavesky, Vertical Market Leader – Public and Education (N4-B45) (ext. 5128)
ENABLING
TERRY D’AGOSTINO, DISTRICT FINANCE LEADER (ext. 5208) (614) 419-8105

To search: Click on “Edit” in tool bar and then “Find”.

EILEEN PICOTTE, DISTRICT HUMAN RESOURCES

Jeff Martin, Environmental Health & Safety Manager (ext. 5159)

DETROIT, MI (M1)
OHIO - DETROIT DISTRICT
(See also Toledo office and Parts Centers listed below)
(734) 452-2000
(FAX: (734) 452-2020 - Sales
FAX: (734) 452-2055 - Service
37001 Industrial Road
Livonia, Michigan 48150-1146
KEVIN COLBERT, DISTRICT GENERAL MANAGER (ext. 2001) (608) 235-2315
SETH ROTHEY, PE, CEM, LEED AP, GENERAL SALES MANAGER, (614) 203-3087
Jeff Krieg, Engineering Sales Team Leader (M1-D33) (ext. 2040)
Shawn Green, LEED AP, Indirect Sales (M1-D53) (ext. 2042)
Ken Lawrence, LEED AP, Indirect Sales (M1-D17) (ext. 2054)
Yerko Sepulveda, LEED AP, Account Manager Indirect Sales-Contractor Connections (ext. 2079)
Mike Smith, Indirect Sales (M1-D42) (ext. 2011)
Brian Snyder (M1-D61) (ext. 0157)
Mark Sufnar, LCU Sales Specialist (M1-D39) (ext. 2027)
Brian Hedman, LEED AP, Controls Acct. Mngr. (ext. 2003)
Contractor Connection (M1-D39)
Scott Clements, Project Manager (ext. 2060)
Rochelle Hill Project Manager (ext. 2082)
Marc Flatt Equipment Estimating (ext. 2046)
Mike Sonk, Applications Specialist (ext. 2029)
Meredith Frederick, Marketing/Training Coordinator (ext. 2069)
MARY CRESPY, DISTRICT MARKETING DIRECTOR (ext. 2061) (614) 202-7151
KEVIN HUBERT, TRANE INTELLIGENT SERVICES/BAS CHAMPION – (513) 748-4815
EXISTING BUILDING SALES
Mike Hogg, Direct Sales Leader (M1-D14) (ext. 2019) (313) 999-8006
Greg Densmore, LEED AP, CEM, Account Manager Direct Sales (M1-D05) (ext. 2044)
John McIntosh, LEED AP, Account Manager Direct Sales (ext.2058)
Kathleen Taylor, Account Manager Direct Sales (M1-D38) (ext. 2018)
Blair Zajac, LEED AP, Account Manager Direct Sales (MI-D56) (ext. 2021)
SERVICE
BOB HUCKABONE, LEED AP, DISTRICT OPERATIONS LEADER (ext. 2006) (734) 452-2050
Syd Chapman, Area Service Manager (ext. 2045) (248) 521-9005
Jim Stedman, CEM, Service Estimator (ext. 2024)
Jeanette Jones, Resource Coordinator (ext. 2010)
Leslie Profit, Resource Coordinator (ext. 2023)
Maureen Wisner, Proj. Administrator (ext. 2035)
CONTRACTING
SAM PARISE, PE, PMP, DISTRICT CONTRACTING OPERATIONS LEADER (ext. 2068) (734) 890-9252
Aaron Bain, Area Contracting Mgr. (ext. 2081) (248) 521-9043
Pam Bergeson, Project Administrator (ext. 2033)
Christopher Gruener, Project Technician
Tom Gillig, CPS Project Technician (ext. 2028)
Kyle Gross, Project Technician

Rick Perkins, Project Manager (ext. 2032)
Jeremy Rex, Engineering Team Leader (614) 419-0135
Tom Roosien, Project Engineer (ext. 2071)
Matt Shirey, Construction Project Manager (ext. 2051)
PROJECT DEVELOPMENT COMPLEX SOLUTIONS
JIM PABST, CEM, SOLUTIONS SALES MANAGER (N4-B90) (614) 419-0134
Ed Cihonski, Project Developer (ext. 2026)
ENABLING
TERRY D’AGOSTINO, DISTRICT FINANCIAL LEADER (ext. 2002) (614) 473-3162
EILEEN PICOTTE, DISTRICT HR (ext. 2070) (248) 417-9815
Jeff Martin, Environmental Health & Safety Manager
LYNN PETERSON, PARTS LEADER (586) 292-0731

To search: Click on “Edit” in tool bar and then “Find”.

TOLEDO, OH (N6)
DETROIT DISTRICT
(419) 491-2280
FAX: (419) 491-2279
1001 Hamilton Drive
Holland, Ohio 43528
KEVIN COLBERT, DISTRICT GENERAL MANAGER (608) 235-2315
MARY CRESPY, DISTRICT MARKETING DIRECTOR/TRAINING (614) 202-7151
Dennis Goldsmith, Indirect Sales Team Leader (N6-A10) (ext. 2252)
Bill Antcliff, Account Manager Indirect Sales (M1-D30) (ext. 2275)
Ross Bredeweg, LEED AP, Account Manager Indirect Sales (MI-D57) (ext. 2274)
Debbie Egan, Proj. Administrator (ext. 2250)
Michael Forshaw, CEM, Account Manager Controls (ext. 2270) (419) 705-6028
Paul Douglas, Equipment Estimating (ext. 2273)
KEVIN HUBERT, TRANE INTELLIGENT SERVICES/BAS CHAMPION – (513) 748-4815
EXISTING BUILDING SALES
Mike Hogg, Direct Sales Leader (M1-D14) (ext. 619) (313) 999-8006
Mike Campbell, Account Manager Direct Sales (N6-A14) (ext. 2280) (419) 346-3234
Dan Gust, Account Manager Direct Sales (N6-A09) (ext. 2251)
SERVICE
BOB HUCKABONE, LEED AP, DISTRICT OPERATIONS LEADER (ext. 2006) (248) 521-9022
Syd Chapman, Area Service Manager (248) 521-9005 (ext. 2045)
Jim Stedman, Service Estimator (ext. 2024)
Jeanette Jones, Resource Coordinator (ext. 2010)
Leslie Profit, Resource Coordinator (ext. 2023)
Maureen Wisner, Proj. Administrator (ext. 2035)
CONTRACTING
SAM PARISE, PE, PMP, DISTRICT CONTRACTING OPERATIONS LEADER (ext. 2068) (734) 890-9252
Aaron Bain, Area Contracting Manager (ext. 2081) (248) 521-9043
Jeremy Rex, District Engineering Team Leader (614) 419-0135
Pam Bergeson, Project Administrator (ext. 2033)
Daniel Hernandez, Project Technician
Dennis Landwehr, Project Manager (ext. 2260)
David Smith, Project Technician (ext. 2258)
PROJECT DEVELOPMENT COMPLEX SOLUTIONS
JIM PABST, CEM, SOLUTIONS SALES MANAGER (N4-B90) (614) 419-0134
Steve Fryzlewicz, Account Manager (N6-A13) (ext. 2246)
Ed Cihonski, Project Developer (ext. 2026)
ENABLING
TERRY D’AGOSTINO, DISTRICT FINANCIAL LEADER (614) 473-3162
EIILEEN PICOTTE, DISTRICT HR (248) 417-9815
Jeff Martin, Environmental Health & Safety Manager (ext. 5159)

PARTS CENTERS:
TIM HANCOCK, PARTS LEADER (ext. 2445) (513) 200-6598

CINCINNATI, OH
Trane HVAC Parts & Supplies
(513) 771-8997
FAX: (513) 772-7286
10300 Springfield Pike
Cincinnati, Ohio 45215-1118
Todd Eger, Store Manager (ext. 2424)

COLUMBUS, OH
Trane HVAC Parts & Supplies
(614) 473-3131
FAX: (614) 473-3141
Suite 100
2300 CityGate Drive
Columbus, Ohio 43219-3652
Chad Davis, Store Manager (ext. 5615)

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LYNN PETERSON, PARTS LEADER (586) 292-0731

DETROIT, MI

Trane HVAC Parts & Supplies
(248) 577-0277
FAX: (248) 577-0266
251 Executive Drive
Troy, Michigan 48083
Alistair Milne, Parts Store Manager

LYNN PETERSON, PARTS LEADER (586) 292-0731

Trane HVAC Parts & Supplies
(734) 222-3600
FAX: (734) 222-3605
1947 S Industrial Hwy
Ann Arbor, Michigan 48104
Steve Davanzo, Parts Store Manager

LYNN PETERSON, PARTS LEADER (586) 292-0731

Trane HVAC Parts & Supplies
(734) 367-0700
FAX: (734) 367-7135
33725 Schoolcraft
Livonia, Michigan 48150
Ken Schuster, Parts Store Manager

LYNN PETERSON, PARTS LEADER (586) 292-0731

Trane HVAC Parts & Supplies

TOLEDO, OH

Trane HVAC Parts & Supplies
(419) 491-2278
FAX: 419-491-2277
1001 Hamilton Drive
Holland, Ohio 43528
Jaysen Binegar, Parts Store Manager

LYNN PETERSON, PARTS LEADER (586) 292-0731

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ONTARIO DISTRICT	**Last updated January 1, 2013**

CENTRAL ONTARIO (CH)
ONTARIO DISTRICT
(See also Hamilton, Mississauga, Ottawa and Parts Centers listed below)
(416) 499-3600 – Sales/Service
(416) 499-5124 – 24 Hour Emergency
FAX: (416) 499-3615
4051 Gordon Baker Road
Scarborough, Ontario M1W 2P3

SEAN HUGHES, ONTARIO AREA MANAGER (ext. 2913)
Andrew Kolbin, Area Finance Leader (ext. 2811)
Liliana Dube, Canadian Finance Leader (519)-497-4216
Leah Byrne, EHS/HR/Regulatory Compliance Manager (ext. 891)
Frank Mesicek – Contracting Solutions Manager (ext. 2873)
Steve Butt, Operations Manager – Service (ext. 2813)
David Franks, Direct Sales Manager (ext. 2819)
Nik Ljiljanic, Indirect Sales Manager (ext. 2820)
Joe Carpino, Ontario Parts Leader (ext. 2805)
Steve Mandula, Equipment Solutions Manager (ext. 2852)
Ronald Gingrich, Industrial Refrigeration Operations Manager (ext. 2856)
Elysha Ali, Marketing Coordinator (ext. 2830)
James Dunn, LAN Administrator (ext. 2841)
Barbara Harnum, Health and Safety (ext. 2862)

Sales Team 1
Jonathan Badov, Senior Team Leader (ext. 2825)
Haitham Nayfeh (ext. 2848)

Sales Team #2
Alan Porter Senior Team Leader (ext. 2836)
Mark Dolan (ext. 2810)

Sales Team #2
David Titus (ext. 2896)

Indirect Sales Hamilton
110 Lancing Drive, Building 1, Unit 3
Hamilton, Ontario, L8M 3A1
(905) 308-7780
(416) 499-5124 – 24 Hours Emergency

Team 21
Carmine Bozzo, Team Leader, Systems (ext. 24)
Waleed Adham (ext. 21)

Indirect Sales, Kitchener, Waterloo
(519) 570-1118
Paul Wallace, Team Leader, Systems (519) 580-0395

Owner Direct Sales, Toronto
Darcy Mulrooney, Account Executive, Owner Direct Sales (ext. 2847)
Philip Keall, Account Manager, Owner Direct Sales (ext. 2888)
Ahmed El Nady, Account Executive, Owner Direct Sales (ext. 2827)
Jeff Scheniman, Account Manager, Owner Direct Sales (ext. 2858)
Scott Da Cambra, Account Manager, Owner Direct Sales (ext. 2882)
Greg Asada, Account Manager, Owner Direct Sales (ext. 2889)
Chad Sokolyk, Account Manager, Owner Direct Sales (ext. 2826)
Darren O’Neill, Account Manager, Owner Direct Sales (ext. 2802)
Kevin Mcloughlin, Account Manager, Owner Direct Sales (ext. 2925)
Brent Krisman, Account Manager, Owner Direct Sales (ext. 2923)
Matt Stockley, Account Manager, Owner Direct Sales (ext. 2879)
Neil Rampersad, Account Manager, Owner Direct Sales (519)-400-2249

To search: Click on “Edit” in tool bar and then “Find”.

Jeff Weir, Account Executive, Comprehensive Solutions (ext. 2832)

MISSISSAUGA, ONTARIO (CH)
ONTARIO DISTRICT
905-238-2900
FAX: (905) 238-2888
1600 Aimco Blvd., Unit # 9
Mississauga, Ontario L4W 1V1
Contractor Connection

OTTAWA, ONTARIO (CG)
ONTARIO DISTRICT
(613) 820-8111
(613) 820-8111 – After Hours
FAX: (613) 820-1414
1024 Morrison Drive
Ottawa, Ontario K2H 8K7
SEAN HUGHES, ONTARIO AREA MANAGER
Andrew Kolbin, Area Finance Leader
Steve Butt, Operations Manager – Service
John Holland, General Manager
Gary Bond, Sales Manager

TRANE PARTS CENTRES:

Toronto (Scarborough Trane Parts Centre)
(416) 499-1616
FAX: (416) 499-6507
4051 Gordon Baker Road
Scarborough, Ontario M1W 2P3
Steve McGann, Store Manager

Toronto (Mississauga Trane Parts Centre)
(905) 238-2900
FAX: (905) 238-2888
1600 Aimco Blvd., Unit # 9
Mississauga, Ontario L4W 1V1
(905) 238-7407
Alwyn Mendes, Store Manager

Ottawa West
(613) 820-8111
FAX: (613) 820-1414
1024 Morrison Drive
Ottawa, Ontario K2H 8K7
Derrick Wylie Store Manager

Ottawa East
(613)-744-5396
FAX: 613-744-2773
1257 Algoma Rd. Unit 2
Ottawa, Ontario K1B 3W7
Derrick Wylie Store Manager

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PENNSYLVANIA DISTRICT **Last updated January 1, 2013**

PITTSBURGH, PA (D3)
PENNSYLVANIA DISTRICT
(See also Harrisburg, Johnstown area offices and Parts Centers listed individually below)
(412) 747-3000
(412) 747-3000 – After Hours
FAX: (412) 747-4550
400 Business Center Dr.
Pittsburgh, Pennsylvania 15205
DANIEL SWEET, DISTRICT MGR.
Denise Yocum, District Human Resources Leader (ext. 4573)
Mike Cassino, District EHS Manager 443-286-6786
Jennifer Hunt, District Finance Leader (ext.)4561
Laura Worker, Marketing Leader
Indirect Sales
Ross Kladakis, Indirect / BAS Sales Manager (ext. 4568)
Deb Kiersarsky, Receptionist 412-747-3000
Kevin Kass, NSS (D3-A86) (ext. 4563)
Jim O’Kelly, NSS (D3-A03) (ext. 4558)
Jim Kusick, NSS (D3-A197) (ext. 4551)
Kevin Rohner, BAS Sales Leader (D3-A79) (ext. 4566)
Julia Luthi, BAS Sales (D3-A76) (ext. 4571)
Tyler Haak, BAS Sales (D3-A83) (ext. 4535)

CONTRACTOR CONNECTION – Ron Scaccia (D3-A20) (ext. 4562)
ENGINEERING CENTER OF EXCELLENCE – Steve Alauzen (D3-A06) (ext. 4559)

Direct Sales
Tim White, Sales Manager Complex (ext. 4564)
Comprehensive Solutions Business Developer – Dennis Morelli (ext. 4589)
Joe Burgunder, EBS (D3-A30) (ext. 4549)
Douglas Campbell, EBS (D3-A37) (ext. 4553
Matt Evans, EBS (D3-A84) (ext. 3551)
Bill Gordon, Complex (D3-A34) (ext. 4554)
Gary Hill, EBS (D3-A55) (ext. 4582)
Jake Luthi, EBS (D3-A77) (ext. 4557

EQUIPMENT FULFILLMENT
Ross Kladakis, Equipment Fulfillment Leader (ext4568)
Greg Basinger, Project Manager /Estimator NSS and Controls (ext. 4527)
Alex Rossi, Estimator NSS
Amy Reckner, Project Administrator NSS (ext. 4572)

Customer Service/Inside Sales
Amy Sumner –Direct (ext. 4533)
Nancy Richardson – Indirect (ext. 4534)

SERVICE
Eric Archinal Service Solutions Leader (ext. 4531)
Erik Hess, Area Service Manager (ext. 1019)
Pat McFarland, Resource Coordinator
Jennifer Lindell, Resource Coordinator
Marilynn Engleman, Project Admin
Cheryl Guenther, Project Admin
Mike Batic, Warehouse Coordinator

CONTRACTING SOLUTIONS
Bill Moore, Contracting Solutions Leader – 717-585-7710
Bob Musgrave, Area Contracting Manager (ext. 4548)
Donna Singleton, Project Administrator (ext. 4577)
Bob Macio, Project Mgr. – Controls (ext. 4546)
Randy Blacharczyk, Project Mgr. – BAS (ext. 4532)
Bob Kovalan, Project Mgr., Turnkey

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Joe Dezamits, Project Developer/Energy Engineer (ext. 4552)

HARRISBURG, PA (D1)
PENNSYLVANIA DISTRICT
(717) 561-5400
FAX: (717) 561-5499
3909 TecPort Drive
Harrisburg, Pennsylvania 17111
DANIEL SWEET, DISTRICT MGR.

Denise Yocum, District Human Resources Leader (ext. 5414)
Jennifer Hunt, District Finance Leader
Mike Cassino, District EHS Manager 443-286-6786
Laura Worker, Marketing Leader
Alicia Moore, Executive Administrative Assistant (ext. 5405)
SALES
Joel Gerace, Indirect / BAS Sales Manager (ext. 5404)
Michael Ulsh, Team Leader (D1-G17) (ext. 5417)
Lisa A. Goodyear, NSS (D1-G06) (ext. 5416)
Pat Doyle, NSS (D1-G37) (ext. 5407)
Jeff Leggett (D1-G69) (ext. 5409)
Kim Kauffman, Customer Service/Inside Sales (ext. 5414)
Jack Gornik, Team Leader/Control Sales (D1-G29) (ext. 5430)
Keith Dougherty, BAS Sales (D4-J29) (ext. 5445)

Vertical Market Team
Tim White, Sales Manager Complex 412-728-6581
Ron Koch, PACT Sales (D1-G28) (ext. 5451)
John Linn (D1-G30) (ext. 5464)
Frank Troy, Sales Manager Direct 410-403-2200
Laura Renfer, Customer Service Direct Sales (ext. 5412)
Donna Snyder, EBS (D1-G32) (ext. 5466)
Dennis Rumsey (ext. 5418)
Robert Fornataro (ext. 5413)
Lori Findley (D1-G71) (ext. 5468)
Charles Odell (D1-G74) (ext. 5442)
Chris Jones (D1-G73 (ext. 5411)

Equipment Fulfillment Team
Joel Gerace, Equipment Fulfillment Leader (ext. 5404)
Jonathon Weaver, Project Manager, NSS (ext. 5424)
Ross Smith, Estimator (D1-G22) (ext. 5420)

SERVICE
Eric Archinal Service Solutions Leader (ext. 5461)
Gary Weiss, Area Service Manager (ext. 6717)
Melissa King, Project Admin (ext. 5460)
Denise Mongelli, Resource Coordinator (ext. 5459)
Rick McNeal, Area Service Manager (ext. 6720)
Nicole Barnhart, Project Admin (ext. 5488)
Greg Sheaffer, Resource Coordinator (ext. 5403)
Mike Smith, Warehouse Coordinator and Driver (ext. 5454)

Contracting Solutions
Bill Moore, Contracting Solutions Leader 717-585-7710
Karen Gummo, Contracting Project Administrator (ext. 5434)
Matthew Kressley, Estimator (ext. 5424)

Brian Miller, Project Mgr. – Turnkey (ext. 5462)

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JOHNSTOWN, PA (D7)
PENNSYLVANIA DISTRICT
(814) 266-3020
FAX: (814) 266-3015

Johnstown Sales Team D7-C01
Cory Eberhart, NSS (D7-D07)
Michael Weatherton, EBS (D7-A02)

PARTS CENTERS

Dennis Shaw – District Parts Leader

HARRISBURG, PA
Trane Parts Center
(717) 541-1570
FAX: (717) 541-1577
491 E. Blue Eagle Ave.
Harrisburg, Pennsylvania 17112
Lee Hunt, Parts Store Mgr. (ext. 302)

PITTSBURGH, PA
Pittsburgh Trane
(412) 394-9030
FAX: (412) 394-9031
3042 New Beaver Avenue
Pittsburgh, Pennsylvania 15233
Brian Sellew, Parts Store Manager

NORTH HUNTINGDON, PA
Trane Parts Center
(412) 816-1701
FAX: (412) 823-8389
15091 Rt. 30
North Huntingdon, Pennsylvania 15642
Todd Weaver, Parts Store Team Leader

TIMONIUM STORE
(410) 252-9550
FAX: (410) 252-9436
2208 Greenspring Drive
Timonium, Maryland 21093
Erik Smith, Parts Store Manager
Dave Case, Store Team Leader

MILLERSVILLE STORE
(410) 729-4230
FAX: (866) 788-5383
8229 Cloverleaf Drive
Bldg. 5 Ste. 455
Millersville, Maryland 21108
Erik Smith, Parts Store Manager
Greg Heck, Store Team Leader

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PEORIA DISTRICT **Last updated January 1, 2013**

PEORIA, IL (R3)
PEORIA DISTRICT
(See also Parts Center listed below)
(309) 691-4224 – Sales
(309) 691-3052 – Service & After Hours
FAX: (309) 691-1366
8718 N. University
Peoria, Illinois 61615-1681

MIKE HUNZEKER, DISTRICT MGR. & N.A.J.C. (R3-A00) (ext. 236)
JOHN BROSE, GENERAL MGR., N.A.E. (R3-A09) (ext. 214)
Jeff Gravitt, Director of Service (ext. 227)
Tom Loos, BAS Sales / PM (ext. 242)
Jeff Thompson, BAS Project Manager (ext. 234)
Thomas Boelens, BAS Sales (ext. 241)
Roger Devore, NES (R3-A13) (ext. 237)
Tara Binder, S.A. (ext. 226)
Steve Mourisse, NES (R3-A16) (ext. 232)
Michelle Lane, S.A. (ext. 215)
EXISTING BUILDING SALES
Kirt Abbott (ext. 228)

PARTS CENTER:

Peoria Trane Parts Center
(309) 691-6147
FAX: (309) 691-4244
8720 North University
Peoria, Illinois 61615
Randy Hunzeker, Parts Mgr. (ext. 247)

To search: Click on “Edit” in tool bar and then “Find”.

PHILADELPHIA DISTRICT **Last updated January 1, 2013**

PHILADELPHIA, PA (TSO) (D2)
PHILADELPHIA DISTRICT
(See also Parts Center listed below)
(610) 962-1600
(610) 962-8186 – After Hours
FAX: (610) 962-0230, 0231
3606 Horizon Drive
King of Prussia, Pennsylvania 19406
DOUGLAS O. TOZOUR, DISTRICT MANAGER (D2-T00) (ext. 1686)
KEVIN DUFFY, President (ext.1693)
C-J White, Administrative Assistant (ext. 1632)
Mike Roseman, Business Systems Manager (ext. 1692)
LAUREN SCHMITZ, HUMAN RESOURCE MANAGER (ext. 1757)
DAVE WAGNER, CONTROLLER (ext. 1608)
Mariya McConnell, Assistant Controller (ext. 1178)
Stet Erhardt-Haley, Marketing Leader (ext. 1689)
FRANK LASTER – PARTS AND SUPPLIES MANAGER (ext. 1646)
WILLIAM J. ARTOSKY, DIRECT SALES MANAGER (D2-T29) (ext. 1661)
DAEEN SALAM, INDIRECT SALES MANAGER (D2-T74) (ext.1165)
JOSH COSTELL, GM ENERGY SERVICES DIVISION (ext. 1679)
DIRECT
Rich Palardy, Executive Account Manager (D2-T77) (ext. 1609)
Mark Thiel, Executive Account Manager (ext. 1687)
Mary Hall, Executive Account Manager (ext. 1630)
Jeff Norton, BAS Sales Engineer – Controls (ext. 1672)
David Yanoff, BAS Sales Engineer – Controls (ext. 1628)
Matt Rawlik, Service Sales Engineer (D2-T62) (ext. 1784)
Tim Andrel, Service Sales Engineer (ext. 1694)
Katie Sandy, Service Sales Engineer (ext. 1174)
Jeff Little, Service Sales Engineer (ext. 1663)
Patrick Downs, New Business Development (ext. 5881)
Brian Peifer, Senior Energy Analyst (ext. 1697)
Kevin Keenan, Manager, Energy Professional Services (ext. 1163)
Robert Ventriglia, Energy Business Development (ext. 1619)
Michael Phillips, Energy Project Development Manager (ext. 1638)
Brian Lavin, Energy Analyst (ext. 1688)
INDIRECT
Andy Bees, Sales Engineer (D2-T92) (ext. 1649)
Dean Karagiannis, Sales Engineer (ext. 1654)
Scott Kincaid, Sales Engineer (ext. 1620)
Nabil Khouri, Sales Engineer – Consultants (D2-T82) (ext.1636)
Paul Lynch, Sales Engineer (D2-T16) (ext.1614)
Matthew McDowell, Sales Engineer (D2-T06) (ext. 1626)
Matthew Nealon, Sales Engineer (ext. 1648)
Shaun Stephens, Sales Engineer (ext. 1695)
Chris VanSant, Sales Engineer (ext. 1623)
Nicholas Lupisella, Sales Engineer (ext. 1699)
Julie Bellfy, Sales Engineer (ext. 1702)
INSIDE SALES – (800) 220-7666
LEE M. WILLEMIN, MGR. TECHNICAL SUPPORT TEAM (D2-T18) (ext. 1624)
Andy Gomez, Inside Sales (ext. 1618)
Mike Hennessey, Inside Sales (ext. 1660)
Pam Pasko, Inside Sales Coordinator (ext. 1694) Technical Support Team (TST)
Bill Condon, Sales Project Manager (ext. 1643)
Scott Scholz, Sales Project Manager (ext. 1607)
Joe Allen, Sales Project Manager (ext.1639)
Matthew Zierold, Engineering Support (ext. 1671)
Patricia Rigg, Customer Coordinator (ext. 1169)
Donna Major, Sopa/Bid Desk – 610-994-9406
Kim Murray, Customer Coordinator. (ext. 1610)

To search: Click on “Edit” in tool bar and then “Find”.

SERVICE
Frank Rhea, VP Service & Contracting (ext. 1680)
William Dial, Sustainability Services Manager (ext. 1622)
John McDermott, Area Service Manager (ext. 1616)
Bob Stralis, Area Service Manager (ext. 1696)
Scott Drain, Technical Advisor (ext. 1171)
Sara McDowell, Customer Care Coordinator. (ext. 1662)
Diana Corabi, Client Service Rep. (ext. 1633)
Tara Leri, Client Service Rep. (ext. 1629)
Jessica Norris, Client Service Rep. (ext. 1645)
Gina Gould, Client Service Rep. (ext. 1675)
Bob Carr, Director of Services (ext. 1606)
Marcy Guerra, Service Area Supervisor. (ext. 1674)
Eve Fay, Business Service Supervisor. (ext. 1621)
Bill Boady, Service Estimator (ext. 1657)
Becki Cheri, SRC (ext. 1674)
Lee Mattern, SRC (ext. 1668)
TJ Szerlik, SRC (ext. 1666)
Crystal Iannozzi, SRC (ext. 1901)
Diana Comber, Service Business Administrator (ext. 1621)
Helene Laurusevage, Environmental Health & Safety Officer (ext. 1691)
Valentine Soribe, Energy Project Manager (ext. 1617)
BAS/CONTROLS
Steve Earnest, BAS Team Lead (ext. 1642)
Stephen Gursky, BAS Technical Specialist (ext. 1162)
Dave Miller, Project Manager (ext. 1612)
Michael Engle, Project Manager (ext. 1607)
Steve Gaspar, Project Manager (ext. 1673)
Will Trinks, BAS Design Engineer (ext. 1721)
Genesee Roseman, BAS Admin (ext. 1630)
Terry Goldman, BAS Admin (ext. 1682)

PARTS CENTER

Tozour Trane
(610) 962-1601
FAX: (610) 992-9579
480 Drew Court
King of Prussia, Pennsylvania 19406

(856) 380-1602
2 Executive Drive – Suite 5
Moorestown, New Jersey 08057

(609) 568-2999
900 West Adams Avenue
Suite 202
Pleasantville, NJ 08232

To search: Click on “Edit” in tool bar and then “Find”.

PORTLAND DISTRICT **Last updated January 1, 2013**

PORTLAND, OR (Y2)
PORTLAND DISTRICT
(See also Parts Center listed below)
(503) 620-8031
(503) 620-8031 – After Hours
FAX: (503) 639-1454
Mailing Address:
P.O. Box 23579
Tigard, Oregon 97281
Office Location:
7257 SW Kable Lane – STE 300
Portland, Oregon 97224
ROBERT G. DAVIS, DISTRICT MGR. (Y2-D00)
TAMMY NELSON, CFO/GENERAL OPERATIONS MGR.
STAN MCINTYRE, GENERAL SALES MGR.
NSS
Dave Havelick, A.E. (Y2-D20)
Greg Korkowski, A.E. (Y2-D15)
Matt O’Banion, A.E. (Y2-D70)
Steve Welch, A.E. (Y2-D44)
Daniel Driver, A.E. (Y2-D72)
David Strasser, A.E. (Y2-D77)
Pete Kramer, Energy Services Leader
Matt Travis, BAS Sales Eng.
Giorgina Castillo, Energy Analyst
Cindy Bjorge, Proj. Coord.
Lin Hollowell, Proj. Coord.
Pam Varney, Proj. Coord.
Wanda Slavik, New Job Coord.
NATIONAL ACCOUNTS
Anton Mogilevsky, Mgr. N.A.E. & N.A.J.C. (Y2-D24)
EXISTING BUILDING
TAMMY NELSON, SERVICE OPERATIONS MGR.
DAVE VOLONTE, EBS TEAM LEADER
Bret Davis, Serv. Acct. Mgr.
Matt Foertsch, Serv. Acct. Mgr.
Dave Volonte, Serv. Acct. Mgr.
Andy Teachman, Serv. Acct. Mgr.
Tom Baxter, Serv. Acct. Mgr.
BAS
John Vanderford, BAS Sales Leader
Sam Martindale, BAS Operations Team Leader
Mark Yarbrough, Energy/Intelligent Services Project Manager
Victor Wagner, Proj. Eng.
Joel Munson, Proj.Eng.
Amanda Ziemann-Crabtree, Proj. Coordinator
CONTRACTING SOLUTIONS
Stan McIntyre, A.E. (D-13)
FINANCE & ADMINISTRATION
TAMMY NELSON, CFO
Tyler Martin, Controller
Jamie Alongi, IT Administrator
MARKETING & TRAINING
Kacie Jederberg, Mktg. & Training Coord.

PARTS CENTER

Trane Oregon HVAC Parts & Supply
(503) 431-2500
FAX: (503) 639-1454
7257 SW Kable Lane #100
Portland, Oregon 97224
Jene’ VanBaest, Parts Team Leader

To search: Click on “Edit” in tool bar and then “Find”.

QUEBEC DISTRICT **Last updated January 1, 2013**

MONTREAL, QUEBEC (CF)
QUEBEC DISTRICT
(See also Quebec City and Parts Centers listed below)
(514) 337-3321
(514) 337-3321 – After Hours
FAX: (514) 337-3880
3535 Pitfield Blvd.
Saint-Laurent, P.Q. H4S 1H3
PETER HOEMBERG, DISTRICT MGR.
RAYMOND GAGNON, AREA MANAGER (ext. 203)
FI-NEW YOUNG-KEN-SIVE, FINANCIAL MGR. (ext. 323)
LENITA BARREIRA, H.R. MGR. (ext. 202)
Jean-Guy Audet, LAN Admin. (ext. 205)
INDIRECT SALES
PERRY ATTORRE, SALES MGR. (CF-D46) (ext. 321)
Rafael Courtemanche (ext. 238)
Glenn Jones (CF-D44) (ext. 211)
Jean-Philippe Zyromski (CF-D50) (ext. 214)
Steeve Messier (CF-D38) (ext. 264)
Patrick Trudel (CF-D49) (ext. 251)
Olivier Gagnon (CF-D61) (ext. 248)
ECONERGETICS
Thierry Salem (ext. 279)
Angelo Lazaris (ext. 210)
Simon Caine (ext. 243)
BAS
Controls
DIRECT SALES
Daniel Therrien (CF-D34) (ext. 282)
Mihaela Tritean (CF-D54) (ext. 208)
Catherine Brassard (CF-D22) (ext. 231)
Jonathan Lussier (CF-D65) (ext. 262)

Marc Brizard, Team Leader Engineering and Technical Solutions (CF-D23) (ext. 287)

PARTS
LOUIS-PHILIPPE BLOUIN, DISTRICT PARTS SOLUTIONS MGR. (ext. 278)

QUEBEC CITY, QUEBEC (CE)
QUEBEC DISTRICT
(418) 622-5300
(418) 622-4132 – After Hours
FAX: (418) 622-0987
850, Pierre Bertrand Blvd., local 310
Québec, QC G1M 3K8
PETER HOEMBERG, DISTRICT MGR.
RAYMOND GAGNON, AREA MANAGER (ext. 203)
FI-NEW YOUNG-KEN-SIVE, FINANCIAL MGR.
LENITA BARREIRA, H.R. MGR. (ext. 202)
Jean-Guy Audet, LAN Admin. (ext. 205)
LOUIS-PHILIPPE BLOUIN, DISTRICT PARTS SOLUTIONS MGR. (ext. 231)
Alain Chouinard (CE-R07) (ext. 225)
David Gauvin (CE-R38) (ext. 233)
STEVE ROY, AREA MGR. (CE-R37) (ext. 229)
Martin Préfontaine (CE-R39) (ext. 248)

To search: Click on "Edit" in tool bar and then "Find".

PARTS CENTERS

MONTREAL, QUEBEC
(See also Laval, Longueuil and Quebec City)
(514) 337-3321
(514) 337-3321 – After Hours
FAX: (514) 337-6103
3535 Pitfield Blvd.
Saint-Laurent, P.Q. H4S 1H3
LOUIS-PHILIPPE BLOUIN, DISTRICT PARTS SOLUTIONS MGR. (ext. 231)

QUEBEC CITY, QUEBEC
(See also Laval, Longueuil and Montreal)
(418) 622-5300
(418) 622-4132 – After Hours
FAX: (418) 622-0987
850, Pierre Bertrand Blvd, local 310
Québec, QC. G1M 3K8
LOUIS-PHILIPPE BLOUIN, DISTRICT PARTS SOLUTIONS MGR. (ext. 231)
SYLVAIN AREL, STORE MGR. (ext. 228)
Steve Gravel, Inside Sales Rep. (ext.235)
François Villeneuve, Inside Sales Rep. (ext. 240)
Alexandre Damiens, Inside Sales Rep. (ext. 222)
Philippe Girard, Outside Sales Rep.

LAVAL, QUEBEC
(See also Montreal, Longueuil and Quebec City)
(450) 667-0179
(450) 667-0179 – After Hours
FAX: (450) 667-7108
3424 Francis Hughes
Laval, P.Q. H7L 5A8
LOUIS-PHILIPPE BLOUIN, DISTRICT PARTS SOLUTIONS MGR. (ext. 231)
ROCH LAVOIE, STORE MGR. (ext. 227)
Marco Raffaele, Outside Sales Rep. (ext. 228)
Olivier Gagnon, LCU Specialist (ext. 226)
Nathaniel Bell, Inside Sales Rep. (ext. 246)
Pierre Bray, Inside Sales Rep. (ext. 245)
Dany Gaudette, Inside Sales Rep. (ext.241)
Richard Saucier, Inside Sales Rep. (ext.223)

LONGUEUIL, QUEBEC
(See also Montreal, Laval and Quebec)
(450) 670-0353
FAX: (450) 670-1243
677, rue Giffard
Longueuil QC J4G 1Y3
LOUIS-PHILIPPE BLOUIN, DISTRICT PARTS SOLUTIONS MGR. (ext. 231)
FRANÇOIS BÉLISLE, STORE MGR.
Patrick McManus, Outside Sales Rep.

To search: Click on “Edit” in tool bar and then “Find”.

ROCKY MOUNTAIN DISTRICT **Last updated January 1, 2013**

DENVER, CO (V5)
ROCKY MOUNTAIN DISTRICT
(See also Colorado Springs, Fort Collins, Grand Junction, Boise, ID and Salt Lake City, UT area offices and Parts Centers listed below)
(303) 228-3300
(303) 426-3195 – After Hours
FAX: (303) 228-2828
445 Bryant St., Unit 5
Denver, Colorado 80204

STACEY HIEB, DISTRICT GENERAL MGR. (V5-S00, V6-S00, V4-U01) (ext. 2817)
David Golden, HR Leader (ext. 2824)
Diane Dale, Training Coordinator (ext. 3229)
Geoffrey MacDonald, Marketing Manager
Michael Yang, District Finance Leader

EQUIPMENT FULFILLMENT
Brady Woolley, Equip Solutions Mgr. (ext. 3228)
Brandy McNeill (ext. 3232)
Sara Colvin, P.M. (ext. 2877)
Gayle Beauchamp, P.M. (ext. 2829)
Josh Furman, Application Engineer (ext. 2846)
Ryan Robbins, Application Specialist

Sheri Oline, Project Administrator (ext. 2849)
JIM OETKEN, PARTS GENERAL MGR. (ext. 2835)
EXISTING BUILDING SALES
SCOTT LAGANA, DIRECT SALES LEADER (V5-S67) (ext. 2843)
Dan Torres, Direct Sales Account Manager (ext. 2807)
David Huber, Direct Sales Account Manager (ext. 2876)
Jed Mallard, Direct Sales Account Manager (ext. 2880)
Gus Lester, Direct Sales Account Manager (ext. 2870)
Rich Zydzik, Inside Account Manager (ext. 2857)
NEW EQUIPMENT SALES
Amanda Gabbert, Application Engineer (ext. 2897)
TIMOTHY JONES, SALES MGR./ORDER ACQUISITION (V5-S64) (ext. 2866) (303) 901-2684
Cheryl Sykes, Contractor Connection (ext. 2827) (303) 358-1122
Dean Beech, BAS/Controls Account Manager (V5-S90) (ext. 2801) (303) 548-0875
Evan Eitemiller**,** Product Manager – Represented Products (ext. 3221) (720) 434-7223
Gavin Chapman, Account Manager (V5-S77) (ext. 2810) (303) 548-9729
Gerry Boarman, Account Executive (V5-S02) (ext. 2830) (303) 877-3578
Jake James Account Manager (V5-S76) (ext. 2884) (303) 358-6164
Mark Redman, Account Executive (V5-S04) (ext. 2842) (303) 594-3020
Matt Diehl, Account Executive (V5-S08) (ext. 2832) (303) 589-3372
Michael Schwenk, Sales Engineer (ext. 2891) (303) 594-7546
Mike Levison, BAS/Controls Account Manager (V5-S84) (ext. 2814) (303) 915-1759
Sid Simkowski Account Manager (V5-S82) (ext. 2841) (303) 803-8754
Tony Fischels Sales Engineer (V5-T07) (ext. 3239) (303) 653-6728 moved to National Accounts
Tony Lanphier BAS/Controls Account Manager (ext. 2815) (303) 889-9237
Troy Rippe Account Manager (V5-S85) (ext. 2855) (970) 412-9558
CHARLES BENNETT, BUSINESS DEVELOPMENT LEADER (V5-S87) (ext. 2816)
STRATEGIC SALES
Eric Koehler, Strategic Sales Leader (ext. 2886)
Chris Berry, Sustainability Solutions Business Development Manager (ext. 3229)
Kim Ketchum, Comprehensive Solutions Account Executive
Jake Sloan, Serv. A.E. (V5-S86) (ext. 2883)
Jed Mallard (ext. 2880)
Zed Brooks, Project Manager-Turnkey (ext. 2853)
NATIONAL ACCOUNTS
Justin Barnes, N.A.E. & N.A.J.C. (V5-S28) (ext. 2896)
Paul Minock, N.A.P.M. (ext. 2838)
Tony Fischels (ext.3239) (303) 209-3239

To search: Click on “Edit” in tool bar and then “Find”.

SERVICE
MIKE LIMKE, RENTAL SERVICES LEADER (ext. 2854)
FLOYD BRUNS, AREA SERVICE MGR. (ext. 2865)
Brooke Cornish, Resource Coordinator
Eric Tenerove, HVAC Field Supervisor (ext. 2858)
Erin Bratton
Ken Gonzales, HVAC Field Supervisor (ext.
Kenda Schwartz
Lindsey Schumer (ext. 2856)
Morgan Flenthrope (ext. 2805)
Shirlee O’Hearn, Business Process Manager for Service for the District (ext. 2864)
CONTRACTING
DEREK MCPHERREN, BAS MGR. (ext. 2833)
Dan Marshall, P.M. (ext. 2847)
Brian Strandjord, P.E. (ext. 3242)
Brian Lee (ext. 3258)
Cathie Brailey, Contracting Project Administrator (ext. 2861)
Chris Hantke, Engr. Supv. (ext. 2860)
Dave Slowey, BAS Controls Estimator (ext. 2845)
Matt Jones, Project Engineer (ext. 2859)
Megan Campbell (ext. 2848)

BOISE, ID (U2)
ROCKY MOUNTAIN DISTRICT
(208) 362-0916 Sales & Service
FAX: (208) 362-7463
351 N. Mitchell, Suite 100
Boise, Idaho 83704
Gordon Shields, Account Manager (ext. 2102)
Kurt Wynn, Area Service Manager (ext. 2107)
EXISTING BUILDING SALES
Jim Miller, Direct Sales Account Manager (ext. 2108)

COLORADO SPRINGS, CO (V6)
ROCKY MOUNTAIN DISTRICT
(719) 599-3900
(719) 599-3900 – After Hours
FAX: (719) 268-0200
4242 N. Nevada Ave.
Colorado Springs, Colorado 80907
Kathy Bullock, P.M. (ext. 7906)
Jeff Gaither, Account Manager (V6-S14) (ext. 7903) (719) 641-0967
Steve Schedlbauer, Account Executive (V6-S02) (ext. 7908) (719) 337-8898
Steve Black, Account Manager-Controls (ext. 7905)
EXISTING BUILDING SALES
Joel Copley, Direct Sales Account Manager (V6-S12) (ext. 7902)
John Harrington, Direct Sales Account Manager (V6-S08) (ext. 7904)
David Headings, Direct Sales Account Manager (ext. 7926) moved to Denver office
Josh Willms
Judy Roe, Inside Sales (ext. 7912)

FORT COLLINS, CO (V7)
ROCKY MOUNTAIN DISTRICT
(970) 490-1052
(970) 221-8040 – After Hours
FAX: (970) 490-1191
2416 Donella Court, Unit D
Fort Collins, Colorado 80524

To search: Click on “Edit” in tool bar and then “Find”.

EXISTING BUILDING SALES
Robert Burns, Proj Admin-Service
CRAIG COOPER, AREA SERVICE MANAGER
Susan Christian, Service (ext. 7246)
Matt Horner, Direct Sales Account Manager (ext. 7265)

Tony Lanphier BAS/Controls Account Manager (ext. 2815) (303) 889-9237
Troy Rippe Account Manager (V5-S85) (ext. 2855) (970) 412-9558

GRAND JUNCTION, CO (V9)
ROCKY MOUNTAIN DISTRICT
(970) 242-4361
FAX: (970) 242-4566
2387 River Road, Unit 110
Grand Junction, Colorado 81505
Dean Beech, BAS/Controls Account Manager (V5-S90) (ext. 2801) (303) 548-0875 (located in Denver)
Keith Clark, Area Service Mgr. (ext. 3945)
EXISTING BUILDING SALES
Mark Redman, Account Executive (V5-S04) (ext. 2842) (303) 594-3020 (located in Denver)
Ron Hall, Direct Sales Account Manager (V5-S78) (ext. 3941)
Wes Greenwalt, Contracting P.M. (ext. 3953)

SALT LAKE CITY, UT (V4)
ROCKY MOUNTAIN DISTRICT
(801) 486-0500 – Sales & Service
(801) 486-0500 – After Hours
(801) 486-8808 – Parts
FAX: (801) 486-0752
2817 South 1030 West
Salt Lake City, Utah 84119
MIKE ANDERSON, SALES MGR./ORDER ACQUISITION (V4-U03) (ext. 2021)
Belinda Marek, PA (ext. 2033)
Brian Connolly, BAS S.E. (ext. 2029)
Dan Goulding NES (V4-U41) (ext. 2027)
Eric Thatcher, Comprehensive Solutions Account Executive
Naji Khoury, NES (V4-U04) (ext. 2028)
David Hall, Area Service Manager (ext.
Kris Henline, Service (ext.

EXISTING BUILDING SALES
SCOTT LAGANA, DIRECT SALES LEADER (V5-S67) (ext. 2843) (located in Denver)
Gary Morgan, Direct Sales Account Manager (V4-U21) (ext. 2018)
Heather Hawkins, PM (ext. 2035)
Jeff Kay, Direct Sales Account Manager (ext. 2048)
Ashli Bessey, Inside Sales (ext. 2047)

Julie Scovil, Contractor Connection (ext. 2036)
Jason Bradford, Account Manager Indirect (ext. 2046)
BAS
Scott McDonald, Engr./Tech. (V4-U08) (ext. 2061)
Jeff Anderson, Controls Tech.
Jeremy Kerr, PM. (ext. 2031)
Dustin Juback (ext. 2062)

PARTS CENTERS:

COLORADO SPRINGS, CO
Rocky Mountain Trane Parts Center
(719) 266-8800
FAX: (719) 266-8866
4242 N. Nevada Ave.
Colorado Springs, Colorado 80907
Dennis Joy, Parts Store Mgr. (ext. 7919)
Steve Blanchard
Lindsey Metas

To search: Click on “Edit” in tool bar and then “Find”.

DENVER, CO
Rocky Mountain Trane Parts Center
(303) 228-3310
FAX: (303) 228-2898
445 Bryant St., Unit 5
Denver, Colorado 80204
Chevonne Aldapa, Inside Parts Sales
Chuck Weeks, OTC Sales (ext. 2844)
Dale Hurd, Parts Store Manager (ext. 3231)
Dan Urioste, Outside Sales (ext. 2889)
Jerry Mosher, Warehouse (ext. 7254)
Jim Vashon, OTC Sales (2887)
Lisa Farrell, Inside Parts Sales
Rick Lontin, OTC Sales (ext. 2869)
Robert Bell, Outside Sales (ext. 2802)

FORT COLLINS, CO
Rocky Mountain Trane Parts Center
(970) 484.4139
FAX: (970) 490-1195
2416 Donella Court, Unit D
Fort Collins, Colorado 80524
Severin Lee

GRAND JUNCTION, CO
Rocky Mountain Trane Parts Center
(970) 242-4438
Fax: (970) 248-3959
2387 River Road, Unit 110
Grand Junction, Colorado 81505
Russ Herre, Parts Store Mgr. (ext. 3948)
Sara Hollingsworth, OTC Sales (ext. 3949)

BAS
Amy Fry, Project Administrator

SALT LAKE CITY, UT
Salt Lake City Trane Parts Center
(801) 972-3352
FAX: (801) 972-3353
2817 South 1030 West
Salt Lake City, Utah 84119
David Bills, Parts Store Mgr. (ext. 2044)
Robert Underwood, Warehouse (ext. 2224)

BOISE, ID
Boise Trane Parts Center
(208) 362.0916
FAX: (208) 362-7463
351 N. Mitchell, Suite 100
Boise, Idaho 83704
Earl Pfieffer, OTC Sales (ext. 2113)

To search: Click on "Edit" in tool bar and then "Find".

SACRAMENTO DISTRICT	Last updated January 1, 2013

SACRAMENTO, CA (X2)
SACRAMENTO SUB-OFFICE TO CALIFORNIA DISTRICT
(See also Fresno and Reno area offices and Parts Centers)
(916) 577-1100
(916) 577-1100 – After Hours
FAX: (916) 577-1175
4145 Del Mar Road
Rocklin, California 95677
DALE WHITE, AREA MGR. (X2-C00)
Peter Hugenroth, Healthcare Business Development Leader (X2-C67)
Tim Sisson, Education Business Development Leader (X2-C53)
John Burdette, Business Development Leader (X2-D24)
Tom Hall, Indirect Sales (X2-D21)
Todd Brooks, Indirect Sales (X2-D16)
Keit Tan, Indirect Sales (X2-D23)
Cathy Simi, Indirect Sales (X2-D17)
Nick Hinz, Direct Sales (X2-D18)
Bill Watson, Direct Sales (X2-D19)
Keith Smith, Direct Sales (X2-D40)
Richard Swank, Turnkey Sales (X2-D45)
John Connerton, Controls Sales (X2-D46)
Louise Rasmussen, Human Resources Business Partner
BAS/CONTRACTING
JOHN REINER, OPERATIONS MANAGER
Eric Svensson, Proj. Eng.
Garrett Schlegel, Proj. Mgr.
Jeffrey Lemke, Proj. Mgr.
Eileen North, Contracting PA
Cora de Jesus, Contracting PA
SERVICE
JOHN REINER, OPERATIONS MANAGER
CHAD CASTEEL, AREA SERVICE MANAGER
Lincoln Scafe, Service Estimator
Tiffany Vincent, Service Coordinator
Rebecca Riggs, Service Coordinator
Connie Iacono, Service PA
Debbie Zofcin, Service PA
Kari Corbett, Service PA
PARTS
WAYNE ARENDT, DISTRICT PARTS LEADER

FRESNO, CA (X3)
SACRAMENTO SUB-OFFICE TO CALIFORNIA DISTRICT
(559) 271-4625
(559) 271-4625 – After Hours
FAX: (559) 271-4630
5599 N. Golden State Blvd.
Fresno, California 93722
MATT HALSEY, SALES TEAM LEADER (X3-B04)
Jason Moskowitz, Direct Sales (X3-B22)
Chan Kim, Direct Sales (X2-D41)
Russ DeJohn, Applications Specialist & LAN Admin.
BAS/CONTRACTING
PARTS
DON MILLER, PARTS STORE TEAM LEADER

To search: Click on “Edit” in tool bar and then “Find”.

RENO, NV (C8)
SACRAMENTO SUB-OFFICE TO CALIFORNIA DISTRICT
(775) 856-3343
FAX: (775) 856-1704
5595 Equity Avenue, Suite 100
Reno, Nevada 89502

BAS/CONTRACTING

PARTS CENTERS:

FRESNO, CA
Trane Parts Center #3
(559) 271-4625
FAX: (559) 271-4632
5599 N. Golden State Blvd.
Fresno, California 93722
DON MILLER, PARTS STORE TEAM LEADER

SACRAMENTO, CA
Trane Parts Center #1
(916) 577-1100
Parts # 1-866-543-5929
FAX: (916) 577-1185
4145 Del Mar Road
Rocklin, California 95677
BILL ALLISON, PARTS STORE TEAM LEADER

SOUTH SACRAMENTO, CA
Trane Parts Center #2
(916) 577-1180
(866) 543-5929
Fax: (916) 388-0163
5440 Florin Perkins Road
Sacramento, California 95826
TAMMY DUNLOP, PARTS STORE TEAM LEADER

To search: Click on "Edit" in tool bar and then "Find".

SAN FRANCISCO DISTRICT **Last updated January 1, 2013**

SAN FRANCISCO, CA (TSO) (X1)
SAN FRANCISCO DISTRICT
(See also Oakland and Santa Rosa area offices and Parts Center listed below)
(408) 481-3600
(408) 481-3700 – Service & After Hours
FAX: (408) 481-3666
310 Soquel Way
Sunnyvale, California 94085-4101
DONALD S. DRUYANOFF, DISTRICT MGR. (X1-D00) (ext. 3616)
BOB JEFFRYES, GEN. MGR. (ext. 3614)
DAN HALL, GEN. SALES MGR. & (X1-E14) (ext. 3619)
DAVE SCHULTHEIS, ASSIST. SALES MGR. (X1-D48) (ext. 3690)
James Poole, Applied Mktg. Mgr. /Global Accounts, N.A.E. (X1-D07) (ext. 3628)
Gary Rich, Unitary Mktg. Mgr. & N.A.E. (X1-E14) (ext. 3620)
Dan Neitz (X1-E01) (ext. 3673)
Charles Ivins (X1-D74) (ext. 3629)
Steve Johnson, A.E., N.A.E. (X1-D74) (ext. 3624)
Drew Osborn, N.A.E. (X1-E14) (ext. 3734)
Rob Battiston (X1-03) (ext.3639)
Adrian Giovenco (X1-E02) (ext. 3659)
Steve Toney, N.A.E. (X1-D74) (ext. 3657)
Matt Walker (X1-D74) (ext. 3626)
Walter Ying, A.E. (X1-D74) (ext. 3627)
Kathi Croffoot, S.A. Proj. Mgr. (ext. 3618)
Jason Lykam, S.A. (ext. 3677)
Jeff Haitt, S.A. (ext. 3677
Jason Ivy, Proj. Mgr. (ext. 3643)
Becky Hollenshead, S.A. (ext. 3609)
Luana Medar, S.A. (ext. 3636
Treva Estrada, S.A. /Bid Coord. (ext. 3774)
Michelle Fessel, Inside S.E. (ext. 3758)
Frank Ruzich, Inside S.E. (ext. 3622)
John Wagner, Inside S.E. (ext.3652)
Luis Densing, Inside S.E. (ext. 3635)
Danielle Kirchner, S.A. (ext. 3634)
Tara Rodgers, S.A. (ext. 3653)
Susan Youngblood, S.A. (ext. 3640)
Nicole Croffoot, S.A. (ext. 3673
MICHAEL J, WOOD, CFO (ext. 3710)
Edgar Yao, Controller (ext. 3711)
Jeff O'Connell, Credit Mgr. (ext. 3728)
Jean Regala, Human Resource Mgr. (ext. 3714)
Steve Southard, LAN Admin. (ext. 3722)
Sen Kironde, LAN Admin. (ext. 3632)
Carroll Portier, Office Admin. (ext. 3661)
EXISTING BUILDING SALES
MIKE LABARGE, GEN. SERV. MGR. (ext. 3751)
DON THOMAS, EBS SALES MGR. (ext. 3747)
DAVID GAUS, SERV. FULFILLMENT, OPER. MGR. (ext. 3744)
Janice Avery, EBS Sales (ext. 3630)
Jay Blatchford, EBS Sales (ext. 3696)
Gus Meyner, EBS Sales (ext. 3746)
Rene Reyes, EBS Sales (ext. 3695)
Dave Werolin, EBS Sales (ext. 3669)
Brett Wright, EBS Sales (ext. 3755
Kathy Holm, EBS Inside Sales, Service (ext. 3738)
Alicia Garduno, EBS Inside Sales, Service (ext. 3736
Jeff LaBarge, EBS Inside Sales, Controls (ext. 3650)
CONTRACTING/BAS
GREG CLEMENTE, Contracting Solutions Mgr - Data Center Market (ext. 3649)
MICHAEL BUONSERIO, Contracting Solutions Mgr. -Local Market (ext. 3707)
AMY CHAN, Engineering Mgr. (ext. 3646).
Ernest Ramirez, Sr. BAS Project Mgr. (ext. 3730)

To search: Click on "Edit" in tool bar and then "Find".

John Jordan, Oper. Coord. (ext. 3644)
Rick Romero, Sr. Proj. Mgr. (ext. 3648)
Dino Dattolico, CAD Operator (ext. 3660)
Rajendra Shah, Sr. Proj. Eng. (ext. 3637)
Charles Feng, Sr. Proj. Mgr. (ext. 3621)
Mark Diven, BAS Estimator, (ext. 3694)
Robert Gilliam, Proj. Mgr. (ext. 3784)
Howard Nakamura, Proj. Mgr. (ext. 3680)
Bob Mierz, Sr. Proj. Mgr. (ext. 3633)
Sean Osborn, Sr. Proj. Mgr.
Dmitriy, Yevtushenko, BAS Appl. Eng. (ext. 3688)
Randy Silva, Construction Project Specialist, (ext. 3651)
Tom Dreiling, Proj, Engr. (VM. 694)
Riley Robbins, BAS Appl. Eng. (ext. 3688)
Fernando Aguilar, Panel Shop Technician, (ext. 3642)
Bruce Sarubin, BAS A.E. (X1-D97) (ext. 3612)
Grant Paedon, BAS A.E. (X1-D98) (ext. 3623)
Frank Robutz, BAS Estimator (ext. (3617)
Mike Cleary, BAS S. E. (ext. 3706)
Andrew Scherbauer, BAS S.E. (ext. 3662)
Russ Eckstrom, Lead Project Administrator (ext. 3735)
Jamie Campbell, Projector Administrator (ext. 3749)
Irina Gilliam, Project Administrator (ext. 3687)
Monica Cook, Contract Project Administrator (ext. 3647)
Linda Gerritse, BAS S.A. (ext. 3786)
Julina Sinyard, BAS S.A. (ext. 3671)
Marketing & Training
Fawn Davis, Marketing & Training Director (ext. 3655)
Dealer Marketing Division, Benicia Office
Teresa Craft, Development & Marketing Mgr. (707-746-4876)
Dealer Training & HVAC Voc Institute, INC.
Larry Andreson
DEALER SALES
SPECIALTY A/C PRODUCTS, INC.
5250 East 2nd Street
Benicia, California 94510
(707) 746-4949
LARRY ANDRESON, RESIDENTIAL MARKETING & DISTRIBUTION MGR.
STUART IVERSON, OPER. MGR.
Mark Waters, FSR
Dan Forney, Residential Sales Manager (X1-B14)
Ed Saincome (X1-B30)
Tim Ireland (X1-B70)
Dave Mavity (X1-C09)
301 Soquel Way
Sunnyvale, California 94085
408-481-3600

OAKLAND, CA (X6)
SAN FRANCISCO DISTRICT
(510) 433-8940
FAX: (510) 433-8954
383 4th Street, Suite 202
Oakland, California 94607
TODD ELMGREN, AREA MGR. & N.A.E (X6-O12)
Nick Huetter (X6-O14) (ext. 943)
Kim Tan (X6-O11) (ext. 944)
Kurt Wessels (X6-O16) (ext. 953)
Oakland Team (X6-O08)
Candace Alcantara, Proj. Mgr. (ext. 955)
Corey Lindsey, Admin. Assistant (ext. 8940)
Steve Southard, LAN Admin.
Sen Kironde, LAN Admin.

To search: Click on "Edit" in tool bar and then "Find".

SANTA ROSA, CA (X8)
SAN FRANCISCO DISTRICT
(707) 542-4213 or 4214
FAX: (707) 542-9206
987 Airway Court, #18
Santa Rosa, California 95403
THOMAS W. KARBOWSKI, SO MGR. (X8-R04)
Lois Karbowski, S.A.

PARTS CENTER

SAN JOSE, CA
FIX AIR
(408) 437-0390
FAX: (408) 437-9163
890 Service Street, Unit A
San Jose, California 95112
DICK MUETZE, PARTS MGR.

BENICIA, CA
SPECIALTY HVAC PARTS
(800) 404-0247
FAX: (707) 746-6781
5250 E. 2^{nd} Street
Benicia, California 94510
KEN WIBLE, PARTS MGR.

To search: Click on “Edit” in tool bar and then “Find”.

SASKATCHEWAN DISTRICT	**Last updated January 1, 2013**

REGINA, SASKATCHEWAN (CP)
REGINA DISTRICT
(See also area office Saskatoon listed below)
(306) 525-0745
FAX: (306) 525-0746
109 Hodsman Road
Regina, Saskatchewan S4N 5W5
CRAIG NELSON, DISTRICT MGR. & N.A.J.C. (CP-N01)
Glen Smith, LAN Admin.

SASKATOON, SASKATCHEWAN (CW)
REGINA DISTRICT
(306) 652-5022
FAX: (306) 244-1106
Bay #4 – 301 Pakwa Place
Saskatoon, Saskatchewan S7L 6A3
CRAIG NELSON, DISTRICT MGR. (CW-N01) (Contact in Regina Office)
Debbie Haanen, Oper. Mgr.
Ward Payton (CW-N05)

To search: Click on “Edit” in tool bar and then “Find”.

SHREVEPORT DISTRICT	**Last updated January 1, 2013**

SHREVEPORT, LA (K7)
SHREVEPORT DISTRICT
(See also Parts Centers listed below)
(318) 865-1466
FAX: (318) 861-8481
P.O. Box 6761 (zip 71136)
504 W. 67th Street
Shreveport, Louisiana 71106

HUBERT E. STORER, DISTRICT MGR. (K7-D00), (ext. 478)
CRAIG STORER, GEN. MGR. (K7-D17), (ext. 453)
Josh Trahan, Controller, (ext. 448)
Karen McDonald, Human Resource Manager, (ext. 450)
Kelly Roberts, Business Development & Mtkg, (ext. 497)
Debbie Fitzpatrick, Training, Development & Benefits Coord, (ext. 475)
Rod Anthony, Sales Leader (K7-D23), (ext. 464)
Melissa Goldman, S.A. (K7-D27), (ext. 480)
Paul King, Admin, S.A. Inside Sales Leader, (ext. 452)
Gary Patrick, Admin, S.A., (ext. 466)
Johnny DeLoach, Admin, S.A. (K7-D26), (ext. 495)
Jeannie McCall, Admin, S.A., (ext. 479)
Eddie Conrad, IT & LAN Admin., (ext. 444)
EXISTING BUILDING SALES
Al Cannon, Parts and Service Business Manager, (ext. 482)
Mark Stevens, Storer Building Services Operations Manager, (ext. 458)
Charlie Ford, Service Operations Manager, (ext. 454)
Mike Temple, EBS, (K7-D56)
Greg Coates, EBS, (ext. 489)
Deen Golihar, EBS, (K7-D65) (ext. 463)
Scott Fleming, EBS, (K7-D64) (ext. 465)
Jack Lann, EBS, (K7-D66) (ext. 440)
Gary Moore, EBS Estimator, (ext. 451)
BAS
Russ Hoppe, Manager, (ext. 487)
Roger Murray, Proj. Mgr., (ext. 462)
Aaron Storer, Sales Leader, (K7-D57) (ext. 473)
Keenan Jennings, Appl. Eng., (ext. 484)
Mike Shoemaker, Proj. Mgr.
Jason Crigger, Programmer, (ext. 306)
Keith Thompson, Proj. Mgr., (ext. 492)
Beverly Boyett, Contract Admin, (ext. 446)

PARTS CENTER:

Storer Parts Center
(318) 861-8442
FAX: (318) 861-8483
438 West 67th Street
Shreveport, Louisiana 71106
Al Cannon, Parts and Service Business Manager, (ext. 482)
Debbie Waggoner, (ext. 447)
David Allen, (ext. 443)
Michael Taylor, (ext. 455)
David Gott, (ext. 500)
Aaron Linn, (ext. 491)
Robert Ross, Parts Sales, (ext. 308)
Rachel Bass, Parts Sales, (ext. 308)
C. B. Redwine, Parts Sales, (ext. 308)
Andrew Tucker, (ext. 449)

To search: Click on “Edit” in tool bar and then “Find”.

SOUTHERN CALIFORNIA DISTRICT **Last updated January 1, 2013**

LOS ANGELES, CA (W2)
(See also San Diego area office and Parts Centers listed below)
(626) 913-7123 – Sales
(626) 913-7913 – Service & After Hours
FAX: (626) 913-7153 – Sales
FAX: (626) 913-7923 – Service
17760 Rowland Street
City of Industry, California 91748
TYLER K. CLEMMER, CA. DISTRICT MANAGER (W2-D01) (ext. 1188) (714) 493-6579
Louise Rasmussen, HR Strategic Business Partner (ext. 1129) (626) 890-0832
Tim Dorsey - Finance Manager California (ext. 1131) (626) 222-1996
Erik Stone, LAN Administrator (ext. 1139) (213) 321-9852
Katherine Drewes, Marketing Manager California (ext. 1168) (626) 498-5615
Sharon Estes, Receptionist (626) 435-1110
INDIRECT SALES AQUISITION
PATRICK BRONSON, INDIRECT SALES MANAGER (W2-E38) (ext. 1176) (949) 279-6200
Contracting Team 11
Allen E. Knopf, N.A.E., Rental Services Mgr. (W2-E27) (ext. 1147) (714) 269-9755
Mitch Hagen (W2-E26) (ext. 1161) (714) 319-1204
Jeff Swanson (W2-E34) (ext. 1143) (626) 945-6049
Contracting Team 12
Kevin Nolan, Team Leader (W2-E29) (ext. 1189) (818) 581-9561
Roger Rhoades, (W2-E76) (ext. 1183) (949) 315-5506
Jose Velazquez (W2-E30) (ext. 1196) (909) 675-9893
Engineering Team 13
Arthur Weber, Team Leader (W2-E36) (ext. 1141) (818) 416-1088
Dan Hill (W2-E37) (ext. 1120) (714) 376-1019
Engineering Team 14
Neil Alexander, Team Leader (W2-E65) (ext. 1112) (310) 614-4648
Omar Chamma (W2-E41) (ext. 1164) (626) 255-3170
Sunil Isaac (W2-E42) (ext. 1149) (626) 641-9394
Jason Okajima (ext. 1154 (559) 313-0380
Patrick Wilkinson (ext. 1169) (310) 990-0526
Vince Priolo (ext. 1187) (805) 550-4298
Alex Doyle (ext. 1407) (916) 759-0498)
Dean Perry (ext. 1160) (562) 315-3629
Helen Lieng (ext. 1410) (626) 407-1092
Kim Nguyen (1153)
Other Account Managers
Grant Brown (W2-E44) (ext. 1173) (310) 654-7218
Business Development Leader – Retail Market
Ed Rembecky (W2-D30) (ext. 1103) (909) 559-9629
Contractor Connection
John Sather (W2-E45) (ext. 1130) (626) 712-0730
Technical Inside Sales
John H. Hult, Applications Manager (W2-E46) (ext. 1191) (626) 945-0246
Oscar Penaloza, Application Specialist (ext. 1166)
Mitch Chuong, Application Specialist (ext. 1128)
Keito Hosokawa, Estimator, (ext.1163)
LCU – Inside Sales
Frank Lulli (W2-E61) (ext. 1181) (714) 348-9801
Admin. Equipment Fulfillment
Tara Potter, Equipment Solutions Manager (ext. 1124) (626) 705-0017
Cindy Taft, Project Manager (ext. 1102) (626) 705-0980
Maria G. Garcia, Project Manager (ext. 1115)
Kathy Neiheisel, Project Manager (ext. 1193)
Sandra Carte, Project Manager (ext. 1134)
Elizabeth James, Project Administrator (ext. 1180)
Tonya Richardson, Project Administrator (ext. 1106)
Debbie Guilfoyle, Project Administrator (ext. 1170)

Bid Coordinator
Gina Zelaya (ext. 1135)

To search: Click on “Edit” in tool bar and then “Find”.

Training
Tim Muckey, Training Manager (ext. 1177) (310) 702-9023
Becky Perrusquia, Training Coordinator (ext. 1133)
Environmental Health & Safety, EHS
Jerry Wolfe, Manager California, (ext. 1158) (909) 573-9168
Jim Ramos, Safety Coordinator (ext. 1107) (626) 255-2691
DIRECT SALES ACQUISITION
ADAM WITTWER, DIRECT SALES MANAGER, (W2-E23) (ext.1162) (626) 890-5294
Doug Walker (W2-E21) (ext. 1172) (949) 337-0684
Robert Huebner (W2-E22 (ext. 1192) (818) 253-5757
Lee Ostrander (W2-E15) (ext. 1165) (818) 253-5823
Jo Ann Shebby (W2-E18) (ext. 1114) (626) 945-5707
Kerry Frank (W2-E20) (ext. 1111) (818) 391-4656
Stefanie Goltiao (W2-E17) (ext. 1132) (626) 890-0860
Jack Ladwig (W2-E74) (ext. 1179) (310) 486-2587
Lindsey Clement-Salters (ext. 1116) (903) 235-8107
Peter Morris, (W2-E70) (ext. 1123) (949) 230-3169
Phil Armstrong, (W2-E73) (ext. 1122) (541) 221-9132
Somac Roy (W2-E62) (ext. 1137) (408) 203-4786
Shayan Shakiba (W2-E75) (ext. 1125) (865) 679-1150
Sean Nachtigall (W2-E69) (ext. 1101) (661) 619-6408
Dominik Musiol, Account Manager/Inside Sales (ext. 1127) (323) 580-2977
Brad Donnelly, Account Manager (W2-E60) (ext. 1119) (949) 412-5790
Butch Wiltshire, Estimator (ext. 1156) (818) 822-0729
Strategic Sales
Harvey Katzen (W2-E05) (858) 775-5484
CONTRACTING SALES ACQUISITION
JOHNNY BROWN, CONTRACTING SALES AREA MANAGER (EXT.1190) (949) 468-7307
GALE VAN NOSTERN, CONTROLS SALES LEADER CALIFORNIA, (W3-T33) (619) 572-2094
Andrew Lemanczyk, BASD Account Manager (W2-E71) (ext. 1148) (909) 578-2983
Justin Keough, BASD Account Manager (W2-E67) (ext. 1167) (818) 652-1566
Johnny Modica, BASD Estimator (ext. 1104) (619) 770-7346
Contracting
RUSSELL SVETIC, CONTRACTING SOLUTIONS MANAGER (ext. 1174) (310) 930-4023
David Fasig, Project Manager (ext. 1142) (818) 253-6932
Duane Hampton, Project Manager (ext. 1118) (626) 255-5468
Ronald Miller Project Manager – Turnkey (ext. 1403) (818) 674-9780
Chris Weems, Project Manager – Turnkey (ext. 1178) (626) 536-1068
Nhuan Nguyen, Project Engineer Team Leader (ext. 1195) (626) 255-5334
Long Nguyen, Project Engineer (ext. 1184) (626) 712-1426
Travis Sturges, Controls Technical Leader (ext. 1155) (818) 391-4653
Admin. Contracting
Lisa Redden, Project Manager (ext. 1121) (562) 234-8835
Colleen Bevans (ext. 1150)
La Verne Yadao (ext. 1182)
Service
JOHN LEHMAN, SERVICE SOLUTIONS MANAGER (ext. 1401) (626) 488-9260
Tony Russomanno, Honda National Acct. Mgr., (W2-D79) (ext. 1157) (818) 262-2436
Scott Koenen, Area Service Manager (ext. 1136) (818) 822-0573
Freddie Kobzoff, Area Service Manager (ext. 1100) (818) 391-4674
Joyce Bres Raisor, Project Administrator (ext. 1109) (626) 216-0369
Jeanine Rodriguez, Project Administrator (ext. 1117) (626) 320-5242
Bruce Harshfield, Project Administrator (ext. 1140) (626) 392-4604
Veronica Crestejo, Project Administrator (ext. 1194) (626) 736-8628
Terry Shanley, Service Coordinator (ext. 1113) (818) 253-5815
Mary Cowan, Service Coordinator (ext. 1175) (818) 822-1072
Heather Buchanan, Service Coordinator (ext. 1143) (626) 705-8737
Tony Browner, HVAC Field Technician Team Leader (ext. 1186) (818) 253-5824
Steve Hitt, HVAC Field Technician Team Leader, (ext. 1105) (818) 391-4671
Phil Jeffrey, HVAC Field Technician Team Leader, (ext. 1185) (818) 391-4672

SAN DIEGO, CA (W3)
SOUTHERN CALIFORNIA DISTRICT
(858) 576-2500
(858) 576-2555 – After Hours
FAX: (858) 576-2554

To search: Click on “Edit” in tool bar and then “Find”.

FAX: (858) 268-4202
3565 Corporate Court
San Diego, California 92123
TYLER CLEMMER, DISTRICT MANAGER
JENNIFER FELSBURG, AREA MANAGER, (ext. 2517) (916) 997-5243
Tim Dorsey - Finance Leader (626) 222-1996
Marylu Ramirez, Office Administration, (ext. 2513)
Louise Rasmussen, HR Strategic Business Partner, (626) 890-0832
Erik Stone, LAN Admin. (626) 435-1139
INDIRECT SALES ACQUISITION
DAVID T. TROYAN, ACCOUNT MGR. TEAM LEADER (W3-T41) (ext. 2532) (858) 619-247-6607
Rahn Beck, Indirect Acct. Mgr. (W3-T42) (ext. 2514) (619) 813-3663-
Clinton Losey, Indirect Acct. Mgr. (W3-T44) (ext. 2527) (619) 778-3574
Jeff Trattner, Indirect Acct. Mgr. (W3-T43) (ext. 2552) ((858) 204-2773
Andrea Pavlick, Indirect Acct. Manager (W3-T61) (ext. 2524) (858) 213-7417
Mike Techner, Indirect Acct. Manager (W3-T62) (ext. 2506) (619) 379-1731
Anita Young Dailey, Estimator/Bid Desk (ext. 2522)
DIRECT SALES ACQUISITION
Scott Haines, Direct Acct. Mgr. Team Leader (W3-T46) (ext. 2548) ((619) 247-2807
Ernie Ortiz, Direct Acct. Mgr. (W3-T48) (ext. 2536) (619) 247-2328
Steven Moore, Direct Acct. Mgr. (W3-T66) (ext. 2553) (858) 740-1182
Steve Webster, Direct Acct. Mgr. (W3-T60) (ext. 2526) (619) 843-4176
Brian Bloker, Direct Acct. Mgr. (W3-T65) (ext. 2561) (916) 997-0539
BASD ACCOUNT MANAGER
GALE VAN NOSTERN, CONTROLS SALES LEADER CALIFORNIA (W3-T33) (ext. 2509) (619) 572-2094
CS Project Developer (West Territory Leadership Team)
John Gabbard, Design and Engineering (619) 778-3836
LCU – INSIDE SALES
Sherman Kwan, Inside Sales Support, (ext. 2504) (858) 609-2504
EQUIPMENT
TARA POTTER, EQUIPMENT SOLUTIONS MANAGER (626) 705-0017
SERVICE
JOHN LEHMAN, SERV. SOLUTIONS MGR. (626) 488-9260
Tim Hill, Area Service Mgr. (858) 212-5288
Jessica Moore, Serv. Coordinator (ext. 2533) (858) 609-2533
Deb Pryor, Service Coordinator (ext. 2557) (858) 609-2557
Jesse Lopez, Service Estimator (ext. 2551) (858) 609-2551
Gloria Juarez, Project Administrator (ext. 2507) (858) 609-2507
CONTRACTING
RUSSELL SVETIC, CONTRACTING SOLUTIONS MANAGER (310) 930-4023
Paul Roeder, Project Manager (ext. 2534) (619) 778-4728
Bill Bischel, Project Engineer (ext. 2531) (619) 778-1173
Libby Williams, Project Administrator, (858) 609-2512

PARTS CENTERS

City of Industry
17760 Rowland Street
City of Industry, California 91748
(626) 913-7913
FAX: (626) 913-9673
David Green, Parts Store Manager (ext. 1004)
WAYNE ARENDT, SOUTHERN CALIFORNIA PARTS OPERATIONS MANAGER (ext. 1108)

Glendale
3631 San Fernando Road
Glendale, California 91204
(818) 662-5096
FAX: (818) 662-9068
JOHNNY URIAS, PARTS STORE LEADER (ext. 1301)

Tustin
1551 Red Hill Ave, Suite C
Tustin, California 92780
(714) 258-7403
FAX: (714) 258-7471

CECILIA PEREZ, PARTS STORE LEADER (ext. 5586)

Riverside

2222 Kansas Street, Ste. C
Riverside, California 92507
(951) 801-6020
FAX: (951) 248-0520
TY TARVIN, PARTS STORE LEADER (ext. 1603)

Long Beach

1930 E. Carson Street, Ste. 101
Long Beach, CA 90810
(310) 971-4555
FAX: (310) 971-4537
LUIS CHACON, PARTS STORE LEADER

San Diego

3565 Corporate Court
San Diego, California 92123
(858) 292-0833
FAX: (858) 292-8952
TONY PEREZ, PARTS STORE LEADER

To search: Click on “Edit” in tool bar and then “Find”.

SOUTHWEST TRANE DISTRICT **Last updated January 1, 2013**

SOUTHWEST TRANE DISTRICT

PHOENIX AREA: (CSO 113)
(480) 333-2870 – Safety
(602) 258-9600 – Sales
(602) 258-9595 – Service
(877) 507-4411 – Service
(602) 252-9100 – Parts
(602) 253-3801 – Sales Fax
(602) 258-5908 – Service Fax
(480) 333-2945 – Parts Fax

850 West Southern Avenue
Tempe, Arizona 85282

TUCSON AREA: (CSO 118)
(480) 333-2870 – Safety
(520) 748-1234 – Sales
(520) 748-1234 – Service
(520) 748-9594 – Parts
(520) 748-1492 – Sales Fax
(520) 748-1260 – Parts Fax

4520 South Coach Drive
Tucson, Arizona 85714

ALBUQUERQUE AREA: (CSO 111)
(480) 333-2870 – Safety
(505) 884-2044 – Sales
(505) 341-7934 – Service
(505) 883-0630 – Parts
(505) 884-2449 – Sales Fax
(505) 717-37704– Service Fax
(505) 830-0747 – Parts Fax

5501 San Diego Avenue NE
Albuquerque, NM 87113

EL PASO AREA: (CSO 112)
(480) 333-2870 – Safety
(915) 593-3484 – Sales
(915) 593-3484 – Service
(915) 593-3484 – Parts
(915) 593-3490 – Sales Fax
(915) 593-0027 – Service Fax (915) 593-1457 – Parts Fax

1405 Vanderbilt Drive
El Paso, Texas 79935

TERRY STEVENS, DISTRICT MANAGER
ERICK JOHNSON, AREA MANAGER (V1-T00) (ext. 3745 (Albuquerque and El Paso)

ENABLING SERVICES – PHOENIX
CINDY MCCANN, HUMAN RESOURCES LEADER (ext. 2855)
RYAN NORONHA, DISTRICT FINANCE LEADER (ext. 2857)
DAVE PALTY, BUSINESS DEVELOPMENT MANAGER (ext. 2863)
NATHEN BRILL, EH&S LEADER (ext. 2870)
Shaunna Arenas, Marketing & Training Leader (ext. 2914)
Kenny Brockman, LAN Administrator (ext. 2856)

INDIRECT SALES – PHOENIX
KEN EGGERS, ARIZONA GENERAL SALES MANAGER (V3-A75) (ext. 2869)
Bob Alford, Account Manager Building System Sales (V3-A34) (ext. 2882)

To search: Click on “Edit” in tool bar and then “Find”.

Jim G. Nelson, Account Manager Building System Sales (V3-A10) (ext. 2885)
Wes Mierau, Account Manager Building System Sales (V3-A20) (ext. 2896)
Dean Petersen, Account Manager Building System Sales (V3-A70) (ext. 2880)
Ryan Moore, Sales Engineer, Team Leader (V3-A81) (ext. 2889)
Nancy Dall, Account Manager Building System Sales (V3-A82) (ext. 2891)
Chad Barnett, Account Manager Building System Sales (ext. 2912)
Mike Sullivan, BAS Sales-Controls (ext. 2922)
Robert Wax, Account Manager Building System Sales (ext. 2886)
Kyle Buono, Account Manager Building System Sales (ext. 2862)
Rogelio Garcia, Jr. Account Manger Building System Sales (ext. 2929)

INDIRECT SALES – TUCSON
Mark Balboni, Account Manager Building System Sales N.A.J.C. (V8-A08) (ext. 101)
Richard Mills, Account Manager Building System Sales (V8-A22) (ext. 120)

INDIRECT SALES – ALBUQUERQUE
KEN EGGERS, ARIZONA GENERAL SALES MANAGER. (V3-A75) (ext. 2869)
Deward Stegall, New Equipment Sales Engineer (V1-T12) (ext. 3735)
Don Schedlbauer, Account Manager Building System Sales (V1-T02) (ext. 3733)
Stephen Forner, Account Manager Building System Sales (ext. 3766)

INDIRECT SALES – EL PASO
Martin Elmquist, Account Manager Building System Sales N.A.J.C. (V2-T06) (ext. 229)
Rogelio Garcia, Account Manager Building System Sales (V2-T05) (ext. 223)
Russell Ortiz, Account Manager Building System Sales (V2-T11) (ext. 225)

OWNER DIRECT SALES/SERVICE/CCS – PHOENIX
KEN EGGERS, ARIZONA GENERAL SALES MANAGER. (V3-A75) (ext. 2869)
Rocky Tarcola, Account Manager Existing Building Sales (V3-A36) (ext. 2873)
Bruce Martz, Account Manager Existing Building Sales (V3-A14) (ext. 2868)
Dan Skiba, Account Manager Existing Building Sales (V3-A40) (ext. 2894)
George Kotselas, Account Manager Healthcare Solutions (V3-A79) (ext. 2913)
Jamie Batsell, Account Manager Existing Building Sales (V3-A73) (ext. 2898)
Marshall Kauffman, Service Sales Manager (V3-A67) (ext. 2870)
Gloria Cater, Account Manager Existing Building Sales (V3-A80) (ext. 2911)
William Mote, Account Manager Existing Building Sales (V3-A77) (ext. 2908)
Bruce Locke, Account Manager Existing Building Sales (V3-A86) (ext. 2871)
George Sterling, Healthcare Business Development (ext. 2902)
Mary Ann Ulik, District Education and Vertical Market Leader (ext. 3754) *(located in ALB office)
Jeff Mundell, Project Development Manager (ext. 2872)

OWNER DIRECT SALES/SERVICE/CCS – TUCSON
Brian Callahan, Account Manager Existing Building Sales (V3-A18) (ext. 108)
Pete Jacobs, Account Manager Existing Building Sales (V8-A21) (ext. 105)
Richard Dohn, Account Manager Existing Building Sales (V8-A23) (ext. 104)

OWNER DIRECT SALES/SERVICE/CCS – ALBUQUERQUE
ERICK JOHNSON, AREA MANAGER (V1-T00) (ext. 3745) (Albuquerque and El Paso)
Eric Webster, Account Manager Existing Building Sales (V1-T22) (ext. 3738)
Jackie Putney, Account Manager Existing Building Sales (V1-T18) (ext. 3731)
Mark Fafard, Account Manager Existing Building Sales (V1-T21) (ext. 3732)

OWNER DIRECT SALES/SERVICE/CCS – EL PASO
Jorge Polanco, Account Manager Existing Building Sales s (V2-T13) (ext. 224)
George Hernandez, Account Manager Existing Building Sales (V2-T12) (ext. 222)
Roger Hernandez, Account Manager Existing Building Sales (V2-T21) (ext. 247)

CONTRACTING – PHOENIX
Kris Seyler, Contracting Technical Leader (ext. 2926)
Andy St. Clair, Turnkey Project Manager (ext. 2892)
Susan Kleinfeld, Contracting Project Administrator Team Lead (ext. 2860)

CONTRACTING – TUCSON

CONTRACTING – ALBUQUERQUE
Bruce Allen, Account Manager Controls (ext. 3717)

To search: Click on “Edit” in tool bar and then “Find”.

Lacey Ayers, Contracting Project Administrator (ext. 3720)
Terry Reeve, Turnkey Project Manager (ext. 3732)
Glen Gatlin, Turnkey Project Manager (ext. 3724)

CONTRACTING – EL PASO
Jose L. Valenzuela, Project Manager BASD, (ext. 231) cell (915- 526-6294)
Eddie Bueno, Turnkey Project Manager, (ext. 233) cell (915-490-1848)
Corina Snyder, Contracting Project Administrator (ext. 237)

BAS - CONTROLS – PHOENIX
Don Brandt, Project Manager Controls (ext. 2921)

BAS - CONTROLS – TUCSON
William Koza, Controls Technician, cell (520-631-6410)

BAS - CONTROLS – ALBUQUERQUE
Richard Wartick, Project Engineer (ext. 3737)
Greg Breshears, Project Manager – Controls II (ext. 3741)
Stephen Benavidez, Project Manager – Controls II (ext. 3739)

BAS - CONTROLS – EL PASO
Bill Svensson, Project Engineer (ext. 252), cell (915-208-9562)

SERVICE - PHOENIX
TIM DONAHOO, DISTRICT SERVICE SOLUTIONS MANANGER (For Phoenix, Tucson, Albuquerque, and El Paso)
Jason Cater, Area Service Manager-Contracts (ext. 2910)
Bruce Lenth, Area Service Manager-Repair (ext. 2890)
Anna Watson, Service Project Administrator (ext. 2858)
Lorena Robles, Service Administrative Assistant (ext. 2875)
Annie To, Service Coordinator (ext. 2905)
Doug Hamilton, Service Team Leader-Contracting, cell (602-725-4554)
Bill Perkins, Service Team Leader -Repair, cell (602-725-3080)
Anthony Pellegrino, Service Team Leader -Repair, cell (602-725-8860)

SERVICE – TUCSON
Bernie Popken, Area Service Manager (ext. 107)
Amanda Fortier, Service Coordinator / Project Administrator (ext. 111)
Scott Steinbrenner, Field Technical Supervisor, cell (520-631-3490)

SERVICE – ALBUQUERQUE
Brian Garton, Area Service Manager (ext.3723)
Mike Earnest, Area Service Manager (ext. 3721)

SERVICE – EL PASO
Robert Escudero, Area Service Manager (ext. 226)
Saranda Beck, Project Administrator (ext. 227)
Anna Sanders, Project Administrator (ext. 240)
Marcos Marquez, Field Technical Supervisor, cell (915-491-9549)
Albert Bazan, Field Technical Supervisor, cell (915-490-0712)
Byron Beddo, Contract Project Manager, cell (915-526-6131)
David Molina, cell (915-525-5522)
Javier Villalobos, cell (915-471-5291)
Johnny Paz, cell (915-526-1457)
Rick Rodriguez, cell (915-487-9436)
Victor Medina, cell (915-471-3015)
Adan Ramos, cell (915-526-4852)
Cesar Leyva, cell (915-491-5296)
Willie Quirarte, cell (915 - 491-6028)

EQUIPMENT FULFILLMENT– PHOENIX
RYAN PEARSON, Equipment SOLUTIONS LEADER (ext. 2919 (for Phoenix and Tucson)
Audrey Laffan, Equipment Fulfillment Team Leader (ext. 2883)
Tim Van Vlack, Project Manager (ext. 2850)
Wendy Walt, Project Manager (ext. 2895)
Judy Vetter, Bid Coordinator & CRM L.O.C. (ext. 2888)

To search: Click on “Edit” in tool bar and then “Find”.

EQUIPMENT FULFILLMENT – TUCSON
Rose-Mary Tuschen, Project Manager (ext. 123)

EQUIPMENT FULFILLMENT– ALBUQUERQUE
MARIO RUIZ – EQUIPMENT SOLUTIONS LEADER (ext. 239) (for Albuquerque and El Paso)
Terry Latin, Project Manager for Equipment Fulfillment (ext. 3728)
Shannon Crouch, Equipment Fulfillment Application Specialist (ext. 3719)

EQUIPMENT FULFILLMENT– EL PASO
Hugo Velasco, Equipment Project Manager (ext. 232)
Inez Mota, Equipment Project Administrator

PARTS CENTERS:
BRENNAN MORGAN, DISTRICT PARTS LEADER (ext. 2903)

PHOENIX - PARTS CENTER
HVAC PARTS & SUPPLIES
(602) 252-9100 – PARTS
(480) 333-2945 – PARTS FAX
437 West Fairmont Drive
Tempe, Arizona 85282

Denice Ballou, Parts Store Team Leader (ext. 9100)
Alfonso Hurtado, Inside Sales (ext. 9100)
Andrew Leon, Inside Sales (ext. 9100)
Kerry Hellums, Inside Sales (ext. 9100)
Bob Beechey, Inside Sales (ext. 9100)
Dale W. Strong II, Outside Sales cell (602-430-1653)

N. PHOENIX - PARTS CENTER
HVAC PARTS & SUPPLIES CENTER
(623) 687-2256/2236 – PARTS
(623) 780-2593 – PARTS FAX
21415 North 15th Lane, Building E, Suite# 118
Phoenix, Arizona 85027

Randy Thompson, Parts Store Team Leader (ext. 2256)
Mark Farina, Inside Sales (ext. 2236)
Matt Mony, Inside Sales – Warehouse (ext. 2220)
Jeff Jones, Outside Sales, cell (602-725-8835)

PARTS CENTER - TOLLESON
HVAC Parts & Supplies Center
(623) 478-0073 or (623) 478-0447 – PARTS
(623) 907-0412 – PARTS FAX
407 S. 107th Avenue, Building A, Suite# 2
Tolleson, Arizona 85353

Ernie Watson, Parts Store Team Leader (ext. 0073)
Trevor Fuller, Inside Sales (ext. 0447)
Jim Lenhart, Portable Cooling Specialist

PARTS CENTER – TUCSON
HVAC PARTS & SUPPLIES CENTER
(520) 748-9594 – PARTS
(520) 748-1260 – PARTS FAX
4520 S. Coach Drive
Tucson, Arizona 85714

Alan Heaton, Parts Store Team Leader (ext. 112)
Dan Hamilton, Inside Sales (ext. 112)

PARTS CENTER – ALBUQUERQUE
HVAC PARTS & SUPPLIES CENTER
(505) 883-0630 – PARTS
(505) 830-0747 – PARTS FAX

To search: Click on “Edit” in tool bar and then “Find”.

5501 San Diego Avenue NE
Albuquerque, New Mexico 87113

Jim Herbert, Parts Store Team Leader
Ruben Garcia, Inside Sales
Paul Kasper, Inside Sales

PARTS CENTER – EL PASO
HVAC PARTS & SUPPLIES CENTER
(915) 593-3484 – PARTS
(915) 593-1457 – PARTS FAX
1405 Vanderbilt Dr.
El Paso, Texas 79935

Jim Herbert, Parts Store Team Leader
Martin Monedero, Inside Sales (ext. 245)
Jose Cobos, Inside Sales (ext. 230)

To search: Click on “Edit” in tool bar and then “Find”.

SPOKANE DISTRICT	**Last updated January 1, 2013**

SPOKANE, WA (Y4)
SPOKANE DISTRICT
(See also Parts Center listed below)
(509) 535-9057
(509) 535-9057 – After Hours
FAX: (509) 535-4354
715 N. Hogan
Box 3304
Spokane, Washington 99220

CHARLES A. BULLOCK, DISTRICT MGR. (Y4-H00)
Catherine H. Sander (Y4-H11)
Gerri Lockwood, Parts
Kevin Moon, Service.

PARTS CENTER

Bullock Trane Parts Center
(509) 535-9057
FAX: (509) 535-4354
715 N. Hogan
P.O. Box 3304
Spokane, Washington 99220
Gerri Lockwood, Parts Mgr.

To search: Click on “Edit” in tool bar and then “Find”.

ST. LOUIS/DAVENPORT DISTRICT **Last updated October 1, 2012**

ST. LOUIS, MO (SALES OFFICE) (Q3)
ST. LOUIS DISTRICT
(See also Cape Girardeau Service area office and Parts Centers listed below)
(636) 305-3600 – Sales
636-305-3600FAX: (636) 349-0601 – Sales
FAX: (636) 343-0463 – Parts
FAX: (877) 367-8726 – Service (toll free)
101 Matrix Commons Drive
Fenton, Missouri 63026
RANDALL W. KRAMPE, DISTRICT MGR. (Q3-A04) (ext. 652)
INDIRECT SALES
Bill Bourne, Controls Sales Team Leader. (ext. 654)
Dan Crooks, N.A.E. & N.A.J.C. (Q3-A51) (ext. 736)
Scott Lucykow (Q3-A74) (ext. 693)
Scott Hunke (Q3-A42) (ext. 641)
Shawn Kitchen (Q3-A45) (ext. 667)
Ron Reimer (ext. 611)
Joe Zweifel (Q3-A52) (ext. 651)
Paul Quatmann (Q3-A62) (ext. 737)
Aaron Eilers (ext. 771)
EQUIPMENT FULFILLMENT
Jon Fair, Equipment PM (Q3-A50) (ext. 643)
Paul Oblein, Equipment Fulfillment Team Leader (ext. 617)
Kathy Corso, Project Administrator (ext. 640)
Scott Eversgerd, Project Manager (ext. 715)
Nancy Jenkinson, Project Administrator (ext. 642)
Amy Odehnal, Project Administrator (ext. 639)
Peter Vas, Equipment Fulfillment Team Leader (ext. 695)
Loretta Turley, Project Administrator (ext. 607)
Theresa Edris, Bid Coordinator (ext. 629)
DIRECT SALES
MIKE ROLFES, DIRECT SALES MANAGER (Q3-A36) (ext. 615)
Cari Schroeder, Project Manager – Service (ext. 606)
Jason Brenton, Direct Sales (ext. 716)
Corby Hawkins, Direct Sales (ext. 724)
Jim Salsman, Service Solutions Manager (ext. 614)
Chad Wunsch, Direct Sales (ext. 616)
Tim Smith, BAS Direct Sales (ext. 671)
BAS OPERATIONS
DENNIS GOODWIN, DISTRICT CONTRACTING LEADER (Q3-A12) (ext. 634)
Bill Carroll, Project Manager (ext. 633)
Greg Chrisco, Controls Technician (ext. 778)
Joe Crist, Project Manager (ext. 637)
Gary Sang, Project Manager (ext. 630)
David Hartmann, Estimator - Controls (ext. 733)
Carolyn Baker, Project Administrator (ext. 719)
COMPREHENSIVE SOLUTIONS
Scott Hardwick, PACT & Turnkey Sales Team Leader (ext. 646)
Sam Clemens, PACT Account Manager (ext.661)
Jeff Ahlbrand, PACT & Turnkey Operations Manager (ext. 621)
Jennifer Anders, PACT Account Manager (ext. 723)
Bev Condit, PACT Project Administrator (ext. 760)
Tiffany Duncan, PACT Account Manager (ext. 764)
Tina Little, PACT Administrator (ext. 644)
Rick Gabrielson, PACT Energy Engineer (ext. 659)
PARTS
FRED GUMP DISTRICT PARTS LEADER (ext. 658)
Larry Moderhack, Sr. Account Manager (ext. 653)
Mike Siebert, Rental Sales Manager (ext. 675)

To search: Click on “Edit” in tool bar and then “Find”.

ENABLING
K.C.SCHUTE, DISTRICT FINANCE LEADER (ext. 622)
BRITTANY COLLYMORE, DISTRICT HUMAN RESOURCES LEADER (ext. 687)
Hollie Medlin, EH& S Manager (913-827-3482)
Terri Schnur, Receptionist (ext. 601)
MARKETING & TRAINING
Stacey Carroll, Marketing & Training Coordinator (ext. 610)
H. R. & SAFETY COORDINATOR

CAPE GIRARDEAU, MO (Q5)
ST. LOUIS DISTRICT
(573) 334-0591
FAX: (573) 334-0680
1078 Wolverine Lane #D
Cape Girardeau, Missouri 63701
DIRECT SALES
Kathy Gaulding, Direct Sales (ext. 181)
Nancy Inman, Project Coordinator (ext. 182)

PARTS CENTERS

Trane Supply
(636) 343-5577
FAX: (636) 343-0463
125 Matrix Commons Drive
Fenton, Missouri 63026
Ron Stogsdill, Store Manager (ext. 161)
Donna Winkleman, Inside Sales (ext. 162)
Tim Hummel, Inside Sales (ext. 163)
Matt Zack, Warehouse Coordinator (ext. 605)

Trane Supply
(314) 513 9322
FAX: (636) 305-3678
3663 Corporate Trail Drive
Earth City, MO 63045
Marc McClellan, Store Manager (ext. 156)
Walley Radake, Inside Sales (ext. 157)
Keith Meyer, Inside Sales (ext. 158)
Donnie House, Warehouse Coordinator (ext. 672)
Garry Byrd, Account Manager (314) 223 4137
Thomas Weatherley, Delivery Sales Customer Service

Trane Metro St. Louis
(314) 898-4960
FAX: (314) 898-4970
4929 Manchester Road
St. Louis, Missouri 63110
Jeff Keller, Store Manager (ext. 105)
Michael Hall, Inside Sales (ext. 106)
Gil Newberry, Account Manager (636-305-3767)

Trane Supply
217-373-1610
FAX: 217-373-1620
301 Mercury Drive
Champaign, Illinois 61822
Shane Halcomb, Store Manager
Bryan Maury, Inside Sales
Kevin Miller, Warehouse Coordinator
Mike Gordon, Account Manager

To search: Click on "Edit" in tool bar and then "Find".

Trane Supply
(618) 606 9009
1605 Eastport Plaza Dr., Suite 129
Collinsville, IL 62234
Dean Rahn, Store Manager (ext. 166)
David Pitchers, Account Manager
Jerry Stolze, Inside Sales (ext. 167)
Steve Claytor, Warehouse Coordinator

DAVENPORT, IA (R4)
DAVENPORT OFFICE
(See also Supply Center listed below)
(563) 468-4900
(563) 468-4900 – After Hours
FAX: (563) 391-0277 – Sales
FAX: (563) 391-1973 – Service & Supply
109 W 55th Street
Davenport, Iowa 52806
RANDALL W. KRAMPE. DISTRICT MGR. (Q3-A04) (636-305-3652)
NEW SYSTEM SALES
SALES TEAM (R4-D05)
Paul T. Ebeling, Account Manager (ext. 4912)
Mike J. Loehr, Account Manager (ext. 4914)
Chris G. Seberg, Account Manager (ext. 4911)
Craig H. Sorensen, Account Manager (ext. 4913)
SALES OPERATIONS
Paul Tremmel, Project Manager (ext. 4917)
SERVICE & CONTRACTING SOLUTIONS
Eric Brasel, Area Service Manager (ext. 4918)
Vickie Aguilar, Service Project Administrator
Nikki Sampson, Service Resource Coordinator (ext. 4962)
Tammy McFarland, BAS Project Administrator (ext. 4954)
Mike Overstake, Contracting Operations Manager (ext. 4945)
Josh Rouse, Account Manager – Controls (ext. 4953)
Joyce Whitt, Service Project Administrator (ext. 4961)
Mike McCleary, Contracting Project Manager (ext. 4965)
EBS SERVICES & SOLUTIONS
Shey Bauer, EBS Account Manager (ext. 4942)
Bob Blackburn, Jr., EBS Estimating (ext. 4966)

CENTER SUPPLY

Trane Supply Center –Davenport
(563) 468-4900
FAX: (563) 391-1973
109 W 55th Street
Davenport, Iowa 52806
Fred Gump, District Supply Leader
Mike Hines, Supply Store Mgr. (ext. 139)
Mark Duncan, Warehouse Coordinator (ext. 120)
Sharon Kueter-Steger, Supply Account Manager (ext. 121)
Jeff Langrehr, Inside Supply Sales (ext. 246)

To search: Click on “Edit” in tool bar and then “Find”.

TAMPA DISTRICT	**Last updated January 1, 2013**

TAMPA, FL (H5)
TAMPA DISTRICT
(See also Fort Myers area office and Parts Centers listed below)
(813) 877-8251 – 7:00 a.m. – 5:30 p.m.
(813) 877-8256 – After Hours
(800) 966-8251 – Florida Toll Free
After hours you will still be able to contact individuals who are in the office by dialing the after hours number and entering their extension.
FAX: (813) 877-8257
902 N. Himes Avenue (33609)
P.O. Box 18547 (33679)
Tampa, Florida

DOUGLAS B. COHN, DISTRICT MGR. & CHIEF EXECUTIVE OFFICER, TBT (H5-N00) (ext. 1202)
JAY ALLISON, PRESIDENT & CHIEF OPERATING OFFICER, TBT (H5-N21) (ext. 1251)
ROBERT GARCIA, SENIOR VICE PRESIDENT, BUSINESS DEVELOPMENT, TBT (H5-N22) (ext. 1204)
STEPHEN KOONTZ, Vice President of Business Development (H5-N67) (ext. 1220)
JOHN HODSON, CHIEF FINANCIAL OFFICER, TBT (ext. 1650)
HUMAN RESOURCES
MICHELLE GUERNNERO, HUMAN RESOURCES MANAGER (ext. 1609)
MANAGEMENT INFORMATION SYSTEMS
MIKE MENDELSON, INFORMATION TECHNOLOGY MANAGER (ext. 1617)
Dan Duque, Information Technology (ext. 1614)
MARKETING/TRAINING
SANDY TULECKI, MARKETING/TRAINING LEADER (ext. 1252)
Lauryn Oser, Marketing/Training Coordinator (ext. 1258)
NEW SYSTEM SOLUTIONS (NSS) SALES
SCOTT JAEHNE, GENERAL SALES MANAGER (ext. 1620)
CHIP BROOKS, CONTRACTING TEAM LEADER (H5-N96) (ext. 1206)
Michael Leach, Sales Engineer (ext. 1228)
Tony Moreland, Sales Engineer (H5-N04) (ext. 1262)
Jim Sparling, Sales Engineer (H5-N23) (ext. 1211)
JOHN SIEGENTHALER, ENGINEERING TEAM LEADER (H5-N09) (ext. 1229)
Robert Barton, Sales Engineer (H5-N93) (ext. 1224)
Luis Chaumont, Sales Engineer (H5-N39) (ext. 1205)
Jennifer Keith, Sales Engineer (H5-A21)
Keenan Sanz, Sales Engineer (H5-N24) (ext. 1221)
RICHARD NARZINSKY, INSIDE SALES TEAM LEADER (H5-N66) (ext. 1227)
Jim Foley, Inside Sales Engineer (H5-N49) (ext. 1226)
Spiro Kalogeropolous, Inside Sales Engineer (ext. 1257)
Naomi Bhim, Literature Coordinator (ext. 1213)
Suzie Shelly, Lead Project Manager (ext. 1231)
Nicolette Jacopella, Bid Coordinator (ext. 1203)
ENERGY SOLUTIONS & SUSTAINABILITY SALE
SCOTT JAEHNE, GENERAL SALES MANAGER (ext. 1620)
Alan Beer, MBS, Energy Solution & Sustainability (ext. 1289)
Steve Bivens, Energy Solution & Sustainability (ext. 1287)
TRANE BUILDING SERVICES (TBS)
)
)
TIM BARNES, TBS SALES MANAGER (ext. 1310)
Mike Canavan, Account Manager (H5-N36) (ext. 1254)
Rick Gerun, Account Executive (H5-N75) (ext. 1272)
Ziggy Krupa, Account Executive (H5-N42) (ext. 1260)
Mitch Orta, Account Executive, (ext. 1259)
Alex Rangel, Account Executive (H5-N17) (ext. 1236)
Briana Scott, Account Executive (H5-N25) (ext. 1207)
Josh Wand, Account Executive (H5-N08) (ext. 1223)
Jeffrey Watson, Account Executive, (ext. 1655)
Doug Gillespie, Owner Direct Sales Engineer (H5-N46) (ext. 1253)
Corey VanHall, New Business Development, (ext. 1264)
Cecily Willis, Lead Customer Service Representative (ext. 1286)
Shannon McCall, Customer Service Representative (ext.1277)

To search: Click on “Edit” in tool bar and then “Find”.

Amber Romanok, Customer Services Representative (ext. 2212)
ENERGY SOLUTIONS SERVICES (ESS)
Casey Vaughan, Energy Services Business Leader (ext.1208)
George Barbari, Energy Services Engineer (ext. 1250)
Gary Denton, Energy Services Auditor (ext. 1255)
Waverly, Wooding, Energy Services, (ext. 1240)
Cheryl Mansfield, Project Coordinator, (ext. 1269)
FIELD SERVICE OPERATIONS
TIM BARNES, SERVICE OPERATIONS MANAGER (ext. 1310)
AMY HINKLEY, SERVICE TEAM LEADER (ext. 1281)
Jeff Sears, North Team Supervisor - Pasco/Hernando
Ricky Betts, North Team Supervisor - Pinellas
Mike Poirson, East Team Supervisor - Hillsborough
Jim Tuckerman, East Team Supervisor – Polk/Highlands/Hardee
Ron Jacobs, Training Coordinator
Scott Ferguson, Service Estimator (ext. 1303)
Matt Joy, Service Estimator (ext. 1304)
Pamela Link, Service Estimator Admin (ext. 1305)
Ashley Binder, Contract Administrator (ext. 1606)
CONTROLS SOLUTIONS SERVICES
DAVID HETZEL, CONTROLS MANAGER (H5-N88) (ext. 1135)
Bob Beran, Estimating & Sales Support Engineer (ext. 1130)
Richard Brock, Controls Engineer
Joe Elovich, Controls Engineer (H5-N06) (ext. 1218)
Todd Saylor, North Team Supervisor - Pasco/Hernando/Pinellas (ext. 1141)
Keith Lynn, East Team Supervisor - Hillsborough/Polk/Highlands/Hardee (ext. 1132)
Patty Keller, Administrative Supervisor (ext. 1131)
Elaine Haywood, Contracting Administrative Assistant (ext. 1133)
CONTRACTING SOLUTIONS SERVICES
JIM CRUM, CONTRACTING MANAGER (ext. 1263)
Kelly Lustic, Project Manager (ext. 1266)
Shane Helmer, Project Manager (ext. 1268)
Bill Merritt, Project Manager (ext. 1273)

FORT MYERS, FL (H9)
TAMPA DISTRICT
(239) 275-9420
FAX: (239) 275-9775
Toll Free: (888) 484-9420
6461 Topaz Court
Fort Myers, Florida 33966
NEW SYSTEM SOLUTIONS (NSS) SALES
Jason Allen, Sales Engineer (H9-A01) (ext. 2207)
Stacey Perkins, Project Manager (ext. 2206)
TRANE BUILDING SERVICES (TBS)
Mike Brousil, Account Manager (H9-A02) (ext. 2211)
FIELD SERVICE OPERATIONS
MIKE OLOIER, SERVICE OPERATIONS MANAGER (ext. 2210)
Andy Bell, South Team Supervisor - Sarasota/Manatee/DeSoto
Yuri Dziarnowski, South Team Supervisor - Lee/Collier/Charlotte (ext. 2208)
CONTRACTING SOLUTIONS SERVICES (CSS)
Bob Kelly, South Team Supervisor - Sarasota/Manatee/DeSoto/Lee/Collier/Charlotte

TRANE HVAC PARTS AND SUPPLIES:
TIM LANE, PARTS MANAGER (ext. 2107)
PAULA DESANTIS-TARRIS, PARTS SALES MANAGER (ext. 1290)
Amy Cardona, Purchasing/Inventory Manager (ext. 2110)

HUDSON, FL
Trane HVAC Parts & Supplies
(727) 245-1320
FAX: (727) 245-1321
16520 Scheer Blvd.
Hudson, Florida 34667
Eric Mendez, Store Manager (ext. 2800)

To search: Click on “Edit” in tool bar and then “Find”.

TAMPA, FL
Trane HVAC Parts and Supplies
(813) 877-8253
FAX: (813) 876-4778
3911 W. Cypress Street
Tampa, Florida 33607
Lisa Barnes, Store Manager (ext. 2101)

CLEARWATER, FL
Trane HVAC Parts & Supplies
(727) 572-8255
FAX: (727) 573-1604
11577 U.S. Highway 19 North
Clearwater, Florida 33764
Bill Barlow, Store Manager (ext. 2301)

SARASOTA, FL
Trane HVAC Parts & Supplies
(941) 360-0010
FAX: (941) 358-0032
2224 72nd Terrace E.
Sarasota, Florida 34243
Mark Morreale, Store Manager (ext. 2401)

FORT MYERS, FL
Trane HVAC Parts & Supplies
(239) 275-9577
FAX: (239) 278-5502
6461 Topaz Court
Ft. Myers, Florida 33966
Ruben Lopez, Store Manager (ext. 2202)

NAPLES, FL
Trane HVAC Parts & Supplies
(239) 384-5400
FAX: (239) 384-5401
544 Commercial Blvd.
Naples, Florida 34104
Michael Swartz, Store Manager (ext. 2701)

To search: Click on “Edit” in tool bar and then “Find”.

TENNESSEE DISTRICT **Last updated January 1, 2013**

NASHVILLE, TN (P4)
TENNESSEE DISTRICT
(See also Knoxville and Chattanooga offices and Parts Centers listed below)
(615) 242-0311
FAX: (615) 726-3357
601 Grassmere Park Drive, Suite 10
Nashville, Tennessee 37211

BRIAN DURR, DISTRICT MANAGER (ext. 9426) cell (410) 967-9837
INDIRECT SALES
BYRAN WARE, GENERAL SALES MANAGER (ext. 9455) cell (314) 713-8419
Mike Karl, Acct. Mgr. (P4-A18) (ext. 9422) cell (615) 207-4718
Nate Kloock, Acct. Mgr. (P4-A21) (ext. 9430) cell (615) 594--3531
Scott Croker, Systems Solution Mgr. (P4-A52) (ext. 9437) cell (615) 418-3825
Chad Tarter, Acct. Mgr. (P4-A19) (ext. 9435) cell (615) 390-2597
Steve Tudor, Acct. Mgr. (P4-A06) (ext. 9423) cell (615) 390-6716
Michael Allison, Acct. Mgr. (P4-A45) (ext. 9436) cell (615) 812-9250
Travis Hollett, Acct. Mgr. (P4-A63) (ext. 9477) cell (615) 306-2165
Bob Ramenofsky, Acct. Mgr. (P4-A62) (ext. 9475) cell (615) 218-6322
DIRECT SALES
Brady Spann, Account Manager (P4-A71) (ext. 9474), cell (954) 551-8933
Chris Pamplin, Account Manager (P4-A69) (ext. 9459) cell (615)707-2969
David Albright, Business Development Mgr./Controls Sales Team Leader (P4-A50) (ext. 9495) cell (615) 354-3461
Don Roos, EBS Sales (P4-A41) (ext. 9454) cell (615) 948-2795
Scott Stephens, EBS Sales/Turnkey (P4-A42) (ext. 9462) cell (615) 598-0151
Michael Sharp, Account Manager (P4-A55) (ext.9479), cell (615) 351-2906
Randy Mauldin, Business Development Manager (ext. 9474) cell (615-717-5799)
OPERATIONS
EQUIPMENT OPERATIONS
MIKE BOEHM, DISTRICT OPERATIONS MGR. (DISTRICT) (P4-A34) (ext. 9486) cell (615) 828-6446
Janet Potts, Proj. Mgr. (ext. 9428)
Shirley Hendricks, Proj. Mgr. (ext. 9439)
Donna Whitmore, Proj. Mgr. (ext. 9421)
Judy Hutson, Proj. Admin. (ext. 9432)
Joey Plunkett, Estimator & Applications Specialist (ext. 9438) cell (615) 714-6222
Mark Winters, Estimator & Applications Specialist (ext. 9458) cell (615) 585-9193
BAS OPERATIONS
ERIC SIMON, DISTRICT CONTRACTING SOUTIONS MANAGER (ext. 9487) cell (615) 624-0586
Jim Letsinger, BAS Proj. Mgr. Team Leader (ext. 9490) cell (615) 594-3461
John Thyen, BAS Proj. Mgr. – Turnkey (ext. 9497) cell (615) 804-8613
Joe LeBeau, BAS Project Estimator – Controls (District) (ext. 9485) cell (615)-594-3462
Ron O’Reel, BAS Project. Mgr. (ext. 9492) cell (615) 574-3342
Jamie Lopez, BAS Controls Tech (ext. 9448) cell (615) 594-3423
Michael McMillian, BAS Controls Tech. (ext. 9488) cell (615) 574-3343
Joey Pewitt, BAS Controls Tech. (ext. 9480) cell (615) 594-1555
Gregory Holland, BAS Proj. Mgr. (ext. 9484) cell (615) 594-3460
Tim Sweeney, BAS Proj. Mgr. (ext. 9491) cell (615) 594-5015
CONTRACTING OPERATIONS
Brenda Phillips, Project Administrator (ext. 9465)
MaryAnne Poposky (ext. 9448)
SERVICE OPERATIONS
MIKEL CARR, DISTRICT SERVICES SOLUTIONS MGR. (DISTRICT) (ext. 9427) cell (804) 467-4714
Mike Robertson, Area Service Manager (ext. 9451) (615) 210-3812
Joe Gurney, ISO Certified Category IV Vibration Analyst (ext. 9448) cell (615) 337-2547
Vicki Morgan, Senior Service Proj. Admin. (ext. 9468) cell (615) 517-5801
Tricia Nicoletti, Service Proj. Admin. (ext. 9457)
Shannon Ladwig, Svc. Coordinator (ext. 9450) cell (615) 587-7897
Christine Brooks Shamwell, Proj. Admin. (ext. 9481)
FINANCE, ADMINISTRATION, & SAFETY
TAMEKA HOLDER, DISTRICT HR MGR. (ext. 9471) cell (615) 585-3514
SONDA LONG, DISTRICT CONTROLLER (ext. 9470) cell (615) 594-9470
DAVID VITT, DISTRICT ENVIRONMENTAL SAFETY & HEALTH MANAGER (ext. 9452) cell (615) 406-9590

To search: Click on “Edit” in tool bar and then “Find”.

KNOXVILLE, TN (J1)
TENNESSEE DISTRICT
(865) 588-0607
(888) 845-4042
FAX: (865) 588-0600
5220 S. Middlebrook Pike
Knoxville, Tennessee 37921
BRIAN DURR, DISTRICT MANAGER (ext. 9426) cell (410) 967-9837
JOEY DeLOACH, GENERAL SALES MANAGER (ext. 4241) cell (704) 906-4248
Terry Ritter, Office Administrative Assistant (ext. 4276)
SALES
BAS SALES (DIRECT & INDIRECT)
Jac Cooper, East TN Controls Sales Leader (J2-D21) (ext. 1311, cell (423) 280-8361
SALES – INDIRECT
Alan Hasemeyer, National Accounts Sales Engineer (J1-D05) (ext. 4248), cell (865) 986-3777
Jason Wynne, Sales Engineer (J1-D39) (ext. 4246), cell (865) 712-9164
Steve Cole, Account Mgr., Knoxville (J1-D30) (ext. 4280), cell (865) 712-7351
Janey Gilham, Project Mgr. (ext. 4242)
Tom Hatfield, Application Specialist (ext. 4245), cell (865) 755-9217
Jeanette Park, Project Mgr. (ext. 4244)
SALES – DIRECT
Owen Nevader, Account Mgr., EBS (J1-D36) (ext. 4287), cell (865) 755-5869
Nancy McBee, Business Development Manager (J1-D29) (ext. 4260), cell (865) 603-5381
Kristi Hayes, Account Mgr., EBS (ext. 4249), cell (865) 310-4760
SERVICE OPERATIONS
MIKEL CARR, DISTRICT SERVICE SOLUTIONS MGR. (DISTRICT) (ext. 9427) cell (804) 467-4714
Jennifer Covington, Resource Coordinator (ext. 4263), cell (865) 712-7350
CONTRACTING OPERATIONS
Eric Simon, District Contracting Solutions Manager, cell (615) 624-0586
Shelli Driscoll, Contracting Project Admin (ext. 4286)
Mark Brantley, BAS Tech. cell (865) 755-1662
Darrell Linebarger, BAS Tech, cell (865) 775-8955
Jason Moystner, Project Specialist, cell (865) 755-1989
Billy Kinsler, BAS Tech cell (865) 255-3195
Gary Barbaro, BAS Project Mgr. (ext. 4294), cell (865) 712-7349
Curt Williams, BAS Project Mgr. cell (865) 803-3791
Ed Gomez, BAS Project Mgr. cell (865) 308-3431
Glen Yearwood, Project Developer (ext. 4281) cell (865) 323-5551
Chuck Burnette, M&V Engineer (ext. 4269) cell (865) 314-0016
Jason Land, Energy Engineer (ext. 4243) cell (865) 312-4068
Della Kennemore, BAS Project Estimator (ext. 4251), cell (865) 755-3107
HUMAN RESOURCES
TAMEKA HOLDER, HR MGR., KNOXVILLE/NASHVILLE (615) 565-9471
FINANCE AND ADMINISTRATION
Sonda Long, F&A Controller, KNOXVILLE/NASHVIILLE (615)565-947
SAFETY
DAVID VITT, DISTRICT ENVIRONMENTAL SAFETY & HEALTH MANAGER (ext. 9452) cell (615) 406-9590

CHATTANOOGA, TN (J2)
TENNESSEE DISTRICT
(423) 296-1506
(800) 842-4823
FAX: (423) 485-8139
6138 Preservation Drive, Suite 500
Chattanooga, Tennessee 37416
BRIAN DURR, DISTRICT MANAGER (ext. 4241) cell (410) 967-9837
JOEY DeLOACH, GENERAL SALES MANAGER (ext. 4241) cell (704) 906-4248

SALES
SALES – INDIRECT
Sam Shore, Sales Engineer (J2-D07) (ext. 1310), cell (423) 322-6580
David Ball, Applications Specialist (ext. 1307), cell (423) 508-4253
SALES – DIRECT
Randy Hixon, Account Mgr., EBS (J2-D17) (ext. 1306), cell (423) 240-5791
Gene Williams, Account Mgr,(J2-D28) (ext. 1307), cell (423) 305-3627
BAS SALES (DIRECT & INDIRECT)

To search: Click on “Edit” in tool bar and then “Find”.

Jac Cooper, Account Manager (J2-D21) (ext. 1311) cell (423) 280-8361
SERVICE OPERATIONS
MIKEL CARR, DISTRICT SERVICE SOLUTIONS MGR. (DISTRICT) (ext. 9427) cell (804) 467-4714

CONTRACTING OPERATIONS
Jamie Semanco, BAS Tech. (ext. 1305), cell (423) 240-6888

PARTS CENTERS

CHATTANOOGA, TN
Chattanooga Trane Parts Center
(423) 296-9993
FAX: (423) 510-9664
6138 Preservation Drive, Suite 600
Chattanooga, Tennessee 37416
Scott Parsons, Operations Manager, cell (901) 590-6592

KNOXVILLE, TN
Knoxville Trane Parts Center
(865) 584-6412
FAX: (865) 558-8717
1609 Amherst Road,
Knoxville, Tennessee 37909
Scott Parsons, Operations Manager, cell (901) 590-6592

NASHVILLE, TN
Trane Parts Center of Middle Tennessee
(615) 242-2300
FAX: (615) 242-4719
601 Grassmere Park Drive, Suite 26
Nashville, Tennessee 37211
SCOTT PARSONS, DISTRICT PARTS MANAGER, cell (901) 590-6592
BRIAN BOLIN, District Parts Sales Manager (NASHVILLE) cell (615)-584-9391

NASHVILLE, TN
Residential Parts Center
(615) 932-6363
FAX (615) 932-6366
1654 Elm Hill Pike
Nashville, TN 37210
Scott Parsons, District Parts Manager cell (901) 590-6592

To search: Click on “Edit” in tool bar and then “Find”.

TEXAS DISTRICT	**Last updated July 1, 2012**

DALLAS, TX (L3)
DALLAS DISTRICT
(See also Ft. Worth and Lubbock, San Antonio and Austin area offices and Parts Centers listed below)
(972) 406-6000
(972) 406-6057 – Residential
(972) 406-3666 – 24 Hour Service
FAX: (972) 243-1398
FAX: (972) 243-1349 – Unitary
FAX: (972) 241-0544 – Parts
1400 Valwood Parkway, Suite 100
Carrollton, Texas 75006
KEVIN BAXTER, DISTRICT MGR. (L3-G00) (ext. 6028
COMMERCIAL SALES
ALAN ASH, STRATEGIC INITIATIVES LEADER (L3-G01) (ext. 6020)
GREG SPENCER, Strategic Sales Manager (ext. 6090)
Ralph Drews, Sales Manager – Systems (ext. 6023)’
Walter Pendleton, Direct Sales Manager
Brian Broussard (ext. 3676)
David Macicek (ext. 2355)
Joe Lucash (ext. 3650)
John Burden (ext. 3696)
Matt Schmidt (ext. 6039)
Micah Lightfoot (ext. 2376)
Michael Stanton (ext. 6065)
Ronnie Weems (ext. 2345)
Ryan Smith (ext. 6044)
Scott Huffmaster (ext. 3668)
Michael McDaniel (ext. 2361)
Ethan Kinsey (ext. 6081)
Nick Hanson (ext. 6016)
Colin White (ext. 6021)
Lisa Garrison
Jason James
Carl Boone
Shelby Felix
Stuart DeVaney
Bob VanGuilder
CONTRACTORS CONNECTION DESK
Brian Sasz (ext. 1365)
James Lumley (ext. 6048)
SOLUTIONS DEVELOPMENT
Tim Hollingsworth, Custom AHU Specialist (ext. 6050)
WATER SYSTEMS SOLUTIONS
Shawn Burch (972-919-3621)
PARTS
MICHAEL THOELE, OPERATIONS MANAGER, SERVICE (ext. 6079)
ACCOUNT MANAGERS
Tim Engebretsen (ext. 3651)
Denise (Douglass) Moseley (ext. 6025)
Terry Clontz (ext. 1363)
Michael Thornton (ext. 3635)
Tony King (ext. 2312)
Tyson Gatewood
MARKETING
KYM DENNIS, MARKETING LEADER (ext. 3603)
Deborah Longshore, Admin. Assist. (ext. 6047)
COMMERCIAL OPERATIONS
TODD SIMMONDS, CONTRACTING & CONTROLS LEADER (ext. 6014)
Michael Thoele, Operations Manager Service & Parts (6079)
Ryan Dempsey – Parts Leader
Mike Petty, ASM. (ext. 2314)
RESIDENTIAL SYSTEMS
Mark Hall (ext. 6071)

To search: Click on “Edit” in tool bar and then “Find”.

FINANCE/ENABLING
NANNETTE HUNTER, FINANCE LEADER (ext. 2353)
DAVID SMITH – HUMAN RESOURCE LEADER (ext. 3617)
Robert Peck, LAN Admin. (ext. 6091)

FORT WORTH, TX (K9)
DALLAS DISTRICT
(817) 838-1300
(817) 838-1359 – Residential
FAX: (817) 831-8135
4200 N. Sylvania Ave
Fort Worth, Texas 76137
KEVIN BAXTER, DISTRICT MGR. (L3-G00) (972) 406-6028
COMMERCIAL SALES
ALAN ASH, STRATEGIC INITIATIVES LEADER (L3-G01) (972) 406-6020
ACCOUNT MANAGERS
Bob Doyle (ext. 1333)
Keith Glasby (ext. 1342)
Shirley Ross (ext. 1310)
Seth Whitesel
PARTS
MICHAEL THOELE, OPERATIONS MANAGER, SERVICE (972) 406-6079
MARKETING
KYM DENNIS, MARKETING LEADER (972406-3603
COMMERCIAL OPERATIONS
TODD SIMMONDS, CONTRACTING & CONTROLS LEADER (972-406-6014)
Michael Thoele, Operations Manager Service (6079)
Kevin Rucker, Service Solutions Mgr. (ext. 1358)
Kate Holden, Service Estimator (ext. 1331)
FINANCE/ENABLING
NANNETTE HUNTER, FINANCE LEADER (972) 919-2353
DAVID SMITH, HUMAN RESOURCE LEADER (972) 406-3617
Robert Peck, LAN Admin. (972) 406-6091

LUBBOCK, TX (L5)
DALLAS DISTRICT
(806) 747-0266
FAX: (806) 744-1033
717 East 40th Street (79404)
P.O. Box 3963
Lubbock, Texas 79452
KEVIN BAXTER, DISTRICT MGR. (L3-G00) (972) 406-6028
COMMERCIAL SALES
ALAN ASH, INITIATIVES LEADER (L3-G01) (972) 406-6020
Rick Cyr, Sales Manager (L3-G53) (817) 838-1303
ACCOUNT MANAGERS
Jacob Sublett
Steve York
Taylor Shepherd
MARKETING
KYM DENNIS, MARKETING LEADER (972-406-3603)
COMMERCIAL OPERATIONS
TODD SIMMONDS, CONTRACTING & CONTROLS LEADER (972-406-6014)
Michael Thoele, Operations Manager Service (6079)
Ryan Dempsey, Parts Leader
Kevin Rucker, Service Solutions Mgr. (817) 838-1358)
PARTS
RYAN DEMPSEY, Parts Leader
FINANCE/ENABLING
NANNETTE HUNTER, FINANCE LEADER (972) 919-2353
DAVID SMITH, HUMAN RESOURCE LEADER (972) 406-3617

To search: Click on “Edit” in tool bar and then “Find”.

SAN ANTONIO, TX (L6)
TEXAS DISTRICT
(See also Austin area office and Parts Centers listed below)
(210) 657-0901
FAX: (210) 657-1761
9535 Ball Street Suite 1100
P.O. Box 34597 (78265)
San Antonio, Texas 78217
KEVIN BAXTER, DISTRICT MGR.
NANNETTE HUNTER, FINANCE LEADER (972) 919-2353
DICK GRANT, GENERAL SALES MGR. (L6-S82) (ext. 1712)
MANDY TODD, HR LEADER (ext. 1736) 281-569-2924 Houston Office
PATRICK BLISCHE, MARKETING MANAGER (ext.1737)
SAM CANTU, SAFETY LEADER (ext. 1767)
BILL STANTON, PARTS LEADER (ext.1740)
OWNER INDIRECT SALES
BRAD BRIGHT, TEAM LEADER (L6-S48) (ext. 1703)
Paul Mitchell, Account Manager – Eqp. (L6-S59) (ext. 1738)
RIGOBERTO (Rigo) GARZA, TEAM LEADER – Eqp. (L6-T01) 956-227-0232
Aaron Caldwell, Account Manager – Eqp. (L6-T25 (ext. 1784)
Dustin Williams, Account Manager – Eqp. (L6-T23) (ext. 1713)
Gary Dennis, Account Manager – Eqp. (L6-T26) (ext. 1722)
Mark Villanueva, Account Manager – Eqp. (L6-T30) (ext. 1714)
Lucas Harbaugh, Inside Sales – Eqp. (L6-T14) (ext.1726)
Brad Gilbert, Account Manager (L6-T32) (ext. 1704)
Evan Campbell, Applications Specialist (ext. 1715)
LESLIE CONKLIN, EQUIPMENT FULFILLMENT MANAGER (ext. 1724)
Marisa Calderon, Project Manager (ext. 1728)
Denise Richardson, Project Manager (ext. 1708)
SERVICE
Mike Price, Area Service MGR. (ext. 1735)
Karsten Skriver, Area Service Mgr. (ext. 1706)
Helen Teller, Serv. Coord. (ext. 1717)
Mary Villarreal, Proj. Admin. (ext. 1730)
Cristina Castillo, Proj. Admin. (ext. 1707)
Lori Doege, Proj. Admin (ext.1716)
OWNER DIRECT SALES
KEN DIXON, GENERAL SALES MGR AND SERVICE LEADER. (L6-S16) (ext. 1723)
Mike Alvarez (L6-S98) (ext. 1734)
Brandon Clark (L9-596) (ext. 1742)
Jeff McCombs (L6-S73) (ext. 1719)
Jeff Turov (L6-S94) (ext. 1720)
Karen Lewis (L6-T08) 361-855-1276
Scott Naab (ext. 1744)
Luis Maldonado (L6-T31) (ext. 1725)
Dave Maultsby (L6-T36) (ext.1711)
Melinda Decker (L6-T35) (ext. 1732)
Kern Tucker (ext. 1755)
Tony Moncada (A0-A04) (956) 447-1459 Weslaco Office
Greg Haresnape, Estimator (ext. 1709)
CONTRACTING
Yvonne Little, Proj. Admin- (ext. 1748
Tony Dimashe, Estimator (ext. 1747)

AUSTIN, TX (L9)
(512) 416-8822
(512) 416-8822 – After Hours
FAX: (512) 416-8894
9801 Metric Blvd. Suite, Suite 400
Austin, Texas 78758
MIKE JOHNSON, TEAM LEADER (ext. 5232)
Justin Bradford, Acct. Manager (L9-S23) (ext. 5240)
Matt Carroll, Acct. Manager (L9-S77) (ext. 5250)
Derrick Van West, Acct. Manager (L9-T15) (ext. 5214)
Spencer Rothery, Acct. Manager (L9-T25)

To search: Click on “Edit” in tool bar and then “Find”.

Ivan Suess, Inside Sales (L9-T23) (ext. 5255)
Leo Fernandez, Account Manager (L9-S88) (ext. 5262)
Susie Sanchez, Proj. Manager (ext. 5236)
Mary Lyle, Proj. Manager (ext.5234)
William Burr, Application Specialist (ext.5243)
SERVICE
FORREST GRAHMANN, AREA SERV. MGR. (ext. 5202)
Penny Cloyd, Serv. Coord. (ext. 5200)
Michele Duran – Project Admin (ext. 5201)
EXISTING BUILDING SALES
KEITH BRANGAN TEAM LEADER (L9-S72) (ext. 5203)
Jeff Page (L9-S20) (ext. 5204)
Daniel Stein (ext. 5253)
Keith Robinson (L6-T33) (ext. 5252)
OWNER DIRECT SALES
George Reed (L9-S17) (ext. 5246)
CONTRACTING
DAN YERGES, CONTRACTING OPERATIONS MANAGER (ext. 5226)
Travis Lantz, Project Adm. (ext. 5251)
Tu Dang, Proj. Engineer (ext. 5230)
Rick Abney, Project Manager (ext. 5227)
James McDaniel, Proj. Engineer (ext. 5228)
HIGHER EDUCATION BUSINESS DEVELOPMENT
Jody Albrecht (ext. 5249)

PARTS CENTERS:
MICHAEL THOELE, OPERATIONS MANAGER, Parts & Service (972) 406-6079

ARLINGTON, TX
Trane Parts Center
(817) 524-4555
FAX: (817) 524-4525
4905 New York Avenue, Suite 131
Arlington, Texas 76018
Daniel Machado, Store Mgr.

DALLAS, TX
Trane Parts Center
(972) 620-1161
FAX: (972) 241-0544
1400 Valwood Parkway, Suite 100
Carrollton, Texas 75006
Jeff Elliott, Store Mgr.

FORT WORTH, TX
Trane Parts Center
(817) 831-4291
FAX: (817) 831-0445
4200 N Sylvania Ave
Fort Worth, Texas 76137
Debbie Taylor, Store Mgr.

GARLAND, TX
Trane Parts Center
(972) 892-3900
FAX: (972) 892-0606
11011 Regency Crest Drive
Suite 300
Dallas, Texas 75238
Scott Durham, Store Mgr.

LUBBOCK, TX
Trane Parts Center
(866) 928-9096
FAX: (972) 369-0985
717 East 40th St.

To search: Click on "Edit" in tool bar and then "Find".

Lubbock, Texas 79404
Harvey LaFuente, Store Mgr.

AUSTIN, TX
Austin Trane Parts Center
(512) 416-8822
FAX: (512) 485-5238
9801 Metric Blvd. Suite 400
Austin, Texas 78758
Walter Snow, Parts Office Mgr. (ext. 5221)
Brian Westphal, Inside Sales (ext. 5224)
Cesar Aguirre, Warehouse Coord. (ext. 5221)

SAN ANTONIO, TX
San Antonio Trane Parts Center
(210) 804-2223
Toll Free: 1-800-313-2780
FAX: (210) 824-9393
2469 Freedom
P. O. Box 34597 78265
San Antonio, Texas 78217
Chris Hettie, Parts Store Manager (ext. 105)
John Kirkpatrick, Inside Counter (ext. 101)
Eddie Juarez, Inside Counter (ext. 102)
Bill Critchley, Inside Counter (ext. 100)
Rudy Segovia, Warehouse Coord. (ext. 104)

WESLACO (Rio Grande Valley)
Weslaco Trane Parts Center
(956)-973-0213
FAX: (956) 969-0716
1240 North Vo-Tech, Suite F & G
Weslaco, TX 78596
Marcos Perez, Parts Office Mgr. (956-973-2614
Ricardo Leal, Inside Counter (956-973-0694)

To search: Click on “Edit” in tool bar and then “Find”.

VANCOUVER DISTRICT	Last updated January 1, 2013

VANCOUVER DISTRICT
(See also British Columbia Interior, Vancouver Island and Edmonton area offices listed below)
(604) 473-5600
(604) 473-5600 – After Hours
FAX: (604) 294-9571
3080 Beta Avenue
Burnaby, British Columbia V5G 4K4

PETER HOEMBERG, DISTRICT GENERAL MGR. CANADA
SEAN HUGHES, AREA MANAGER (EXT.607)
Meghan Evans, HR & Safety Manager (ext. 609)
Julie Van Weston, HR and Safety Coordinator (ext. 697)
Nicola Madore, Marketing Coordinator (ext.677)
Hana Kram, Executive Assistant (ext.608)
Arlene Miller, Receptionist/Office Manager (ext.600)
Ed Sain, Director of Financial Operations/Proc. (ext.657)
Taj Pooni, Controller (ext.642)
Walter Linck, New Systems Sales Mgr. (CT-P02) (ext. 612)
John Curran, N.A.E. & N.A.J.C. (CT-P03) (ext.619)
Cameron Lowry, NSS Sales Engineer (Ind. & Comm.) (CT-P06) (ext. 616)
Brian Buchanan, NSS Sales Engineer (CT-P42) (ext. 632)
Ivan Holdo, NSS Sales Engineer (CT-P46) (ext. 613)
Bob Lowden, NSS Sales Engineer (CT-P40) (ext. 626)
Tim Thompson, NSS Sales Engineer (CT-P60) (ext. 615)
Kyle Gilbertson, NSS Sales Engineer (CT-P53) (ext. 656)
Nevil Harsha, Applications Engineer (ext. 693)
Richard Baker, Contracting / Equipment Operations Manager (ext.614)
Bob Omstead, NSS Project Manager (ext.681)
Lynne Osborne, NSS Project Manager (ext. 621)
Ingrid Ma, Order Fulfillment/Technical Support (ext. 628)
Gloria Rivas, NSS Project Administrator (ext.643)
Venecia Bastidas, NSS Project Administrator (ext.649)
Mike Madore, Mechanical Engineering Technologist (ext.627)

EBS
Thomas Roney, Service Sales Manager (ext. 671)
Ross Hemsley, Acct. Mgr. (CT-P29) (ext. 685)
Barry Waterman, Acct. Mgr. (CT-P30) (ext. 673)
Ravina Uppal, Acct. Mgr. (ext. 620)
Maurice Castonguay, Acct. Mgr. (ext. 615)
Jamie Bardsley, Acct Manager (ext. 654)
Cher Novinc, Acct Manager (ext. 635)
Catrina Edwards, Service Administrator & Dispatch Supervisor (ext.606)
Janice Flintoff, Resource Coordinator (ext. 617)
Lori Gillis, EBS Project Coordinator (ext. 647)
Jamie Lamy, EBS Project Coordinator (ext. 618)
Lexy Smith, EBS Project Coordinator
Claudia Carvajal, EBS Project Coordinator (ext. 641)

BAS & CONTRACTING
Doug Robertson, BAS Sales Mgr. (CT-P28) (ext. 684)
Dzmitry Babrouski, Controls/Contracting Engineering Sales (ext. 636)
Nancy Tremblay, Contracting Project Administrator (ext. 690)
PARTS
3264 Beta Ave.
Burnaby, British Columbia V5G 4K4
Jordain Charette, Parts Counter (ext.650)
Sivan Sundram, Shipper/Receiver (ext.652)
Bill Davis, Residential Manager (ext.640)

BRITISH COLUMBIA INTERIOR, BRITISH COLUMBIA (CO)
VANCOUVER DISTRICT
(250) 491-4600

To search: Click on “Edit” in tool bar and then “Find”.

FAX: (250) 491-4602
#21 – 2550 Acland Road
Kelowna, British Columbia V1X 7L4
KELLY BURNHAM, KELOWNA AREA MANAGER (CT-P05) (EXT.102)
Randy Freiheit, Technical Project Coordinator (ext.104)
Deb Humphreys, Proj. Coordinator (ext.101)
Dino Giarrusso, BAS & EBS Sales (CT-P49) (ext.103)

PARTS
1525 Keehn Road
Kelowna, BC, V1X 5T5
Scott Pierce, Parts Store Manager
Knud Nyboe, Parts Counter

VANCOUVER ISLAND, BRITISH COLUMBIA (CI)
VANCOUVER DISTRICT
(250) 475-6834 – If no answer leave voice mail message
FAX: (250) 475-6894
759B Vanalman Avenue
Victoria, British Columbia V8Z 3B8
TIMO LUCAS, VICTORIA. AREA MGR. (CT-P07) (EXT.523)
Mike Thompson, Area Service Manager (ext.525)
Mark Watson, NSS Account Manager (CT-P36) (ext. 524)
Jennifer Cony, Project Coordinator (ext.522)
Tonicha Kobayashi, Project Coordinator (ext.526)
Tanya Rayner, Project Coordinator (ext.529)

EDMONTON, ALBERTA (CR)
VANCOUVER DISTRICT
(780) 342-2400
FAX: (780) 454-2174
10456 Mayfield Road NW
Edmonton, Alberta T5P 4P4
WARREN SADOWAY, EDMONTON AREA MANAGER (CR-T17) (EXT.404)
Michael Thorpe, Service Manager, (ext.412)
Dave Wiens, NSS Sales Engineer (CR-T14) (ext.403)
Brad Schoettler, NSS Sales Engineer (CR-T16) (ext.405)
Justin Agombar, NSS Sales Engineer (CR-T19) (ext.407)
Douglas Ketsa, Controls & EBS Sales (CR-T18) (ext.406)
Ksenya Foty, Service Coordinator (ext.411)
Larry Smith, BAS Project Manager
Tammy McBride, BAS Fulfillment (ext.407)
Grace McKenna, Office Manager (ext. 414)
Ashley Poulin, NSS Project Coordinator (ext. 420)
Amber Freysteinson, NSS Project Coordinator (ext. 408)
Cynthia Ruptash, Receptionist

PARTS CENTER:

(780) 342-2401
FAX: (780) 342-2426
10472 Mayfield Road NW
Edmonton, Alberta T5P 4P4
Dave Beattie, Parts Counter (ext.424)
Craig Paton, Parts Counter (ext. 415)

To search: Click on “Edit” in tool bar and then “Find”.

VIRGINIA DISTRICT	**Last updated January 1, 2013**

RICHMOND, VA (E3)
VIRGINIA DISTRICT
(See also Roanoke and Johnson City offices and Parts Centers listed below)
(804) 747-3588
(804) 747-3588 – After Hours
Toll Free: (877) 478-7263
FAX: (804) 273-0119
10408 Lakeridge Parkway, Suite 100
Ashland, Virginia 23005

DAVE PIERSON, DISTRICT MGR.
MATTE ANDERSON, AREA MANAGER (496-4105)
SYSTEMS SALES TEAM
Scott Bass, Application Specialist (E3-M53) (496-4101)
Ken Draper (E3-M62) (496-4128)
Chad Elder Application Specialist (496-4148)
Mat Erickson (E3-M56) (496-4170)
Nathan Fisher, A.E. (E3-M49) (496-4104)
Jeff Goldblum (E3-M97) (496-4115)
Mike Orr (E3-M70) (496-4124)
Jason Williamson (E3-M65) (496-4139)
Chris Wood (E3-M59) (496-4130)
Michael Vocke, City Desk (E3-M67) (496-4172)
Karen Cash, PM (E3-M45) (496-4102)
Jacquie Evans, PM (E3-M45) (496-4117)
Diane Love, PM (E3-M45) (496-4121)
Megan Minach, PA Bid Coordinator (496-4135)
SERVICES SALES TEAM
Brad Trevillian, Direct Sales Team Leader (496-4147)
Rhodes Boyd (496-4131)
Kellen Hancock (E3-M75) (496-4184)
Dave Sheldon (E3-M76) (496-4181)
Marty Miller (496-4137)
Carter Griffith (E3-M42) (496-4114)
Myra Quicke (E3-M86)
RENTAL SOLUTIONS
John Wingfield (496-4141)
SOLUTIONS SALES TEAM
Lou Hrkman, District Solutions Team Leader (E3-M73) (804 496-4126)
Larry Cummings, Business Development & Strategic Relationships (804-496-4146)
Neil Clinebell (E3-M68) (496-4108)
Jeff Smitley, Account Executive, 804-496-4207
Jeff Schottler, Energy Engineer, 804-496-4153
CONTROLS SALES TEAM
Jim Hahn, District Controls Sales Leader (E4-N38)
Clay Marks, Controls Specialist (E3-M43) (496-4118)
Thomas Barrett (496-4142)
FULFILLMENT TEAM
Dan Reynolds, District Service Solutions Mgr. (540-563-2828)
Matte Anderson, Service Solutions Manager (804-496-4105)
Howard Turner, District Contracting Solutions Manager (804-496-4119)
PARTS TEAM
Scott Collins, District Parts Mgr. (540-265-3379)
Larry E. Thompson, Parts Sales Manager (540) 563-2828
Marshall Doucet, Parts Area Leader, Midlothian & Fredericksburg Office - +1 (804) 744-1566
Ken Elliott, Parts Area Leader, Ashland & Fredericksburg Office - (804) 496-4205
HUMAN RESOURCES
Jeff Lakin (804-496-4129)
SAFETY
Jan Summers (804-496-4111)
MARKETING
Debbie Whitteker, District Mktg. & Training Coord. (540-563-2828) (ext. 3480)
Larry Cummings, Business Development & Strategic Relationships (804-496-4146)

To search: Click on “Edit” in tool bar and then “Find”.

FINANCE
Steven Selph, District Finance Leader – Roanoke Office (540-563-2828) (ext. 3399)

ROANOKE, VA (E4)
VIRGINIA DISTRICT
(540) 563-2828
(540) 366-4655 – Emergency
(540) 342-3027 – Parts Center
FAX: (540) 366-4958
2303 Trane Drive
Roanoke, Virginia 24017
DAVE PIERSON, DISTRICT MGR. (E4-N36)
Belinda Church, HR Asst. and Training Coordinator
SYSTEMS SALES TEAM
Lori Wampler (E4-N09) Indirect Sales Leader
Terry Johnston, A.E., N.A.E. (E4-N22)
Justin Vass (J3-D18)
Jeff Wolfe (E4-N37)
Patrick Murdock (E4-N47)
Rachel Saunders, PM
Angela Bridgen, PM
Corrinne Witt, PM
Wystan Crismond, AS
SERVICES SALES TEAM
Bill Mason, Direct Sales Leader
Jim McQuail (E4-N15)
Heather Wheeler
Scott Wise (E4-N59)
Mac Michals (E4-N67)
Craig Thompson (E4-N68)
Holley Conner
Crystal Flores, SA
SOLUTIONS SALES TEAM
Lou Hrkman, District Solutions Team Leader (E3-M73)
Kathy Cox, Solutions Sales
Craig Washburn, E.E.
Kim Roe, Solutions Administration
CONTROLS SALES TEAM
Jim Hahn, District Controls Sales Leader (E4-N38)
Rodney Bryant
ESTIMATING
Mike Lane, Controls
Ron Irby, Services
FULFILLMENT TEAM
Dan Reynolds, District Service Solutions Mgr.
Howard Turner, District Contracting Solutions Manager
David Smith, Contracting Fulfillment Leader
Christine Phillips, Engineering Team Leader
PARTS TEAM
Scott Collins, District Parts Mgr. (540-265-3379)
Larry E. Thompson, Parts Sales Manager (540) 563-2828
Scott Leas – Parts Area Leader
MARKETING
Larry Cummings, Business Development & Strategic Relationships (804-496-4146)
Debbie Whitteker, District Mktg. Coord.
FINANCE
Steven Selph, District Finance Leader – Roanoke Office (540-563-2828) (ext. 3399)

JOHNSON CITY, TN (J3)
VIRGINIA DISTRICT
(423) 224-1150
Toll Free: (800) 842-4826
FAX: (423) 224-1151
10384 Wallace Alley Street
Kingsport, TN 37663
DAVE PIERSON, DISTRICT MGR.

To search: Click on “Edit” in tool bar and then “Find”.

Dennis Van Guilder, Direct Sales Leader
PARTS TEAM
Scott Collins, District Parts Mgr. (540-265-3379)
Larry E. Thompson, Parts Sales Manager (540) 563-2828
Scott Leas – Parts Area Leader
SYSTEMS SALES TEAM
Jeff Martin, PA
SERVICES SALES TEAM
Rodney Thaxton
Donnie Free
Daniel Lee
Robin McMurray-Marsh, SA
SOLUTIONS SALES TEAM

PARTS CENTERS

RICHMOND, VA
TRANE VIRGINIA
(804) 747-4774
FAX: (804) 747-4918
10408 Lakeridge Parkway
Suite 100
Ashland, Virginia 23005
Scott Collins, District Parts Mgr. (540-265-3379)
Larry E. Thompson, Parts Sales Manager (540) 563-2828
Ken Elliott, Parts Area Leader, (804) 496-4205

TRANE VIRGINIA
(804) 744-1566
FAX: (804) 935-1216
12738 Oak Lake Court
Midlothian, Virginia 23112
Scott Collins, District Parts Mgr. (540-265-3379)
Larry E. Thompson, Parts Sales Manager (540) 563-2828
Marshall Doucet, Parts Area Leader, (804) 744-1566

TRANE VIRGINIA
(540) 752-2976
FAX: (540) 752-2730
115 Juliad Court
Suite 111
Fredericksburg, Virginia 22406
Scott Collins, District Parts Mgr. (540-265-3379)
Larry E. Thompson, Parts Sales Manager (540) 563-2828
Marshall Doucet, Parts Area Leader, (804) 744-1566

TRANE VIRGINIA
(434) 327-1601
FAX: (434) 327-1607
1215 East Market Street
Charlottesville, Virginia 22902
Scott Collins, District Parts Mgr. (540-265-3379)
Larry E. Thompson, Parts Sales Manager (540) 563-2828
Ken Elliott, Parts Area Leader, (804) 496-4205

ROANOKE, VA
TRANE VIRGINIA
(540) 342-3027
FAX: (540) 777-6874
2301 Trane Drive
Roanoke, Virginia 24017
Scott Collins, District Parts Mgr. (540-265-3379)
Larry E. Thompson, Parts Sales Manager (540) 563-2828
Scott Leas – Parts Area Leader

To search: Click on “Edit” in tool bar and then “Find”.

JOHNSON CITY, TN
TRANE VIRGINIA
(423) 279-1160
FAX: (423) 279-1169
10390 Wallace Alley Street
Kingsport, Tennessee 37663
Scott Collins, District Parts Mgr. (540-265-3379)
Larry E. Thompson, Parts Sales Manager (540) 563-2828
Scott Leas, Parts Area Leader

LYNCHBURG, VA
TRANE VIRGINIA
(423) 528-6364
FAX: (423) 528-6365
115 Bradley Drive
Lynchburg, VA 24501

To search: Click on “Edit” in tool bar and then “Find”.

WASHINGTON D.C. DISTRICT	Last updated January 1, 2013

WASHINGTON, DC (E2)
WASHINGTON D.C. DISTRICT
(See also Parts Center listed below)
(240) 306-3000– Receptionist
(240) 306-3300 – Service & After Hours
(240) 306-xxxx – If not in or after hours voice mail
FAX: (240) 306-3400
30 West Watkins Mill Road
Gaithersburg, Maryland 20878
JAMES BOLAND, DISTRICT MGR. (ext. 3090)
LOUIS J. BOLAND, JR. EXECUTIVE V.P. (ext. 3060)
LAWRENCE J. CAIN, JR. SR. V.P./CFO (ext. 3010)
JERRY T. SCANLAN, SALES MGR. (E2-D56) (ext. 3289)
Pat Bain, A.E. (E2-D60) (ext. 3252)
Michael Ball, S.E. (ext. 3296)
Gordon Bean, S.E. (E2-D96) (ext. 3247)
Claudia Bell, S.A. (ext. 3283)
Kevin Bradley, S.E. (E2-D21) (ext. 3253)
Greg Burbank, Inside Sales (E2-D61) (ext. 3213)
Thierry de Raet, S.E. (E2-D91) (ext. 3248)
Tony Divino, S.E. (E2-D07) (ext. 3208)
Richard L. Dunn, Appl. Mgr. (E2-D98) (ext. 3244)
James A. Fusco, Sr. A.E. (E2-D45) (ext. 3245)
Jason Mindlin, S.E. (E2-E16) (ext. 3322)
Gerardo Molina, S.E. (E2-D09) (ext. 3234)
Drew Hanke, S.E. (E2-D12) (ext. 3214)
Harry MacLaughlin, A.E. (E2-D63) (ext. 3243)
Mike Makovitch, S.E. (E2-D82) (ext. 3238)
Jason Mindlin, S.E. (E2-E16) (ext. 3322)
Fernanda Martinez, S.A. (ext. 3223)
Joe Mulligan, S.E. (E2-D46) (ext. 3231)
Andy Payne, S.E. (E2-D17) (ext. 3227)
Nick Pribich, S.E. (E2-D41) (ext. 3272)
Beth Reynolds, Inside Sales (E2-D36) S.A. (ext. 3270)
Mark Shell, A.E. (E2-D57) (ext. 3212)
Brad Snodgrass, S.E. (E2-D23) (ext. 3222)
Diane Speakes, S.A. (ext. 3228)
Richard W. Thoms, Sr. A.E. (E2-D31) (ext. 2220)
Lesley Trego, S.A. (ext. 3229)
Julie Valeyko, S.A. (ext. 3299)
Dale P. Wexler, S.A. Admin. (ext. 3232)
EXISTING BUILDING SALES
JOHN CAIN, EBS SALES MGR. (E2-D70) (ext. 3216)
Curtis Blades, A.E. (E2-D26) (ext. 3267)
Sean Boland, A.E. (E2-D25) ((ext. 3298)
Brandon Conheim, A.E. (E2-37) (ext. 3225)
Brendan Dowd, A.E. (E2-D59) (ext. 3251)
John Finucan, A.E. (E2-D79) (ext. 3209)
Fran Gleason, A.E. (E2-D73) (ext. 3280)
Katie Kimmel, A.E. (E2-D28) (ext. 3256)
Pat Payne, A.E. (E2-D11) (ext. 3226)
Dave Pirkey, A.E. (E2-D24) (ext. 3274)
Rick Unger, A.E. (E2-D58) (ext. 3286)
Julie Wolfington, A.E. (E2-D29) (ext. 3266)
BAS
STEVE MUMMEY, OPERATIONS MGR. (E2-D92) (ext. 3355
JAMES POTTER, MARKETING MGR. (E2-D62) (ext. 3254
Carl Diaz, Asst. Proj. Coord. (ext. 3207)
Tim Dodge, Proj. Eng. (E2-D05) (ext. 3302)
Chris Euteneuer, Sr. Proj. Eng. (E2-D18) (ext. 3350)
Nick Kahl, Proj. Mgr. (ext. 3305)
Jim Schwab, Proj. Mgr. (ext. 3377)

To search: Click on “Edit” in tool bar and then “Find”.

CONTRACTING
RICK LEFRANCOIS, MGR. (E2-D02) (ext. 3321)
STEVE BEATRICE, SALES MGR. (E2-D67) (ext. 3202)
Garay (Doc) Goglio, Proj. Coord. (E2-D47) (ext. 3349)
SERVICE
ED SHIFFLETT, OPERATIONS MGR. (E2-D08) (ext. 3333)
TONY ALESSANDRO, ADMIN. MGR. (E2-D95) (ext. 3386)
MARKETING
LAN ADMINISTRATOR
Mike Mangrum (ext. 3014)
HUMAN RESOURCE
SARAH HEITKEMPER, MGR. (ext. 3011)
FINANCE
KIM WINOKUR, CONTROLLER (ext. 3079)

PARTS CENTER

Boland Trane Service
(240) 306-3100
FAX: (301) 984-0583
30 West Watkins Mill Road
Gaithersburg, Maryland 20878

(240) 306-3100
FAX: (301) 984-0583
9475 Lottsford Road, Suite 160
Largo, Maryland 20774
Bill Berney, Parts Mgr.

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WICHITA DISTRICT	**Last updated January 1, 2013**

WICHITA, KS (Q1)
WICHITA DISTRICT
(See also Parts Center listed below)
(316) 265-9655
(316) 265-9656 – After Hours
FAX: (316) 265-1974
Mailing Address:
P.O. Box 595
Wichita, Kansas 67201
Office Location:
120 Ida
Wichita, Kansas 67211

JOHN F. KNIPP, DISTRICT MGR. (Q1-K01)
Tim Berends (Q1-K08)
Joe Reintjes (Q1-K08)
Tom Schmidt, Office & LAN Admin, HR.
Chad Marlow (Q1-K08)
Ed Lange (Q1-K08)

Marc Robinson, SA
Becky Kealey, Financial Manager
EXISTING BUILDING SALES
Andy Knipp, Service Manager
Brett Miller, Direct Sales Manager
Richard Black, Inside Sales (Q1-K06)
Christian Knipp, EBS
Craig Singer, EBS
Doug Knipp, EBS
Curtis Winter, SA Sales
BAS
Steve Southern, BAS Solutions Leader
Chris Goevert, PM
Derrick Guyot, Project Engineer
MARKETING TRAINING
Jon Goering, Mktg./Training Coord.

PARTS CENTER
Mario Navarro, Manager
Kansas Trane HVAC Parts & Supply
(316) 265-9655
FAX: (316) 265-1974
P.O. Box 595 (67201-0595)
120 Ida
Wichita, Kansas 67211
Brian Hess, Parts Sales
Mark Hilyard, Parts Sales

To search: Click on “Edit” in tool bar and then “Find”.

WILKES-BARRE DISTRICT **Last updated January 1, 2013**

WILKES-BARRE, PA (D4)
WILKES-BARRE DISTRICT
(See also Allentown area office and Parts Centers listed below)
(570) 654-0865
(570) 654-0865 – After Hours
FAX: (570) 654-0343
10 Freeport Road
Pittston, Pennsylvania 18640-9514

DANIEL SWEET, DISTRICT MGR.

Denise Yocum, District Human Resources Leader
Jennifer Hunt, District Finance Leader
Mike Cassino, District EHS Manager
Laura Worker, Marketing Leader
Alicia Moore, Executive Administrative Assistant

Joel Gerace, General Sales Manager 717-561-5404
Kerry Freeman, NSS (D4-J02)

Charlie Samsock, Direct (D4-J22)
Sterling Colborn, Direct
Jesse D’Angelo, Direct (D4-J25)
John Franek, Customer Service/Inside Sales – Indirect

EQUIPMENT FULFILLMENT
Joel Gerace, Equipment Fulfillment Leader
Michael Schultz, Project Manager
Alyssa Procida, Estimator
Christine Hersh, Project Administrator
Keith Dougherty, BAS Sales

CONTRACTING SOLUTIONS
Bill Moore, Contracting Solutions Leader 717-585-7710
Gene Cudo, Contracting Manager
Chuck Henning, Project Manager
George Mullen, Project Engineer
David Dixon, Project Engineer
Joshua Souders, Construction Project Manager
Tina Gallagher-Rasalla, Project Administrator

SERVICE
Eric Archinal Service Solutions Leader
Ronald Shofran, Area Service Manager

ALLENTOWN, PA (D5)
WILKES-BARRE DISTRICT
(484) 223-1730
FAX: (484) 223-1824
5925 Tilghman Street, Suite 70
Allentown, Pennsylvania 18104
Raymond Forsthoefel, Account Manager, NSS. (D5-J01)
Andrew Hanegraaf - NSS (D5-J28)
Will Seiberling - NSS
Gabe Badesso, NSS (D5-J26)
Charlie Samsock, Direct (D4-J22)
Sterling Colborn, Direct

EQUIPMENT FULFILLMENT
Joel Gerace, Equipment Fulfillment Leader 717-561-5404
Mike Schultz, Project Manager
Alyssa Procida, Estimator Equipment

To search: Click on “Edit” in tool bar and then “Find”.

Christine Hersh, Project Administrator
Keith Dougherty, BAS Sales

PARTS CENTERS:

Dennis Shaw District Parts Leader

ALLENTOWN, PA

Northeastern Trane Parts Center
(610)-391-3040
FAX: (610) 391-3044
Green Hills Commerce Center II
5925 Tilghman St., Suite 60
Allentown, Pennsylvania 18104
Barry Elsasser, Parts Mgr.
Ray Vogel, Inside Sales
Keith Gradwell, Inside Sales
Scott Reiner, Outside Sales
Keith Coyle, Driver and Warehouse Coordinator

WILKES-BARRE, PA

Northeastern Trane Parts Center
(570) 819-0337
FAX: (570) 819-3019
421 N Pennsylvania Ave.
Wilkes Barre, Pennsylvania 18702
Barry Elsasser, Parts Mgr.
Paul Margellina, Inside Sales
Lisa Mullen, Parts Admin
Randy Mercadante, Warehouse Coordinator

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WILMINGTON DISTRICT	Last updated January 1, 2013

WILMINGTON, DE (D6)
WILMINGTON DISTRICT
(See also Parts Center listed below)
(302) 395-0200
FAX: (302) 395-0700
66 Southgate Blvd.
New Castle, Delaware 19720
JOHN R. SEIBERLICH, DISTRICT MGR. (D6-S00) (ext. 330)
SALES
SHAWN DOHERTY, SALES TEAM LEADER (D6-S05) (ext. 329)
NEW SYSTEMS SALES (NSS)
Ross Butler, Sales Engr. (D6-S30) (ext. 334)
Wade McCorkel, Sales Engr. (D6-S29) (ext. 368)
John Walker, Sales Engr. N.A.E. & N.A.J.C. (D6-A08) (ext. 342)
OWNER ACCOUNT MANAGEMENT (AM)
Chris Pepe, Sr. Acct. Mgr. (D6-S03) (ext. 345)
Jim Donahue, Acct. Mgr. (D6-S33) (ext. 349)
Doug Edwards, Acct. Mgr. (D6-S18) (ext. 344)
EXISTING BLDG. SALES (EBS)
Mark Denlinger, Acct. Rep. (D6-S) (ext. 365)
Nicole Gracey, Acct. Rep. (D6-S15) (ext. 315)
Leon Sawyers, Acct. Rep. (D6-S) (ext. 364)
FULLFILLMENT TEAM
Steve Rendulic, Inside Technical Sales Engineer (ext. 312)
Mark Trishman, Inside Technical Sales Engineer (D6-S11) (ext. 336)
John Cattanea, Inside Technical Sales Engineer (ext. 361)
Kathy Hess, S.A. (ext. 327)
Grace Renn, S.A. (ext. 356)
ENERGY SERVICES PROJECT DEVELOPMENT
BILL BUCHANAN, SR. PROJECT DEVELOPMENT RESOURCE (ext. 340)
Drew McPheeters, Proj. Develop. Resource (ext.337)
Lauren Ryan, Proj. Develop. Resource
CONTRACTING OPERATIONS
DOUG EMERY, ENERGY SERVICES & CONTROLS OPERATIONS TEAM LEADER (ext. 358)
Brian Chlan, Proj. Engr. (ext. 369)
Carolyn Dehorty, Contract Proj. Coordinator (ext. 329)
Glen Heuschkel, Proj. Mgr. (ext. 319)
Frank Kempski, Proj. Mgr. (ext. 320)
Scott Lewis, Proj. Mgr. (ext. 332)
Chase Lockard, Proj. Mgr. (ext. 370)
James Powers, Proj. Mgr. (ext. 317)
Justin Tashker, Proj. Engr. (ext. 316)
Dave Viering, Proj. Mgr. (ext. 328)
SERVICE
DAVE VANDERSLICE, OPERATIONS TEAM LEADER (ext. 347)
INTELLIGENT SERVICES
DANTE GABRIELLI, IS TEAM LEADER (ext. 314)
MARKETING, TRAINING & ACCT. DEVELOPMENT
PAMELA KINLEY, MKTG. TRAINING & ACCT. DEVEL. LEADER (ext. 322)
FINANCE
RON HESS, CFO (ext. 324)
LAN
Darrell Leahy, LAN Admin. (ext. 311)

To search: Click on “Edit” in tool bar and then “Find”.

PARTS CENTER:

Seiberlich Trane HVAC Parts & Supplies
(302) 356-2400
FAX: (302) 356-2401
66 Southgate Blvd.
New Castle, Delaware 19720
KATHY GONNELLI, PARTS TEAM LEADER (ext. 335)

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WINNIPEG DISTRICT	Last updated January 1, 2013

WINNIPEG, MANITOBA (CN)

WINNIPEG DISTRICT
(204) 632-1543
FAX: (204) 633-6578
Unit 9 – 2061 Logan Avenue
Winnipeg, Manitoba R2R 0J1

Carolyn Berry, Operations Admin.
Nicole Kehler
Nestor Sawka, Parts Mgr.
James Bain (CN-K14)
RICK DODDS, DISTRICT/OPERATIONS MGR. (CN-K12)

To search: Click on “Edit” in tool bar and then “Find”.

WISCONSIN DISTRICT	**Last updated January 1, 2013**

MADISON, WI (T1)
GREAT NORTHERN PLAINS DISTRICT
(See also La Crosse area office and Parts Center listed below)
(608) 838-8200
FAX: (608) 838-6015
4801 Voges Road, Suite A
Madison, Wisconsin 53718
MITCHELL FARRELL, DISTRICT GENERAL MANAGER
, Marketing Coordinator 608.576.0915 (ext. 5511)
TARA RUSSELL, DISTRICT HUMAN RESOURCES LEADER, 651-468-2703
KEVIN COLBERT, DIRECT SALES LEADER CE (ext. 5588)
Lisa Chupak, Human Resources (608-787-3893 cell)
Jane Boldt, Project Admin (ext. 5515)
ORDER ACQUISITION
JEFF GROTH, GENERAL SALES MANAGER
CONTRACTOR SALES TEAM (T1-C00)
, Team Leader (T1-C03) (ext. 5518)
Craig Carey, Account Manager (T1-C07) (ext. 5239)
Gregg Krattiger, Equipment Solutions Manager (ext. 5243)
Joe Kubicek, Equipment Solutions Manager (MKE) (ext. 5237)
, Project Manager (ext. 5114)
John Milkint, Account Manager- Indirect (ext. 5580)
Greg Froehle, Account Manager - Indirect (ext. 5109)
Jordan Eszlinger, Account Manager (ext. 5872)
ENGINEERING SALES TEAM (T1-E00)
Jessie Busse, Project Manager Quotes (ext. 5241)
NATIONAL ACCOUNTS SALES TEAM (T1-N00)
Kevin Malone, Account Manager - Indirect (T5-H67) (ext. 5237)
Lindsey Schmitz, Account Manager - Service (T1-O07) (ext. 5110)
Jeff Vitense, Account Manager - Service (T1-008) (ext. 5108)
Fred Flynn, Account Manager (T1-C13) (ext. 5543)
Rachel Fisch, Account Manager - Service (ext. 5116)
ORDER FULFILLMENT & OPERATIONS SERVICE
Tom Brookins, Area Service Manager (ext. 5245)
Tina Ziegler, Service Coordinator (ext. 5236)
Dean Gault, Service Billing (ext. 5542)
Jim O’Connor, Estimator - Service (ext. 5115)
BAS
Ralph Corning, Area Contracting Manager (ext. 5594)
Ed Quesada, Controls Technician (ext. 5510)
Project Manager – Controls (ext. 5589)
Art Jordan, Controls Tech (ext. 5240)
Tim Lane, Project Manager – Controls (ext. 5238)
Tom Happ, Systems Specialist (ext. 5582)
SAFETY
, District Environmental Health and Safety Manager

LA CROSSE, WI (T2)
GREAT NORTHERN PLAINS DISTRICT
(608) 788-8430
FAX: (608) 787-0454
2525 Larson Street
La Crosse, Wisconsin 54603
MARK HALDERSON, OPERATIONS MANAGER
CONTRACTOR & ENGINEER EQUIPMENT SALES
(T2-T19) 608-787-7883
OWNER SALES
Kelly Cummings, Account Manager - Service (T2-H00) (ext. 7883)
Tim Wichelt, Project Admin (ext. 7889)
Jake Jacobs, Service Project Admin
Eric Peterson, Engineering Specialist
BAS
Terry Swartz (ext. 7891)

To search: Click on “Edit” in tool bar and then “Find”.

OWNER SALES – Chippewa Falls
Dale Zank, Account Manager (T2-E00) (715) 720-9903
BAS – Chippewa Falls
JOSH MILLER, AREA CONTRACTING MANAGER (715) 720-9903
Gerald Melsness, Administrative Assistant (715) 720-9903

MILWAUKEE, WI (T5)
GREAT NORTHERN PLAINS DISTRICT
(See also Appleton area office and Parts Center listed below)
(414) 266-5200
FAX: (414) 266-5216
234 W. Florida Street
Milwaukee, WI 53204
MITCHELL FARRELL, DISTRICT GENERAL MANAGER
BOB DAVIS, AREA MANAGER (ext. 5203)
ACQUISITION
Ralph Corning, Area Controls Manager (ext. 5260)
John Kelley, Acquisition Leader (T5-H27) (ext. 5209)
INDIRECT SALES
Jay Kasmerchak, Account Manager (T5-H61) (ext. 5211)
John Pratt, Account Manager (T5-H60) (ext. 5213)
Philippe Hevesy, Account Manager (T5-H70) (ext. 5207)
Jeff DeVor, Account Manager (T5-H73) (ext. 5221)
Gary Gruenke, Account Manager (ext. 5234)
DIRECT SALES
Mike Stanczyk, Account Manager (T5-H65) (ext. 5206)
Kevin Malone, Account Manager (T5-H67) (ext. 5214)
Allan Lantz, Account Manager - EBS (T5-H63) (ext. 5222)
Jim Krol, Account Manager (ext. 5223)
Sue Hooker, Application Specialist/ Estimator (ext. 5229)
Brett Jasinski, Application Specialist (ext. 5208)
EQUIPMENT FULFILLMENT
Joe Kubicek, Engineering Specialist (T5-H40) (ext. 5232)
Chad Lobsinger, Engineering Specialist (ext. 5233)
Deanna Zion, Project Manager (ext. 5218)
Paul Schack, Equipment Sales (T2-T19) 608-787-7883

CONTRACTING FULFILLMENT
Todd Tessenske, Project Manager (ext. 5210)
Todd Amich, Project Manager (ext. 5236)
Steve Scott, Project Manager (ext. 5225)
SERVICE
John Zolper, Area Service Manager (ext. 5219)
Korry Kasel, Service Dispatch (ext. 5226)
Eric Eidler, Service Estimator (ext. 5205)
Vickie Sobie, Project Admin (ext. 5227)

APPLETON, WI (T6)
GREAT NORTHERN PLAINS DISTRICT

(920) 734-4531
(920) 734-4531 – After Hours
FAX: (920) 734-2044
2500 N. Lynndale Dr., Ste. H
Appleton, Wisconsin 54914-4306
Dan Lobermeier, Account Manager – Equipment (T6-D26) (ext. 4204)
Ron Osgood, Project Manager – Equipment (ext. 4206)
Chris Hoffman, Project Manager

To search: Click on "Edit" in tool bar and then "Find".

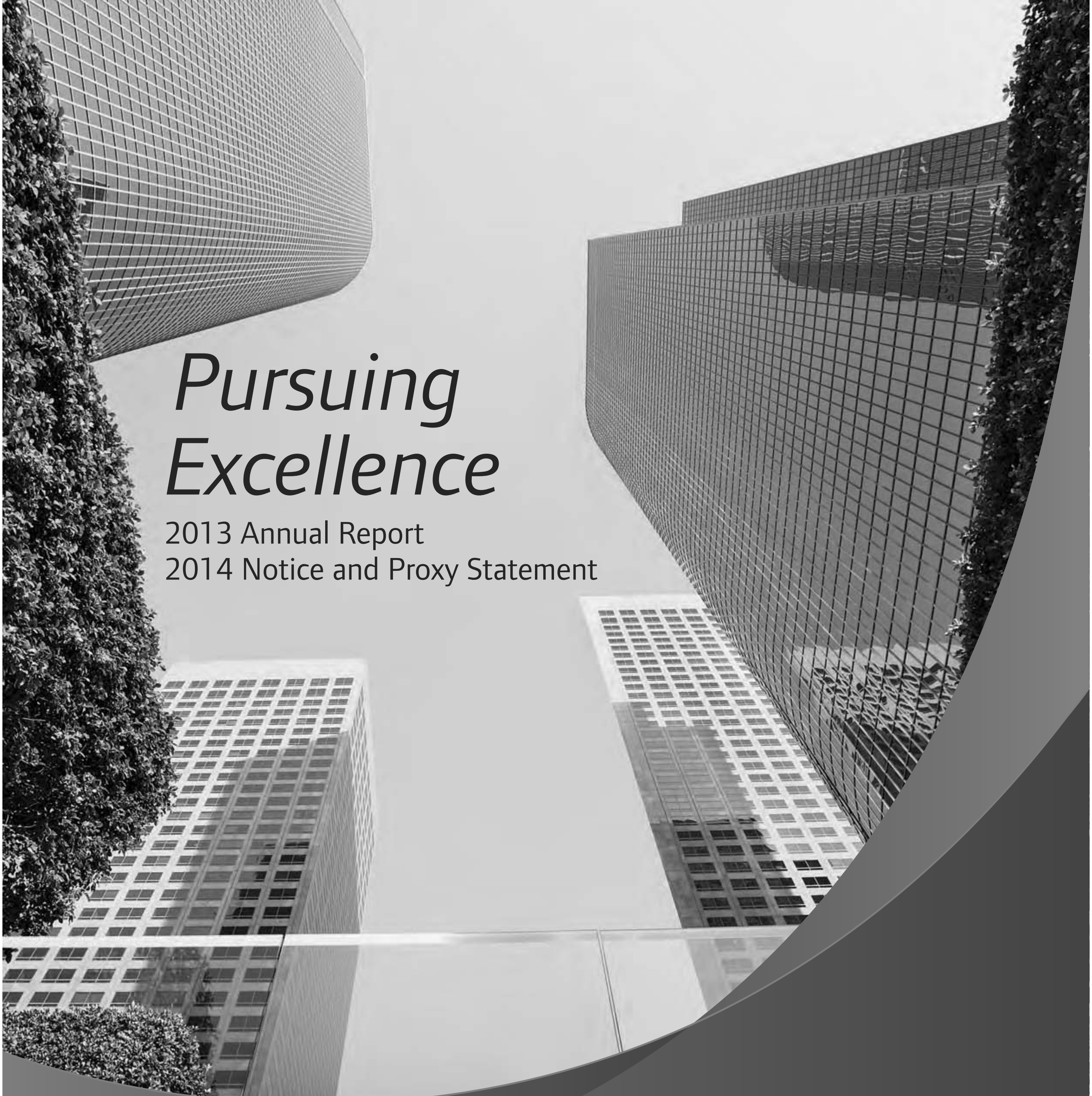
PARTS CENTERS:

MADISON, WI
Trane Parts Center of Madison
(608) 838-4499
FAX: (608) 838-5513
4801 Voges Road
Madison, Wisconsin 53718
TRAVIS HOLAK, PARTS LEADER LA CROSSE (608-788-8430)
Calvin Schmeling, Parts Store Manager (ext. 5508)
Scott Pauls, WI City Desk Manager (ext. 5249)
Jason Berndt, Inside Parts Sales (ext. 5507)
Jennifer Rivers, Inside Parts Sales (ext. 5590)
James Buck, Account Manager - Parts Chippewa Falls (ext. 715-720-9903)

MILWAUKEE, WI
Milwaukee Trane Parts Center
(414) 266-5201
FAX: (414) 266-5202
4512 W. Burnham Street
West Milwaukee, WI 53219
TRAVIS HOLAK, PARTS LEADER LA CROSSE (608-788-8430)
Matt Martin, Inside Parts Sales (ext. 5251)
Dale Budd, Account Manager – Parts (ext. 5201)
Lee Verhagen, Inside Parts Sales (ext. 5250)
Travis Eidler, Warehouse Coordinator
Matt Hoppe, Warehouse

APPLETON, WI
Appleton Trane Parts Center
(920) 734- 6054/ 920-636-42xx
FAX: (920) 734- 4945
2500 N. Lynndale Dr., Ste. H
Appleton, Wisconsin 54914
Chad Steenberg, Store Manager (920-636-4201)

Joe Mulder, Inside Parts Sales (ext. 920-636-4217)



Pursuing Excellence

2013 Annual Report
2014 Notice and Proxy Statement

Ingersoll Rand
Inspiring Progress™

Ingersoll Rand
Inspiring Progress™

Leaders from Ingersoll Rand and the New York Stock Exchange (NYSE) celebrated a long legacy of industry leadership for two of our brands—100 years for Trane® and 75 years for Thermo King®—with the ringing of the closing bell at the NYSE on April 29, 2013. These two brands continue to lead the market in innovation, efficiency and reliability in the building and transport industries.

The Ingersoll Rand Compressed Air Systems and Services manufacturing facility in Unicov, Czech Republic, is one of our value streams under transformation as part of our growth and operational excellence initiatives.

Our Market-Leading Brands

Ingersoll Rand (NYSE:IR) advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands—including Club Car®, Ingersoll Rand®, Thermo King® and Trane®—work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency. We are a $12 billion global business committed to a world of sustainable progress and enduring results.

Club Car® Ingersoll Rand® THERMO KING TRANE®

This integrated annual report and the 2013 online sustainability supplement at www.ingersollrand.com/sustainabilitysupplement follow the Global Reporting Initiative (GRI) 3.1 Guidelines and report on our financial and non-financial performance for the 2013 fiscal year. For more information on GRI, please visit www.globalreporting.org. To ensure the quality of our environmental health and safety data, we assure our data with a third party provider. The results of this assurance can be found in our online sustainability supplement at www.ingersollrand.com/sustainabilitysupplement.

The following letter to shareholders contains "forward-looking statements," which are statements that are not historical facts, including our ability to address environmental and social challenges, the future success of our operational excellence initiatives, our future financial performance, and our positioning in and the performance of the markets in which we operate. These statements are based on currently available information and our current assumptions, expectations and projections about future events. While we believe that our assumptions, expectations and projections are reasonable in view of the currently available information, you are cautioned not to place undue dependence on our forward-looking statements. Forward-looking statements speak only as of the date they are made and are not guarantees of future performance. They are subject to future events, risks and uncertainties—many of which are beyond our control—as well as potentially inaccurate assumptions that could cause actual results to differ materially from our expectations and projections. You are advised to review the factors described under the captions "Risk Factors" and "Management's Discussion and Analysis of Financial Conditions and Results of Operations" in our Form 10-K for the fiscal year ended December 31, 2013, and any further disclosures we make on related subjects in materials we file with or furnish to the SEC. We do not undertake to update any forward-looking statements.

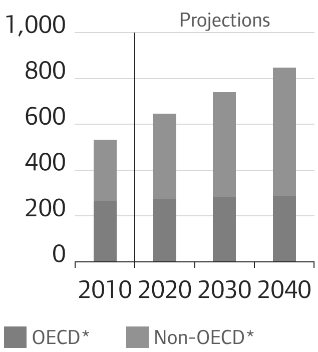
The following letter to shareholders also contains certain non-GAAP financial measures, including "Adjusted Operating Margins" and "Adjusted Earnings Per Share" which should be considered supplemental to, not a substitute for or superior to, the financial measure calculated in accordance with GAAP. "Adjusted Operating Margins" excludes restructuring costs with negative operating margin impact in the amount of 0.7 percent for 2013, 0.3 percent for 2012 and 0.2 percent for 2011, and impairment charges with negative operating margin impact of 5.1 percent for 2011. "Adjusted Earnings Per Share" excludes restructuring costs with a negative after-tax impact of $0.19 for 2013, $0.09 for 2012 and $0.08 for 2011, refinancing premium with a negative impact of $0.16 for 2013, spin-related tax charges with a negative impact of $0.25 for 2013, and impairment charges with a negative after-tax impact of $1.64 for 2011.

Dear Shareholder:

Michael W. Lamach
Chairman and Chief Executive Officer

Our company is helping to solve some of the world's most pressing challenges—an unsustainable demand for energy resources, the impact of urbanization on the environment, and a constant need for increased industrial productivity with lower resource intensity. These challenges are critical to our customers and at the heart of Ingersoll Rand's vision—a world of sustainable progress and enduring results.

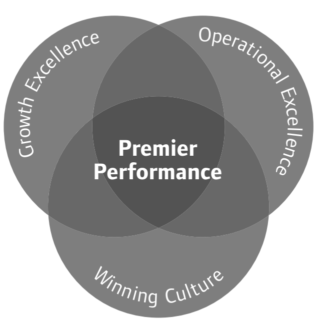
World Total Energy Consumption, 2010–2040 (Quadrillion BTU)



Source: U.S. Energy Information Administration (EIA), International Energy Outlook 2013

*Organization for Economic Cooperation and Development (OECD) Member Countries

Enterprise Strategies



Energy efficiency is often hailed as the smartest approach to the looming global energy consumption crisis, with potential energy savings worth more than $1 trillion in the United States alone. We possess the needed expertise to help—and that matters because the increase in global energy demand will reach the equivalent of 2.37 trillion barrels of oil by 2040 if left unchecked. It matters because buildings alone will consume 40 percent of all energy over the next 20 years. In addition, consider that manufacturing and transportation industries will expend another 30 percent and 28 percent, respectively, over the same timeframe. Providing solutions to these challenges is important to our customers, our company and the world we live in.

We are passionate about improving the world, and Ingersoll Rand, every day. Our pursuit of excellence is more than words. It's a measurable approach to making a difference. Throughout this report you will see progress against our financial, environmental and social impact goals. You will read how our three enterprise strategies—Growth Excellence, Operational Excellence and a Winning Culture—are supportive of each other in our pursuit of Premier Performance. These strategies offer shared success among our employees, customers and shareholders.

Excellence for Employees

Ingersoll Rand's approach to employee engagement encourages leaders at all levels of the company to demonstrate authentic leadership and drive employee engagement locally. We realized an eight-point employee engagement score improvement during 2013 and have achieved top quartile performance against industry benchmarks for manufacturers. These results are a testament to an environment where employees collaborate, develop, excel and take pride in our company—the essence of our Winning Culture.

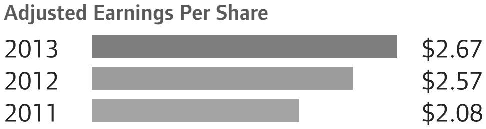
Total Net Revenues (Billions)

Adjusted Operating Margins

0.9 Percentage Points ↑ from 2011 to 2013

Excludes restructuring costs and impairment charges related to the Hussmann divestiture.

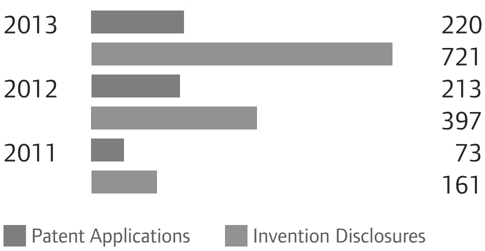
Adjusted Earnings Per Share



28% ↑ from 2011 to 2013

Excludes restructuring costs, refinancing premium, spin-related costs and impairment charges related to the Hussmann divestiture.

Intellectual Property



In the last four years, we doubled the contribution of new products and services to our revenue, generating value for our customers and shareholders.

Excellence for Customers

Understanding our customers' specific needs is what shapes our ability to offer the right products and services. Ingersoll Rand's Climate and Industrial businesses focus on providing reliable, energy efficient and sustainable solutions to help customers address energy consumption and improve productivity.

This report shares stories about our reliability and energy efficiency leadership, and how our expertise is demonstrated through the more than 100 new products and services introduced in 2013. Products like the Trane Stealth™ air-cooled chiller that delivers low sound levels and is one of the world's most environmentally friendly heating, ventilation and air conditioning systems (HVAC); and the Ingersoll Rand Centac® C800 centrifugal compressor that improves productivity and significantly lowers operational costs for our customers.

In 2013, customers rewarded us for our investments in new solutions with increases in market share. One example is the Thermo King Precedent™, our new transport refrigeration platform that delivers double-digit fuel savings and lower life cycle costs. The Precedent has a competitive advantage because it meets stringent North American regulatory standards without requiring add-on diesel particulate filters or engine emission systems. That competitive advantage contributed to a 10 percent year-over-year increase in North American trailer revenue.

Excellence for Shareholders

We delivered another strong year for shareholders, exceeding commitments for revenue, adjusted earnings per share and cash flow. The effective application of our strategies contributed to an adjusted operating margin improvement of 40 basis points over 2012.

Below are 2013 financial performance highlights, adjusted to exclude the impact of Allegion, the commercial and residential security businesses spun off into a stand-alone public company last year:

- Revenue growth of 3 percent
- Full-year adjusted earnings per share (EPS) for continuing operations of $2.67
- Free cash flow of $862 million
- Quarterly dividend increase of 31 percent
- Repurchased $1.2 billion of shares of Ingersoll Rand stock

Our balanced capital allocation strategy has delivered a multi-year record for achieving top quartile EPS growth and shareholder return performance, while fully investing in the long-term success of our business. We have returned more than $4 billion to shareholders over the past three years and delivered a 378 percent total shareholder return since 2009—almost triple the return of the S&P 500 and more than double the return of the S&P Diversified Industrial Index.

2013: A Transformative Year

Following the spinoff of Allegion, we accelerated elements of our growth strategy while continuing to use our business operating system to guide our operational excellence efforts. We analyzed our capabilities, markets and macro trends, and affirmed that demand for energy efficiency and reliability remain at the forefront of our customers' business requirements.

In support of our strategy, we reorganized and reduced the complexity of our business structure. We restructured from four reporting business segments to two—Climate and Industrial—and designed a business unit structure to further capitalize on growth opportunities, such as geographic market reach and penetration of differentiated service offerings.

Globally, the urban population will nearly double, increasing to 6.4 billion by 2050. To respond to the challenge of rapid urbanization, we will continue to build our local capabilities to compete in high growth markets around the world, and capitalize on our brand strength and diverse customer base. Services are among the fastest growing businesses we have. We will leverage our large installed equipment base to expand service revenues, use our domain expertise and further invest in analytics that support optimal product life cycle costs for our customers. We are also expanding our energy services organization to meet customer needs for energy reduction, optimizing energy supply costs, energy efficiency monitoring, predictive energy usage modeling, and methods for the continuous optimization of commercial, residential and industrial assets.

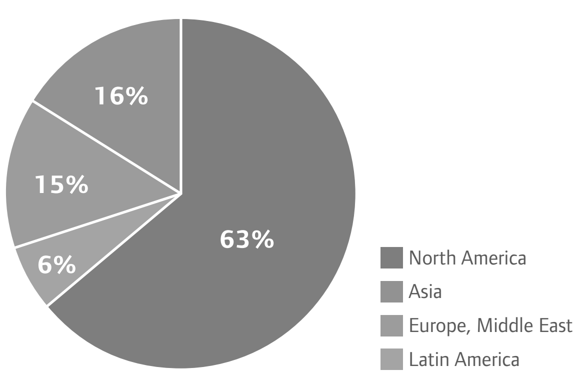
Optimistic About the Future

The imperative to address long-term reductions in energy demand and the continual need to meet increasing industrial globalization with productivity is compelling. We are healthy and strong, and I thank our employees around the world for making our company better, every day. Their inspiration and determination have served our company, customers, shareholders and communities for 143 years and it's why what we do at Ingersoll Rand will make a difference for generations to come.

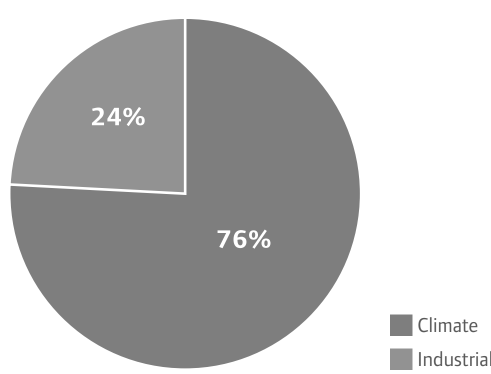
Sincerely,

Michael W. Lamach
Chairman and Chief Executive Officer, Ingersoll Rand

2013 Revenues by Geography



2013 Total Net Revenue by Segment



Our Foundational Strengths

We spent time collaborating with our customers, analyzing end markets, evaluating geographies and studying global challenges.

Food Safety and Transportation

Thermo King is committed to providing sustainable transport solutions around the globe. Our new seagoing refrigerated container provides premier performance at low temperatures, ensuring food safety during marine transport. Yang Ming Marine Transport Corporation leased Thermo King units this year, which has resulted in higher food quality and longer shelf life for their clients.

Our 2013 strategic review led us to establish a strategy and structure for growth, and provides our businesses with the flexibility, appropriate investment and accountability to grow successfully.

The strong brands represented within our Climate and Industrial segments enable the company to capitalize on industry macro trends. Reliability, energy efficiency and sustainability are common customer priorities across all product categories and are foundational strengths for the company.

Reliability

Reliability is more than an engineering concept. It's an integral part of the customer experience—what we call Total Reliability. It means going beyond customer expectations during the buying process, delivery, installation, operation and service of our products. And, ultimately, it means enabling our customers' performance and productivity.

Reliability has been the hallmark of our brand promise since the beginning and we continue to stake our reputation on it. We know how to think about reliability in the same way our customers think about it—in uptime, speed of repairs and overall maintainability. We adapt product designs for reliability and serviceability, increase the speed of response and issue resolution, and deploy remote monitoring and analytics to detect and solve issues.

Energy Efficiency and Sustainability

Solving big problems is part of who we are as a company and what we deliver. With the instability of energy costs and global challenge of climate change, energy efficiency is key to supporting population growth around the world. We devise energy efficient and sustainable products and services for our customers through sustainable design principles, total life cycle management processes and responsible use of natural resources.

Energy demand and energy efficiency regulations are driving transformations in the way that commercial buildings are built, how they are retrofitted and how they operate. International Energy Outlook 2013 projects world energy use will grow by 56 percent between 2010 and 2040. HVAC and compressors account for up to 30 percent or more of the energy consumed by commercial and industrial sites. The opportunity to help our customers by offering total efficiency solutions that include HVAC applications and next generation compressor technology is a global imperative. Similar energy demand and regulation transformations are occurring in the transportation industry and in emerging markets around the world.

Sustainability

Increasing energy efficient solutions and human productivity in a resource-constrained world with growing demands are common priorities for our customers. Ingersoll Rand is well positioned to help find solutions to these critical needs.

Club Car's Carryall electric, low speed vehicle has a total capacity of 1,250 pounds.

We remain focused on providing reliable, energy efficient and sustainable products and services to our customers. Doing so helps our customers attain their business and sustainability goals while positively impacting climate change and driving sustainable development.

"Ingersoll Rand has built an exceptional infrastructure to solve global challenges. They have the tools, roadmap and a culture of sustainability to address these challenges. Now, it is just a matter of executing and continuing to integrate the thinking throughout the company."

- Roberta Bowman, Retired Senior Vice President and Chief Sustainability Officer, Duke Energy and member of Ingersoll Rand's Sustainability Advisory Council

Center for Energy Efficiency and Sustainability

Ingersoll Rand launched the Center for Energy Efficiency and Sustainability (CEES) in 2010 to help our customers and our company leverage best practices in sustainability. Whether focused on reducing emissions, energy costs, material waste or retrofitting a building to improve its energy efficiency, the CEES is carving a path for employees to help customers and critical stakeholders understand and incorporate new approaches to meet sustainability goals.

Sustainability Advisory Council

Our external Sustainability Advisory Council includes global sustainability thought leaders in infrastructure, energy policy and technology. Their expertise helps us better understand emerging global issues to provide more innovative products and solutions, and reduce our operational footprint.

"Innovation at Ingersoll Rand means product development and use that supports the global need for energy conservation and efficiency. Thus, the company's opportunity is in excellent alignment with high priority societal challenges such as climate change."

- Marian Chertow, Professor and Director, Industrial Environmental Management Program, Yale University and member of Ingersoll Rand's Sustainability Advisory Council

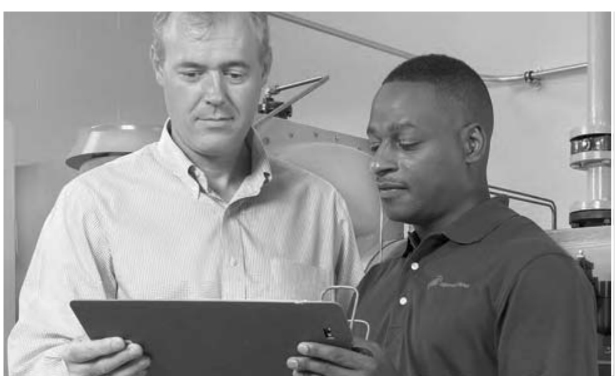
Growth Excellence

We're intentionally building our capability to profitably grow. Our growth excellence strategy includes building and demonstrating capabilities in product management and product growth teams, strategy and analytics, technology and innovation, and sales excellence.

Product Management and Product Growth Teams
Our product management teams think horizontally, linking together engineering and operations to manage our existing offerings and develop new products, solutions and services for our customers. These teams—known as product growth teams—set the focus for our product lines.

To accelerate growth, we're providing tools and standard processes to create value for our customers. This new foundation of common processes, executed through the Ingersoll Rand Product Development Process (IRPDP) introduced in 2012, is now fully embedded throughout the organization. The process improves how we generate, develop and launch new products. It applies a consistent methodology across the enterprise to achieve our project goals and ensures we are assessing risk, sustainability and intellectual property throughout the entire product cycle. Approximately 30 projects have gone through the IRPDP, some with product development cycles that have been reduced by up to 50 percent.

Strategy and Analytics
Our product growth teams analyze what's happening in a given market in an intentional and informed way—we refer to this as market analytics. We are building the capabilities of our teams to deeply understand our customers and markets, helping to estimate the economic value of potential new offerings and solutions. We generate, develop and launch offerings with rigorous analysis and key quality metrics to deliver on time, on budget and exceeding our customers' expectations. This focus on analytics is really the North Star in our strategic work to develop a compelling, differentiated set of offerings for our customers.



Services Expansion
Our CARE suite of service and maintenance offerings expanded in 2013 to meet the needs of our compressed air customers, including reliability, efficiency, availability and life cycle cost. Our services can help our customers address their efficiency needs by understanding their energy issues and leveraging operating performance information to develop practical and effective solutions. Our in-house experts work with our customers to provide recommendations and implementation plans that deliver the right solutions.

Thermo King Precedent

In 2013, the Thermo King Precedent was introduced as our most environmentally sensitive transport refrigeration system to meet new emissions standards in the United States. During its field trials, airflow was affecting the performance of a rooftop fan used to cool the condenser. Our Minneapolis-based design center, coupled with the modeling and simulation experts from our Network of Excellence in Bangalore, India, leveraging virtual models, delivered a design alternative to this obstacle in less than three days. The cross-functional, cross-business team shortened product testing times that increased productivity, improved quality and reliability, and shortened product development cycle time.

Technology and Innovation

There are a number of technology trends—information and communication technology, machine-to-machine communication, new materials and large-scale data analytics—that we take advantage of to improve our products and manufacturing processes. These technologies provide an opportunity in the areas of remote services and energy services. Ingersoll Rand works closely with our customers and field engineers to deliver innovative solutions that create value for our customers.

In 2013, we established our Networks of Excellence to bring together internal experts and specialists on critical technologies shared by multiple Ingersoll Rand businesses. This shared-expert team approach enables us to capitalize on cross-segment synergies in the fields of simulation and modeling, materials and chemistry, metallurgy, plastics and composites, fluids, and coating and corrosion resistance. Our Networks of Excellence and Engineering and Technology Centers continue to create imaginative solutions for global customer problems.

"We orient our product management teams to better and more clearly understand customers, markets and competitors. It helps us align what we do to rapidly innovate and enables customers to become more sustainable."

- Paul Camuti, Senior Vice President, Innovation and Chief Technology Officer

In the area of innovation, we are maturing our innovation portfolio management. It's a way of looking at a set of alternatives and choosing the best ones for our customers and, in turn, for our business.

Energy efficiency also remains integral to our global portfolio innovation efforts. By 2020, we project almost half of our global portfolio will be tailored toward providing energy efficiency solutions, saving customers money and lowering greenhouse gas emissions (GHG). We are delivering growth through this focus on innovation.

We introduced more than 100 new products and services in 2013, and the percentage of revenue that our company generated from new products and services roughly doubled from 2009 to 2013.

Customer Solutions at Ocean Spray

In 2013, Ben Steele, an Ingersoll Rand Compressed Air Systems and Services engineer visited Ocean Spray's Middleboro, Mass. plant. The plant engineer, interested in energy efficiency, gave Ben access to perform a facility energy audit. The audit found opportunity within their current control systems and Ben was able to provide a solution that maximized their equipment using a Trane controls system. Ben's solution demonstrated the technical expertise of our employees, showing how Ingersoll Rand can provide our customers with complete solutions. To date, the Ocean Spray facility has installed an Ingersoll Rand Nirvana Oil Free Variable Speed Drive Machine, Heat of Compression (HOC) Air Dryer and complete controls system. We were also awarded a service contract for the plant.

Sales Excellence

We are taking a disciplined approach to identifying and installing standard processes for our sales function. The same skills and tools we understand in an operational environment are applied to a selling environment. This includes improvement in the productivity of our sales resources, effective coverage of our markets, successfully closing opportunities ahead of market growth and continued margin expansion through value selling and price management efforts.

"To prepare our Trane Comfort Specialist Dealers for the launch of our variable systems, we created in-home selling videos to help demonstrate how to convey the many benefits while sitting at the kitchen table. It's been years since I have seen this much excitement from our sales teams and our dealers on the launch of a new product!"

- Tim Storm, Product Manager

Trane TruComfort™ Variable Speed Air Conditioners

Variable speed technology isn't new for Trane, the first HVAC manufacturer to apply variable speed technology to residential cooling in the 1990s. But with its latest launch, Trane has perfected the technology and set the residential business up for growth in a critical market. In Q4 2013, the team launched the TruComfort line of variable speed air conditioners and heat pumps on time and below cost targets. Trane's state-of-the-art TruComfort system delivers precise and consistent comfort—running its compressors at the exact speed needed to keep homes comfortable. The product line is making waves and drawing attention within the industry; the Trane TruComfort 20 SEER product was named #1 in the category of forced-air cooling equipment in the 2013 Comfortech Product Showcase Awards.

Centac C800 Launch at Leonardo da Vinci Museum, Milan

On November 6, 2013, Ingersoll Rand unveiled the Centac C800 Centrifugal Compressor at the Museo Nazionale della Scienza e della Tecnologia Leonardo da Vinci in Milan, Italy.

The Centac C800 was designed to deliver premier performance utilizing a simplified oil piping system, improved seal capacity and a significant reduction in connections. Built on the latest centrifugal compressor platform incorporating external coolers, the new Centac's integrated gears and bearings reduce vibration and allow for error-proof alignment, leading to minimized downtime, lower operational costs and higher productivity.

Approximately 120 Ingersoll Rand customers, distributors and leaders from across Europe, the Middle East and Africa (EMEA) attended the launch where Chris Ringlstetter, Ingersoll Rand product management leader, together with Luca Doddi, air business leader in EMEA, Alberto Crippa, engineered products product manager and Nicola Piccardo, process completes business leader, moderated a session with the audience.

In contrast to the innovative Centac C800, guests had the chance to see the Ingersoll Rand Imperial Type 10 reciprocating compressor built in 1921 that is on permanent display at the museum, a testament to a proud legacy.

Luca Doddi, air business leader in EMEA, explains the history of the Imperial Type 10 compressor to the C800 launch event attendees.

Operational Excellence

We started our operational excellence journey with the intention of going an "inch wide and a mile deep."

Over the last four years, our operational excellence strategy has evolved to include value streams, functional excellence, common systems and goal deployment. This is our way of continuously improving the company—and it's working. Whether it's our margin expansion, improved customer metrics or increased cash flow, there is a direct correlation to our operational excellence efforts.

Value Streams

Our approach has been programmatic from the start. Our "inch wide and a mile deep" philosophy means focusing efforts on concentrated pockets of our business and diving deep. Three years later, we have 40 percent of the organization under our value stream transformation and plan to expand to 60 percent in 2014.

Value streams started with a narrow scope—customer order to order shipment—and we are now expanding them to encompass the true definition of lean. We are implementing value streams across the company led by product growth teams, where product management, engineering and integrated supply chain team members work together to define new products, solutions, services and processes. This coordination also results in faster time-to-market, increased productivity, and improved quality and delivery.

We are tracking five metrics—market share, margin expansion, organic growth, price and the net present value of our innovation portfolio—to compare value streams under lean transformation to those not currently under transformation. These key metrics strengthen and affirm our path toward Premier Performance.

Functional Excellence

Each function at Ingersoll Rand—engineering, finance, human resources, information technology, legal, operations, supply chain, among others—is responsible for developing, governing and improving standard work to accelerate their transformation to excellence. As a result, our functions help enable achievement of the company's growth, margin expansion and working capital improvements, and enable employees to move more easily to jobs across the businesses or regions.

Model Value Stream in Lynn Haven

Our Lynn Haven, Fla., facility fully incorporates lean principles and is in the process of creating a model value stream (VS) for its Trane Precedent™ Rooftop System. The model VS extends end-to-end in the supply chain, from sales to distribution, and will serve as a benchmark for the company. Results to date have led to reductions of 53 percent in cycle time and 68 percent improvement in days past due, and improvements of 20 percent with on-time to customer request and 25 percent in inventory turns. The Lynn Haven facility has realized increased revenue for our Precedent product year-over-year and an 11 point increase in employee engagement scores. Our commitment to operational excellence at Lynn Haven demonstrates the power of operational excellence to deliver growth to the company.

"It all starts at the top. Ingersoll Rand's practice of actually engaging people has embedded lean principles from senior management to the plant floor, creating a culture of excitement around finding innovations to reduce material usage, time and waste. It has been a complete transformation of the company's culture."

- Dr. Jared L. Cohon, President Emeritus of Carnegie Mellon University and member of Ingersoll Rand's Board of Directors

Common Systems

In 2013, Ingersoll Rand successfully completed the first of a five-phased plan to redesign our global enterprise resource planning processes and technologies. This initiative represents a major business system transformation to improve decision making and efficiency, better serve our customers, meet evolving business needs and accelerate our operational excellence initiatives across our value streams.

Goal Deployment

The Goal Deployment Process (GDP) is a structured process to align and deploy select strategic objectives, yearly initiatives, actions and metrics throughout the organization. GDP provides accountability for selecting, aligning, prioritizing, measuring and monitoring our goals in a consistent way. For three years, we have been using our GDP to set goals across the company. The process starts with the enterprise goals and then cascades throughout the organization. This ensures that employees have a direct line of sight as to how their work supports the overall goals of their team, business or function and the enterprise.

Supplier Management

Ingersoll Rand's global operations and integrated supply chain governs our supplier, environmental, health and safety programs. In 2013, our Business Partner Code of Conduct was woven into our standard purchase agreement. In addition, two thirds of our direct material suppliers globally have agreed to our Business Partner Code of Conduct, or provided an equivalent Code of Conduct.

Supplier Diversity

Our United States supplier diversity program completed its first full year in September 2013. The program includes suppliers whose ownership is primarily minority, woman or veteran. The program focuses on increasing spend with diverse companies, supplier development and mentoring, and strategic outreach. Supplier diversity is an integral part of procurement and business processes that enhance competitive strategies and reduce operational costs.

Bennett International Group

Bennett's President and CEO, Marcia G. Taylor was named a finalist for the Influential Woman in Trucking Award. Bennett is a minority-led freight company that ships our large industrial-sized HVAC units and is part of the Ingersoll Rand Supplier Diversity Program. Now in its second year, the program achieved 5.3 percent of total United States supplier expenditures.

Health and Safety Management

We focused on improving our health and safety programs in a number of key areas last year. Through data analysis, we identified and completed assessments to reduce or mitigate high-risk activities. Our *Fall Protection Initiative* is one example. A team developed processes for our service technicians when working at heights while servicing equipment in the field. We implemented a behavior-based safety program to identify and correct unsafe actions. In addition, we continued to mature our environmental health and safety management systems. We identify the programs and activities that prove successful in one location and standardize that program across the company.

Lost Time Incident Rate*

2013	2012	2011	2010	2009
0.16	0.22	0.24	0.28	0.28

46% ↓ since 2008

Total Recordable Incident Rate*

2013	2012	2011	2010	2009
0.93	1.06	1.08	1.31	1.53

59% ↓ since 2008

**Data is adjusted to exclude the impact of Allegion*

Waste and Recycling Management

Focusing on achieving operational excellence and reducing our operating footprint drives us to reduce waste. Reducing waste positively impacts our economic performance, the life cycle costs of our products and the global environment.

We are recycling 10 waste streams at 95 percent of our locations worldwide. We continue to engage all of our locations to minimize waste and manage our recycling efforts.

Non-Hazardous Waste to Landfill* (Metric Tons)

2013	2012	2011
8,728	9,067	9,952

Hazardous Waste* (Metric Tons)

2013	2012	2011
1,434	1,629[1]	1,255

Absolute Energy Use* (Million BTU)

2013	2012	2011
3,437,343	3,637,310	3,807,114

Normalized Energy Use* [2] (Million BTU)

2013	2012	2011
278	303	298

Total Greenhouse Gas Emissions* [3] (Metric Tons CO_2 Equivalent)

2013	2012	2011
682,856	594,011	689,122

Normalized Greenhouse Gas Emissions* [2, 3]
(Metric Tons CO_2 Equivalent)

2013	2012	2011
55	50	54

**Data is adjusted to exclude the impact of Allegion*

[1]Restated due to improvements resulting from audits of prior data

[2]Normalized to Millions of Net Revenue

[3]GHG emissions year-over-year increase attributed to restating previous data due to enhanced accounting methods

Energy and Climate Change Management

As a global supplier of premier products and services designed to reduce energy consumption, address rising energy costs, and mitigate the threat of climate change, we recognize the value we bring to our customers through leadership in our actions, products and services.

In addition to providing solutions for our customers, Ingersoll Rand continues to focus on operational excellence as we improve our global footprint. In 2013, we reduced energy use by 36 percent and GHG emissions by 36 percent (normalized by net revenue) since 2009, exceeding our five year goals. Our foundation in facility level engagement, rigorous analytics and monitoring drives sustainable results at our facilities around the globe.

Dow Jones Sustainability Index

MEMBER OF
Dow Jones Sustainability Indices
In Collaboration with RobecoSAM

Our commitment to sustainability leadership is reviewed and recognized by third party sustainability rankings such as the Dow Jones Sustainability Index (DJSI). Recognition by external groups helps drive improved performance internally and facilitates our ability to benchmark ourselves with peer companies through an objective set of metrics. In 2013, we were again honored to be listed on the Dow Jones World and North American Indexes. Though our sustainability journey continues, we are proud of our annual improvements as we make progress integrating sustainability practices throughout our company. Ingersoll Rand's listing on the DJSI is a key measurement of our sustainability progress as we strive to achieve premier performance. Beyond DJSI, our sustainability approach was cited as a best practice in 2013 by media, authors and academia.

Winning Culture

Engaged and empowered employees, who collaborate in teams to ensure customer needs are met, create a winning culture. And a winning culture further engages employees—it's a circle of success we consider key to achieving Premier Performance.

Each of our leaders has a responsibility to help create a work environment where employees feel engaged and are excited to deliver results, serve our customer needs and grow our business. The focus we place on developing, supporting and engaging our employees helps our other strategies of Growth Excellence and Operational Excellence succeed.

In 2013, we achieved a 93 percent response rate on our annual global employee engagement survey. This world-class participation rate matters because it means nearly all employees shared their voice about the company and their work.

We realized an eight point increase in employee engagement from 2012 to 2013, ranking us among the top of manufacturing companies. This increase is a result of our heightened focus on ensuring that leaders are accountable for engagement and equipping them with skills, tools and development. For example, more than 1,500 leaders who went through our "Engaging Your Employees" course saw significant increases in their engagement scores.

We continuously strive to improve our culture to promote employee engagement globally. We do this by living the values of the company in all of our activities and decisions; building a progressive, diverse and inclusive environment; developing our leaders and employees; advancing our sustainability efforts through employee Green Teams; improving the health and wellness of our employees and investing in our communities.

Living the Values

An example of living our Integrity value comes from our 2013 Ethics Champion. Carlos Souza, a Sarbanes Oxley leader in Brazil, was awarded the honor for his leadership and creativity in promoting the company's Code of Conduct. Carlos designed an initiative to engage employees and increase their interest about the Ethics and Compliance Program.

An Ingersoll Rand Green Team in Galway, Ireland

FORTUNE WORLD'S MOST ADMIRED COMPANIES 2014

Ingersoll Rand was selected as one of the 2013 Achievers 50 Most Engaged Workplaces and placed on *FORTUNE'S* World's Most Admired list in our industry category in 2013 and 2014.

Building a Progressive, Diverse and Inclusive Environment

A progressive, diverse and inclusive (PDI) culture is essential to being an innovative leader in the market place. One of our goals in this area is to attract and retain diverse talent. In 2013, we established partnerships with national and global professional associations, including the Society of Women Engineers, Society of Hispanic Professional Engineers, Ascend, National Society of Black Engineers and RecruitMilitary. In addition, our PDI Regional Councils developed a global pipeline of talent. Through these activities we realized the following results in 2013:

- **88% increase** in hiring of United States veterans
- **43% increase** in external hiring of diverse talent at the executive level globally
- **11% increase** in overall United States diversity hiring

A key emphasis in 2013 was offering mid-level women managers a way to learn the skills necessary to take on more senior leadership roles. Collaborating with the Center for Creative Leadership, Ingersoll Rand created a nine-month Women's Leadership Program. Supported by the senior leadership team in Europe, the program provided an opportunity for women to connect with mentors and participate in business cases designed to contribute to business growth. Of the original participants in the program, more than 70 percent have been promoted or are in expanded roles.

Advancing Sustainability Through Green Teams

Our 116 green teams are catalysts for employee engagement. Since 2011, our green teams focus on awareness, education and improving operations by working internally and partnering with community groups to advance our sustainability efforts.

2013 Green Team Accomplishments:

Total Projected Savings	$202,883
Number of Employees Engaged	4,605
Total Waste Diverted from Landfill (Pounds)	1,343,163
Percent Reduction of Waste to Landfill (Pounds)	6.9%
Percent of CO2 Reduction (Metric Tons)	0.2%
Total CO2 Reduced (Metric Tons)	1,425
Total Energy Saved (BTU)	10,583,776,911
Total Water Saved (Gallons)	7,808,963

Club Car Black Employee Network

Club Car Black Employee Network (BEN) focuses on career development, community service and networking. In 2013, they delivered training on public speaking; interviewing and dressing for success; taught elementary students about science, technology, engineering and math (STEM); raised donations for local nonprofit organizations; and engaged with minority community leaders such as the Professional Golfers' Association (PGA) of America's Earnie Ellison.

Club Car's BEN Leadership Team with Earnie Ellison, Director of Business and Community Relations at PGA of America (From Left to Right): *Vincent Love; Marvin Jones; George Garner; Earnie Ellison; Sandra Clowney; Isheman Williams; Tyrone Ellis; George Lynch*

Solar Decathlon—People's Choice Award

Our team partnered with the University of North Carolina Charlotte (UNCC) in the 2013 Solar Decathlon. The prestigious competition challenges teams from around the world to design, build and operate a solar powered house that's cost-effective, energy efficient and attractive. With support from our Trane, Nexia™ Home Intelligence, Ingersoll Rand and Club Car brands, as well as the Ingersoll Rand Foundation, the UNCC team won the People's Choice Award for their entry—Urban Eden.

Developing Our Leaders and Employees

Talent Management

Ingersoll Rand's core and leadership competency models are the foundational elements for all of our talent management processes. Our leaders serve as coaches to others to improve their skills in accordance with the Ingersoll Rand competencies and values. They also serve as role models for these behaviors. As an indication of this dedication, our ratings on whether our leaders model our enterprise values rose eight points in 2013.

Performance Management

Performance management is a key business lever that yields quantifiable improvement in business, team and individual performance. Our philosophy of performance management includes aligning priorities for the year, valuing, measuring and rewarding results and behaviors, and coaching early and often. We measure both performance (results) and the way in which it was achieved (values).

Rewards and Recognition

Our rewards and recognition are not limited to compensation and formal awards programs. Leaders are given training, tools and support to identify what matters to individual employees and how to adjust development, career planning and work assignments accordingly. This has helped leaders think about rewards and recognition more broadly and contribute to a more engaged workforce.

President awards, Chairman's awards, e-card recognition and Premier Plant programs are used to recognize employees whose performance contributes to Ingersoll Rand's key strategies. A focus on transparency of goals and results at our facilities empowers every employee to contribute and be rewarded for success throughout the company.

Improving Employee Health and Wellness

The well-being of our employees is a priority at Ingersoll Rand. Our Health Progress program is designed to improve the health status of our employees, which strengthens the company's competitiveness through increased productivity and decreased healthcare risks. This is a win for employees and Ingersoll Rand. During 2013, we offered United States- and China-based employees biometric screenings and health assessments so employees could "know their numbers" and make progress on their health improvement goals. In addition, we provide employees with preventive health screenings and health improvement programs that are tailored to individual needs. Globally, we celebrated World Cancer Day, World Diabetes Day and World No Tobacco Day with educational events for employees.

Investing in Our Communities

In 2013, we built upon our culture of giving. The Ingersoll Rand Foundation invests in four priority areas, the largest of which is energy efficiency. In this manner, the Foundation supports our efforts to promote premier performance across the globe. In 2013, we donated more than $4.2 million in philanthropic gifts and our employees volunteered more than 12,300 hours to strengthen communities across the globe. Our 2013 employee engagement scores indicate that 68 percent of employees believe they can personally influence how our business impacts our communities and our environment—up from 59 percent in 2012.

Ingersoll Rand University Celebrated 10 Years

A key driver of personal and organizational learning and development, as well as engagement, Ingersoll Rand University (IRU) provides education to develop business leaders, strategic competencies and to drive our winning culture. Since its inception in 2003, more than 27,000 participants have attended IRU classroom programs, and employees have completed more than 350,000 courses online.

Ingersoll Rand University's "The Ingersoll Rand Leader: Engaging Your Employees" program was a key driver in the organization's increase in employee engagement with 1,500 managers attending the program across the globe, including this class in Shanghai, China.

Vision
A world of sustainable progress and enduring results.

Purpose
We advance the quality of life by creating comfortable, sustainable and efficient environments.

Values
Integrity: We act with the highest ethical and legal standards in everything we do.

Respect: We respect and value the worth of all people, cultures, viewpoints and backgrounds.

Teamwork: We work together and share resources to provide greater value to our customers, employees, business partners and shareholders.

Innovation: We use our diverse skills, talents and ideas to develop customer-driven, innovative and imaginative solutions.

Courage: We speak up for what we believe is right and take measured risks to create progress.

2014 Notice and Proxy Statement

Ingersoll Rand

Ingersoll-Rand plc
Registered in Ireland No. 469272

U.S. Mailing Address:
800-E Beaty Street
Davidson, NC 28036
(704) 655-4000

NOTICE OF 2014 ANNUAL GENERAL MEETING OF SHAREHOLDERS

The Annual General Meeting of Shareholders of Ingersoll-Rand plc (the "Company") will be held on Thursday, June 5, 2014, at 2:30 p.m., local time, at Adare Manor Hotel, Adare, County Limerick, Ireland, to consider and vote upon the following proposals:

1. By separate resolutions, to re-elect as directors for a period of 1 year expiring at the end of the Annual General Meeting of Shareholders of Ingersoll-Rand plc in 2015, the following 11 individuals:

   (a) Ann C. Berzin
   (b) John Bruton
   (c) Jared L. Cohon
   (d) Gary D. Forsee
   (e) Edward E. Hagenlocker
   (f) Constance J. Horner
   (g) Michael W. Lamach
   (h) Theodore E. Martin
   (i) John P. Surma
   (j) Richard J. Swift
   (k) Tony L. White

2. To give advisory approval of the compensation of the Company's named executive officers.
3. To approve the appointment of PricewaterhouseCoopers LLP as independent auditors of the Company and authorize the Audit Committee of the Board of Directors to set the auditors' remuneration.
4. To renew the Directors' existing authority to issue shares.
5. To renew the Directors' existing authority to issue shares for cash without first offering shares to existing shareholders. *(Special Resolution)*
6. To determine the price range at which the Company can reissue shares that it holds as treasury shares. *(Special Resolution)*
7. To conduct such other business properly brought before the meeting.

Only shareholders of record as of the close of business on April 8, 2014, are entitled to receive notice of and to vote at the Annual General Meeting. **Whether or not you plan to attend the meeting, please provide your proxy by either using the Internet or telephone as further explained in the accompanying proxy statement or filling in, signing, dating, and promptly mailing a proxy card.**

Directions to the meeting can be found in Appendix A of the attached Proxy Statement.

Registered Office:
170/175 Lakeview Dr.
Airside Business Park
Swords, Co. Dublin
Ireland

By Order of the Board of Directors,
EVAN M. TURTZ
Secretary

IF YOU ARE A SHAREHOLDER WHO IS ENTITLED TO ATTEND AND VOTE, THEN YOU ARE ENTITLED TO APPOINT A PROXY OR PROXIES TO ATTEND AND VOTE ON YOUR BEHALF. A PROXY IS NOT REQUIRED TO BE A SHAREHOLDER IN THE COMPANY. IF YOU WISH TO APPOINT AS PROXY ANY PERSON OTHER THAN THE INDIVIDUALS SPECIFIED ON THE PROXY CARD, PLEASE CONTACT THE COMPANY SECRETARY AT OUR REGISTERED OFFICE.

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS

FOR THE ANNUAL GENERAL MEETING OF SHAREHOLDERS TO BE HELD ON JUNE 5, 2014

The Annual Report and Proxy Statement are available at www.proxyvote.com.

The Notice of Internet Availability of Proxy Materials, or this Notice of 2014 Annual General Meeting of Shareholders, the Proxy Statement and the Annual Report are first being mailed to shareholders on or about April 24, 2014.

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SUMMARY INFORMATION

This summary highlights information contained elsewhere in this Proxy Statement. For more complete information about these topics, please review Ingersoll-Rand plc's Annual Report on Form 10-K and the entire Proxy Statement.

Annual General Meeting of Shareholders

Date and Time:	June 5, 2014 at 2:30 p.m., local time
Place:	Adare Manor Hotel Adare, County Limerick Ireland
Record Date:	April 8, 2014
Voting:	Shareholders as of the record date are entitled to vote. Each ordinary share is entitled to one vote for each director nominee and each of the other proposals.
Attendance:	All shareholders may attend the meeting.

Meeting Agenda and Voting Recommendations

The Board of Directors recommends that you vote "For" each of the following items that will be submitted for shareholder approval at the Annual General Meeting.

Agenda Item	Vote Required	Page
Election of 11 directors named in the proxy statement.	Majority of votes cast	4
Advisory approval of the compensation of the Company's named executive officers.	Majority of votes cast	8
Approval of appointment of PricewaterhouseCoopers LLP as the Company's independent auditors and authorize the Audit Committee to set the auditors' remuneration.	Majority of votes cast	9
Renew the Directors' authority to issues shares.	Majority of votes cast	11
Renew the Directors' authority to issue shares for cash without first offering shares to existing shareholders *(Special Resolution)*	75% of votes cast	12
Determine the price at which the Company can reissue shares held as treasury shares *(Special Resolution)*	75% of votes cast	13

Corporate Governance Highlights

- Substantial majority of independent directors (11 of 12)
- Annual election of directors
- Majority vote for directors
- Independent Lead Director
- Board oversight of risk management
- Succession planning at all levels, including for Board and CEO
- Annual Board and committee self-assessments
- Executive sessions of non-management directors
- Continuing director education
- Executive and director stock ownership guidelines
- Board oversight of sustainability program

Director Nominees

Set forth below is summary information about each director nominee.

Nominee	Age	Director Since	Principal Occupation	Independent	Committee Memberships
Ann C. Berzin	62	2001	Former Chairman and CEO of Financial Guaranty Insurance Company	✓	• Audit • Finance (Chair)
John Bruton	66	2010	Former Prime Minister of the Republic of Ireland and Former European Union Commission Head of Delegation to the United States	✓	• Compensation • Corporate Governance and Nominating
Jared L. Cohon	66	2008	President Emeritus of Carnegie Mellon University	✓	• Compensation • Corporate Governance and Nominating
Gary D. Forsee	64	2007	Former President of University of Missouri System and Former Chairman of the Board and Chief Executive Officer of Sprint Nextel Corporation	✓	• Compensation • Corporate Governance and Nominating (Chair)
Edward E. Hagenlocker	74	2008	Former Vice Chairman of Ford Motor Company	✓	• Audit • Finance
Constance J. Horner	72	1994	Former Commissioner of U.S. Commission on Civil Rights	✓	• Compensation • Corporate Governance and Nominating
Michael W. Lamach	50	2010	Chairman, President and CEO of Ingersoll-Rand plc		• None
Theodore E. Martin	74	1996	Former President and CEO of Barnes Group Inc.	✓	• Audit • Finance
John P. Surma	59	2013	Former Chairman and CEO of United States Steel Corporation	✓	• Audit • Finance
Richard J. Swift	69	1995	Former Chairman of Financial Accounting Standards Advisory Council and Former Chairman, President and CEO of Foster Wheeler Ltd.	✓	• Lead Independent Director • Audit (Chair) • Finance
Tony L. White	67	1997	Former Chairman and CEO of Applied Biosystems Inc.	✓	• Compensation (Chair) • Corporate Governance and Nominating

Advisory Approval of Our Executive Compensation

We are asking for your advisory approval of the compensation of our named executive officers. While our Board of Directors intends to carefully consider the shareholder vote resulting from the proposal, the final vote will not be binding on us and is advisory in nature. Before considering this proposal, please read our Compensation Discussion and Analysis, which explains our executive compensation programs and the Compensation Committee's compensation decisions.

Executive Compensation

Pay for Performance

Our executive compensation programs are based on the principles of (i) program competitiveness, (ii) pay for performance, (iii) mix of short and long-term incentives, (iv) internal parity, (v) shareholder alignment and (vi) business strategy alignment. Consistent with these principles, the Compensation Committee has adopted executive compensation programs with a strong link between pay and achievement of short and long-term Company goals.

2013 Results

In a year where we successfully implemented extensive organizational change with the successful spin-off of our commercial and residential security businesses (the "Spin-off") into an independent, publicly traded company, Allegion plc ("Allegion") and the reorganization of our Company, we also achieved strong financial performance. Specifically, the following results, (inclusive of the Allegion business for the full year), were realized in 2013:

- Adjusted annual Revenue of $14.509 billion, an increase of 3% over 2012;
- Adjusted OI of $1.639 billion, an increase of 8% over 2012;
- Adjusted OI margin of 11.3 %, an increase of 0.5 percentage points from 10.8% in 2012;
- Adjusted Cash Flow of $1.153 billion an increase of 14% over 2012;
- Adjusted EPS of $3.63 excluding one-time spin related expense, an increase of 10% over 2012; and
- 3-year EPS growth (2011 - 2013) of 68.1%, which ranks at approximately the 75^{th} percentile of the companies in the S&P 500 Industrials Index.

Please see "Compensation Discussion and Analysis" for additional information and definitions of financial metrics.

Approval of Appointment of Independent Auditors

We are asking you to approve the appointment of PricewaterhouseCoopers LLP ("PwC") as our independent auditors for 2014 and to authorize the Audit Committee to set PwC's remuneration.

Renew the Directors' authority to issues shares.

We are asking you to renew our Directors' authority to issue shares under Irish law. This authority is fundamental to our business and granting the Board this authority is a routine matter for public companies incorporated in Ireland.

Renew the Directors' authority to issue shares for cash without first offering shares to existing shareholders.

We are asking you to renew the Directors' authority to issue shares for cash without first offering shares to existing shareholders. This authority is fundamental to our business and granting the Board this authority is a routine matter for public companies incorporated in Ireland. As required under Irish law, this proposal requires the affirmative vote of at least 75% of the votes cast.

Determine the price at which the Company can reissue shares held as treasury shares.

We are asking you to determine the price at which the Company can reissue shares held as treasury shares. From time to time the Company may acquire ordinary shares and hold them as treasury shares. The Company may reissue such treasury shares, and under Irish law, our shareholders must authorize the price range at which we may reissue any shares held in treasury.

2015 Annual Meeting

Deadline for shareholder proposals for inclusion in the proxy statement:	December 26, 2014
Deadline for business proposals and nominations for director:	March 6, 2015

Ingersoll-Rand plc

U.S. Mailing Address:
800-E Beaty Street
Davidson, NC 28036
(704) 655-4000

PROXY STATEMENT

In this Proxy Statement, "Ingersoll Rand," the "Company," "we," "us" and "our" refer to Ingersoll-Rand plc, an Irish public limited company. This Proxy Statement and the enclosed proxy card, or the Notice of Internet Availability of Proxy Materials, are first being mailed to shareholders of record on April 8, 2014 (the "Record Date") on or about April 24, 2014.

PROPOSALS REQUIRING YOUR VOTE

Item 1. Election of Directors

The Company uses a majority of votes cast standard for the election of directors. A majority of the votes cast means that the number of votes cast "for" a director nominee must exceed the number of votes cast "against" that director nominee. Each director of the Company is being nominated for election for a one-year term beginning at the end of the 2014 Annual General Meeting of Shareholders to be held on June 5, 2014 (the "Annual General Meeting") and expiring at the end of the 2015 Annual General Meeting of Shareholders. Mr. Nelson Peltz has determined not to stand for re-election due to other board commitments.

Under our articles of association, if a director is not re-elected in a director election, the director shall retire at the close or adjournment of the Annual General Meeting. Each director standing for election was elected as a director at our 2013 Annual General Meeting.

The Board of Directors recommends a vote FOR the directors nominated for election listed under proposals 1(a) through (k) below.

(a) Ann C. Berzin – age 62, director since 2001

- Chairman and Chief Executive Officer of Financial Guaranty Insurance Company (insurer of municipal bonds and structured finance obligations), a subsidiary of General Electric Capital Corporation, from 1992 to 2001.
- Current Directorships:
  - Exelon Corporation
  - Baltimore Gas & Electric Company
- Other Directorships Held in the Past Five Years:
  - Constellation Energy Group, Inc.
  - Kindred Healthcare, Inc.

Ms. Berzin's extensive experience in finance at a global diversified industrial firm and her expertise in complex investment and financial products and services bring critical insight to the Company's financial affairs, including its borrowings, capitalization, and liquidity. In addition, Ms. Berzin's relationships across the global financial community strengthen Ingersoll Rand's access to capital markets. Her board memberships provide deep understanding of trends in the energy and healthcare sectors, both of which present ongoing challenges and opportunities for Ingersoll Rand.

(b) John Bruton – age 66, director since 2010

- European Union Commission Head of Delegation to the United States from 2004 to 2009.
- Prime Minister of the Republic of Ireland from 1994 to 1997.
- Current Directorships:
  - Montpelier Re Holding Ltd.
- Other Directorships Held in the Past Five Years: None

Mr. Bruton's long and successful career of public service on behalf of Ireland and Europe provides extraordinary insight into critical regional and global economic, social and political issues, all of which directly influence the successful execution of the Company's strategic plan. In particular, Mr. Bruton's leadership role in transforming Ireland into one of the world's leading economies during his tenure, as well as in preparing the governing document for managing the Euro, lend substantial authority to Ingersoll Rand's economic and financial oversight.

(c) Jared L. Cohon – age 66, director since 2008

- President Emeritus at Carnegie Mellon University, President of Carnegie Mellon University from 1997-2013 and also appointed Professor of Civil and Environmental Engineering and Professor of Engineering and Public Policy.
- Current Directorships:
  - Lexmark, Inc.
  - Unisys
- Other Directorships Held in the Past Five Years: None
- Other Activities:
  - Carnegie Corporation, Trustee
  - Heinz Endowments, Trustee
  - Center for Sustainable Shale Gas Development, Director and Chair

Dr. Cohon's extensive career in academics, including 16 years as president of an institution known throughout the world for its leadership in the fields of computer science and engineering offers the Company tremendous insight into the latest developments in areas critical to commercial innovation and manufacturing process improvement. A member of the National Academy of Engineering, Dr. Cohon is a recognized authority on environmental and water resources systems analysis and management. As such, Dr. Cohon also brings unique perspectives on sustainable business practices, both within our own operations and on behalf of our customers and communities. In 2008 and 2009, at the request of Congress, Dr. Cohon chaired the National Research Council Committee that produced the report, "Hidden Costs of Energy: Unpriced Consequences of Energy Production and Use." Finally, Dr. Cohon's more than nine years of service as a member of Trane Inc.'s (formerly American Standard) board of directors provides critical insight into that part of the Company's business.

(d) Gary D. Forsee – age 64, director since 2007

- President, University of Missouri System from 2008 to 2011.
- Chairman of the Board (from 2006 to 2007) and Chief Executive Officer (from 2005 to 2007) of Sprint Nextel Corporation (a telecommunications company).
- Current Directorships:
  - Great Plains Energy Inc.
- Other Directorships Held in the Past Five Years: None
- Other Activities:
  - Trustee, Midwest Research Institute
  - Trustee, University of Missouri - Kansas City Foundation
  - Trustee, University of Missouri – Kansas City Bloch Business School Foundation

In addition to his broad operational and financial expertise, Mr. Forsee's experience as chairman and chief executive officer with the third largest U.S. firm in the global telecommunications industry offers a deep understanding of the challenges and opportunities within markets experiencing significant technology-driven change. His recent role as president of a major university system provides insight into the Company's talent development initiatives, which remain a critical enabler of Ingersoll Rand's long-term success. Mr. Forsee's membership on the board of an energy services utility also benefits the Company as it seeks to achieve more energy-efficient operations and customer solutions.

(e) Edward E. Hagenlocker – age 74, director since 2008

- Vice-Chairman of Ford Motor Company (an automobile manufacturer) from 1996 until his retirement in 1999.
- Chairman of Visteon Automotive Systems (a manufacturer and supplier of automobile products) from 1997 to 1999.
- Current Directorships:
  - AmeriSourceBergen Corporation
- Other Directorships Held in the Past Five Years:
  - Air Products and Chemicals, Inc.

Mr. Hagenlocker's nearly 35 years in the automotive industry, including experience as the vice chairman of the largest independent U.S. automotive company and as chairman of a major automotive systems supplier, brings to Ingersoll Rand extensive expertise in global manufacturing, engineering, design, marketing and channel management, as well as consumer-focused business disciplines. Mr. Hagenlocker's seven years of service as a member of Trane Inc.'s (formerly American Standard) board of directors provides critical insight into that part of the Company's business. In addition, his board memberships include businesses engaged in the manufacture of specialty and atmospheric gases for industrial processes, which provides insight into new technologies for our operations, and pharmaceutical distribution and services, which enhances our understanding of trends and developments in the healthcare sector.

(f) Constance J. Horner – age 72, director since 1994

- Guest Scholar at the Brookings Institution (a non-partisan research institute) from 1993 to 2005.
- Commissioner of U.S. Commission on Civil Rights from 1993 to 1998.
- Assistant to the President and Director of Presidential Personnel from 1991 to 1993.
- Deputy Secretary, U.S. Department of Health and Human Services from 1989 to 1991.
- Current Directorships:
  - Pfizer Inc.
  - Prudential Financial, Inc.
- Other Directorships Held in the Past Five Years: None
- Other Activities:
  - Trustee, The Prudential Foundation
  - Fellow, National Academy of Public Administration

Ms. Horner's substantial leadership experience and public-policy expertise resulting from her service in two presidential administrations and several U.S. government departments provide Ingersoll Rand with important perspective on matters that directly affect the Company's operations and financial affairs. In particular, Ms. Horner has deep insight into employee relations, talent development, diversity, operational management and healthcare through her leadership positions at various federal departments and commissions. Ms. Horner's board memberships afford ongoing engagement in the areas of healthcare, risk management and financial services, all of which have a direct influence on Ingersoll Rand's success.

(g) Michael W. Lamach – age 50, Chairman since June 2010 and director since February 2010

- President and Chief Executive Officer (since February 2010) of the Company.
- President and Chief Operating Officer of the Company from February 2009 to February 2010.
- Senior Vice President and President, Trane Commercial Systems, of the Company from June 2008 to September 2009.
- Current Directorships:
  - Iron Mountain Incorporated
- Other Directorships Held in the Past Five Years: None

Mr. Lamach's extensive career of successfully leading global businesses, including ten years with Ingersoll Rand, brings significant experience and expertise to the Company's management and governance. His 30 years of business leadership encompass global automotive components, controls, security and HVAC systems businesses, representing a broad and diverse range of products and services, markets, channels, applied technologies and operational profiles. In his current role of President and Chief Executive Officer, he led the successful spin-off of the Company's commercial and residential business and has been instrumental in driving growth and operational excellence initiatives across the Company's global operations. Mr. Lamach's board membership with a leading data and records management company provides ongoing insight into trends and developments in the critical areas of data security and information protection and retention.

(h) Theodore E. Martin – age 74, director since 1996

- President and Chief Executive Officer of Barnes Group Inc. (manufacturer and distributor of automotive and aircraft components and maintenance products) from 1995 until his retirement in 1998.
- Current Directorships: None
- Other Directorships Held in the Past Five Years:
  - Applied Biosystems, Inc. (formerly known as Applera Corporation)
  - C. R. Bard, Inc.
  - Unisys Corporation
- Other Activities:
  - Edna McConnell Clark Foundation

Mr. Martin's experience as chief executive officer of a diversified global industrial firm lends valuable and direct expertise across all aspects of Ingersoll Rand's operational and financial activities. In particular, Mr. Martin's leadership of a large industrial manufacturing organization provides practical insight to help drive the Company's long-term productivity initiatives. His board memberships, which include organizations at the forefront of healthcare products and information technology, enhance the Company's access to important developments in these sectors.

(i) John P. Surma – age 59, director since 2013

- Former Chairman (from 2006-2013) and Chief Executive Officer (from 2004-2013) of United States Steel Corporation (a steel manufacturing company).
- Current Directorships:
  - Marathon Petroleum Corporation
  - MPLX LP (a publicly traded subsidiary of Marathon Petroleum Corporation)
  - Concho Resources Inc.
- Other Directorships Held in the Past Five Years:
  - The Bank of New York Mellon Corporation
- Other Activities:
  - Vice Chairman, U.S. President's Advisory Committee for Trade Policy and Negotiations
  - Director, Federal Reserve Bank of Cleveland

Mr. Surma's experience as the former chairman and chief executive officer of a large industrial company provides significant and direct expertise across all aspects of Ingersoll Rand's operational and financial affairs. In particular, Mr. Surma's financial experience, having previously served as the chief financial officer of United States Steel Corporation and as a partner of the audit firm PricewaterhouseCoopers LLP, provides the Board with valuable insight into financial reporting and accounting oversight of a public company. Mr. Surma's board memberships and other activities provide the Board an understanding of developments in the energy sector as the Company seeks to develop more energy-efficient operations and insight into national and international business and trade policy that could impact the Company.

(j) Richard J. Swift – age 69, Lead Director since 2010 and director since 1995

- Chairman of Financial Accounting Standards Advisory Council from 2002 through 2006.
- Chairman, President and Chief Executive Officer of Foster Wheeler Ltd. (provider of design, engineering, construction, manufacturing, management and environmental services) from 1994 to 2001.
- Current Directorships:
  - CVS Caremark Corporation
  - Hubbell Incorporated
  - Kaman Corporation
  - Public Service Enterprise Group
- Other Directorships Held in the Past Five Years: None

Mr. Swift's experience as chairman and chief executive officer of a global engineering firm, the fact that he was licensed professional engineer for 35 years prior to the retirement of his license and his five-year leadership of the advisory organization to a major accounting standards board imparts substantial expertise to all of the Company's operational and financial matters. His leadership of an organization that was instrumental in some of the world's most significant engineering projects provides unique insight into the complex systems involved in the efficient and effective development of buildings and industrial operations, which represent key global market segments for Ingersoll Rand's products and services. Mr. Swift's board memberships include firms engaged in the manufacture and distribution of industrial, electrical and electronic products, which directly correspond to key elements of the Company's growth and operational strategies.

(k) Tony L. White – age 67, director since 1997

- Chairman, President and Chief Executive Officer of Applied Biosystems Inc. (a developer, manufacturer and marketer of life science systems and genomic information products) from 1995 until his retirement in 2008.
- Current Directorships:
  - C.R. Bard, Inc.
  - CVS Caremark Corporation
- Other Directorships Held in the Past Five Years: None

Mr. White's extensive management experience, including 13 years as chairman and chief executive officer of an advanced-technology life sciences firm, provides substantial expertise and guidance across all aspects of Ingersoll Rand's operational and financial affairs. In particular, Mr. White's leadership of an organization whose success was directly connected to innovation and applied technologies aligns with the Company's focus on innovation as a key source of growth. The Company benefits from Mr. White's ongoing board memberships, where developments related to biotechnology and healthcare delivery systems can offer instructive process methodologies to accelerate our innovation efforts.

Item 2. Advisory Approval of the Compensation of Our Named Executive Officers

The Company is presenting the following proposal, commonly known as a "Say-on-Pay" proposal, which gives you as a shareholder the opportunity to endorse or not endorse our compensation program for named executive officers by voting for or against the following resolution:

"RESOLVED, that the shareholders approve the compensation of the Company's named executive officers, as disclosed in the Compensation Discussion and Analysis, the compensation tables, and the related disclosure contained in the Company's proxy statement."

While our Board of Directors intends to carefully consider the shareholder vote resulting from the proposal, the final vote will not be binding on us and is advisory in nature.

In considering your vote, please be advised that our compensation program for named executive officers is guided by our design principles, as described in the Compensation Discussion and Analysis section of this Proxy Statement:

- *Program competitiveness*
- *Pay for performance*
- *Mix of short and long-term incentives*
- *Internal parity*
- *Shareholder alignment*
- *Business strategy alignment*

By following these design principles, we believe that our compensation program for named executive officers is strongly aligned with the long-term interests of our shareholders.

The Board of Directors recommends that you vote FOR advisory approval of the compensation of our named executive officers as disclosed in the Compensation Discussion and Analysis, the compensation tables, and the related disclosure contained in this proxy statement.

Item 3. Approval of Appointment of Independent Auditors

At the Annual General Meeting, shareholders will be asked to approve the appointment of PricewaterhouseCoopers LLP ("PwC") as our independent auditors for the fiscal year ending December 31, 2014, and to authorize the Audit Committee of our Board of Directors to set the independent auditors' remuneration. PwC has been acting as our independent auditors for many years and, both by virtue of its long familiarity with the Company's affairs and its ability, is considered best qualified to perform this important function.

Representatives of PwC will be present at the Annual General Meeting and will be available to respond to appropriate questions. They will have an opportunity to make a statement if they so desire.

The Board of Directors recommends a vote FOR the proposal to approve the appointment of PwC as independent auditors of the Company and to authorize the Audit Committee of the Board of Directors to set the auditors' remuneration.

Audit Committee Report

While management has the primary responsibility for the financial statements and the reporting process, including the system of internal controls, the Audit Committee reviews the Company's audited financial statements and financial reporting process on behalf of the Board of Directors. The independent auditors are responsible for performing an independent audit of the Company's consolidated financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States) and to issue a report thereon. The Audit Committee monitors those processes. In this context, the Audit Committee has met and held discussions with management and the independent auditors regarding the fair and complete presentation of the Company's results. The Audit Committee has discussed significant accounting policies applied by the Company in its financial statements, as well as alternative treatments. Management has represented to the Audit Committee that the Company's consolidated financial statements were prepared in accordance with United States generally accepted accounting principles, and the Audit Committee has reviewed and discussed the consolidated financial statements with management and the independent auditors. The Audit Committee also discussed with the independent auditors the matters required to be discussed by Auditing Standard No. 16, "Communications with Audit Committees" issued by the Public Company Accounting Oversight Board (United States).

In addition, the Audit Committee has received and reviewed the written disclosures and the letter from PwC required by the Public Company Accounting Oversight Board regarding PwC's communications with the Audit Committee concerning independence and discussed with PwC the auditors' independence from the Company and its management in connection with the matters stated therein. The Audit Committee also considered whether the independent auditors' provision of non-audit services to the Company is compatible with the auditors' independence. The Audit Committee has concluded that the independent auditors are independent from the Company and its management.

The Audit Committee discussed with the Company's internal and independent auditors the overall scope and plans for their respective audits. The Audit Committee meets separately with the internal and independent auditors, with and without management present, to discuss the results of their examinations, the evaluations of the Company's internal controls and the overall quality of the Company's financial reporting.

In reliance on the reviews and discussions referred to above, the Audit Committee recommended to the Board of Directors, and the Board has approved, that the audited financial statements be included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2013 ("2013 Form 10-K"), for filing with the Securities and Exchange Commission (the "SEC"). The Audit Committee has selected PwC, subject to shareholder approval, as the Company's independent auditors for the fiscal year ending December 31, 2014.

AUDIT COMMITTEE

Richard J. Swift (Chair)
Ann C. Berzin
Edward E. Hagenlocker
Theodore E. Martin
John P. Surma

Fees of the Independent Auditors

The following table shows the fees paid or accrued by the Company for audit and other services provided by PwC for the fiscal years ended December 31, 2013 and 2012:

	2013	2012
Audit Fees (a)	$ 14,831,000	$ 14,753,000
Audit-Related Fees (b)	3,985,000	1,003,000
Tax Fees (c)	10,785,000	6,703,000
All Other Fees (d)	1,643,000	934,000
Total	$ 31,244,000	$ 23,393,000

(a) Audit Fees for the fiscal years ended December 31, 2013 and 2012, respectively, were for professional services rendered for the audits of the Company's annual consolidated financial statements and its internal controls over financial reporting, including quarterly reviews, statutory audits, issuance of consents, comfort letters and assistance with, and review of, documents filed with the SEC.

(b) Audit-Related Fees consist of assurance services that are related to performing the audit and review of our financial statements. Audit-Related Fees for the fiscal year ended December 31, 2013 include employee benefit plan audits, abandoned and unclaimed property tax assessments, systems implementation risk assessment, comfort letter related to bond offering of disposed businesses and carve-out audits of disposed businesses primarily related to the Spin-off. Audit-Related Fees for the fiscal year ended December 31, 2012 include employee benefit plan audits, abandoned and unclaimed property tax assessments and systems implementation risk assessment.

(c) Tax Fees for the fiscal years ended December 31, 2013 and 2012 include consulting and compliance services in the U.S. and non-U.S. locations primarily related to Spin-off cost.

(d) All Other Fees for the fiscal year ended December 31, 2013 include trading platform redesign services, advisory services for the transition of insourcing of information technology services and license fees for technical accounting software. All Other Fees for the fiscal year ended December 31, 2012 include trading platform redesign services, integrated supply chain materials and parts planning and license fees for technical accounting software.

The Audit Committee has adopted policies and procedures which require that the Audit Committee pre-approve all non-audit services that may be provided to the Company by its independent auditors. The policy: (i) provides for pre-approval of an annual budget for each type of service; (ii) requires Audit Committee approval of specific projects over $100,000, even if included in the approved budget; and (iii) requires Audit Committee approval if the forecast of expenditures exceeds the approved budget on any type of service. The Audit Committee pre-approved all of the services described under "Audit-Related Fees," "Tax Fees" and "All Other Fees." The Audit Committee has determined that the provision of all such non-audit services is compatible with maintaining the independence of PwC.

Item 4. Renewal of the Directors' existing authority to issue shares.

Under Irish law, directors of an Irish public limited company must have authority from its shareholders to issue any shares, including shares which are part of the company's authorized but unissued share capital. Our shareholders provided the Directors with this authorization for a period of five years when our articles of association were adopted in 2009. Because this five-year share authorization period will expire in July 2014, we are presenting this proposal to renew the Directors' authority to issue our authorized shares on the terms set forth below.

We are seeking approval to authorize our Directors, upon expiration of our existing authority to issue up to 33% of our issued ordinary share capital as of April 8, 2014 (the latest practicable date before this proxy statement), for a period expiring 18 months from the passing of this resolution, unless renewed.

Granting the Directors this authority is a routine matter for public companies incorporated in Ireland and is consistent with Irish market practice. This authority is fundamental to our business and enables us to issue shares, including in connection with our equity compensation plans (where required) and, if applicable, funding acquisitions and raising capital. We are not asking you to approve an increase in our authorized share capital or to approve a specific issuance of shares. Instead, approval of this proposal will only grant the Directors the authority to issue shares that are already authorized under our articles upon the terms below. In addition, we note that, because we are a NYSE-listed company, our shareholders continue to benefit from the protections afforded to them under the rules and regulations of the NYSE and SEC, including those rules that limit our ability to issue shares in specified circumstances. Furthermore, we note that this authorization is required as a matter of Irish law and is not otherwise required for other U.S. companies listed on the NYSE with whom we compete. Accordingly, approval of this resolution would merely place us on par with other NYSE-listed companies.

As required under Irish law, the resolution in respect of proposal no. 4 is an ordinary resolution that requires the affirmative vote of a simple majority of the votes cast.

The text of this resolution is as follows:

"That the Directors be and are hereby generally and unconditionally authorized with effect from July 1, 2014 to exercise all powers of the Company to allot relevant securities (within the meaning of Section 20 of the Companies (Amendment) Act 1983) up to an aggregate nominal amount of $88,220,219 (88,220,219 shares) (being equivalent to approximately 33% of the aggregate nominal value of the issued ordinary share capital of the Company as of April 8, 2014 (the latest practicable date before this proxy statement)), and the authority conferred by this resolution shall expire 18 months from the passing of this resolution, unless previously renewed, varied or revoked; provided that the Company may make an offer or agreement before the expiry of this authority, which would or might require any such securities to be allotted after this authority has expired, and in that case, the directors may allot relevant securities in pursuance of any such offer or agreement as if the authority conferred hereby had not expired."

The Board of Directors recommends that you vote FOR renewing the Directors' authority to issue shares.

Item 5: Renewal of Directors' existing authority to issue shares for cash without first offering shares to existing shareholders.

Under Irish law, unless otherwise authorized, when an Irish public limited company issues shares for cash, it is required first to offer those shares on the same or more favorable terms to existing shareholders of the company on a pro-rata basis (commonly referred to as the statutory pre-emption right). Our shareholders provided the Directors with the authority to issue shares as if this statutory pre-emption right did not apply for a period of five years when our articles of association were adopted in 2009. Because this five-year share authorization period will expire in July 2014, we are presenting this proposal to renew the Directors' authority to opt-out of the pre-emption right on the terms set forth below.

We are seeking approval to authorize our Directors, upon expiration of our existing authority to opt-out of the statutory pre-emption rights provision in the event of (1) the issuance of shares for cash in connection with any rights issue and (2) any other issuance of shares for cash, if the issuance is limited to up to 5% of our issued ordinary share capital as of April 8, 2014 (the latest practicable date before this proxy statement), for a period expiring 18 months from the passing of this resolution, unless renewed.

Granting the Directors this authority is a routine matter for public companies incorporated in Ireland and is consistent with Irish market practice. Similar to the authorization sought for Item 4, this authority is fundamental to our business and enables us to issue shares under our equity compensation plans (where required) and if applicable, will facilitate our ability to fund acquisitions and otherwise raise capital. We are not asking you to approve an increase in our authorized share capital. Instead, approval of this proposal will only grant the Directors the authority to issue shares in the manner already permitted under our articles upon the terms below. Without this authorization, in each case where we issue shares for cash, we would first have to offer those shares on the same or more favorable terms to all of our existing shareholders. This requirement could undermine the operation of our compensation plans and cause delays in the completion of acquisitions and capital raising for our business. Furthermore, we note that this authorization is required as a matter of Irish law and is not otherwise required for other U.S. companies listed on the NYSE with whom we compete. Accordingly, approval of this resolution would merely place us on par with other NYSE-listed companies.

As required under Irish law, the resolution in respect of this proposal is a special resolution that requires the affirmative vote of at least 75% of the votes cast.

The text of the resolution in respect of this proposal is as follows:

"As a special resolution, that, subject to the passing of the resolution in respect of Item 4 as set out above and with effect from July 1, 2014, the directors be and are hereby empowered pursuant to Section 24 of the Companies (Amendment) Act 1983 to allot equity securities (as defined in Section 23 of that Act) for cash, pursuant to the authority conferred by proposal no. 4 as if sub-section (1) of Section 23 did not apply to any such allotment, provided that this power shall be limited to:

(a) the allotment of equity securities in connection with a rights issue in favor of the holders of ordinary shares (including rights to subscribe for, or convert into, ordinary shares) where the equity securities respectively attributable to the interests of such holders are proportional (as nearly as may be) to the respective numbers of ordinary shares held by them (but subject to such exclusions or other arrangements as the directors may deem necessary or expedient to deal with fractional entitlements that would otherwise arise, or with legal or practical problems under the laws of, or the requirements of any recognized regulatory body or any stock exchange in, any territory, or otherwise); and

(b) the allotment (otherwise than pursuant to sub-paragraph (a) above) of equity securities up to an aggregate nominal value of $13,518,215 (13,518,215 shares) (being equivalent to approximately 5% of the aggregate nominal value of the issued ordinary share capital of the Company as of April 8, 2014 (the latest practicable date before this proxy statement)) and the authority conferred by this resolution shall expire 18 months from the passing of this resolution, unless previously renewed, varied or revoked; provided that the Company may make an offer or agreement before the expiry of this authority, which would or might require any such securities to be allotted after this authority has expired, and in that case, the directors may allot equity securities in pursuance of any such offer or agreement as if the authority conferred hereby had not expired."

The Board of Directors recommends that you vote FOR renewing the Directors' authority to opt-out of statutory pre-emption rights.

Item 6: Determine the price at which the Company can reissue shares held as treasury shares.

Our open-market share repurchases (redemptions) and other share buyback activities may result in ordinary shares being acquired and held by the Company as treasury shares. We may reissue treasury shares that we acquire through our various share buyback activities including in connection with our executive compensation program and our director programs.

Under Irish law, our shareholders must authorize the price range at which we may reissue any shares held in treasury. In this proposal, that price range is expressed as a minimum and maximum percentage of the closing market price of our ordinary shares on the NYSE the day preceding the day on which the relevant share is re-issued. Under Irish law, this authorization expires 18 months after its passing unless renewed.

The authority being sought from shareholders provides that the minimum and maximum prices at which an ordinary share held in treasury may be reissued are 95% and 120%, respectively, of the closing market price of the ordinary shares on the NYSE the day preceding the day on which the relevant share is re-issued, except as described below with respect to obligations under employee share schemes, which may be at a minimum price of nominal value. Any reissuance of treasury shares will be at price levels that the Board considers in the best interests of our shareholders.

As required under Irish law, the resolution in respect of this proposal is a special resolution that requires the affirmative vote of at least 75% of the votes cast.

The text of the resolution in respect of this proposal is as follows:

"As a special resolution, that the reissue price range at which any treasury shares held by the Company may be reissued off-market shall be as follows:

(a) the maximum price at which such treasury share may be reissued off-market shall be an amount equal to 120% of the "market price"; and

(b) the minimum price at which a treasury share may be reissued off-market shall be the nominal value of the share where such a share is required to satisfy an obligation under an employee share scheme or any option schemes operated by the Company or, in all other cases, an amount equal to 95% of the "market price"; and

(c) for the purposes of this resolution, the "market price" shall mean the closing market price of the ordinary shares on the NYSE the day preceding the day on which the relevant share is re-issued.

FURTHER, that this authority to reissue treasury shares shall expire at 18 months from the date of the passing of this resolution unless previously varied or renewed in accordance with the provisions of Section 209 of the Companies Act 1990."

The Board of Directors recommends that shareholders vote FOR the proposal to determine the price at which the Company can reissue shares held as treasury shares.

CORPORATE GOVERNANCE

Corporate Governance Guidelines

Our Corporate Governance Guidelines, together with the charters of the various Board committees, provide a framework for the corporate governance of the Company. The following is a summary of our Corporate Governance Guidelines. A copy of our Corporate Governance Guidelines, as well as the charters of each of our Board committees, are available on our website at *www.ingersollrand.com* under the heading "Investor Relations – Corporate Governance."

Role of the Board of Directors

The Company's business is managed under the direction of the Board of Directors. The role of the Board of Directors is to oversee the management and governance of the Company and monitor senior management's performance.

Board Responsibilities

The Board of Directors' core responsibilities include:

- selecting, monitoring, evaluating and compensating senior management;
- assuring that management succession planning is ongoing;
- reviewing the Company's financial controls and reporting systems;
- overseeing the Company's management of enterprise risk;
- reviewing the Company's ethical standards and compliance procedures; and
- evaluating the performance of the Board of Directors, Board committees and individual directors.

Board Leadership Structure

The positions of Chairman of the Board and CEO at the Company are held by the same person, except in unusual circumstances, such as during a CEO transition. This policy has worked well for the Company. It is the Board of Directors' view that the Company's corporate governance principles, the quality, stature and substantive business knowledge of the members of the Board, as well as the Board's culture of open communication with the CEO and senior management are conducive to Board effectiveness with a combined Chairman and CEO position.

In addition, the Board of Directors has a strong, independent Lead Director and it believes this role adequately addresses the need for independent leadership and an organizational structure for the independent directors. The Board of Directors appoints a Lead Director for a three-year minimum term from among the Board's independent directors. The Lead Director coordinates the activities of all of the Board's independent directors. The Lead Director is the principal confidant to the CEO and ensures that the Board of Directors has an open, trustful relationship with the Company's senior management team. In addition to the duties of all directors, as set forth in the Company's Governance Guidelines, the specific responsibilities of the Lead Director are as follows:

- Chair the meetings of the independent directors when the Chairman is not present;
- Ensure the full participation and engagement of all Board members in deliberations;
- Lead the Board of Directors in all deliberations involving the CEO's employment, including hiring, contract negotiations, performance evaluations, and dismissal;
- Counsel the Chairman on issues of interest/concern to directors and encourage all directors to engage the Chairman with their interests and concerns;
- Work with the Chairman to develop an appropriate schedule of Board meetings and approve such schedule, to ensure that the directors have sufficient time for discussion of all agenda items, while not interfering with the flow of Company operations;
- Work with the Chairman to develop the Board and Committee agendas and approve the final agendas;
- Keep abreast of key Company activities and advise the Chairman as to the quality, quantity and timeliness of the flow of information from Company management that is necessary for the directors to effectively and responsibly perform their duties; although Company management is responsible for the preparation of materials for the Board of Directors, the Lead Director will approve information provided to the Board and may specifically request the inclusion of certain material;
- Engage consultants who report directly to the Board of Directors and assist in recommending consultants that work directly for Board Committees;
- Work in conjunction with the Corporate Governance and Nominating Committee in compliance with Governance Committee processes to interview all Board candidates and make recommendations to the Board of Directors;
- Assist the Board of Directors and Company officers in assuring compliance with and implementation of the Company's Governance Guidelines; work in conjunction with the Corporate Governance Committee to recommend revisions to the Governance Guidelines;

- Call, coordinate and develop the agenda for and chair executive sessions of the Board's independent directors; act as principal liaison between the independent directors and the CEO;
- Work in conjunction with the Corporate Governance and Nominating Committee to identify for appointment the members of the various Board Committees, as well as selection of the Committee chairs;
- Be available for consultation and direct communication with major shareholders;
- Make a commitment to serve in the role of Lead Director for a minimum of three years; and
- Help set the tone for the highest standards of ethics and integrity.

Mr. Swift has been the Company's Lead Director since January 2010.

Board Risk Oversight

The Board of Directors has oversight responsibility of the processes established to report and monitor systems for material risks applicable to the Company. The Board of Directors focuses on the Company's general risk management strategy and the most significant risks facing the Company and ensures that appropriate risk mitigation strategies are implemented by management. The full Board is responsible for considering strategic risks and succession planning and, at each Board meeting, receives reports from each Committee as to risk oversight within their areas of responsibility. The Board of Directors has delegated to its various committees the oversight of risk management practices for categories of risk relevant to their functions as follows:

- The Audit Committee oversees risks associated with the Company's systems of disclosure controls and internal controls over financial reporting, as well as the Company's compliance with legal and regulatory requirements.
- The Compensation Committee considers risks related to the attraction and retention of talent and risks related to the design of compensation programs and arrangements.
- The Corporate Governance and Nominating Committee oversees risks associated with sustainability.
- The Finance Committee oversees risks associated with foreign exchange, insurance, credit and debt.

The Company has appointed the Chief Financial Officer as its Chief Risk Officer and, in that role, the Chief Risk Officer periodically reports on risk management policies and practices to the relevant Board Committee or to the full Board so that any decisions can be made as to any required changes in the Company's risk management and mitigation strategies or in the Board's oversight of these.

Finally, as part of its oversight of the Company's executive compensation program, the Compensation Committee considers the impact of the Company's executive compensation program and the incentives created by the compensation awards that it administers on the Company's risk profile. In addition, the Company reviews all of its compensation policies and procedures, including the incentives that they create and factors that may reduce the likelihood of excessive risk taking, to determine whether they present a significant risk to the Company. Based on this review, the Company has concluded that its compensation policies and procedures are not reasonably likely to have a material adverse effect on the Company.

Director Compensation and Stock Ownership

It is the policy of the Board of Directors that directors' fees be the sole compensation received from the Company by any non-employee director. The Company has a share ownership requirement of four times the annual cash retainer paid to the directors. Directors must achieve the share ownership minimum within five years of joining the Board of Directors. Once attaining the minimum level of Company stock ownership, a director must retain this minimum level of Company stock ownership until their resignation or retirement from the Board.

Board Size and Composition

The Board of Directors consists of a substantial majority of independent, non-employee directors. In addition, our Corporate Governance Guidelines require that all members of the committees of the Board must be independent directors. The Board of Directors has the following four standing committees: Audit Committee, Compensation Committee, Corporate Governance and Nominating Committee, and Finance Committee. The Board of Directors has determined that each member of each of these committees is "independent" as defined in the NYSE listing standards and the Company's Guidelines for Determining Independence of Directors. Committee memberships and chairs are rotated periodically.

Board Diversity

The Company's policy on Board diversity relates to the selection of nominees for the Board of Directors. In selecting a nominee for the Board, the Corporate Governance and Nominating Committee considers the skills, expertise and background that would complement the existing Board and ensure that its members are of sufficiently diverse and independent backgrounds, recognizing that the Company's businesses and operations are diverse and global in nature. The Board of Directors has two female directors, one African-American director and one Hispanic director out of a total of 12 directors.

Board Advisors

The Board of Directors and its committees may, under their respective charters, retain their own advisors to carry out their responsibilities.

Executive Sessions

The Company's independent directors meet privately in regularly scheduled executive sessions, without management present, to consider such matters as the independent directors deem appropriate. These executive sessions are required to be held no less than twice each year.

Board Evaluation

The Corporate Governance and Nominating Committee assists the Board in evaluating its performance and the performance of the Board committees. Each committee also conducts an annual self-evaluation. The effectiveness of individual directors is considered each year when the directors stand for re-nomination.

Director Orientation and Education

The Company has developed an orientation program for new directors and provides continuing education for all directors. In addition, the directors are given full access to management and corporate staff as a means of providing additional information.

Director Nomination Process

The Corporate Governance and Nominating Committee reviews the composition of the full Board to identify the qualifications and areas of expertise needed to further enhance the composition of the Board, makes recommendations to the Board concerning the appropriate size and needs of the Board and, on its own or with the assistance of management, a search firm or others, identifies candidates with those qualifications. In considering candidates, the Corporate Governance and Nominating Committee will take into account all factors it considers appropriate, including breadth of experience, understanding of business and financial issues, ability to exercise sound judgment, diversity, leadership, and achievements and experience in matters affecting business and industry. The Corporate Governance and Nominating Committee considers the entirety of each candidate's credentials and believes that at a minimum each nominee should satisfy the following criteria: highest character and integrity, experience and understanding of strategy and policy-setting, sufficient time to devote to Board matters, and no conflict of interest that would interfere with performance as a director. Shareholders may recommend candidates for consideration for Board membership by sending the recommendation to the Corporate Governance and Nominating Committee, in care of the Secretary of the Company. Candidates recommended by shareholders are evaluated in the same manner as director candidates identified by any other means.

Director Retirement

It is the policy of the Board of Directors that each non-employee director must retire at the annual general meeting immediately following his or her 75^{th} birthday. Directors who change the occupation they held when initially elected must offer to resign from the Board of Directors. At that time, the Corporate Governance and Nominating Committee reviews the continued appropriateness of Board membership under the new circumstances and makes a recommendation to the Board of Directors. Employee directors, including the CEO, must retire from the Board of Directors at the time of a change in their status as an officer of the Company, unless the policy is waived by the Board.

Director Independence

The Board of Directors has determined that all of our current directors, except M.W. Lamach, who is an employee of the Company, are independent under the standards set forth in Exhibit I to our Corporate Governance Guidelines, which are consistent with the NYSE listing standards. In determining the independence of directors, the Board evaluated transactions between the Company and entities with which directors were affiliated that occurred in the ordinary course of business and that were provided on the same terms and conditions available to other customers. A copy of Exhibit I to our Corporate Governance Guidelines is available on our website, *www.ingersollrand.com*, under the heading "Investor Relations—Corporate Governance."

Communications with Directors

Shareholders and other interested parties wishing to communicate with the Board of Directors, the non-employee directors or any individual director (including our Lead Director and Compensation Committee Chair) may do so either by sending a communication to the Board and/or a particular Board member, in care of the Secretary of the Company, or by e-mail at *irboard@irco.com*. Depending upon the nature of the communication and to whom it is directed, the Secretary will: (a) forward the communication to the appropriate director or directors; (b) forward the communication to the relevant department within the Company; or (c) attempt to handle the matter directly (for example, a communication dealing with a share ownership matter).

Code of Conduct

The Company has adopted a worldwide Code of Conduct, applicable to all employees, directors and officers, including our Chief Executive Officer, our Chief Financial Officer and our Controller. The Code of Conduct meets the requirements of a "code of ethics" as defined by Item 406 of Regulation S-K, as well as the requirements of a "code of business conduct and ethics" under the NYSE listing standards. The Code of Conduct covers topics including, but not limited to, conflicts of interest, confidentiality of information, and compliance with laws and regulations. A copy of the Code of Conduct is available on our website located at *www.ingersollrand.com* under the heading "Investor Relations—Corporate Governance." Amendments to, or waivers of the provisions of, the Code of Conduct, if any, made with respect to any of our directors and executive officers will be posted on our website.

Anti-Hedging Policy and Other Restrictions

The Company prohibits its directors and executive officers from (i) purchasing any financial instruments designed to hedge or offset any decrease in the market value of Company securities and (ii) engaging in any form of short-term speculative trading in Company securities. Directors and executive officers are also prohibited from holding Company securities in a margin account or pledging Company securities as collateral for a loan unless the Senior Vice President and General Counsel provides pre-clearance after the director or executive officer clearly demonstrates the financial capability to repay the loan without resort to the pledged securities.

Committees of the Board

Audit Committee

Members:	Richard J. Swift (Chair)
	Ann C. Berzin
	Edward E. Hagenlocker
	Theodore E. Martin
	John P. Surma

Key Functions:

- Review annual audited and quarterly financial statements, as well as the Company's disclosures under "Management's Discussion and Analysis of Financial Conditions and Results of Operations," with management and the independent auditors.
- Obtain and review periodic reports, at least annually, from management assessing the effectiveness of the Company's internal controls and procedures for financial reporting.
- Review the Company's processes to assure compliance with all applicable laws, regulations and corporate policy.
- Recommend the public accounting firm to be proposed for appointment by the shareholders as our independent auditors and review the performance of the independent auditors.
- Review the scope of the audit and the findings and approve the fees of the independent auditors.
- Approve in advance permitted audit and non-audit services to be performed by the independent auditors.
- Satisfy itself as to the independence of the independent auditors and ensure receipt of their annual independence statement.

The Board of Directors has determined that each member of the Audit Committee is "independent" for purposes of the applicable rules and regulations of the SEC, as defined in the NYSE listing standards and the Company's Corporate Governance Guidelines and has determined that each member of the Audit Committee meets the qualifications of an "audit committee financial expert," as that term is defined by rules of the SEC.

A copy of the charter of the Audit Committee is available on our website, *www.ingersollrand.com*, under the heading "Investor Relations—Corporate Governance."

Compensation Committee

Members:	Tony L. White (Chair)
	John Bruton
	Jared L. Cohon
	Gary D. Forsee
	Constance J. Horner

Key Functions:

- Establish executive compensation policies.
- Review and approve the goals and objectives relevant to the compensation of the Chief Executive Officer, evaluate the Chief Executive Officer's performance against those goals and objectives and set the Chief Executive Officer's compensation level based on this evaluation. The Compensation Committee Chair presents all compensation decisions pertaining to the Chief Executive Officer to the full Board of Directors.
- Approve compensation of officers and key employees.
- Review and approve executive compensation and benefit programs.
- Administer the Company's equity compensation plans.
- Review and recommend significant changes in principal employee benefit programs.
- Approve and oversee Compensation Committee consultants.

For a discussion concerning the processes and procedures for determining executive and director compensation and the role of executive officers and compensation consultants in determining or recommending the amount or form of compensation, see "Compensation Discussion and Analysis" and "Compensation of Directors," respectively.

The Board of Directors has determined that each member of the Compensation Committee is "independent" as defined in the NYSE listing standards and the Company's Corporate Governance Guidelines. In addition, the Board of Directors has determined that each member of the Compensation Committee qualifies as a "Non-Employee Director" within the meaning of Rule 16b-3 of the Securities Exchange Act of 1934 and an "outside director" within the meaning of Section 162(m) of the Code.

A copy of the charter of the Compensation Committee is available on our website, *www.ingersollrand.com*, under the heading "Investor Relations—Corporate Governance."

Corporate Governance and Nominating Committee

Members: Gary D. Forsee (Chair)
John Bruton
Jared L. Cohon
Constance J. Horner
Nelson Peltz
Tony L. White

Key Functions:

- Identify individuals qualified to become directors and recommend the candidates for all directorships.
- Recommend individuals for election as officers.
- Review the Company's Corporate Governance Guidelines and make recommendations for changes.
- Consider questions of independence and possible conflicts of interest of directors and executive officers.
- Take a leadership role in shaping the corporate governance of the Company.
- Oversee the Company's sustainability efforts.

The Board of Directors has determined that each member of the Corporate Governance and Nominating Committee is "independent" as defined in the NYSE listing standards and the Company's Corporate Governance Guidelines.

A copy of the charter of the Corporate Governance and Nominating Committee is available on our website, *www.ingersollrand.com* , under the heading "Investor Relations—Corporate Governance."

Finance Committee

Members: Ann C. Berzin (Chair)
Edward E. Hagenlocker
Theodore E. Martin
Nelson Peltz
John P. Surma
Richard J. Swift

Key Functions:

- Review proposed borrowings and issuances of securities.
- Recommend to the Board of Directors the dividends to be paid on our ordinary shares.
- Consider and recommend for approval by the Board of Directors the repurchase of the Company's shares.
- Review cash management policies.
- Review periodic reports of the investment performance of the Company's employee benefit plans.

The Board of Directors has determined that each member of the Finance Committee is "independent" as defined in the NYSE listing standards and the Company's Corporate Governance Guidelines.

A copy of the charter of the Finance Committee is available on our website, *www.ingersollrand.com*, under the heading "Investor Relations—Corporate Governance."

Board, Committee and Annual Meeting Attendance

The Board of Directors and its committees held the following number of meetings during the fiscal year ended December 31, 2013:

Board	7
Audit Committee	10
Compensation Committee	8
Corporate Governance and Nominating Committee	7
Finance Committee	8

Each incumbent director attended 95% or more of the total number of meetings of the Board of Directors and the committees on which he or she served during the year. The Company's non-employee directors held five independent director meetings without management present during the fiscal year 2013. It is the Board's general practice to hold independent director meetings in connection with regularly scheduled Board meetings.

The Company expects all Board members to attend the annual general meeting, but from time to time other commitments prevent all directors from attending the meeting. All of the directors attended the most recent annual general meeting of shareholders, which was held on June 6, 2013.

Compensation of Directors

Director Compensation

Our director compensation program is designed to compensate non-employee directors fairly for work required for a company of our size and scope and align their interests with the long-term interests of our shareholders. The program reflects our desire to attract, retain and use the expertise of highly qualified people serving on the Company's Board of Directors. Employee directors do not receive any additional compensation for serving as a director.

Our 2013 director compensation program for non-employee directors consisted of the following elements:

Compensation Element	Compensation Value	
Annual Cash Retainer	$	240,000
Audit Committee Chair Cash Retainer	$	30,000
Compensation Committee Chair Cash Retainer	$	15,000
Corporate Governance and Nominating Committee Chair and Finance Committee Chair Cash Retainer	$	10,000
Audit Committee Member Cash Retainer (other than Chair)	$	7,500
Lead Director Cash Retainer	$	50,000
Additional Meetings or Unscheduled Planning Session Fees *	$ 2,500 (per meeting or session)	

* The Board and each Committee, other than Audit, has 6 regularly scheduled meetings each year. The Audit Committee has 9 regularly scheduled meetings each year.

In addition, non-employee directors were eligible to receive a tax equalization payment if the Irish income taxes owed on their director compensation exceed the income taxes owed on such compensation in their country of residence. Without these tax equalization payments, a director would be subject to double taxation since they are already paying taxes on their director income in their country of residence. We believe these tax equalization payments were appropriate to ensure our ability to continue to attract highly qualified persons who do not reside in Ireland. In 2013, five non-employee directors received a tax equalization payment for the year 2012 and we anticipate in 2014 that some of our non-employee directors will receive a tax equalization payment for the year 2013.

The Corporate Governance and Nominating Committee periodically reviews the compensation level of our non-employee directors in consultation with the Committee's independent compensation consultant and makes recommendations to the Board of Directors. Based on its most recent review, our Corporate Governance and Nominating Committee recommended certain changes to director compensation effective January 1, 2014, which were approved by our Board. These changes included the following:

- An increase in the annual retainer to $285,000 with one half of the retainer paid in cash and one half paid in RSUs;
- An increase in the Compensation Committee Chair Cash Retainer to $20,000;
- An increase in the cash retainers for the Corporate Governance and Nominating Chair and the Finance Committee Chair to $15,000;
- Elimination of tax equalization payments on retainers beginning with the retainers earned for the 2014 fiscal year; and
- Updating our director share ownership requirement as described below effective as of January 1, 2014.

Share Ownership Requirement

To align the interests of directors with shareholders, the Board of Directors has adopted a share ownership requirement of four times the annual cash retainer paid to the directors. Directors must achieve the share ownership minimum within five years of joining the Board of Directors. Once attaining the minimum level of Company stock ownership, a director must retain this minimum level of Company stock ownership until their resignation or retirement from the Board. In setting the share ownership requirement, the Board of Directors considered the input of the independent compensation consultant, the Company's current stock price and the period of time it would take a director to reach the required ownership level.

2013 Director Compensation

The compensation paid or credited to our non-employee directors for the year ended December 31, 2013, is summarized in the table below.

Name	Fees earned or paid in cash ($)(a)	All Other Compensation ($)(b)	Total ($)
A. C. Berzin	265,000	110,572	375,572
J. Bruton	247,500	–	247,500
J. L. Cohon	247,500	173	247,673
G. D. Forsee	272,500	33,733	306,233
P. C. Godsoe (c)	133,750	–	133,750
E. E. Hagenlocker	255,000	30,990	285,990
C. J. Horner	247,500	48,881	296,381
T. E. Martin	255,000	–	255,000
N. Peltz (d)	252,500	–	252,500
J. P. Surma	250,000	–	250,000
R. J. Swift	335,000	–	335,000
T. L. White	262,500	–	262,500

(a) The amounts in this column represent the following annual cash retainer, the Committee Chair retainers, the Audit Committee member retainer, the Lead Director retainer, and the Board, Committee and other meeting or session fees:

Name	Cash Retainer ($)	Committee Chair Retainer ($)	Audit Committee Member Retainer ($)	Lead Director Retainer Fees ($)	Board, Committee and Other Meeting or Session Fees ($)
A. C. Berzin	240,000	5,000	7,500	–	12,500
J. Bruton	240,000	–	–	–	7,500
J. L. Cohon	240,000	–	–	–	7,500
G. D. Forsee	240,000	10,000	–	–	22,500
P. C. Godsoe	120,000	5,000	3,750	–	5,000
E. E. Hagenlocker	240,000	–	7,500	–	7,500
C. J. Horner	240,000	–	–	–	7,500
T. E. Martin	240,000	–	7,500	–	7,500
N. Peltz	240,000	–	–	–	12,500
J. P. Surma	240,000	–	7,500	–	2,500
R. J. Swift	240,000	30,000	–	50,000	15,000
T. L. White	240,000	15,000	–	–	7,500

(b) Represents tax equalization payments made in 2013.

(c) Peter C. Godsoe retired effective June 6, 2013.

(d) Fees earned by Mr. Peltz are paid to Trian Fund Management, L.P. (“Trian”).

For each non-employee director at December 31, 2013, the following table reflects unexercised stock options, all of which are vested:

Name	Number of stock options
A. C. Berzin	–
J. Bruton	–
J. L. Cohon	30,240
G. D. Forsee	–
P. C. Godsoe	–
E. E. Hagenlocker	–
C. J. Horner	–
T. E. Martin	–
N. Peltz	–
J. P. Surma	–
R. J. Swift	–
T. L. White	–

Proxy Statement

COMPENSATION DISCUSSION AND ANALYSIS

The Compensation Discussion and Analysis ("CD&A") set forth below provides an overview of our executive compensation programs, including the philosophy and objectives of such programs, as well as a discussion of how awards are determined for our Named Executive Officers ("NEOs"). These NEOs include our Chairman and Chief Executive Officer ("CEO"), our Chief Financial Officer ("CFO"), and our three most highly compensated executive officers from the 2013 fiscal year. In addition, two other individuals are included as NEOs in 2013; however, they were no longer serving as executive officers at the end of 2013. The current executive officers serving as NEOs included are:

- Mr. Michael W. Lamach, our Chairman and Chief Executive Officer;
- Ms. Susan K. Carter, our Senior Vice President and Chief Financial Officer;
- Mr. Gary S. Michel, our Senior Vice President and President, Residential HVAC North America;
- Mr. Didier P. M. Teirlinck, Ph.D., our Executive Vice President, Climate segment; and
- Mr. Robert G. Zafari, our Executive Vice President, Industrial segment.

The former executive officers serving as NEOs included are:

- Mr. Steven R. Shawley, our former Senior Vice President and Chief Financial Officer; and
- Mr. John W. Conover IV, our former Senior Vice President and President, Security Technologies.

This discussion and analysis is divided into the following sections:

I. Executive Summary.
II. Compensation Philosophy and Design Principles.
III. Factors Considered in the Determination of Target Total Direct Compensation.
IV. Role of the Compensation Committee, Independent Advisor, and Committee Actions.
V. Compensation Program Descriptions and Compensation Decisions.
VI. Other Compensation and Tax Matters.

I. Executive Summary

Effective December 1, 2013, we successfully completed the spin-off of our commercial and residential security businesses (the "Spin-off") into an independent, publicly traded company, Allegion plc ("Allegion"). In conjunction with the Spin-off, we reorganized our structure from four business sectors into two business segments, Climate and Industrial. This new structure allows the Company to provide greater focus on growth, continue implementation of our business operating system, build on our successful operational excellence philosophy, and reduce complexity and costs.

The Spin-off and our reorganization did not impact the basic design of our executive compensation programs. Consistent with our historical intent, the design of these programs allows Ingersoll Rand to attract, retain and focus the talents and energies of executives who are capable of meeting the Company's current and future goals, most notably, the creation of sustainable shareholder value. However, to offset an unintended impact of the Spin-off, payouts under our 2013 Annual Incentive Matrix ("AIM") program and our Performance Share Program ("PSP") for the 2011- 2013 performance period were determined based on full year 2013 results inclusive of Allegion. In addition, the compensation level of several NEOs was increased to reflect material changes in position accountability and greater scope of responsibilities as a result of the reorganization.

Overall, our executive compensation programs were designed by incorporating the following principles:

(i) program competitiveness,
(ii) pay for performance,
(iii) mix of short and long-term incentives,
(iv) internal parity,
(v) shareholder alignment, and
(vi) business strategy alignment.

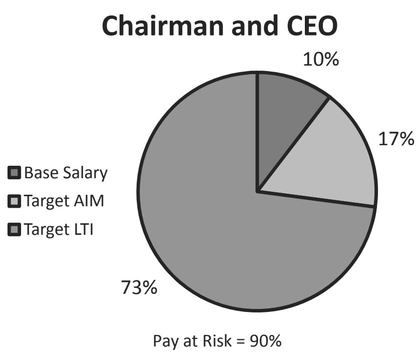
Consistent with these principles, the Compensation Committee has adopted executive compensation programs with a strong link between pay and the achievement of short and long-term Company goals. The primary elements of the executive compensation programs are:

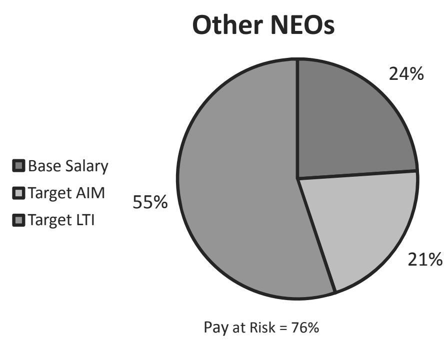
Total Direct Compensation

Element[1]	*Objective of Element*
Base Salary	Fixed cash compensation.
Annual Incentive *(the Annual Incentive Matrix or "AIM")*	Variable cash incentive compensation where any award earned is based on performance against pre-defined annual revenue ("Revenue"), Operating Income ("OI"), cash flow ("Cash Flow") and OI margin percent objectives, as well as individual performance.
Long-Term Incentives *("LTI")*	Variable long-term incentive compensation where performance is aligned with the Company's stock price and is awarded in the form of stock options, Restricted Stock Units ("RSUs") and Performance Share Units ("PSUs"). PSUs are only payable if the Company's Earnings Per Share ("EPS") and Total Shareholder Return ("TSR") relative to companies in the S&P 500 Industrials Index exceed threshold performance against pre-defined objectives.

[1] See Section V, "Compensation Program Descriptions and Compensation Decisions", for additional discussion on these elements of compensation.

As illustrated in the charts below, the Compensation Committee places significant emphasis on variable compensation (AIM and LTI) so that a substantial percentage of each NEO's total direct compensation is contingent on the successful achievement of the Company's short-term and long-term goals.





2013 Results

In a year where we successfully implemented extensive organizational change with the successful Spin-off and the reorganization of our Company, we also achieved strong financial performance. Specifically, the following results, (inclusive of the Allegion business for the full year), were realized in 2013:

- Adjusted annual Revenue of $14.509 billion, an increase of 3% over 2012;
- Adjusted OI of $1.639 billion, an increase of 8% over 2012;
- Adjusted OI margin of 11.3%, an increase of 0.5 percentage points from 10.8% in 2012;
- Adjusted Cash Flow of $1.153 billion an increase of 14% over 2012;
- Adjusted EPS of $3.63 excluding one-time spin related expense, an increase of 10% over 2012; and
- 3-year EPS growth (2011 - 2013) of 68.1%, which ranks at approximately the 75th percentile of the companies in the S&P 500 Industrials Index.

The Spin-off and the reorganization were completed late in the fourth quarter of 2013. As a result, adjustments to include full year 2013 results inclusive of Allegion were necessary to ensure that performance under the 2013 AIM and the 2011 – 2013 PSP programs was measured on a basis consistent with how performance goals were established.

For the 2013 AIM program, performance was measured using full year financial results adjusted to reflect the organizational structure in place at the time that performance objectives were approved by the Compensation Committee in February 2013 and to exclude one-time costs associated with the Spin-off and our reorganization. Based on our adjusted 2013 results for Revenue, OI, Cash

Flow and OI margin, we achieved an AIM financial score of 124.6 % of target for the enterprise. Our other sector presidents who were NEOs in 2013 achieved AIM financial scores of 187.5% (Climate), 63.7% (Industrial), 200.0% (Residential) and 143.7% (Security) of target, based on achievement of sector and enterprise objectives.

For the 2011 – 2013 PSP program, 2013 EPS was measured based on the combined 2013 EPS of both Ingersoll Rand and Allegion to ensure a consistent basis for determining EPS growth. Based on our achievement of an EPS growth rate of 68.1% during the 2011 to 2013 performance period, PSUs under our Performance Share Program ("PSP") paid out at 199% of target.

To recognize individuals whose contributions were critical to the success of the Spin-off, a special one-time bonus was approved for certain employees, including Messrs. Lamach and Shawley. For additional details related to these awards, refer to Section V, Compensation Program Descriptions and Compensation Decisions.

2013 Compensation Committee Actions

The Compensation Committee took the following actions in 2013:

- Reviewed and approved adjustments to the 2013 AIM design to better reward balanced growth and profitability as well as to improve the alignment of payouts with performance. The 2013 AIM program is designed to reward performance for the achievement of pre-defined goals related to the metrics of Revenue, OI and Cash Flow (weighted equally and modified by OI Margin) as opposed to Revenue Growth and OI Margin in prior years (which were incorporated into a matrix modified by Cash Flow performance). The 2013 design provided participants greater clarity as to how performance results impacted their incentive opportunity;
- As approved by shareholders, implemented a new Incentive Stock Plan for Ingersoll Rand equity-based awards;
- In support of the Spin-off, adopted conversion formulas to adjust executive compensation and benefit programs with an equity-based component;
- Reviewed and approved new compensation and benefit programs for Allegion at inception including:
  - (i) The Allegion Incentive Stock Plan,
  - (ii) The Allegion Spin-off Protection Plan,
  - (iii) The Allegion Senior Executive Performance Plan (162m Plan),
  - (iv) Allegion Stock Ownership Guidelines, and
  - (v) Compensation packages for Allegion executive officers; and
- Reviewed and approved compensation and benefit disclosures in Form 10 filings for Allegion.

Consideration of 2013 Advisory Vote on Executive Compensation

The Compensation Committee regularly reviews the philosophy, objectives and elements of our executive compensation programs in relation to our short and long-term business objectives. In undertaking this review, the Compensation Committee considers the views of shareholders as reflected in their annual advisory vote on our executive compensation proposal. At our 2013 annual general meeting, shareholders approved our executive compensation proposal by an overwhelming majority (over 96%). Based on the Compensation Committee's review and the support our executive compensation programs received from shareholders, the Compensation Committee maintained the core elements of our executive compensation programs.

II. Compensation Philosophy and Design Principles

The objective of our executive compensation programs is to enable us to attract, retain and focus the talents and energies of executives who are capable of meeting the Company's current and future goals, most notably the creation of sustainable shareholder value. Our compensation programs and decisions are driven by these objectives. As we operate in an ever-changing environment that is impacted by economic, technological, regulatory and competitive factors, our Compensation Committee considers these and other factors in its process of determining the type of compensation and benefit programs to offer, as well as setting specific performance targets for incentive awards.

The design principles that govern our executive compensation programs are:

1. Program competitiveness

Total executive compensation opportunities must serve to attract and retain high performing executives. All of our executive compensation program targets are established using relevant market data to ensure their competitiveness. In aggregate, we structure our executive compensation to provide target Total Direct Compensation ("TDC") at the 50th percentile of the markets in which we compete for talent. However, each NEO's target TDC may be above or below the 50th percentile based on his or her experience and proficiency in performing the duties of his or her position.

2. Pay for performance

A substantial percentage of each NEO's TDC opportunity is contingent on, and variable with, performance. Performance is measured against and contingent on:

(a) Multiple metrics that measure actual annual Sector (Segment, beginning in 2014) and/or Enterprise financial performance against pre-established objectives (through our AIM program);

(b) EPS growth and TSR over a three-year period relative to companies in the S&P 500 Industrials Index (through our PSP program);

(c) Stock price appreciation through stock options, RSUs and PSUs awarded under our LTI program; and

(d) Each NEO's demonstrated ability to achieve Company financial objectives, develop and carry out strategic initiatives, contribute to both the growth and operational excellence of the Company and lead in a way that is consistent with our core competencies: modeling our values, inspiring our people, focusing on our customers, creating long-term value for our shareholders and delivering premier performance.

Actual TDC can exceed the targeted level if performance exceeds the goals and objectives. Conversely, if performance falls short of the goals and objectives, actual TDC can be below the target award level.

3. Mix of short and long-term incentives

We believe that an appropriate mix between short and long-term incentives is important to encourage our NEOs to engage in strategies and make decisions that balance the need to meet our Annual Operating Plan ("AOP") objectives while taking into account the long-term interests of the Company and its shareholders. The mix of pay, including short and long-term incentives, is determined by considering the Company's pay for performance compensation philosophy and strategic objectives in addition to competitive market practice.

4. Internal parity

Each NEO's target TDC opportunity is proportionate with the responsibility, scope and complexity of his or her role within the Company. Thus, similar jobs are assigned similar target compensation opportunities.

5. Shareholder alignment

We have designed our executive compensation programs to align the interests of our NEOs with the interests of our shareholders by rewarding the achievement of Revenue, EPS, TSR, Cash Flow, OI margin and other financial targets, as well as operational excellence and sustained individual performance. The value of the variable compensation components (*i.e.*, AIM plus LTI awards) is directly linked to our financial performance and to the value created for our shareholders. Thus, we believe these incentive compensation programs provide clear alignment between the interests of our shareholders and our NEOs.

6. Business strategy alignment

Our executive compensation programs are structured to be flexible in recognizing that individuals within the company's businesses must focus on specific financial measures to meet the short and long-term plans of the business for which they are accountable. This principle, in conjunction with the design principles described above, directly influences compensation levels for leaders. It is not only possible but also desirable for certain leaders to earn substantial awards in years when their business outperforms the Company as a whole. Conversely, if a business fails to meet its performance goals, that business' leader may earn a lesser award in that year than his or her peers in a business that met or exceeded its goals.

III. Factors Considered in the Determination of Target Total Direct Compensation or TDC

Our Compensation Committee reviews and evaluates the executive compensation levels and practices against those companies with which we compete for executive talent. These reviews are conducted throughout the year using a variety of methods such as:

- the direct analysis of the proxy statements of other diversified industrial companies (refer to peer group below),
- a review of compensation survey data of other industrial companies of similar size published by independent consulting firms,
- a review of customized compensation survey data provided by independent consulting firms, and
- feedback received from external constituencies.

The Compensation Committee does not rely on a single source of information when making executive compensation decisions. Many of the companies included in these compensation surveys are also included in the S&P 500 Industrials Index referred to in our 2013 Form 10-K under the caption "Performance Graph."

The Compensation Committee, with the assistance of its independent advisor, develops a peer group that it uses to evaluate executive compensation programs and levels. The peer group is comprised of global diversified companies that have comparable revenue and/or industry fit with our lines of business and which are companies with which we compete for both business and talent. The following peer group was adopted in August 2012 and used for benchmarking with respect to the 2013 performance period:

3M	Eaton Corp	Johnson Controls Inc.	Pentair
Cummins, Inc.	Emerson Electric	Paccar Inc.	Stanley Black & Decker
Danaher Corp	Honeywell International	Parker Hannifin Corp	Textron
Dover	Illinois Tool Works	PPG Industries	Tyco International

As a result of the Spin-off and our reorganization, our Compensation Committee will review the compensation peer group in 2014 to ensure that it continues to be appropriate based on our size (revenue) and the industries in which we compete for both business and executive talent.

In addition, the Compensation Committee annually reviews tally sheets on the NEOs in order to understand fully all elements of current and potential future compensation when making compensation decisions. These tally sheets contain the following items: base salary, current short and long-term incentive award opportunities, and benefits that would be payable under various types of separation from service, such as in the context of a change in control, termination without cause or retirement.

IV. Role of the Compensation Committee, Independent Advisor and Committee Actions

Our Compensation Committee, which is composed solely of independent directors, oversees our compensation plans and policies, administers our equity-based programs and reviews and approves all forms of compensation relating to our executive officers, including the NEOs.

The Compensation Committee exclusively decides which compensation elements and the amounts to be awarded to our CEO. Our CEO does not make any recommendations regarding his own compensation and is not informed of these awards until the decisions have been finalized. Our CEO makes compensation recommendations related to our other NEOs. The Compensation Committee considers these recommendations when approving the compensation elements and amounts to be awarded to our other NEOs.

Our Compensation Committee is responsible for reviewing and approving amendments to our executive compensation and benefit plans. In addition, our Compensation Committee is responsible for reviewing our broad-based employee benefit plans and making recommendations to our Board of Directors for significant amendments to, or termination of, such plans. The Compensation Committee's duties are described in the Compensation Committee Charter, which is available on our website at *www.ingersollrand.com*.

Our Compensation Committee has the authority to retain an independent advisor for the purpose of reviewing and providing guidance related to our executive compensation and benefit programs. The Compensation Committee is directly responsible for the compensation and oversight of the independent advisor. For 2013, the Compensation Committee continued to engage Hay Group, Inc. ("Hay Group") to serve as its independent advisor. Hay Group also provided the Corporate Governance and Nominating Committee advice on director compensation matters. The Compensation Committee has determined that the Hay Group is independent and does not have a conflict of interest because (a) Hay Group did not perform any other services for the Company, (b) the fees received by Hay Group for its services for the Compensation and Corporate Governance and Nominating Committees were nominal as a percentage of Hay Group's total revenues, (c) Hay Group has adopted policies and procedures that are designed to prevent conflicts of interest, (d) neither any member of the Compensation Committee nor any executive officer has a business or personal relationship with Hay Group, and (e) neither Hay Group nor its consultants that work with the Company directly own stock in the Company.

In addition to the actions taken in 2013, which are described in the Executive Summary, our Compensation Committee has adopted a number of changes over the past few years, including:

- Diversified and expanded the metrics associated with our AIM and PSP programs to better align with business strategies and shareholder interests;
- Adopted a claw-back/recoupment policy. Our current policy will be revised, if necessary, to comply with the requirements of the Dodd-Frank Act when the final regulations are issued;
- Incorporated provisions in the 2007 and 2013 Incentive Stock Plans to replace full payout at target of outstanding PSP awards in the event of a Change in Control of the Company with prorated PSP payout at target based on the point in the performance period when the Change in Control occurs; and
- Closed the Elected Officer Supplemental Program ("EOSP") to new participants effective April 30, 2011.

V. Compensation Program Descriptions and Compensation Decisions

The following table is intended to be a helpful summary of the elements, objectives, risk mitigation factors and other key features of our total direct compensation program. Each of these elements is described in greater detail below

Element	*Objective of Element including Risk Mitigation Factors*	*Key Features Relative to NEOs*
Base Salary	To provide a sufficient and stable source of cash compensation. To avoid encouraging excessive risk-taking, it is important that an appropriate level of cash compensation is not variable.	Targeted, on average, at the 50th percentile of our peer group. Adjustments are determined by the Compensation Committee based on an evaluation of the NEO's proficiency in fulfilling his or her responsibilities, as well as performance against key objectives and behaviors. Only 10% of the CEO's target total direct compensation and only 24% on average for the other NEOs is comprised of base salary.
Annual Incentive Matrix ("AIM") Program	To serve as an annual cash award based on the achievement of pre-established performance objectives. Structured to take into consideration the unique needs of the various businesses. Amount of compensation earned cannot exceed a maximum payout of 200% of individual target levels and is also subject to a claw-back in the event of a financial restatement.	Each NEO has an AIM target expressed as a percentage of base salary. Targets are set based on the compensation levels of similar jobs in comparable companies, as well as on the NEO's experience and proficiency level in performing the duties of the role. Actual AIM payouts are dependent on business and/or enterprise financial performance and individual performance. The financial metrics used to determine the awards for 2013 were Revenue, OI, and Cash Flow, modified up or down based on OI Margin performance. 17% of the CEO's target total direct compensation is comprised of AIM and 21%, on average, for the other NEOs.
Performance Share Program ("PSP")	To serve as a long-term incentive based on the achievement of pre-established performance objectives relative to companies in the S&P 500 Industrials Index. To promote long-term strategic planning and discourage an overemphasis on attaining short-term goals. Amount earned cannot exceed a maximum payout of 200% of individual target levels and is also subject to a claw-back in the event of a financial restatement.	Earned over a 3-year performance period. The number of PSUs earned is based on our EPS growth (from continuing operations) relative to the companies in the S&P 500 Industrials Index for awards granted through 2011. Beginning in 2012, the number of PSUs earned is based on relative TSR and relative EPS growth compared to companies within the S&P 500 Industrials Index (with equal weight given to each metric). Actual value of the PSUs earned depends on our share price at the time of payment. 36.5% of the CEO's target total direct compensation is comprised of PSP and 27.5%, on average, for the other NEOs.
Stock Options/Restricted Stock Units	Aligns the interests of the NEOs and shareholders. Awards provide a balanced approach between risk and retention. Awards are subject to a claw-back in the event of a financial restatement.	Stock options and RSUs are granted annually, with stock options having an exercise price equal to the fair market value of ordinary shares on the date of grant. Both stock options and RSUs typically vest ratably over three years, one third per year. Stock options expire on the 10th anniversary (less one day) of the grant date (unless employment terminates sooner). 36.5% of the CEO's target total direct compensation is comprised of a mix of stock options and RSUs and 27.5%, on average, for the other NEOs.

Base Salary

Our Compensation Committee generally targets base salaries for the NEOs around the median for executives in our peer group who have similar roles and responsibilities. However, the Committee will also consider each NEO's experience, proficiency, performance and potential to impact future business results, as well as behavior against competencies and key enterprise values when making base salary decisions.

The table below reflects the base salary adjustments for the NEOs for the 2013 performance period. When determining base salary adjustments, each NEO is evaluated on the results achieved and the behaviors used to generate these results, as well as on demonstrated leadership and the upholding of Company values. Based on the outcome of the evaluation, each NEO is assigned one of five ratings. The ratings, which range from "meets some" to "substantially exceeds expectations," each have a percent range that determines the actual merit increase. In addition to merit increases, in cases in which the NEO's salary is below the competitive market median, a market adjustment may also be applied. In 2013:

- Mr. Lamach received a 4.2% combined merit and market adjustment to continue to align his pay with his role and responsibilities as CEO;
- Mr. Michel received a merit increase of 3.0%;
- Mr. Teirlinck received a 3.4% merit increase in April 2013 and an 8.3% market adjustment in December in conjunction with his promotion to Executive Vice President, Climate;
- Mr. Zafari received a 3.5% merit increase in April 2013 and an 11.9% market adjustment in December in conjunction with his promotion to Executive Vice President, Industrial;
- Mr. Shawley received a merit increase of 2.9%; and
- Mr. Conover received a merit increase of 3.2%.

(dollar amounts annualized)

Name	**2012**	**2013**
M. W. Lamach	$ 1,200,000	$ 1,250,000
S. K. Carter[1]	$ n/a	$ 635,000
G. S. Michel	$ 443,000	$ 456,500
D. P. M. Teirlinck	$ 585,000	$ 655,000
R. G. Zafari	$ 475,000	$ 550,000
S. R. Shawley	$ 618,000	$ 636,000
J. Conover	$ 470,000	$ 485,000

(1) Ms. Carter was first employed on September 27, 2013.

Annual Incentives

The AIM program is an annual cash incentive program designed to reward NEOs for Revenue growth, increases in OI, the delivery of strong Cash Flow and individual contributions to the Company. The Compensation Committee establishes a target award opportunity for each NEO that is expressed as a percentage of base salary. Individual AIM payouts are calculated as the product of a financial performance score and an individual performance score, both of which are based on achievement relative to pre-established performance objectives adopted by the Compensation Committee.

For 2013, the AIM program was redesigned to balance emphasis on growth and profitability as well as to improve the alignment of payouts with performance. This change replaced the 2012 "matrix" approach which was based on the relationship between Revenue and OI percent modified by Cash Flow performance. The new design utilizes the same core performance metrics of Revenue, OI and Cash Flow, with each metric equally weighted. OI margin remains a focus, acting as a modifier to the funded portion of awards. We believe that the 2013 AIM design provides participants with greater clarity on how they can generate incentive opportunity based on strong performance relative to each metric. The Compensation Committee designed the 2013 AIM program to avoid excessive risk taking by limiting incentive opportunity if performance results are not balanced relative to the other two metrics.

Financial performance: AIM incentive opportunity is tied to established goals for three performance metrics ("Core Financial Metrics"): Revenue, OI, and Cash Flow. Each of these Core Financial Metrics are equally weighted (33.33%) with incentives independently calculated, as a percent of target, for each metric based on performance results relative to pre-established threshold, target, and maximum performance levels. Threshold performance for each metric must be achieved in order for any incentive to be payable for that metric. The financial AIM payout is the sum of the calculated payout percentage for each metric, adjusted by an OI margin percentage multiplier ("Multiplier"), which can range from 85% to 115%.

The Compensation Committee retains the authority to adjust the Company's reported financial results for the impact of changes in accounting principles, extraordinary items and unusual or non-recurring gains or losses, including significant differences from the assumptions contained in the financial plan upon which the incentive targets were established. Adjustments to reported financial results are intended to better reflect executives' line of sight and ability to affect performance results, align award payments with decisions which support the AOP, avoid artificial inflation or deflation of awards due to unusual or non-recurring items in the applicable period and emphasize the Company's preference for long-term and sustainable growth.

	Pre-Established Financial Targets *($ million)**			Payout as % of Target**	OI Margin	OI Margin Multiplier**
	Revenue	**OI**	**Cash Flow**			
Enterprise						
Threshold	$13,680.0	$1,485.0	$990.0	30%	10.9%	85%
Target	$14,400.0	$1,650.0	$1,100.0	100%	11.5%	100%
Maximum	$14,760.0	$1,794.0	$1,200.0	200%	12.2%	115%
Residential Solutions						
Threshold	$2,124.0	$139.5	$207.0	30%	6.6%	85%
Target	$2,236.0	$155.0	$230.0	100%	6.9%	100%
Maximum	$2,291.9	$178.3	$264.5	200%	7.8%	115%
Climate Solutions						
Threshold	$7,182.0	$759.6	$735.3	30%	10.6%	85%
Target	$7,560.0	$844.0	$817.0	100%	11.2%	100%
Maximum	$7,749.0	$928.4	$899.0	200%	12.0%	115%
Industrial Technologies						
Threshold	$2,866.2	$446.4	$446.4	30%	15.6%	85%
Target	$3,017.0	$496.0	$496.0	100%	16.4%	100%
Maximum	$3,092.4	$545.6	$545.6	200%	17.6%	115%
Security Technologies						
Threshold	$1,508.6	$292.5	$281.7	30%	19.4%	85%
Target	$1,588.0	$325.0	$313.0	100%	20.5%	100%
Maximum	$1,627.7	$354.0	$341.0	200%	21.7%	115%

* Reflects the financial goals for the Enterprise and sectors to which incentive opportunity for our 2013 named executive officers was tied.
** Results are interpolated between performance levels.

For 2013 AIM purposes, the CEO and the CFOs were measured on the basis of the enterprise financial metrics. The other NEOs were measured based on a combination of enterprise financial objectives (50% weighting) and their respective 2013 sector financial objectives (50% weighting). We believe this weighting focuses sector Presidents on achieving the pre-established objectives for their sector as well as aligning their interests with enterprise goals to help create sustainable shareholder value.

Individual Performance: Individual objectives are established annually and include strategic initiatives with both financial and non-financial metrics. Each NEO is evaluated based upon non-financial metrics including our core competencies. At the end of the fiscal year the CEO evaluates each of the other NEO's performance against the pre-established individual objectives and submits a recommendation to the Compensation Committee. The Compensation Committee evaluates the CEO's performance against his/her pre-established individual objectives. Based on its evaluation of the CEO and the CEO's recommendation for other NEOs, the Compensation Committee determines the individual performance score for each NEO, which can range from 0% to 150%.

Determination of Payout: The actual AIM payout is determined by multiplying the NEO's target award by the financial performance score and multiplying that result by the individual performance score. AIM payouts cannot exceed 200% of the target award. If the overall AIM payout score is less than 30%, no award is payable. In that event, the CEO and the Compensation Committee may establish a discretionary pool (equal to 30% of the target payout levels) for top performers and/or other deserving employees in an amount determined to be appropriate based on their performance against objectives.

The tables below show the pre-established financial performance targets for the 2013 AIM program compared to actual performance. The pre-established financial targets and actual financial results are shown for enterprise and the four sectors. Detail on the weighting between enterprise and sector financials is shown below, following the table outlining the actual AIM awards.

	Financial Targets	Adjusted Financial Performance	Payout as a % of Target	Aggregate Payout as % of Target	OI Margin Multiplier	AIM Financial Payout
Enterprise						
Revenue	$14,400	$14,509	141.5%	130.0%	95.9%	124.6%
OI	$1,650	$1,639	95.2%			
Cash Flow	$1,100	$1,153	153.2%			
OI Margin	11.5%	11.3%	N/A			
Residential Solutions						
Revenue	$2,236	$2,264	165.4%	188.5%	115.0%	200.0%
OI	$155	$178	200.0%			
Cash Flow	$230	$294	200.0%			
OI Margin	6.9%	7.9%	N/A			
Climate Solutions						
Revenue	$7,560	$7,729	190.6%	179.5%	104.5%	187.5%
OI	$844	$881	147.8%			
Cash Flow	$817	$914	200.0%			
OI Margin	11.2%	11.4%	N/A			
Industrial Technologies						
Revenue	$3,017	$2,939	63.8%	66.7%	95.6%	63.7%
OI	$496	$476	71.2%			
Cash Flow	$496	$471	65.0%			
OI Margin	16.4%	16.2%	N/A			
Security Technologies						
Revenue	$1,588	$1,575	88.5%	136.7%	105.1%	143.7%
OI	$325	$329	121.5%			
Cash Flow	$313	$399	200%			
OI Margin	20.5%	20.9%	N/A			

To ensure that performance under the 2013 AIM was measured on a full year basis consistent with how 2013 performance goals were established, 2013 performance for AIM payout determinations was calculated based on full year 2013 financial results to reflect the organizational structure in place at the time that performance objectives were approved by the Committee in February 2013, prior to the Spin-off. Therefore, for purposes of measuring 2013 performance, full year financial results for the Enterprise include full year financial results of the Security Technologies Sector and the Residential Solutions Security businesses which were spun off. One-time expenses associated with the spin-off were excluded.

In addition, in determining the achievement of the 2013 AIM financial goals for the enterprise, the Compensation Committee (a) adjusted OI downward to reflect only the net after tax benefit excluding the non-controlling interest from the sale of the Fu Hsing facilities in China, (b) adjusted Revenue upward to reflect revenue not recognized for customer orders placed directly with the Taiwan Fu Hsing manufacturing entities following dissolution of the joint venture, (c) adjusted Revenue upward to offset the detrimental impact of a change in the accounting approach for jobs sold through independent offices, and (d) adjusted Revenue, OI and Cash Flow upward to offset the impact of flood damage to facilities in Shanghai, China. These adjustments were made to align 2013 AIM incentive awards and performance for the year taking into consideration the impact of certain events not contemplated when 2013 AIM performance objectives were established. Prior to the Compensation Committee making these adjustments, they were also reviewed with the Audit Committee.

In determining the individual factor for each NEO's AIM award, the Committee considered pre-established individual performance objectives, including the following:

- Mr. Lamach: Leadership of the successful Spin-off; operational excellence measured by a growth in operating margin, deployment of core systems and the improvement of functional excellence; implement a capital allocation strategy to effectively balance shareholder distributions with strategic growth; and, improve leadership effectiveness, succession bench strength and employee engagement.
- Ms. Carter: Efficient transition in the Chief Financial Officer role; effective oversight of the 2014 financial planning process; leadership of the financial restructuring of the company; and development of relationships with analysts and investors.
- Mr. Michel: Increase customer satisfaction ratings; grow the business; leadership of the successful spin-off of the residential security businesses including cost management of the conversion and retention of key talent; increase

operating leverage, and improve employee engagement through a progressive, diverse and inclusive plan and by focusing on manager development and accountability.

- Mr. Teirlinck: Deliver organic growth through the implementation of portfolio management and growth programs; develop and deploy a product management excellence program; implement technology improvements and support trading hubs, and improve employee engagement.
- Mr. Zafari: Enhance global integrated supply chain footprint and processes to deliver sustainable cash flow and customer satisfaction improvements; deliver organic growth through implementation of portfolio/channel management; develop and deploy product management excellence program with greater emphasis on the innovation of both products and services; pursue acquisition and divestiture strategy to accelerate growth in focused areas; foster margin expansion in Latin America, and deliver greater capability and decision making by focusing on the customer and standard work, delivered at lower cost.
- Mr. Shawley: Financial leadership in the successful Spin-off; execution of tax planning strategies and the share repurchase program; improve employee engagement and retain key leadership talent; and lead the function toward a progressive, diverse and inclusive culture.
- Mr. Conover: Leadership of the successful spin-off of the security businesses including cost management of the conversion; flow improvements through a focus on innovation revenue and emerging markets; and continued progress on operational excellence path.

The Compensation Committee approved the following AIM awards for all NEOs based on achieving both the 2013 financial and individual objectives:

Name	AIM Target				AIM Payout Percent for 2013	AIM Award for 2013	
M. W. Lamach	160%	of	$1,250,000		132.50%	$2,650,000	(1)
S. K. Carter			$175,000	(2)	124.60%	$218,050	(1)(2)
G. S. Michel	80%	of	$456,500		162.30%	$592,720	(3)
D. P. M. Teirlinck	90%	of	$609,247		156.03%	$855,547	(4)
R. G. Zafari	85%	of	$496,468		94.16%	$397,354	(5)
S. R. Shawley	100%	of	$636,000		114.02%	$725,151	(1)
J. Conover	80%	of	$485,000		113.55%	$440,578	(6)

(1) Reflects an individual performance score of 106.34% for Mr. Lamach; 100% for Ms. Carter, and 100 % for Mr. Shawley. In addition, Mr. Shawley's award was prorated to take into consideration his retirement date of November 30, 2013.

(2) Ms. Carter's 2013 target AIM was set at $175,000 to reflect her September 27, 2013 start date. In addition to this AIM award, Ms. Carter's offer letter provides for March 2014 cash payments of $375,000 to offset forfeited 2013 annual incentive from her prior employer and $585,000 to offset the forfeited value of performance shares from her prior employer which were scheduled to be earned and delivered in 2014.

(3) Mr. Michel's financial score is 50% weighted on achievement of Residential Solutions metrics and 50% weighted on achievement of enterprise-wide metrics. Mr. Michel's individual performance score was 100%.

(4) Mr. Teirlinck's financial score is 50% weighted on achievement of Climate Solutions metrics and 50% weighted on achievement of enterprise-wide metrics. Mr. Teirlinck's individual performance score was 100%. Mr. Teirlinck's target was prorated to reflect a base salary of $605,000 through November 30, 2013 and a base salary of $655,000 from December 1, 2013 through December 31, 2013.

(5) Mr. Zafari's financial score is 50% weighted on achievement of Industrial Technologies metrics and 50% weighted on achievement of enterprise-wide metrics. Mr. Zafari's individual performance score was 100%. Mr. Zafari's target was prorated to reflect a base salary of $491,500 through November 30, 2013 and a base salary of $550,000 from December 1, 2013 through December 31, 2013.

(6) Mr. Conover's financial score is 50% weighted on achievement of Security Technologies metrics and 50% weighted on achievement of enterprise-wide metrics. Mr. Conover's individual performance score was 100%. In addition, Mr. Conover's award was prorated to take into consideration his retirement date of November 5, 2013. This AIM amount was paid as part of Mr. Conover's severance in accordance with the terms of the Major Restructuring Severance Plan.

In addition to AIM awards, special completion recognition bonuses were awarded in December 2013 to recognize certain individuals whose contributions were critical to the successful completion of the Spin-off. The Committee approved the payment of $250,000 to Mr. Lamach and $100,000 to Mr. Shawley based on its evaluation of their contributions with respect to the Spin-off.

Long-Term Incentive Program

Our long-term incentive program is comprised of PSUs, stock options and RSUs. It is designed to further align the executives' interests with the interests of our shareholders. This approach enables us to develop and implement long-term strategies that we believe are in the best interest of shareholders.

Performance Share Program: Our PSP is an equity-based incentive compensation program that provides our NEOs with an opportunity to earn PSUs based on the Company's performance relative to other companies in the S&P 500 Industrials Index. For PSUs granted prior to 2012, PSUs are earned based on our relative EPS growth (from continuing operations) as compared to the companies within the S&P 500 Industrials Index over a 3-year performance period. For PSUs granted in 2012 and later, PSUs are earned based equally on our relative EPS growth (from continuing operations) and TSR as compared to the companies within the S&P 500 Industrials Index over a 3-year performance period. The actual number of PSUs earned for grants made in 2013 (which can range from 0% to 200% of target) is based on the following thresholds:

Ingersoll Rand's Performance Relative to the Companies within the S&P 500 Industrials Index	% of Target PSUs Earned*
< 25th Percentile	0%
25th Percentile	25%
50th Percentile	100%
≥ 75th Percentile	200%

* Results are interpolated between percentiles achieved.

The NEOs' PSP target awards are set by assessing competitive market values for executives in our peer group with similar roles and responsibilities and are expressed as a dollar amount. The dollar target is converted to share equivalent PSUs based on the fair market value of the Company's shares on the date that the award is granted. Our Compensation Committee retains the authority and discretion to make downward adjustments to the calculated PSP award payouts, either as a percentage or a dollar amount, or not to grant any award payout regardless of actual performance against pre-established goals. EPS is calculated in accordance with U.S. Generally Accepted Accounting Principles ("U.S. GAAP"), subject to adjustments for extraordinary, unusual or infrequent items; the impact of any change in accounting principles; goodwill and other intangible asset impairments; and gains or charges associated with discontinued operations or with obtaining or losing control of a business. As a result, expense for outstanding PSP awards is recorded using fixed accounting.

Dividend equivalents are accrued on outstanding PSU awards at the same time and at the same rate as dividends are paid to shareholders, but are only paid on the number of PSUs actually earned and vested. Dividend equivalents are payable in cash at the time the associated PSUs are distributed unless the NEO elected to defer the PSUs into our executive deferred compensation plan, in which case the dividends are also deferred.

Stock Options/Restricted Stock Units: We grant our NEOs an equal mix of stock options and RSUs. Our Compensation Committee believes that this mix provides an effective balance between risk and retention for our NEOs and conserves share usage under our incentive stock plan. Stock options are considered "at risk" since there is no value unless the stock price appreciates during the term of the option period. RSUs, on the other hand, provide strong retentive value because they have value even if our stock price does not grow during the restricted period. Our Compensation Committee annually reviews our equity mix and grant policies to ensure they are aligned with our pay for performance philosophy, our executive compensation objectives and the interests of our shareholders.

Stock option and RSU targets are expressed in dollars. The dollar target is converted to a number of shares based on the fair market value of the Company's shares on the date that the award is granted. In order to determine the target stock option and RSU awards for our NEOs, the Compensation Committee considers factors such as market competitiveness with our peer group, demonstrated potential to drive future business results and sustained individual performance.

Both stock options and RSUs generally vest ratably, one third per year, over a three year period following the grant. Dividend equivalents are accrued on outstanding RSU awards at the same time and at the same rate as dividends are paid to shareholders. Dividend equivalents on RSUs are only payable if the underlying RSU award vests. At the time of vesting, one ordinary share is issued for each RSU and any accrued dividend equivalents are paid in cash.

2013 Equity Awards

In 2013, the Compensation Committee approved the PSU, stock option and RSU awards below based on its evaluation of market competitiveness and each NEO's demonstrated potential to drive future business results and sustained individual performance. The values in the table reflect equity-based award values approved by the Compensation Committee. These values differ from the corresponding values reported in the Summary Compensation Table and the Grants of Plan-Based Awards Table due to different methodologies used in assigning the economic value of equity-based awards required for accounting and proxy statement reporting purposes. The Compensation Committee makes its determination based on values as of January 1 while the accounting and proxy statement values are determined as of the grant date. The difference is most significant for the PSU awards which are earned, in part, based on TSR relative to the S&P 500 Industrials Index over a three-year performance period. The accounting and proxy report values are greater because the Company's stock price increased by a greater percentage relative to other companies in the S&P 500 Industrials Index for the period from January 1, 2013 through February 22, 2013, the grant date.

Name	Target 2013-15 PSU award ($)(a)	Stock Option Award ($)	RSU Award ($)
M. W. Lamach	4,375,000	2,187,500	2,187,500
S. K. Carter (a)	0	0	0
G. S. Michel	400,000	200,000	200,000
D. P. M. Teirlinck	725,000	362,500	362,500
R. G. Zafari	550,000	275,000	275,000
S. R. Shawley (b)	1,000,000	500,000	500,000
J. W. Conover IV (b)	400,000	200,000	200,000

(a) Ms. Carter joined Ingersoll Rand on September 27, 2013 and did not receive an annual equity award. In conjunction with her offer, on October 1, 2013, she was granted equity awards to partially offset the value of forfeited equity awards from her prior employer. These replacement awards include stock options with a value of $65,000, RSUs with a value of $960,000 and prorated PSU grants with a grant date target value of $410,000 for the 2012-2014 performance period and a grant date target value of $725,000 for the 2013-2015 performance period.

(b) With their retirements in 2013, both Messrs. Shawley and Conover will be eligible to receive a pro-rated portion of the PSU awards based on time worked prior to their retirement date.

In addition to the above equity awards, Messrs. Michel, Teirlinck and Zafari were granted special RSU awards on December 6, 2013 in connection with the reorganization of the company or their respective promotions. The dollar values of the awards were $1,000,000 for Mr. Michel, $750,000 for Mr. Teirlinck and $750,000 for Mr. Zafari.

Equity Conversion for the Spin-off

In conjunction with the Spin-off, all outstanding equity awards were adjusted in the manner described in the narrative disclosure preceding the "Outstanding Equity Awards at December 31, 2013" to preserve the economic value of the awards immediately following the Spin-off.

Performance Share Units Payout

As discussed above, PSUs for the 2011 - 2013 performance period were earned based on the Company's EPS growth (from continuing operations) performance relative to all of the companies in the S&P 500 Industrials Index. The Company achieved an adjusted EPS from continuing operations of $3.63 in 2013 and achieved an adjusted EPS from continuing operations of $2.16 in 2010. This represents an EPS growth rate of 68.1%, which ranks at approximately the 75th percentile of the companies in the S&P 500 Industrials Index. As a result of this level of performance, the payout was 199% of target. For purposes of measuring EPS growth, 2013 EPS was measured based on the combined 2013 EPS of both Ingersoll Rand and Allegion to ensure a consistent basis for determining EPS growth. In addition, consistent with the terms of the award agreements, one-time costs associated with the Spin-off as well as debt restructuring costs incurred in consideration of the Spin-off were excluded from the 2013 EPS calculations in determining the PSU payout level for the 2011-2013 performance period.

2014 Compensation Decisions

The Compensation Committee annually reviews the total direct compensation for each NEO and, using its discretion based on its compensation philosophy and design principles, may revise such compensation. For 2014, the Compensation Committee has set the base salary and target AIM award for each active NEO as follows:

Name	Base Salary ($)(a)	Target AIM Award (%)
M. W. Lamach	$1,250,000	160%
S. K. Carter	$654,000	100%
G. S. Michel	$475,000	80%
D. P. M. Teirlinck	$655,000	90%
R. G. Zafari	$550,000	85%

(a) Messrs. Shawley and Conover retired prior to 2014, therefore there are no salary adjustments shown for them. Messrs. Teirlinck and Zafari received a market adjustment as well as a merit increase in December 2013 to take into consideration their promotions to Executive Vice Presidents under the new reorganized structure.

The Compensation Committee established the following target PSU awards for the 2014 - 2016 performance period to each active NEO:

Name	Target 2014-16 PSU award ($)	Target 2014-16 PSU shares (#)
M. W. Lamach	4,625,000	77,309
S. K. Carter	950,000	15,880
G. S. Michel	400,000	6,687
D. P. M. Teirlinck	825,000	13,791
R. G. Zafari	600,000	10,030

Messrs. Shawley and Conover retired prior to 2014, and therefore did not receive a PSU award.

The Compensation Committee granted the following stock option and RSU awards in 2014 to each active NEO:

	Stock Option Awards		RSU Award	
Name	Stock Option Value ($)	Shares Underlying Stock Option (#)	RSU Award Value ($)	RSU Shares (#)
M. W. Lamach	2,312,500	146,733	2,312,500	38,655
S. K. Carter	475,000	30,140	475,000	7,940
G. S. Michel	200,000	12,691	200,000	3,344
D. P. M. Teirlinck	412,500	26,174	412,500	6,896
R. G. Zafari	300,000	19,036	300,000	5,015

Messrs. Shawley and Conover retired prior to 2014 and therefore did not receive an option or RSU award.

The number of stock options was determined based on the Black-Scholes ratio on December 31, 2013 and the fair market value of our ordinary shares on the date of the grant. The number of RSUs was determined using the fair market value of our ordinary shares on the date of grant.

VI. Other Compensation and Tax Matters

Retirement Programs and Other Benefits

We maintain qualified and nonqualified defined benefit pension plans for our employees, including the NEOs, to provide for fixed benefits upon retirement based on the individual's age and number of years of service. Refer to the Pension Benefits table for additional details on these programs.

We offer a qualified, defined contribution (401(k)) plan called the Ingersoll-Rand Company Employee Savings Plan (the "ESP") to our salaried and hourly U.S. workforce, including the NEOs. The ESP is a plan that provides a dollar-for-dollar Company match on the first six percent of the employee's eligible contributions to the ESP. The ESP has a number of investment options and is an important component of our retirement program.

We also have a nonqualified, defined contribution plan. The Ingersoll-Rand Company Supplemental Employee Savings Plan (the "Supplemental ESP") is an unfunded plan that makes up matching contributions that cannot be made to the ESP due to Internal Revenue Service ("IRS") or plan limitations. The Supplemental ESP is deemed to be invested in the funds selected by the NEOs, which are the same funds available in the ESP except for a self-directed brokerage account, which is not available in the Supplemental ESP.

In June 2012, our Board of Directors approved significant changes to our broad-based, qualified retirement programs with the intent to move from a combined defined benefit/defined contribution approach to a fully defined contribution plan approach over time. Employees active prior to July 1, 2012 were given a choice between continuing to participate in the defined benefit plan until December 31, 2022 or moving to an enhanced version of the ESP effective January 1, 2013. Employees hired on or after July 1, 2012 were automatically covered under the enhanced version of the ESP. Under the enhanced version of the ESP, employees will receive a basic employer contribution equal to two percent of eligible compensation in addition to the Company's matching contribution while ceasing to accrue benefits under the defined benefit plan. Effective as of December 31, 2022, accruals in the defined benefit plan will cease for all employees. The Compensation Committee approved corresponding changes to the nonqualified defined benefit and contribution pension plans. Additional details on the changes can be found following the Pension Benefits table.

Our Ingersoll Rand Executive Deferred Compensation Plan (the "EDCP Plan I") and the Ingersoll Rand Executive Deferred Compensation Plan II (the "EDCP Plan II" and, together with the EDCP Plan I, the "EDCP Plans") allow eligible employees to defer receipt of a part of their annual salary, AIM award and/or PSP award in exchange for investments in ordinary shares or mutual fund investment equivalents. Refer to the Nonqualified Deferred Compensation table for additional details on the EDCP Plans.

In conjunction with the Spin-off, the Committee approved an adjustment to the number of notional Ingersoll Rand shares held by Ingersoll Rand participants in the Supplemental ESP and EDCP Plans, including the NEOs, based on the ratio of the closing price of Ingersoll Rand shares immediately before the Spin-off to the opening price of Ingersoll Rand shares immediately following the Spin-off.

We provide an enhanced, long-term disability plan to certain executives. The plan provides for a higher monthly maximum than the standard group plan and a more favorable definition of disability and has an underlying individual policy that is portable when the executive terminates.

In light of the American Jobs Creation Act of 2004 governing Section 409A of the Code, "mirror plans" for several of our nonqualified plans, including the Ingersoll-Rand Supplemental Pension Plan ("Supplemental Pension Plan I") and the EDCP I, were created. The mirror plans are the Ingersoll-Rand Supplemental Pension Plan II ("Supplemental Pension Plan II" and, together with the Supplemental Pension Plan I, the "Supplemental Pension Plans") and the EDCP II. The purpose of these mirror plans is not to provide additional benefits to participants, but merely to preserve the tax treatment of the plans that were in place prior to December 31, 2004. In the case of the Supplemental Plans, the mirror plan benefits are calculated by subtracting the original benefit value to avoid double-counting the benefit. For the EDCP Plans, balances accrued through December 31, 2004 are maintained separately from balances accrued after that date.

We provide our NEOs with other benefits that we believe are consistent with prevailing market practice and those of our peer companies. These other benefits and their incremental cost to the Company are reported in "All Other Compensation" shown in the Summary Compensation Table.

Severance Arrangements

In connection with external recruiting of certain officers, we generally enter into employment arrangements that provide for severance payments upon certain termination events, other than in the event of a change in control (which is covered by separate agreements with the officers). Mr. Lamach and Ms. Carter have such arrangements, which are described in the Post-Employment Benefits section of this proxy statement. We adopted a Severance Plan, amended outstanding award agreements and adopted new equity award agreements to provide certain employees, including our NEOs, with certain benefits in the event of a termination of employment without cause or for good reason between December 10, 2012 and the first anniversary of a Major Restructuring (as defined in the Post-Employment Section below). In addition, although we do not have a formal severance policy for our executives (other than in the event of a Major Restructuring), we do have guidelines that in most cases would provide for severance in the event of termination without cause. The benefits available in connection with a Major Restructuring and under these guidelines are also described in the Post-Employment Benefits section of the proxy statement.

Change-In-Control Provisions

We have entered into change-in-control agreements with our officers. Payments are subject to a double trigger, meaning that payments would only be received if an officer is terminated without cause or resigns for "good reason" within two years following a change in control. We provide change-in-control agreements to our officers to focus them on the best interests of shareholders and assure continuity of management in circumstances that reduce or eliminate job security and might otherwise lead to accelerated departures. Our incentive stock plans provide for the accelerated vesting of outstanding stock awards in the event of a change in control of the Company. Refer to the Post-Employment Benefits section of this proxy statement for a more detailed description of the change-in-control provisions.

Tax and Accounting Considerations

Section 162(m) of the Code imposes a limit of $1,000,000 on the amount that we may deduct for federal income tax purposes in any one year for compensation paid to our CEO and any of our three other highest-paid NEOs, other than our CFO, who are employed as of the end of the year. However, to the extent compensation is "performance-based" within the meaning of Section 162 (m), the Section's limitations will not apply. We intend most of the variable compensation (*i.e.*, AIM, PSP and stock options) paid to NEOs to qualify as performance-based within the meaning of Section 162(m) so as to be tax deductible by us, which benefits our shareholders. In order to qualify as performance based, the compensation must, among other things, be paid pursuant to a shareholder approved plan upon the attainment of objective performance criteria. Our Compensation Committee believes that tax deductibility of compensation is an important factor, but not the sole factor, in setting executive compensation policies and in rewarding superior executive performance. Accordingly, although our Compensation Committee generally intends to avoid the loss of a tax deduction due to Section 162(m), it reserves the right, in appropriate circumstances, to pay amounts that are not deductible. In determining variable compensation programs, we consider other tax and accounting implications of particular forms of compensation, such as the implications of Section 409A of the Code governing deferred compensation arrangements and favorable accounting treatment afforded certain equity based plans that are settled in shares. However, the forms of variable compensation we utilize are determined primarily by their effectiveness in creating maximum alignment between our key strategic objectives and the interests of our shareholders.

Senior Executive Performance Plan ("SEPP")

The SEPP is a shareholder approved plan that funds the annual cash incentive awards that may be granted to each of the NEOs under AIM. Under the SEPP, the maximum amount of cash incentive that can be paid to the CEO is 0.6% of Consolidated OI from Continuing Operations (as defined in the SEPP) and the maximum amount of cash incentive that can be paid to any other covered executive is 0.3% of Consolidated OI from Continuing Operations. Our Compensation Committee generally exercises its discretion to pay less than the maximum amount to the NEOs, after considering the factors described in the AIM Program.

Timing of Awards

Our regular annual equity grants are made by our Compensation Committee at a meeting held after the annual earnings release. The timing of this meeting allows management to review the prior year's performance and assemble all of the necessary information for our Compensation Committee's consideration. The date is never selected or changed to increase the value of equity awards for executives.

Claw-back /Recoupment Policy

To align further the interests of our employees and our shareholders, we have a claw-back /recoupment policy to ensure that any fraud or intentional misconduct leading to a restatement of our financial statements would be properly addressed. The policy provides that if it is found that an employee committed fraud or engaged in intentional misconduct that resulted, directly or indirectly, in a need to restate our financial statements, then our Compensation Committee has the discretion to direct the Company to recover all or a portion of any cash or equity incentive compensation paid or value realized, and/or to cancel any stock-based awards or AIM award granted to an employee on or after the effective date of the policy. Our Compensation Committee may also request that the Company seek to recover any gains realized on or after the effective date of the policy for equity or cash awards made prior to that date (including AIM, stock options, PSUs and RSUs). Application of the claw-back /recoupment policy is subject to a determination by our Compensation Committee that: (i) the cash incentive or equity compensation to be recouped was calculated on, or its realized value affected by, the financial results that were subsequently restated; (ii) the cash incentive or equity award would have been less valuable than what was actually awarded or paid based on the application of the correct financial results; and (iii) the employee to whom the policy applied engaged in fraud or intentional misconduct. This policy will be revised if required under the Dodd-Frank Act once the regulations implementing the claw-back policy requirements of that law have been issued.

Share-Ownership Guidelines

We impose share ownership requirements on each of our officers. These share ownership requirements are designed to emphasize share ownership by our officers and to further align their interests with our shareholders. Each officer must achieve and maintain ownership of ordinary shares or ordinary share equivalents at or above a prescribed level. The requirements are as follows:

Position	Number of Active Participants as of the Record Date	Individual Ownership Requirement (Shares and Equivalents)
Chief Executive Officer	1	150,000
Executive Vice Presidents	2	75,000
Senior Vice Presidents	6	40,000
Corporate Vice Presidents	8	15,000

Proxy Statement

This equates to ownership of seven times base salary for the Chief Executive Officer, in excess of seven times base salary for the Executive Vice Presidents and in excess of four times base salary for the Senior Vice Presidents.

Our share-ownership program requires the accumulation of ordinary shares (or ordinary share equivalents) over a five-year period following the date the person becomes subject to share-ownership requirements at the rate of 20% of the required level each year. Executives who are promoted, and who have their ownership requirement increased, have three years to achieve the new level from the date of promotion. However, given the significant increase in the ownership requirement for an individual who is promoted to CEO, that individual has five years from the date of the promotion to achieve the new level. Ownership credit is given for actual ordinary shares owned, deferred compensation that is invested in ordinary shares within our EDCP Plans, ordinary share equivalents accumulated in our qualified and nonqualified employee savings plans as well as RSUs. Stock options, SARs and unvested PSUs do not count toward meeting the share-ownership target. If executives fall behind their scheduled accumulation level during their applicable accumulation period, or if they fail to maintain their required level of ownership after their applicable accumulation period, their right to exercise stock options will be limited to “buy and hold” transactions and any shares received upon the vesting of RSU and PSU awards must be held until the required ownership level is achieved. As of the Record Date, all of our executives subject to the share-ownership guidelines were in compliance with these requirements.

COMPENSATION COMMITTEE REPORT

We have reviewed and discussed with management the Compensation Discussion and Analysis contained in this Proxy Statement. Based on our review and discussion, we recommended to the Board of Directors that the Compensation Discussion and Analysis be included in this Proxy Statement as well as the Company’s Annual Report on Form 10-K for the year ended December 31, 2013.

COMPENSATION COMMITTEE
Tony L. White (Chair)
John Bruton
Jared L. Cohon
Gary D. Forsee
Constance J. Horner

SUMMARY OF REALIZED COMPENSATION

The table below is a summary of the compensation actually realized by our CEO for 2013, 2012 and 2011. This information is intended as a supplement to and not as a substitute for the information shown on the Summary Compensation Table. The information required to be shown on the Summary Compensation Table includes elements of compensation that may or may not actually be realized by the NEOs at a future date. We believe this table enhances our shareholders' understanding of our CEO's compensation.

Year	Salary ($)	Performance-based Cash Compensation (1)($)	Equity Compensation (2)($)	Other Compensation (3)($)	Total Realized Compensation ($)
2013 Chairman and Chief Executive Officer	$1,237,500	$1,821,270	$19,720,521	$149,659	$22,928,950
2012 Chairman and Chief Executive Officer	$1,175,000	$1,522,950	$171,246	$311,363	$3,180,559
2011 Chairman and Chief Executive Officer	$1,075,000	$1,552,350	$2,223,605	$310,833	$5,161,788

(1) Represents the AIM award paid in the applicable year and earned in the immediately previous year and the special completion recognition bonus made in December 2013.

(2) Represents amount realized upon the exercise of stock options and the vesting of RSUs and PSUs, before payment of applicable withholding taxes and brokerage commissions, and includes the value of dividend equivalents paid on such awards. For 2013, this includes the following amounts:

	Value Realized	Total Shareholder Return ("TSR") Over the Period Outstanding
Stock Options Exercise:		
February 17, 2004 Grant	$1,906,928	TSR for 2004 – 2013 was 168%
February 2, 2005 Grant	$2,381,500	TSR for 2005 – 2013 was 121%
February 12, 2009 Grant	$5,301,687	TSR for 2009 – 2013 was 126%
	$9,590,114	
Restricted Stock Units Vesting:		
February 24, 2012 Grant	$784,864	TSR for 2012 was 56%
Performance Stock Units Earned:		
2010 – 2012 Performance Period	$9,345,543	TSR for 2010 – 2012 was 36%

(3) Represents the amounts imputed as income under applicable IRS rules and regulations.

EXECUTIVE COMPENSATION

The following table provides summary information concerning compensation paid by the Company or accrued on behalf of our NEOs for services rendered during the years ended December 31, 2013, 2012 and 2011.

Summary Compensation Table

Name and Principal Position	Year	Salary ($)(a)	Bonus ($)(b)	Stock Awards ($)(c)	Option Awards ($)(d)	Non-Equity Incentive Plan Compensation ($)(e)	Change in Pension Value and Nonqualified Deferred Compensation Earnings ($)(f)	All Other Compensation ($)(g)	Total ($)
M. W. Lamach	2013	1,237,500	250,000	7,176,489	2,265,976	2,650,000	917,847	490,026	14,987,838
Chairman, President and Chief Executive Officer	2012	1,175,000		6,288,586	1,697,045	1,571,270	4,920,650	483,868	16,136,419
	2011	1,075,000		2,750,022	3,077,905	1,522,950	3,867,063	517,947	12,810,887
S.K. Carter	2013	163,790	960,000	2,302,436	65,408	218,050	29,347	364,657	4,103,688
Senior Vice President and Chief Financial Officer									
G. S. Michel	2013	453,125		1,656,333	204,868	592,720	94,442	76,132	3,077,620
Senior Vice President, Residential HVAC North America	2012	439,750		855,617	164,994	373,715	610,208	205,456	2,649,740
D. P. M. Teirlinck	2013	604,167		1,939,504	362,505	855,547	356,770	186,124	4,304,617
Executive Vice President, Climate segment	2012	580,000		1,179,131	318,197	225,695	750,764	117,538	3,171,325
	2011	561,250		900,028	307,795	547,705	513,189	120,299	2,950,266
R. G. Zafari	2013	492,250		1,652,530	284,102	397,354	392,678	88,626	3,307,540
Executive Vice President, Industrial segment	2012	470,000		873,473	235,706	319,679	844,683	91,083	2,834,624
	2011	451,250		600,066	205,206	460,100	606,315	159,602	2,482,539
S. R. Shawley	2013	578,500	100,000	1,640,605	525,618	725,151	–	93,363	3,663,237
Former Senior Vice President and Chief Financial Officer	2012	613,500		1,746,896	471,399	529,836	2,532,907	98,549	5,993,087
	2011	593,750		1,387,531	474,521	553,800	2,723,841	110,520	5,843,963
J. Conover, IV	2013	406,191		656,415	207,307	(h)	318,750	2,310,032	3,898,695
Former Senior Vice President and President, Security Technologies									

(a) Pursuant to the EDCP Plans, a portion of a participant's annual salary may be deferred into a number of investment options. In 2013 there were no salary deferrals by any NEO into the EDCP Plans.

(b) Completion recognition bonuses were awarded in December, 2013 to certain individuals, including Messrs. Lamach and Shawley, whose contributions were critical to the successful completion of the Spin-off. Ms. Carter, as part of her employment offer, received a cash payment of $960,000 for the bonus and performance share plan payments forfeited at her prior employer. In the event Ms. Carter voluntarily leaves the company within two years of her hire date, she would have to repay this amount to the Company.

(c) The amounts in this column reflect the aggregate grant date fair value of PSU awards and any RSU awards granted for the year under Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 718 and do not reflect amounts paid to or realized by the NEOs. In determining the aggregate grant date fair value of the PSU awards, the awards are valued assuming target level performance achievement. If the maximum level performance achievement is assumed, the aggregate grant date fair value of the PSU awards would be as follows:

Name	Maximum Grant Date Value Of 2013-15 PSU Awards ($)	Maximum Grant Date Value Of Special PSU Awards ($)
M. W. Lamach	9,977,673	
S. K. Carter	1,653,379	1,022,356
G. S. Michel	912,296	
D. P. M. Teirlinck	1,653,529	
R. G. Zafari	1,254,422	
S. R. Shawley	2,280,680	
J. Conover	912,296	

For a discussion of the assumptions made in determining the ASC 718 values, see Note 12, "Share-Based Compensation," to the Company's consolidated financial statements contained in the 2013 Form 10-K. The ASC 718 grant date fair value of the PSU award is spread over the number of months of service required for the grant to become non-forfeitable, disregarding any adjustments for potential forfeitures.

Amounts in this column also include the incremental fair value of certain modifications made to outstanding stock awards in connection with the Spin-off.

Please see "2013 Grants of Plan-Based Awards" and "Outstanding Equity Awards at December 31, 2013" for additional detail.

(d) The amounts in this column reflect the aggregate grant date fair value of stock option grants for financial reporting purposes for the year under ASC 718 and do not reflect amounts paid to or realized by the NEOs. For a discussion of the assumptions made in determining the ASC 718 values see Note 12, "Share-Based Compensation," to the Company's consolidated financial statements contained in its 2013 Form 10-K.

Amounts in this column also include the incremental fair value of certain modifications made to outstanding stock options in connection with the Spin-off.

Please see "2013 Grants of Plan-Based Awards" and "Outstanding Equity Awards at December 31, 2013" for additional detail.

(e) This column reflects the amounts earned as annual awards under the AIM program. Unless deferred into the EDCP Plans, AIM program payments are made in cash. In 2013, there were no AIM deferrals by any NEO into the EDCP Plans**.** Amounts shown in this column are not reduced to reflect deferrals of AIM awards into the EDCP Plans.

(f) Amounts reported in this column reflect the aggregate increase in the actuarial present value of the benefits under the qualified Ingersoll Rand Pension Plan Number One (the "Pension Plan"), Supplemental Pension Plans, Key Management Supplemental Pension Plan (the "KMP") and EOSP, as applicable. The change in pension benefits value is attributable to the additional year of service and age, the annual AIM award and any annual salary increase. Amounts are higher for those NEOs who are older and closer to retirement than for those who are younger and further from retirement since the period over which the benefit is discounted to determine its present value is shorter and the impact of discounting is therefore reduced.

Mr. Shawley shows no increase in pension value since the benefits payable to him due to his retirement are slightly less than the values shown in the pension benefits table as of December 31, 2012. This is primarily driven by the calculation methodologies and by the rise in interest rates.

The change in pension value for Mr. Lamach for all three years shown was attributable to these factors but the change was more significant due to his promotion to CEO and his adjusted salary and bonus target. For all the NEOs, amounts in this column for 2011 and 2012 were also impacted by decreasing interest rates, which cause the value of the lump sum under the EOSP and the KMP to increase and in 2013 by rising interest rates which cause the value of the lump sum under the EOSP and the KMP to decrease. There was no above market interest earned by the NEOs during 2013.

(g) The following table summarizes the components of this column for fiscal year 2013:

Name	Company Contributions ($)(1)	Company Cost for Life Insurance ($)	Company Cost for Long Term Disability ($)	Retiree Medical Plan ($)(2)	Tax Assistance ($)(3)	Other Benefits ($)(4)	Severance ($)(5)	Total ($)
M. W. Lamach	168,526	3,174	1,285	—	100,314	216,727	—	490,026
S. K. Carter	12,801	755	—	—	11,956	339,145	—	364,657
G. S. Michel	49,610	1,085	2,077	1,600	—	21,760	—	76,132
D. P. M. Teirlinck	49,792	2,761	2,528	—	89,148	41,895	—	186,124
R. G. Zafari	48,716	2,193	2,029	—	874	34,814	—	88,626
S. R. Shawley	66,500	4,124	1,937	2,600	—	18,202	—	93,363
J. Conover	44,084	1,987	2,668	1,396	—	73,319	2,186,578	2,310,032

(1) Represents Company contributions under the Company's ESP and Supplemental ESP plans.

(2) For Messrs. Michel and Shawley, represents the estimated year-over-year increase in the value of the retiree medical plan, calculated based on the methods used for financial statement reporting purposes. For Mr. Conover, represents the value allocated by the company in 2013 to a retiree medical subsidy account available to certain former employees of Trane.

(3) The amount for Mr. Lamach represents tax equalization payments related to Irish taxes owed on $270,000, which is the portion of his income that is allocated to his role as a director of the Company. Without these payments, Mr. Lamach would be subject to double taxation on this amount since he is already paying U.S. taxes on this income. The amount for (i) Ms. Carter represents payments made on her behalf for taxes related to relocation costs; (ii) Mr. Zafari represent payments of taxes on his behalf related to Company contributions made to the Belgium social scheme and (iii) Mr. Teirlinck represent payments of taxes on his behalf related to Company contributions made to the Belgium social scheme and an additional payment in the amount of $86,343 to compensate him for U.S. income tax and applicable gross-up relative to stock options exercised in 2013 for which Mr. Teirlinck had previously paid taxes in Belgium upon the grant of those stock options in 2008. Without this payment Mr. Teirlinck would be subject to double taxation.

(4) Represents: (i) the incremental cost to the Company of personal use of the Company aircraft by the CEO. For security and safety reasons and to maximize his availability for Company business, the Board of Directors requires the CEO to travel on Company-provided aircraft for business and personal purposes, unless commercial travel is deemed a minimal security risk by the Company. The incremental cost to the Company of personal use of the Company aircraft is calculated based on the hourly average variable operating costs to the Company. Variable operating costs include fuel, maintenance, on-board catering and landing fees. The hourly average variable cost is multiplied by the amount of time flown for personal use to derive the incremental cost. The methodology excludes fixed costs that do not change based on usage, such as pilots' and other employees' salaries, management fees and training, hangar and insurance expenses. We impose an annual limit of $150,000 on the CEO's non-business use of Company-provided aircraft. For 2013, the amount for Mr. Lamach includes $150,000 for personal use of Company-provided aircraft; (ii) the following cost for relocation costs, including costs related to the sale of a prior residence, for Ms. Carter, $337,072; (iii) the following incremental cost of the Company-leased cars, calculated based on the lease, insurance, fuel and maintenance costs to the Company: Mr. Lamach, $9,915; Mr. Michel, $15,812; Mr. Teirlinck, $14,448; Mr. Zafari, $16,835; Mr. Shawley, $7,790; and Mr. Conover, $65,646 (includes the resale value of Mr. Conover's company vehicle ($46,315) which was given to him upon his retirement); (iv) additional incremental costs associated with the use of the Company aircraft. Under the Company's aircraft use policy, the Compensation Committee has determined that business use includes travel that is related to the Company's business or benefits the Company, such as travel to meetings of other boards on which the CEO sits. For 2013, the amount for Mr. Lamach includes $48,180 for such business-related travel; (v) the following costs for financial counseling services, which may include tax preparation and estate planning services: Mr. Lamach, $7,032; Mr. Michel, $2,839; Mr. Teirlinck, $9,981; Mr. Zafari, $10,620; Mr. Shawley, $9,000; and Mr. Conover, $3,686; (vi) the following costs for medical services provided through an on-site physician under the Executive Health Program: Mr. Lamach, $1,600; Ms. Carter, $2,073; Mr. Michel, $3,109; Mr. Teirlinck, $1,813; Mr. Zafari, $3,446; Mr. Shawley, $1,412; and Mr. Conover, $3,987; (vii) the payments of $15,653 and $3,913 to permit Messrs. Teirlinck and Zafari to remain covered under the Belgium social scheme and have access to the country's health plan should they return to Europe.

(5) Represents payments made or accrued to Mr. Conover in connection with his leaving the Company. For further information, see "Post-Employment Benefits" below.

(h) Mr. Conover received the equivalent of his pro-rated AIM award as part of his severance. For further information, see "Post-Employment Benefits" below.

2013 Grants of Plan-Based Awards

The following table shows all plan-based awards granted to the NEOs during fiscal 2013 and awards that were modified in connection with the Spin-off which resulted in incremental fair value as described in the footnotes to the table. This table is supplemental to the Summary Compensation Table and is intended to complement the disclosure of equity awards and grants made under non-equity incentive plans in the Summary Compensation Table. Share information for awards made prior to the Spin-off reflects the number of shares initially granted on a pre-spin basis. Share information for awards made after the Spin-off reflects the number of shares granted on a post spin basis. For additional information regarding outstanding awards and the impact of modifications made in connection with the Spin-off, please see the "Outstanding Equity Awards at December 31, 2013" table.

		Estimated Future Payouts Under Non-Equity Plan Awards			Estimated Future Payouts Under Equity Incentive Plan Awards			All Other Stock Awards: Number of Shares of Stock or Units	All Other Option Awards: Number of Securities Underlying Options	Exercise or Base Price of Option Awards	Grant Date Fair Value of Stock and Option Awards
		Threshold	Target	Maximum	Threshold	Target	Maximum				
Name	Grant Date	($)(a)	($)(a)	($)(a)	(#)(b)	(#)(b)	(#)(b)	(#)(c)	(#)(c)	($/Sh)(d)	($)(e)(f)
M. W. Lamach											
2013 Awards											
AIM	2/22/2013	600,000	2,000,000	4,000,000							
PSUs (2013-15)	2/22/2013				20,794	83,175	166,350				4,988,839
Options	2/22/2013								132,576	52.6000	2,187,504
RSUs	2/22/2013							41,588			2,187,551
Awards prior to 2013											
PSUs (2011-13)	2/14/2011				29,049	58,097	116,194				31
PSUs (2012-14)	2/24/2012				22,114	88,453	176,906				18
Options	2/1/2006								52,740	39.4250	3,790
Options	2/7/2007								43,790	43.1250	5,921
Options	2/15/2008								48,510	39.0000	6,281
Options	6/6/2008								100,000	43.4550	7,444
Options	2/16/2010								250,000	31.5916	37,721
Options	2/14/2011								210,527	47.3350	11,186
Options	2/24/2012								124,053	40.7000	6,129
RSUs	2/24/2012							44,227			50
S. K. Carter											
2013 Awards											
AIM	9/28/2013	52,500	175,000	350,000							
PSUs (2012-14)	10/1/2013				1,573	6,292	12,584				511,221
PSUs (2013-15)	10/1/2013				2,782	11,126	22,252				826,758
Options	10/1/2013								3,200	65.1650	65,408
RSUs	10/1/2013							14,800			964,457
G. S. Michel											
2013 Awards											
AIM	2/22/2013	109,560	365,200	730,400							
PSUs (2013-15)	2/22/2013				1,902	7,605	15,210				456,175
Options	2/22/2013								12,122	52.6000	200,013
RSUs	2/22/2013							3,803			200,068
RSUs	12/6/2013							17,640			1,000,012
Awards prior to 2013											
PSUs (2011-13)	2/14/2011				1,321	2,641	5,282				3
PSUs (2012-14)	2/24/2012				2,150	8,600	17,200				47
Options	2/7/2007								16,450	43.1250	1,111
Options	2/15/2008								20,264	39.0000	2,623
Options	2/14/2011								9,869	47.3350	525
Options	2/24/2012								12,061	40.7000	596
RSUs	2/14/2011							2,971			6
RSUs	2/24/2012							4,300			22

Name	Grant Date	Estimated Future Payouts Under Non-Equity Plan Awards			Estimated Future Payouts Under Equity Incentive Plan Awards			All Other Stock Awards: Number of Shares of Stock or Units	All Other Option Awards: Number of Securities Underlying Options	Exercise or Base Price of Option Awards	Grant Date Fair Value of Stock and Option Awards
		Threshold ($)(a)	Target ($)(a)	Maximum ($)(a)	Threshold (#)(b)	Target (#)(b)	Maximum (#)(b)	(#)(c)	(#)(c)	($/Sh)(d)	($)(e)(f)
D. P. M. Teirlinck											
2013 Awards											
AIM	2/22/2013	164,497	548,322	1,096,644							
PSUs (2013-15)	2/22/2013				3,446	13,784	27,568				826,809
Options	2/22/2013								21,970	52.6000	362,505
RSUs	2/22/2013							6,892			362,534
RSUs	12/6/2013							13,230			750,009
Awards prior to 2013											
PSUs (2011-13)	2/14/2011				6,338	12,676	25,352				16
PSUs (2012-14)	2/24/2012				4,147	16,585	33,170				86
RSUs	2/14/2011							6,338			45
RSUs	2/24/2012							8,293			5
R. G. Zafari											
2013 Awards											
AIM	2/22/2013	126,599	421,998	843,996							
PSUs (2013-15)	2/22/2013				2,615	10,457	20,914				627,255
Options	2/22/2013								16,667	52.6000	275,006
RSUs	2/22/2013							5,229			275,082
RSUs	12/6/2013							13,230			750,009
Awards prior to 2013											
PSUs (2011-13)	2/14/2011				4,226	8,451	16,902				25
PSUs (2012-14)	2/24/2012				3,072	12,286	24,572				91
SAR	2/1/2006								7,500	39.4250	539
Option	2/7/2007								13,910	43.1250	1,880
Option	2/15/2008								18,471	39.0000	2,392
Option	2/12/2009								19,730	16.8450	1,070
Option	2/16/2010								10,744	31.5916	1,621
Option	2/14/2011								14,036	47.3350	746
Option	2/24/2012								17,230	40.7000	850
RSUs	2/14/2011							4,226			25
RSUs	2/24/2012							6,143			43
S. R. Shawley											
2013 Awards											
AIM	2/22/2013	190,800	636,000	1,272,000							
PSUs (2013-15)	2/22/2013				4,753	19,012	38,024				1,140,376
Options	2/22/2013								30,304	52.6000	500,016
RSUs	2/22/2013							9,506			500,028
Awards prior to 2013											
PSUs (2011-13)	2/14/2011				9,771	19,542	39,084				10
PSUs (2012-14)	2/24/2012				6,143	24,571	49,142				97
Option	2/7/2007								43,790	43.1250	5,921
Option	2/15/2008								48,510	39.0000	6,281
Option	6/4/2008								100,000	43.4050	3,732
Option	2/16/2010								41,406	31.5916	6,248
Option	2/14/2011								32,457	47.3350	1,721
Option	2/24/2012								34,459	40.7000	1,699
RSUs	2/14/2011							9,771			49
RSUs	2/24/2012							12,286			45

Name	Grant Date	Estimated Future Payouts Under Non-Equity Plan Awards Threshold ($)(a)	Target ($)(a)	Maximum ($)(a)	Estimated Future Payouts Under Equity Incentive Plan Awards Threshold (#)(b)	Target (#)(b)	Maximum (#)(b)	All Other Stock Awards: Number of Shares of Stock or Units (#)(c)	All Other Option Awards: Number of Securities Underlying Options (#)(c)	Exercise or Base Price of Option Awards ($/Sh)(d)	Grant Date Fair Value of Stock and Option Awards ($)(e)(f)
J. Conover											
<u>*2013 Awards*</u>											
AIM	2/22/2013	116,400	388,000	776,000							
PSUs (2013-15)	2/22/2013				1,902	7,605	15,210				456.223
Options	2/22/2013								12,122	52.6000	200,013
RSUs	2/22/2013							3,803			
<u>*Awards prior to 2013*</u>											
PSUs (2011-13)	2/14/2011				4,226	8,451	16,902				
PSUs (2012-14)	2/24/2012				16,902	16,902	19,658				
Option	2/5/2007								13,440	34.2100	1,457
Option	6/6/2008								15,000	43.4550	1,117
Option	6/6/2008								100,000	43.4550	1,861
Option	2/16/2010								17,905	31.5916	2,099
Option	2/14/2011								14,036	47.3350	54
Option	2/24/2012								12,406	40.7000	706
RSUs	2/14/2011							4,226			
RSUs	2/24/2012							4,423			

(a) The target award levels established for the AIM program are established annually in February and are expressed as a percentage of the NEO's base salary. Refer to Compensation Discussion and Analysis under the heading "Annual Incentive Matrix Program" for a description of the Compensation Committee's process for establishing AIM program target award levels. The amounts reflected in the "Estimated Future Payouts Under Non-Equity Incentive Plan Awards" columns represent the threshold, target and maximum amounts for awards under the AIM program that were paid in March 2014, based on performance in 2013. Thus, the amounts shown in the "threshold, target and maximum" columns reflect the range of potential payouts when the target award levels were established in February 2013 for all NEOs other than Ms. Carter (Ms. Carter's target award was established upon her hire in September 2013). The AIM program pays $0 for performance below threshold. The actual amounts paid pursuant to those awards are reflected in the "Non-Equity Incentive Plan Compensation" column of the Summary Compensation Table.

(b) The amounts reflected in the "Estimated Future Payouts Under Equity Incentive Plan Awards" columns represent the threshold, target and maximum amounts for PSU awards. The PSP pays $0 for performance below threshold. For a description of the Compensation Committee's process for establishing PSP target award levels and the terms of PSU awards, please refer to Compensation Discussion and Analysis under the heading "Long-Term Incentive Program" and the "Post-Employment Benefits" section below. Awards made prior to 2013 are included to the extent that there was incremental value adjustments in 2013 as a result of the Spin-off as further discussed in footnote (f) below.

(c) The amounts in these columns reflect the stock option and RSU awards. Awards in 2013 were granted in February 2013, except for awards to Ms. Carter which were made in October 2013, and RSU awards granted to Mr. Michel, Mr. Teirlinck and Mr. Zafari in December 2013. For a description of the Compensation Committee's process for determining stock option and RSU awards and the terms of such awards, see Compensation Discussion and Analysis under the heading "Long-Term Incentive Program" and the "Post-Employment Benefits" section below. Awards made prior to 2013 are included to the extent that there was incremental value adjustments in 2013 as a result of the Spin-off as further discussed in footnote (f) below.

(d) Stock options were granted under the Company's Incentive Stock Plan of 2007 (the "2007 Plan") or its Incentive Stock Plan of 2013 (the "2013 Plan"), which requires options to be granted at an exercise price equal to the fair market value of the Company's ordinary shares on the date of grant. The fair market value is defined in the 2007 Plan and the 2013 Plan as the average of the high and low trading price of the Company's ordinary shares listed on the NYSE on the grant date. The closing price on the NYSE of the Company's ordinary shares was $52.61 on the February 2013 grant date. The closing price for Ms. Carter's awards was $65.17 on the October 2013 grant date.

(e) Amounts in this column include the grant date fair value of the equity awards, as well as the incremental fair value for awards that were modified during fiscal 2013 (see footnote (f)), calculated in accordance with ASC 718. The Company cautions that the actual amount ultimately realized by each NEO from the stock option awards will likely vary based on a number of factors, including stock price fluctuations, differences from the valuation assumptions used and timing of exercise or applicable vesting.

For a description of the assumptions made in valuing the equity awards see Note 12, “Share-Based Compensation” to the Company’s consolidated financial statements contained in its 2013 Form 10-K. For PSUs, the grant date fair value has been determined based on achievement of target level performance, which is the performance threshold the Company believes is the most likely to be achieved under the grants.

(f) In connection with the Spin-off, certain adjustments were made to outstanding equity awards held by our employees, including the NEOs as described in the narrative disclosure preceding the “Outstanding Equity Awards at December 31, 2013” table. The adjustments were designed to preserve the intrinsic value of each form of equity award. Although these adjustments were intended to preserve the intrinsic value of each type of award, in some cases, they constituted a modification under ASC Topic 718, which requires a comparison of fair values immediately before and after the Spin-off. In certain instances, the fair value of the equity awards calculated in accordance with ASC 718 immediately after the Spin-off was higher. As a result, the adjustment resulted in incremental compensation costs for these awards which are reported in this column.

Outstanding Equity Awards at December 31, 2013

In connection the Spin-off, certain adjustments were made to outstanding equity awards held by our employees, including the NEOs, as described below:

- Vested and exercisable stock options and SARs were adjusted such that the holder of such awards was also afforded the right to options in the number of shares of Allegion that he or she would have received had the ordinary shares of the Company subject to the vested and exercisable stock options and SARs been outstanding shares as of the record date for the Spin-off. The aggregate exercise price of the stock options and SARs was allocated between the adjusted awards in shares of the Company and Allegion in order to preserve the intrinsic value of the awards immediately before and after the Spin-off.
- Unvested stock options were adjusted wholly into stock options in the ordinary shares of the Company such that the number of shares and the exercise price of the options were adjusted to preserve their intrinsic value based on the value of the shares immediately before and after the Spin-off.
- PSUs and RSUs were adjusted such that the number of ordinary shares of the Company subject to the PSU and RSU awards was adjusted based on the value of the shares immediately before and after the Spin-off to preserve their intrinsic value. In addition, with respect to the PSU performance metrics, for purposes of calculating EPS growth, 2013 EPS was calculated as the combined 2013 full year reported EPS for the Company and Allegion; for purposes of calculating TSR in the outstanding award cycles, the stock price of Allegion immediately after the Spin-off, adjusted for the distribution ratio of 1 share of Allegion for every 3 shares of the Company, will be treated as a dividend.

		Option Awards				Stock Awards			
Name	Grant Date	Number of Securities Underlying Unexercised Options (#) Exercisable (a)	Number of Securities Underlying Unexercised Options (#) Unexercisable (a)	Option Exercise Price ($)	Option Expiration Date (c)	Number of Shares or Units of Stock that have Not Vested (#) (d)	Market Value of Shares or Units of Stock that have Not Vested ($) (e)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights that have Not Vested (#) (f)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights that have Not Vested ($) (e)
M. W. Lamach	2/1/2006	52,740		31.4502	1/31/2016				
	2/7/2007	43,790		34.3933	2/6/2017				
	2/15/2008	48,510		31.1121	2/14/2018				
	6/6/2008	100,000		34.6558	6/5/2018				
	2/16/2010	250,000		25.2192	2/15/2020				
	2/14/2011	140,351		37.7420	2/13/2021				
	2/14/2011		88,083	37.7116	2/13/2021			72,923	4,492,057
	2/24/2012	41,351		32.4643	2/23/2022				
	2/24/2012		103,806	32.4256	2/23/2022	37,010	2,279,816	111,025	6,839,140
	2/22/2013		166,407	41.9062	2/21/2023	52,201	3,215,582	104,400	6,431,040
S. K. Carter	10/1/2013 (b)		4,016	51.9167	9/30/2023	18,577	1,144,343	7,898	486,517
	10/1/2013							13,966	860,306
G. S. Michel	2/15/2008	20,264		31.1121	2/14/2018				
	2/14/2011	6,579		37.7420	2/13/2021				
	2/14/2011		4,129	37.7116	2/13/2021	1,244	76,630	3,315	204,204
	2/24/2012	4,020		32.4643	2/23/2022				
	2/24/2012		10,092	32.4256	2/23/2022	3,599	221,698	10,795	664,972
	2/22/2013		15,215	41.9062	2/21/2023	4,774	294,078	9,546	588,034
	12/6/2013					17,640	1,086,624		
D. P. M. Teirlinck	2/14/2011		8,808	37.7116	2/13/2021	2,653	163,425	15,911	980,118
	2/24/2012		19,464	32.4256	2/23/2022	6,940	427,504	20,818	1,282,389
	2/22/2013		27,576	41.9062	2/21/2023	8,651	532,902	17,302	1,065,803
	12/6/2013					13,230	814,968		

		Option Awards				Stock Awards			
Name	Grant Date	Number of Securities Underlying Unexercised Options (#) Exercisable (a)	Number of Securities Underlying Unexercised Options (#) Unexercisable (a)	Option Exercise Price ($)	Option Expiration Date (c)	Number of Shares or Units of Stock that have Not Vested (#) (d)	Market Value of Shares or Units of Stock that have Not Vested ($) (e)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights that have Not Vested (#) (f)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights that have Not Vested ($) (e)
R. G. Zafari	2/1/2006	7,500		31.4502	1/31/2016				
	2/7/2007	13,910		34.3933	2/6/2017				
	2/15/2008	18,471		31.1121	2/14/2018				
	2/12/2009	6,577		13.4893	2/11/2019				
	2/16/2010	10,744		25.2192	2/15/2020				
	2/14/2011	9,357		37.7420	2/13/2021				
	2/14/2011	0	5,873	37.7116	2/13/2021	1,769	108,970	10,608	653,453
	2/24/2012	5,743		32.4643	2/23/2022				
	2/24/2012	0	14,418	32.4256	2/23/2022	5,142	316,747	15,422	949,995
	2/22/2013	0	20,920	41.9062	2/21/2023	6,564	404,342	13,126	808,562
	12/6/2013					13,230	814,968		
J. Conover	2/5/2007	13,440		27.3020	2/5/2017				
	6/6/2008	15,000		34.6558	6/5/2018				
	6/6/2008	25,000		34.6558	6/5/2018				
	2/16/2010	17,905		25.2192	11/5/2018				
	2/14/2011	14,036		37.7420	11/5/2018	1,769	108,970	10,057	619,511
	2/24/2012	12,406		32.4643	11/5/2018	3,702	228,043	7,588	467,421
	2/22/2013	12,122		41.9300	11/5/2018	4,774	294,078	2,687	165,519
S. R. Shawley	2/7/2007	43,790		34.3933	2/6/2017				
	2/15/2008	48,510		31.1121	2/14/2018				
	6/4/2008 (b)	50,000		34.6160	6/3/2018				
	6/4/2008		62,759	34.5806	6/3/2018				
	2/16/2010	41,406		25.2192	11/30/2018				
	2/14/2011	21,638		37.7420	11/30/2018				
	2/14/2011		13,579	37.7116	11/30/2018	4,089	251,882	23,836	1,468,298
	2/24/2012	11,486		32.4643	11/30/2018				
	2/24/2012		28,835	32.4256	11/30/2018	10,282	633,371	19,699	1,213,458
	2/22/2013		38,037	41.9062	11/30/2018	11,932	735,011	7,280	448,448

(a) These columns represent stock option and SARs awards. Except as noted in (b) below, these awards generally become exercisable in three equal installments beginning on the first anniversary after the date of grant, subject to continued employment or retirement.

(b) Mr. Shawley's grant dated June 4, 2008 vests and becomes exercisable 50% on each of the fourth and sixth anniversaries of February 15, 2008. Ms. Carter's option grant dated October 1, 2013, vests and becomes exercisable on the 3rd anniversary of the grant date.

(c) All of the options granted to the NEOs expire on the tenth anniversary (less one day) of the grant date other than the February 5, 2007 grant to Mr. Conover which expires on the tenth anniversary of the grant date.

(d) This column represents unvested RSUs. Except as described in the following sentence, RSUs generally become exercisable in three equal installments beginning on the first anniversary after the date of grant, subject to continued employment or retirement. In the case of Ms. Carter's grant dated October 1, 2013 and Messrs. Zafari and Teirlinck's grants dated December 6, 2013, 100% of the grant vests on the third anniversary of the grant date.

(e) The market value was computed based on $61.60, the closing market price of the Company's ordinary shares on the NYSE at December 31, 2013.

(f) This column represents unvested and unearned PSUs. PSUs vest upon the completion of a three-year performance period. The actual number of shares an NEO will receive, if any, is subject to achievement of the performance goals as certified by the Compensation Committee, and continued employment.

As described in connection with the "2013 Grants of Plan-Based Awards" table, equity awards held by certain employees as of December 1, 2013 were adjusted so that immediately after the Spin-off, the employees held equity awards of the Company and of Allegion. As a result, each of the NEOs holds stock options in shares of Allegion that are not included in the table above.

- Mr. Lamach received 225,578 options to purchase Allegion common stock with exercise prices ranging from $19.4573 to $29.1189, all of which were vested as of December 1, 2013;
- Mr. Shawley received 72,274 options to purchase Allegion common stock with exercise prices ranging from $19.4574 to $29.1177, all of which were vested as of December 1, 2013;
- Mr. Conover received 36,634 options to purchase Allegion common stock with exercise prices ranging from $19.4560 to $32.3483, all of which were vested as of December 1, 2013;
- Mr. Michel received 10,287 options to purchase Allegion common stock with exercise prices ranging from $24.0019 to $29.1191, all of which were vested as of December 1, 2013; and
- Mr. Zafari received 24,099 options to purchase Allegion common stock with exercise prices ranging from $10.4023 to $29.1191, all of which were vested as of December 1, 2013.

2013 Option Exercises and Stock Vested

The following table provides information regarding the amounts received by each NEO upon exercise of stock options and SARS, the vesting of RSUs or the vesting of PSUs during the fiscal year ended December 31, 2013:

	Option Awards		Stock Awards		
Name	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise ($) (a)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting ($)	
M. W. Lamach	316,125	9,590,114	187,968	9,887,117	(b)
S. K. Carter	–	–	–	–	
G. S. Michel	54,180	1,146,181	21,426	1,224,060	(c)
D. P. M. Teirlinck	134,759	3,925,044	8,043	426,256	(d)(e)
R. G. Zafari	–	-	17,322	912,807	(d)
S. R. Shawley	144,890	4,276,751	12,232	648,326	(d)(e)
J. Conover	75,000	1,233,375	25,152	1,325,125	(d)(e)

(a) This column reflects the aggregate dollar amount realized by the NEO upon the exercise of the stock options and SARs by determining the difference between (i) for stock options, the market price of the Company's ordinary shares at exercise and the exercise price of the stock options or (ii) for SARs, the opening price of the Company's ordinary shares on the date of exercise and the exercise price of the SARs.

(b) Reflects the value of the RSUs that vested on February 24, 2013 and PSUs that vested on February 22, 2013, based on the average of the high and low stock price of the Company's ordinary shares on the vesting date.

(c) Reflects the value of the RSUs that vested on February 14, 2013, February 16, 2013, February 24, 2013 and August 5, 2013 and PSUs that vested on February 22, 2013 based on the average of the high and low stock price of the Company's ordinary shares on the vesting date.

(d) Reflects the value of the RSUs that vested on February 14, 2013, February 16, 2013 and February 24, 2013 and PSUs that vested on February 22, 2013 (other than with respect to shares that were deferred as described in footnote (e) below), based on the average of the high and low stock price of the Company's ordinary shares on the vesting date.

(e) Messrs. Teirlinck, Shawley and Conover elected to defer all or a portion of the shares acquired upon the vesting of their PSU awards on February 22, 2013 into the Company's EDCP II. Mr. Teirlinck deferred 37,795 shares having a value of $1,988,017, Mr. Shawley deferred 58,268 shares having a value of $3,064,897, and Mr. Conover deferred 5,040 shares having a value of $265,104. Messrs. Teirlinck, Shawley and Conover's cash dividends of $51,023, $78,662 and $6,804, respectively, that had accrued on the PSU awards were also deferred under the EDCP II. Please see "2013 Nonqualified Deferred Compensation" for more information about the terms of the Company's EDCP Plans.

2013 Pension Benefits

The NEOs participate in one or more of the following defined benefit plans, but not in all of the following defined benefit plans:

- the Pension Plan;
- the Trane Pension Plan;
- the Supplemental Pension Plans; and
- the EOSP or the KMP.

The Pension Plan is a funded, tax qualified, non-contributory (for all but a small subset of participants) defined benefit plan that covers the majority of the Company's salaried U.S. employees who were hired or re-hired prior to June 30, 2012. The Pension Plan provides for normal retirement at age 65. The Pension Plan was amended in 2012, to be effective January 1, 2013, to provide that vesting occurs: (i) after five years of service, or (ii) while employed, the participant (a) attains age 65, (b) dies or (c) becomes disabled. The formula to determine the lump sum benefit under the Pension Plan is: 5% of final average pay (the five highest consecutive years out of the last ten years of eligible compensation) for each year of credited service. A choice for distribution between an annuity and a lump sum option is available. The Pension Plan was closed to new participants after June 30, 2012 and no further benefits will accrue to any Pension Plan participant for service performed after December 31, 2022. In addition, any employee who was a Pension Plan participant on June 30, 2012 was provided the option to waive participation in the Pension Plan effective January 1, 2013, and, in lieu of participation, receive a non-elective employer contribution equal to 2% of eligible compensation in the ESP.

The Supplemental Pension Plans are unfunded, nonqualified, non-contributory defined benefit restoration plans. Since the Code limits the annual compensation recognized when calculating benefits under the qualified Pension Plan, the Supplemental Plans restore what is lost in the Pension Plan due to these limits. The Supplemental Pension Plans cover all employees of the Company who participate in the Pension Plan and who are impacted by the Code compensation limits. A participant must meet the vesting requirements of the qualified Pension Plan to vest for benefits under the Supplemental Pension Plans. Benefits under the Supplemental Pension Plans are available only as a lump sum distribution after termination and paid in accordance with Section 409A of the Code. As a result of the 2012 changes to the Pension Plan, the Supplemental Pension Plans were closed to employees hired on or after June 30, 2012, and no further benefits will accrue to any Supplemental Plan participant for service performed after December 31, 2022.

The Trane Pension Plan (applicable only to Mr. Conover) is a tax-qualified defined benefit cash balance pension plan that was generally available to all non- collectively bargained and some collectively bargained Trane employees. Participants received a credit each pay period equal to 3 percent of eligible compensation. The plan was frozen as of December 31, 2009 for non-collectively bargained participants.

NEOs participate in either the EOSP or the KMP. The EOSP, which was closed to new participants effective April 2011, is an unfunded, nonqualified, non-contributory defined benefit plan, designed to replace a percentage of an officer's final average pay based on his or her age and years of service at the time of retirement. Final average pay is defined as the sum of the officer's current annual salary plus the average of his or her three highest AIM awards during the most recent six years. No other elements of compensation (other than salary and AIM awards) are included in final average pay. The EOSP provides a benefit pursuant to a formula in which 1.9% of an officer's final average pay is multiplied by the officer's years of service (up to a maximum of 35 years) and then reduced by the value of other retirement benefits the officer will receive that are provided by the Company under certain qualified and nonqualified retirement plans as well as Social Security. If additional years of service were granted to an officer as part of his or her employment agreement, those additional years of service are reflected in the Pension Benefits table below. Vesting occurs, while the officer is employed by the Company, at the earlier of the attainment of age 55 and the completion of 5 years of service or age 62. Unreduced benefits under the EOSP are available at age 62 and benefits are only available as a lump sum after termination and paid in accordance with Section 409A of the Code. Each NEO, other than Mr. Michel and Ms. Carter, participates in the EOSP.

The KMP is an unfunded, nonqualified, non-contributory defined benefit plan available to certain key employees. The KMP is designed to replace a percentage of a key employee's final average pay based on his or her age and years of service at the time of retirement. Final average pay is defined as the sum of the key employee's current annual salary plus the average of the employee's three highest AIM awards during the most recent six years. No other elements of compensation (other than salary and AIM awards) are included in final average pay. The KMP provides a benefit pursuant to a formula in which 1.7% of a key employee's final average pay is multiplied by years of service (up to a maximum of 30 years) and then reduced by the value of other retirement benefits the key employee will receive that are provided by the Company under certain qualified and nonqualified retirement plans as well as Social Security. Vesting occurs at the earlier of the attainment of age 55 and the completion of 5 years of service or age 65. Benefits are only available as a lump sum after termination and paid in accordance with Section 409A of the Code. Mr. Michel and Ms. Carter are the only NEOs who participate in the KMP.

The table below represents the estimated present value of defined benefits for the plans in which each NEO participates.

Name	Plan Name	Number of Years Credited Service (#) (a)	Present Value of Accumulated Benefit ($) (b)	Payments During Last Fiscal Year ($)(c)
M.W. Lamach	Pension Plan	9.917	78,371	
	Supplemental Pension Plan II	9.917	603,756	
	EOSP	27 (d)	14,340,039	
S.K. Carter	KMP	.333	29,347	
G.S. Michel	Pension Plan	28.58	236,598	
	Supplemental Pension Plan I	19.58	8,718	
	Supplemental Pension Plan II	28.58	289,776	
	KMP	29	2,537,693	
D.P.M. Teirlinck	Pension Plan	5.33 (e)	58,103	
	Supplemental Pension Plan II	5.33 (e)	154,101	
	EOSP	9 (f)	2,387,164	
R. G. Zafari	Pension Plan	3.42 (e)	34,332	
	Supplemental Pension Plan II	3.42 (e)	84,707	
	EOSP	13.75 (f)	3,086,022	
S. R. Shawley	Pension Plan	39.47	180,012	722,692
	Supplemental Pension Plan I	6 (g)	194,352 (i)	
	Supplemental Pension Plan II	14.92 (g)	490,356 (i)	
	EOSP	35 (h)	13,430,997 (i)(j)	
J. Conover	Pension Plan	3.97 (e)		50,945
	Trane Pension Plan	n/a	48,401	
	Supplemental Pension Plan II	3.97 (e)	84,155 (i)	
	EOSP	5.50 (h)	1,273,475 (i)	

(a) Under the EOSP or the KMP, for officers covered prior to May 19, 2009, a full year of service is credited for any year in which they work at least one day. In the Pension Plan, the Supplemental Pension Plans, the EOSP and the KMP for officers covered on or after May 19, 2009, the number of years of credited service is based on elapsed time (*i.e.* , credit is given for each month in which a participant works at least one day). Years of credited service is not used in the determination of the present value of benefits for the Trane Pension Plan. The Supplemental Pension Plan II was established as a mirror plan of the Supplemental Pension Plan, except for provisions required by Section 409A of the Code, effective January 1, 2005. The years of credited service used for calculating benefits under (i) the Supplemental Pension Plan I are the years of credited service through December 31, 2004, and (ii) the Pension Plan, EOSP, KMP and Supplemental Pension Plan II are the years of credited service through December 31, 2013. The benefits earned under the Supplemental Pension Plan I serve as offsets to the benefits earned under the Supplemental Pension Plan II.

(b) The amounts in this column reflect the estimated present value of each NEO's accumulated benefit under the plans indicated. The calculations reflect the value of the benefits assuming that each NEO was fully vested under each plan. The benefits were computed as of December 31, 2013, consistent with the assumptions described in Note10, "Pensions and Postretirement Benefits Other than Pensions," to the consolidated financial statements in the 2013 Form 10-K.

A present value of benefits for the Supplemental Pension Plan I is reported for those NEOs who were vested in that plan at December 31, 2004, the date on which that plan was frozen. If an NEO was not vested in the Supplemental Pension Plan I at December 31, 2004, that NEO is not entitled to any benefit under that plan.

(c) The amounts shown represent the actual distributions that were made to Messrs. Shawley and Conover in December 2013. For Mr. Shawley, there is also an annuity component of the Pension Plan and the amount he received in annuity payments during 2013 is also included in this value.

(d) Mr. Lamach's credited years of service exceed his actual years of service by 17 years pursuant to the provisions of his employment arrangement. The increase in present value of benefits due to those additional years of credited service is $9,599,502. Mr. Lamach's benefit is reduced by the pension benefit he received from his former employer in July 2013, updated with interest.

(e) Service in the Pension Plan and the Supplemental Pension Plan II for Messrs. Teirlinck and Zafari began in September 2008 and August 2010, respectively, when they transferred to the United States. Service in the Pension Plan and the Supplemental Pension Plan II for Mr. Conover began in January 2010, when former Trane employees became eligible to participate in these plans.

(f) Benefits for Messrs. Teirlinck and Zafari under the EOSP use all their service with the Company, not just the service in the United States. The benefit will be reduced by any and all benefits accrued or accumulated while covered under any non-U.S. plan in respect to any period of service that is counted as a year of service in this plan. The value of these non-U.S. benefits is not readily accessible until retirement, and therefore the amount shown for EOSP reflects the value of this benefit prior to these reductions.

(g) Mr. Shawley's service in the Supplemental Plans began in January 1999 when he transferred from Thermo King.

(h) Under the provisions of the EOSP, Mr. Shawley's service is capped at 35 years. Mr. Conover's service in the EOSP began in June 2008, the date of the Trane acquisition.

(i) These amounts represent the actual distributions that will be made to Messrs. Shawley and Conover in June 2014, including the interest that will accrue on the benefits between their dates of retirement and their dates of payment.

(j) On June 4, 2008, the Compensation Committee of the Board of Directors agreed that if Mr. Shawley remains with the Company until age 60, any reduction for early retirement will be waived. The increase in present value of benefits resulting from this provision is $907,649.

2013 Nonqualified Deferred Compensation

The Company's EDCP Plans are unfunded, nonqualified plans that permit certain employees, including the NEOs, to defer receipt of up to 50% of their annual salary and up to 100% of their AIM awards, PSP awards and RSUs received upon commencement of employment. Elections to defer must be made prior to the beginning of the performance period. The Company has established a nonqualified grantor trust with a bank as the trustee to hold certain assets as a funding vehicle for the Company's obligations under the EDCP Plans. These assets are considered general assets of the Company and are available to its creditors in the event of the Company's insolvency. Amounts held in the trust are invested by the trustee using various investment vehicles.

Participants are offered certain investment options (approximately 60 mutual fund investments and ordinary share equivalents), and can choose how they wish to allocate their cash deferrals among those investment options. Participants are 100% vested in all amounts deferred, and bear the risk of any earnings and losses on such deferred amounts.

Generally, deferred amounts may be distributed following termination of employment or at the time of a scheduled in-service distribution date chosen by the participant. If a participant has completed five or more years of service at the time of termination, or is terminated due to long-term disability, death or retirement, the distribution is paid in accordance with the participant's election. If a participant terminates without meeting these requirements, the account balance for all plan years will be paid in a lump sum in the year following the year of termination. A participant can elect to receive distributions at termination over a period of five, 10, or 15 annual installments, or in a single lump sum. A participant can elect to receive scheduled in-service distributions in future years that are at least two years after the end of the plan year for which they are deferring. In-service distributions can be received in two to five annual installments, or if no election is made, in a lump sum. For those participants who have investments in ordinary shares, the distribution of these assets will be in the form of ordinary shares, not cash.

The stock grant plan is a frozen long-term incentive plan pursuant to which participants received performance-based stock awards. Stock awards pursuant to this plan have not been awarded since fiscal year 2001. Participants had the option of deferring those awards until retirement. Mr. Shawley deferred receipt of substantially all his stock awards. Until the time of distribution, the stock awards accrue dividends equivalents in the form of notional ordinary shares. These dividend equivalents are also deferred and are paid out in ordinary shares following retirement. Please refer to Compensation Discussion and Analysis for a description of the Supplemental ESP.

The Trane Inc. Deferred Compensation Plan (the "Trane DCP"), which is only applicable to Mr. Conover, permitted certain Trane executives to defer receipt of all or part of their long-term and annual incentive awards, and portions of base salary into either an interest account or an account invested in notional shares of company stock, as elected by the participant at the time he or she made the election to defer the compensation. For those participants who have investments in shares of company stock, the distribution of these assets will be in the form of ordinary shares, not cash. The plan was frozen as of December 31, 2009.

The Trane Inc. Supplemental Savings Plan (the "Trane SSP"), which is only applicable to Mr. Conover, is a defined contribution excess plan designed to compensate participants for IRS limits on the amount of compensation eligible for employer contributions under the Trane tax qualified retirement plans. Employer contributions were made in the form of notional shares of company stock or cash and were limited to compensation between the IRS limits on eligible compensation and $250,000 ($235,000 prior to 2006). Payouts from the plan are made in cash. The plan was frozen as of December 31, 2009.

The following table provides information regarding contributions, distributions, earnings and balances for each NEO under our nonqualified deferred compensation plans. In 2013 Ms. Carter did not participate in any nonqualified deferred compensation plans and therefore she is not shown in the table below.

Name	Executive Contributions in Last Fiscal Year ($) (a)	Registrant Contributions in Last Fiscal Year ($) (b)	Aggregate Earnings in Last Fiscal Year ($) (c)	Aggregate Withdrawals/ Distributions ($)	Aggregate Balance at Last Fiscal Year End ($) (d)
M. W. Lamach					
EDCP II			1,388,283		3,575,635
Supplemental ESP		153,226	476,364		1,494,245
G. S. Michel					
ECDP I			19,648		118,877
Supplemental ESP		34,310	91,316		296,105
D. P. M. Teirlinck					
EDCP II	2,039,418		1,810,155		5,126,467
Supplemental ESP		34,492	97,270		373,906
R. G. Zafari					
EDCP II			32,665		137,026
Supplemental ESP		33,416	50,947		181,154
S. R. Shawley					
EDCP I			954,306		2,457,893
EDCP II	3,144,141		2,699,001		7,667,248
Supplemental ESP		51,200	332,342		1,026,334
Stock Grant Plan			546,237		1,376,874
J. Conover					
EDCP II	271,958		132,943		487,758
Supplemental ESP		28,784	63,574		212,526
Trane DCP			97,863		991,265
Trane SSP			61,647		466,463

(a) The annual deferrals (salary, AIM & PSP) are all reflected in the Salary column, the Non-Equity Incentive Plan column and the Stock Awards column, respectively of the Summary Compensation Table.

(b) All of the amounts reflected in this column are included in the All Other Compensation column of the Summary Compensation Table.

(c) Amounts in this column include gains and losses on investments, as well as dividends on ordinary shares or ordinary share equivalents. None of the earnings or losses reported in this column are included in the Summary Compensation Table.

(d) The following table reflects the amounts reported in this column previously reported as compensation to the NEOs in the Company's Summary Compensation Table in proxy statements for prior years. Each of Messrs. Lamach, Michel, Teirlinck, Zafari and Shawley first became NEOs and therefore had their compensation reported in the Company's proxy statements for fiscal years 2005 (Lamach), 2007 (Shawley), 2010 (Teirlinck) and 2013 (Michel), 2012 (Zafari). Mr. Conover and Ms. Carter first became NEOs in 2013 and therefore no previous compensation was reported in the Company's prior proxy statements.

Name	EDCP Plans ($)	Supplemental ESP ($)
M. W. Lamach	1,529,086	617,807
G. S. Michel	—	21,831
D. P. M. Teirlinck	3,213,525	136,665
R. G. Zafari	—	39,644
S. R. Shawley	4,912,935	276,775

Post-Employment Benefits

The following discussion describes the compensation to which each active NEO would be entitled in the event of termination of such executive's employment, including termination following a change in control.

Employment Arrangements and Severance. All of the NEOs are entitled to certain benefits upon termination of their employment following a change in control. Mr. Lamach and Ms. Carter are entitled to severance in the event of their involuntary termination without cause pursuant to the terms of their employment agreements. Under the terms of his employment agreement, Mr. Lamach is eligible for 24 months of base annual salary plus a prorated AIM award earned for the year of termination as determined and paid at the conclusion of the full performance year in accordance with the terms of the plan. In addition, any unvested PSP awards from completed performance periods would vest and Mr. Lamach would also receive prorated PSP awards (not to exceed target) for the open performance periods at the end of the respective performance periods. These awards would be based on actual performance in accordance with the terms of the plan. Under the terms of her employment agreement, Ms. Carter is eligible for 12 months of base salary plus a prorated AIM award (not to exceed target) earned for the year of termination as determined and paid at the conclusion of the full performance year in accordance with the terms of the plan. In the event of a change in control or termination due to a Major Restructuring, severance for Mr. Lamach and Ms. Carter would be determined pursuant to the terms of the change-in-control agreements or the Major Restructuring Severance Plan described below in lieu of severance under the terms of the employment agreements. Although the Company does not have a formal severance policy for officers, NEOs who are terminated by the Company other than for cause will generally be entitled to received up to 12 months' base salary as severance and, depending on the circumstances and timing of the termination, a pro-rated portion of their AIM award, not to exceed target. In addition, the Company's equity award agreements provide that upon termination for:

- retirement, RSUs and stock options continue to vest on the same basis as active employees and the stock options remain exercisable for a period of three years (or five years in the case of retirement for awards granted in 2007 and after) following termination;
- group termination, RSUs and stock options immediately vest in the portion of the awards that would have vested within twelve months of termination and all vested stock options remain exercisable for a period of three years following termination;
- death or disability, RSUs and stock options either vest or continue to vest on the same basis as active employees and the stock options remain exercisable for a period of three years following termination and PSUs vest pro-rata based on the time worked during the performance period and the achievement of performance goals from the beginning of the performance period through the end of the calendar quarter in which employment terminated; and
- retirement, group termination or job elimination, PSUs vest pro-rata based on the time worked during the performance period and the achievement of performance goals through the end of the performance period.

Change in Control. The Company has entered into a change-in-control agreement with each NEO. The change-in-control agreement provides for certain payments if the employment is terminated by the Company without "cause" (as defined in the change-in-control agreements) or by the NEO for "good reason" (as defined in the change-in-control agreements), in each case, within two years following a change in control of the Company. For officers who first became eligible for a change-in-control agreement on or after May 19, 2009, including Messrs. Michel and Zafari and Ms. Carter, the Company eliminated a severance payment based on outstanding PSP awards and eliminated a payment to cover the impact to the executive of certain incremental taxes incurred in connection with the payments made following a change in control.

Following a change in control, each NEO is entitled to continue receiving his or her current base salary and is entitled to an annual bonus in an amount not less than the highest annual bonus paid during the prior three years.

If an NEO's employment is terminated "without cause" or by the NEO for "good reason" following a change in control, the NEO is entitled to the following:

- any base salary and annual bonus for a completed fiscal year that had not been paid;
- an amount equal to the NEO's annual bonus for the last completed fiscal year pro-rated for the number of full months employed in the current fiscal year;
- an amount equal to the NEO's base salary pro-rated for any unused vacation days;
- a lump sum severance payment from the Company equal to the three times (for the CEO) or two and one-half times (for other NEOs) the sum of:
- the NEO's annual salary in effect on the termination date, or, if higher, the annual salary in effect immediately prior to the reduction of the NEO's annual salary after the change in control; and
- the NEO's target AIM award for the year of termination or, if higher, the average of the AIM award amounts beginning three years immediately preceding the change in control and ending on the termination date; and

- for Messrs. Lamach and Teirlinck, a lump sum payment equal to three times for Mr. Lamach and two and one-half times for Mr. Teirlinck of: (a) the cash value of the target amount of the most recent PSU award; or (b) if higher, the average amounts of the last three PSU awards granted and paid to the NEO immediately preceding termination. This payment is in lieu of any rights the individual might have with respect to unvested PSU awards.

In addition to the foregoing, the NEOs would also be eligible to participate in the Company's welfare employee benefit programs for the severance period (three years for the CEO and two and one-half years for the other NEOs). The Company would also provide each NEO up to $100,000 of outplacement services. For purposes of calculating the NEO's nonqualified pension benefits, three years would be added to both age and service with the Company under the EOSP or KMP. In addition, the "final average pay" under the EOSP or KMP would be calculated as 33.33% of his severance benefit under his change-in-control agreement in the case of Mr. Lamach and 40% of the severance benefit under the applicable change-in-control agreement in the case of the other NEOs. For purposes of determining eligibility for applicable post-retirement welfare benefits, the NEO would be credited with any combination of additional years of service and age, not exceeding 10 years, to the extent necessary to qualify for such benefits.

Under the Company's incentive plans, outstanding unvested stock options, SARs and RSUs immediately vest and become exercisable or payable, as applicable, following a change in control. PSUs will be deemed to have earned a pro-rata award based on the target award opportunity and total number of months worked in the applicable performance period.

A "change in control" is defined as the occurrence of any of the following events: (i) any person unrelated to the Company becomes the beneficial owner of 30% or more of the combined voting power of the Company's voting stock; (ii) the directors serving at the time the change-in-control agreements were executed (or the directors subsequently elected by the shareholders of the Company whose election or nomination was duly approved by at least two-thirds of the then serving directors) fail to constitute a majority of the Board of Directors; (iii) the consummation of a merger or consolidation of the Company with any other corporation in which the Company's voting securities outstanding immediately prior to such merger or consolidation represent 50% or less of the combined voting securities of the Company immediately after such merger or consolidation; (iv) any sale or transfer of all or substantially all of the Company's assets, other than a sale or transfer with a corporation where the Company owns at least 80% of the combined voting power of such corporation or its parent after such transfer; or (v) any other event that the continuing directors determine to be a change in control; provided however, with respect to (i), (iii) and (iv) above, there shall be no change in control if shareholders of the Company own more than 50% of the combined voting power of the voting securities of the Company or the surviving entity or any parent immediately following such transaction in substantially the same proportion to each other as prior to such transaction.

Enhanced Retirement Benefits. An officer is vested in the EOSP or KMP upon the earlier of: (i) the attainment of age 55 and the completion of 5 years of service; (ii) attainment of age 62 for the EOSP and age 65 for the KMP; (iii) death; or (iv) change in control. A termination within two years following a change in control also triggers the payment of an enhanced benefit (as described above). Benefits under the EOSP or KMP are forfeited in the event of termination for cause. In order to be eligible for an EOSP or KMP benefit in the event of disability, a participant must remain disabled until age 65. An officer becomes vested in both the Pension Plan and the Supplemental Pension Plans upon the completion of 5 years of service. As of December 31, 2013, Mr. Lamach was not vested in the EOSP and Mr. Michel and Ms. Carter were not vested in the KMP.

Health Benefits. In the event of a change in control, health benefits are provided, which include the Company cost of both active health and welfare benefits for the severance period (three years for Mr. Lamach and two and one-half years for the other NEOs), as well as retiree medical, if applicable. Mr. Michel is the only active NEO eligible for retiree medical benefits due to his age and service as of January 1, 2003, when eligibility for the retiree medical benefit was frozen. Mr. Michel has not reached the retirement threshold but would receive retiree medical health benefits in the event of a change in control.

Major Restructuring. The Company has adopted a Severance Plan that provides a cash severance payment in the event a participant's employment is terminated due to an involuntary loss of job without Cause (as defined in the Severance Plan) or a Good Reason (as defined in the Severance Plan) between December 10, 2012 and the first anniversary of the completion of a Major Restructuring (as defined below), unless the termination is substantially unrelated to or not a result of the Major Restructuring. The cash severance payment would be equal to two and one-half times (for the CEO) or two times (for other NEOs) (a) current base salary, and (b) current target AIM award. In addition, the participants would receive a pro-rated portion of their target AIM award, based on actual Company and individual performance during the fiscal year in which termination of employment occurred. Participants in the EOSP or KMP who are not vested in such plans would also receive a cash payment equal to the amount of the benefit to which they would have been entitled if they were vested. As of December 31, 2013, the value of cash severance for the active NEOs was: Mr. Lamach, $8,125,000; Ms. Carter, $2,540,000; Mr. Michel, $1,643,400; Mr. Teirlinck, $2,489,000; and Mr. Zafari, $2,035,000.

In addition the Company's equity awards provide that employees who terminate employment due to an involuntary loss of job without Cause (as defined in the applicable award agreement) or for Good Reason (as defined in the applicable award agreement) between December 10, 2012 and the first anniversary of the completion of a Major Restructuring will, unless the termination is substantially unrelated to the Major Restructuring, (i) immediately vest in all unvested stock options and may exercise all vested stock options at any time within the following three-year period (five years if retirement eligible) or the remaining term of the stock option, if shorter, (ii) immediately vest in all RSUs, except that retirement eligible participants with at least five years of service would continue their existing vesting schedule, (iii) receive a prorated payout of outstanding PSUs based on actual performance at the end of performance period , and (iv) have the right to exercise all vested SARs at any time within the following three-year period (five years if retirement eligible) or the remaining term of the SAR, if shorter. As of December 31, 2013, the value of unvested equity awards was: Mr. Lamach, $25,102,502; Ms. Carter, $1,794,550; Mr. Michel, $3,215,471; Mr. Teirlinck, $5,450,877; and Mr. Zafari, $4,174,649.

A “Major Restructuring” is defined as a reorganization, recapitalization, extraordinary stock dividend, merger, sale, spin-off or other similar transaction or series of transactions, which individually or in the aggregate, has the effect of resulting in the elimination of all, or the majority of, any one or more of the Company’s four business sectors (*i.e.* , Climate Solutions, Residential Solutions, Industrial Technologies and Security Technologies), so long as such transaction or transactions do not constitute a Change in Control (as defined in the applicable plan).

Post-Employment Benefits Table

The following table describes the compensation to which each of the active NEOs would be entitled in the event of termination of such executive's employment on December 31, 2013, including termination following a change in control. The potential payments were determined under the terms of our plans and arrangements in effect on December 31, 2013. The table does not include the pension benefits or nonqualified deferred compensation amounts that would be paid to an NEO, which are set forth in the Pension Benefits table and the Nonqualified Deferred Compensation table above, except to the extent that the NEO is entitled to an additional benefit as a result of the termination.

Name	Retirement ($)	Involuntary without Cause ($)	Involuntary with Cause ($)	Change in Control ($)	Disability ($)	Death ($)
M. W. Lamach						
Severance (a)	–	2,500,000	–	9,750,000	–	–
2013 Earned but Unpaid AIM Award(s) (b)	–	2,650,000	–	2,650,000	–	–
PSP Award Payout (c)	–	11,197,278	–	13,125,000	11,197,278	11,197,278
Value of Unvested Equity Awards (d)	–	–	–	14,847,356	13,905,223	13,905,223
Enhanced Retirement Benefits (e)	–	–	–	9,092,684	–	–
Outplacement (f)	–	13,400	–	100,000	–	–
Tax Assistance (g)	–	–	–	27,808,817	–	–
Health Benefits (h)	–	–	–	27,047	–	–
Total	–	16,360,678	–	77,400,904	25,102,501	25,102,501
S. K. Carter						
Severance (a)	–	635,000	–	3,175,000	–	–
2013 Earned but Unpaid AIM Award(s) (b)	–	175,000	–	218,050	–	–
PSP Award Payout (c)	–	–	–	611,195	611,318	611,318
Value of Unvested Equity Awards (d)	–	–	–	1,183,231	1,183,231	1,183,231
Enhanced Retirement Benefits (e)	–	–	–	1,098,641	–	–
Outplacement (f)	–	13,400	–	100,000	–	–
Tax Assistance (g)	–	–	–	–	–	–
Health Benefits (h)	–	–	–	22,560	–	–
Total	–	823,400	–	6,408,677	1,794,549	1,794,549
G. S. Michel						
Severance (a)	–	456,500	–	2,054,250	–	–
2013 Earned but Unpaid AIM Award(s) (b)	–	365,200	–	592,720	–	–
PSP Award Payout (c)	–	–	–	843,550	843,735	843,735
Value of Unvested Equity Awards (d)	–	–	–	2,371,736	2,371,736	2,371,736
Enhanced Retirement Benefits (e)	–	–	–	1,975,974	–	–
Outplacement (f)	–	13,400	–	100,000	–	–
Tax Assistance (g)	–	–	–	–	–	–
Health Benefits (h)	–	–	–	127,560	–	–
Total	–	835,100	–	8,065,790	3,215,471	3,215,471

Name	Retirement ($)	Involuntary without Cause ($)	Involuntary with Cause ($)	Change in Control ($)	Disability ($)	Death ($)
D. P. M. Teirlinck						
Severance (a)	–	655,000	–	3,111,250	–	–
2013 Earned but Unpaid AIM Award(s) (b)	–	589,500	–	855,547	–	–
PSP Award Payout (c)	2,190,742	2,190,742	–	2,761,569	2,190,742	2,190,742
Value of Unvested Equity Awards (d)	3,260,134	3,260,134	–	3,260,134	3,260,134	3,260,134
Enhanced Retirement Benefits (e)	–	–	–	2,250,749	–	–
Outplacement (f)	–	13,400	–	100,000	–	–
Tax Assistance (g)	–	–	–	5,019,526	–	–
Health Benefits (h)	–	–	–	22,560	–	–
	5,450,876	6,708,776	–	17,381,335	5,450,876	5,450,876
R. G. Zafari						
Severance (a)	–	550,000	–	2,745,000	–	–
2013 Earned but Unpaid AIM Award(s) (b)	–	397,354	–	397,354	–	–
PSP Award Payout (c)	1,556,694	1,556,694	–	1,556,386	1,556,694	1,556,694
Value of Unvested Equity Awards (d)	2,617,955	2,617,955	–	2,826,917	2,617,955	2,617,955
Enhanced Retirement Benefits (e)	–	–	–	2,076,786	–	–
Outplacement (f)	–	13,400	–	100,000	–	–
Tax Assistance (g)	–	–	–	–	–	–
Health Benefits (h)	–	–	–	22,560	–	–
Total	4,174,649	5,135,403	–	9,455,003	4,174,649	4,174,649

(a) For the “Involuntary without Cause” column, for those NEOs who do not have a formal separation agreement, the current severance guidelines permit payment of up to one year’s base salary. For the amounts shown under the “Change in Control” columns, refer to the description of how severance is calculated in the section above, entitled Post-Employment Benefits.

(b) For the “Involuntary without Cause” column, these amounts represent the (i) AIM award earned by Mr. Lamach in 2013 and paid pursuant to the terms of his employment agreement and (ii) prorated AIM award (up to target) earned by Ms. Carter in 2013 and (iii) prorated AIM awards (up to target) that may be paid to the other NEOs depending on the circumstances and timing of the termination. For the amounts under “Change in Control,” these amounts represent the actual award earned for the 2013 performance period, which may be more or less than the target award.

(c) For the “Involuntary without Cause” column, these amounts represent the cash value of the prorated PSU award payout to (i) Mr. Lamach pursuant to the terms of his employment agreement and (ii) Messrs. Teirlinck and Zafari because they were retirement eligible at December 31, 2013. For the “Change in Control” column for Messrs. Lamach and Teirlinck, these amounts represent the cash value of the PSU award payout, based on the appropriate multiple. For the “Change in Control” column for Messrs. Michel and Zafari and Ms. Carter, these values represent what would be provided under the terms of the 2007 Plan and 2013 Plan, which provide a pro-rated payment for all outstanding awards at target. For the “Retirement,” “Disability” and “Death” columns, amounts represent the cash value of the prorated portion of their PSUs that vest upon such events assuming performance at target. Amounts for each column are based on the closing stock price of the ordinary shares on December 31, 2013 ($61.60).

(d) The amounts shown for “Retirement,” “Involuntary without Cause,” “Change in Control,” “Death” and “Disability” represent (i) the value of the unvested RSUs, which is calculated based on the number of unvested RSUs multiplied by the closing stock price of the ordinary shares on December 31, 2013 ($61.60), and (ii) the intrinsic value of the unvested stock options and SARs, which is calculated based on the difference between the closing stock price of the ordinary shares on December 31, 2013 ($61.60) and the relevant exercise price. However, only in the event of termination following a “Change in Control” or, beginning with the 2013 awards, termination due to death or disability is there accelerated vesting of unvested awards. In addition, in the event of a “Change in Control,” holders of outstanding stock options and SARs under the Stock Incentive Plan of 1998 may elect to receive a cash payment based on the difference between the highest fair market value of the shares during the 60 days prior to the event ($71.335) and the exercise price. For “Retirement,” “Disability” (before 2013 grant) and “Death” (before 2013 grant), the awards do not accelerate but continue to vest on the same basis as active employees. Because Messrs. Teirlinck and Zafari were retirement eligible, they would continue to vest in stock options and RSUs after termination of employment for any reason other than cause.

(e) In the event of a change in control of the Company and a termination of the NEOs, the present value of the pension benefits under the EOSP, KMP and Supplemental Pension Plans would be paid out as lump sums. While there is no additional benefit to the NEOs as a result of either voluntary retirement/resignation and/or involuntary resignation without cause, there are differences (based on the methodology mandated by the SEC) between the numbers that are shown in the Pension Benefits Table and those that would actually be payable to the NEO under these termination scenarios.

(f) For the "Involuntary without Cause" column, each NEO is eligible for outplacement services for a twelve month period, not to exceed $13,400. For the "Change in Control" column, the amount represents the maximum expenses the Company would reimburse the NEO for professional outplacement services.

(g) Pursuant to the change-in-control agreements for Messrs. Lamach and Teirlinck, if any payment or distribution by the Company to these NEOs creates certain incremental taxes, they would be entitled to receive from the Company a payment in an amount sufficient to place them in the same after-tax financial position as if such taxes had not been imposed.

(h) Represents the Company cost of health and welfare coverage. The cost for "Change in Control" represents continued active coverage for the severance period. For Mr. Michel, the value shown includes the cost for retiree coverage.

No values are shown in the table above for Mr. Shawley who retired prior to December 31, 2013 and whose retirement did not trigger any benefits other than those described in earlier sections of the proxy. With respect to Mr. Conover, the benefits he actually received or accrued (other than those already disclosed in the Pension Benefits table and the Nonqualified Compensation Table) upon his departure from the Company on November 5, 2013 under the Major Restructuring Severance Plan are as follows:

- $2,186,578 representing the sum of two times his base salary plus his AIM target as well as the value of his prorated AIM award for the 2013 performance cycle;
- $1,374,775 representing the cash value of his prorated PSU award payout because he was retirement eligible at the time of his termination date of November 5, 2013;
- $691,742 representing the value of his unvested RSUs as of November 5, 2013 which continue to vest due to his retirement; and
- $739,479 representing the value of the acceleration of his unvested stock options which became fully vested and exercisable at his termination date.

INFORMATION CONCERNING VOTING AND SOLICITATION

Why Did I Receive This Proxy Statement?

We sent you this Proxy Statement or a Notice of Internet Availability of Proxy Materials (”Notice”) because our Board of Directors is soliciting your proxy to vote at the Annual General Meeting. This Proxy Statement summarizes the information you need to know to vote on an informed basis.

Why Are There Two Sets Of Financial Statements Covering The Same Fiscal Period?

U.S. securities laws require us to send you our 2013 Form 10-K, which includes our financial statements prepared in accordance with U.S. GAAP. These financial statements are included in the mailing of this Proxy Statement. Irish law also requires us to provide you with our Irish Statutory Accounts for our 2013 fiscal year, including the reports of our Directors and auditors thereon, which accounts have been prepared in accordance with Irish law. The Irish Statutory Accounts are available on the Company’s website at *www.ingersollrand.com/irishstatutoryaccounts* and will be laid before the Annual General Meeting.

How Do I Attend The Annual General Meeting?

All shareholders are invited to attend the Annual General Meeting. **In order to be admitted, you must present a form of personal identification and evidence of share ownership.**

If you are a shareholder of record, evidence of share ownership will be either (1) an admission ticket, which is attached to the proxy card and must be separated from the proxy card and kept for presentation at the meeting if you vote your proxy by mail, or (2) a Notice.

If you own your shares through a bank, broker or other holder of record (“street name holders”), evidence of share ownership will be either (1) your most recent bank or brokerage account statement, or (2) a Notice. If you would rather have an admission ticket, you can obtain one in advance by mailing a written request, **along with proof of your ownership of the Company’s ordinary shares,** to:

Secretary
Ingersoll-Rand plc
170/175 Lakeview Dr.
Airside Business Park
Swords, Co. Dublin
Ireland

No cameras, recording equipment, electronic devices, large bags, briefcases or packages will be permitted at the Annual General Meeting.

Who May Vote?

You are entitled to vote if you beneficially owned the Company’s ordinary shares at the close of business on April 8, 2014, the Record Date. At that time, there were 270,364,300 of the Company’s ordinary shares outstanding and entitled to vote. Each ordinary share that you own entitles you to one vote on all matters to be voted on a poll at the Annual General Meeting.

How Do I Vote?

Shareholders of record can cast their votes by proxy by:

- using the Internet and voting at www.proxyvote.com;
- calling 1-800-690-6903 and following the telephone prompts; or
- completing, signing and returning a proxy card by mail. If you received a Notice and did not receive a proxy card, you may request one at sendmaterial@proxyvote.com.

The Notice is not a proxy card and it cannot be used to vote your shares.

Shareholders of record may also vote their shares directly by attending the Annual General Meeting and casting their vote in person or appointing a proxy (who does not have to be a shareholder) to attend the Annual General Meeting and casting votes on their behalf in accordance with their instructions.

Street name holders must vote their shares in the manner prescribed by their bank, brokerage firm or nominee. Street name holders who wish to vote in person at the Annual General Meeting must obtain a legal proxy from their bank, brokerage firm or nominee. Street name holders will need to bring the legal proxy with them to the Annual General Meeting and hand it in with a signed ballot that is available upon request at the meeting. Street name holders will not be able to vote their shares at the Annual General Meeting without a legal proxy and a signed ballot.

Even if you plan to attend the Annual General Meeting, we recommend that you vote by proxy as described above so that your vote will be counted if you later decide not to attend the meeting.

In order to be timely processed, your vote must be received by 5:00 p.m. Eastern Time on June 4, 2014 (or, if you are a street name holder, such earlier time as your bank, brokerage firm or nominee may require).

How May Employees Vote Under Our Employee Plans?

If you participate in the ESP, the Ingersoll-Rand Company Employee Savings Plan for Bargained Employees, the Ingersoll-Rand Retirement Savings Plan for Participating Affiliates in Puerto Rico or the Trane 401(k) and Thrift Plan, then you may be receiving these materials because of shares held for you in those plans. In that case, you may use the enclosed proxy card to instruct the plan trustees of those plans how to vote your shares, or give those instructions by telephone or over the Internet. They will vote these shares in accordance with your instructions and the terms of the plan.

To allow plan administrators to properly process your vote, your voting instructions must be received by 11:59 p.m. on June 2, 2014. If you do not provide voting instructions for shares held for you in any of these plans, the plan trustees will vote these shares in the same ratio as the shares for which voting instructions are provided.

May I Revoke My Proxy?

You may revoke your proxy at any time ***before it is voted at the Annual General Meeting*** in any of the following ways:

- by notifying the Company's Secretary in writing: c/o Ingersoll-Rand plc, 170/175 Lakeview Dr., Airside Business Park, Swords, Co. Dublin, Ireland;
- by submitting another properly signed proxy card with a later date or another Internet or telephone proxy at a later date but prior to the close of voting described above; or
- by voting in person at the Annual General Meeting.

Merely attending the Annual General Meeting does not revoke your proxy. To revoke a proxy, you must take one of the actions described above.

How Will My Proxy Get Voted?

If your proxy is properly submitted, your proxy holder (one of the individuals named on the proxy card) will vote your shares as you have directed. If you are a street name holder, the rules of the NYSE permit your bank, brokerage firm or nominee to vote your shares on Items 3, 4 and 6 (routine matter) if it does not receive instructions from you. However, your bank, brokerage firm or nominee may not vote your shares on Items 1, 2 and 5 (non-routine matters) if it does not receive instructions from you ("broker non-votes"). Broker non-votes will not be counted as votes for or against the non-routine matters, but rather will be regarded as votes withheld and will not be counted in the calculation of votes for or against the resolution.

If you are a shareholder of record and you do not specify on the proxy card you send to the Company (or when giving your proxy over the Internet or telephone) how you want to vote your shares, then the Company-designated proxy holders will vote your shares in the manner recommended by our Board of Directors on all matters presented in this Proxy Statement and as the proxy holders may determine in their discretion regarding any other matters properly presented for a vote at the meeting.

What Constitutes A Quorum?

The presence (in person or by proxy) of shareholders entitled to exercise a majority of the voting power of the Company on the Record Date is necessary to constitute a quorum for the conduct of business. Abstentions and broker non-votes are treated as "shares present" for the purposes of determining whether a quorum exists.

What Vote Is Required To Approve Each Proposal?

A majority of the votes cast at the Annual General Meeting is required to approve each of Items 1, 2, 3 and 4. A majority of the votes cast means that the number of votes cast "for" an Item must exceed the number of votes cast "against" that Item. Items 5 and 6 are considered special resolutions under Irish law and require 75% of the votes cast for approval.

Although abstentions and broker non-votes are counted as "shares present" at the Annual General Meeting for the purpose of determining whether a quorum exists, they are not counted as votes cast either "for" or "against" the resolution and, accordingly, will not affect the outcome of the vote.

Who Pays The Expenses Of This Proxy Statement?

We have hired Georgeson Inc. to assist in the distribution of proxy materials and the solicitation of proxies for a fee estimated at $17,500 plus out-of-pocket expenses. Proxies will be solicited on behalf of our Board of Directors by mail, in person, by telephone and through the Internet. We will bear the cost of soliciting proxies. We will also reimburse brokers and other custodians, nominees and fiduciaries for their reasonable out-of-pocket expenses for forwarding proxy materials to the persons for whom they hold shares.

How Will Voting On Any Other Matter Be Conducted?

Although we do not know of any matters to be presented or acted upon at the Annual General Meeting other than the items described in this Proxy Statement, if any other matter is proposed and properly presented at the Annual General Meeting, the proxy holders will vote on such matters in accordance with their best judgment.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth as of the Record Date, the beneficial ownership of our ordinary shares by (i) each director and director nominee of the Company, (ii) each executive officer of the Company named in the Summary Compensation Table below, and (iii) all directors and executive officers of the Company as a group:

Name	Ordinary Shares(a)	Notional Shares(b)	Options Exercisable Within 60 Days (c)
A. C. Berzin	22,645	31,590	–
J. Bruton	6,014	–	–
J. L. Cohon	25,283	–	30,240
G. D. Forsee	24,686	–	–
E. E. Hagenlocker	12,563	–	–
C. J. Horner	4,245	42,593	–
T. E. Martin	29,577	75,662	–
N. Peltz (d)	11,980,058	–	5,244,765
J. P. Surma	5,482	–	–
R. J. Swift	13,992	58,884	–
T. L. White	24,142	44,610	–
M.W. Lamach	128,266	58,300	819,457
S.K. Carter	265	–	–
G. S. Michel	28,408	–	45,108
D. P. M. Teirlinck	–	83,585	27,731
R. G. Zafari	41,900	5,565	7,500
S. R. Shawley	78,073	236,410	320,264
J. Conover, IV	–	9,921	96,469
All directors and executive officers as a group (23 persons)(e)	12,485,452	792,908	6,838,502

(a) Represents (i) ordinary shares held directly; (ii) ordinary shares held indirectly through a trust; (iii) unvested shares, including any RSUs or PSUs, and ordinary shares and ordinary share equivalents notionally held under the Trane Deferred Compensation Plan (the "TDCP") that may vest or are distributable within 60 days of the Record Date; and (iv) ordinary shares held by the trustee under the ESP for the benefit of executive officers. Other than Mr. Peltz, no director or executive officer of the Company beneficially owns 1% or more of the Company's ordinary shares. Mr. Peltz beneficially owns 6.37% of the Company's ordinary shares.

(b) Represents ordinary shares and ordinary share equivalents notionally held under the Ingersoll Rand Directors Deferred Compensation Plan (the "DDCP I") and the Ingersoll Rand Directors Deferred Compensation and Stock Award Plan II (the "DDCP II" and, together with the DDCP I, referred to as the "DDCP Plans"), the EDCP Plans, the TDCP and the Company's stock grant plan that are not distributable within 60 days of the Record Date.

(c) Represents ordinary shares as to which directors and executive officers had stock options or SARs exercisable within 60 days of the Record Date, under the Company's Incentive Stock Plans. For Mr. Peltz, represents ordinary shares that may be acquired pursuant to put-call options.

(d) Includes a director's grant of 2,382 RSUs to Mr. Peltz under the 2013 Plan and 11,977,676 ordinary shares beneficially owned by both Trian, 280 Park Avenue, 41st Floor, New York, NY 10017, in its capacity as the management company for certain funds and investment vehicles managed by it and Nelson Peltz. Trian Fund Management GP, LLC ("Trian GP"), which is controlled by Nelson Peltz, Peter W. May and Edward P. Garden, is the general partner of Trian. All of the shares are held with shared dispositive power and voting power by Trian, Trian GP, Mr. Peltz, Mr. May and Mr. Garden.

(e) The Company's ordinary shares beneficially owned by all directors and executive officers as a group (including shares issuable under exercisable options) aggregated approximately 7.11% of the total outstanding ordinary shares. Ordinary shares and ordinary share equivalents notionally held under the DDCP Plans, the EDCP Plans and the TDCP and ordinary share equivalents resulting from dividends on deferred stock awards are not counted as outstanding shares in calculating these percentages because they are not beneficially owned; the directors and executive officers have no voting or investment power with respect to these shares or share equivalents.

The following table sets forth each shareholder which is known by us to be the beneficial owner of more than 5% of the outstanding ordinary shares of the Company based solely on the information filed by such shareholder on Schedule 13D or filed by such shareholder in 2014 for the year ended December 31, 2013 on Schedule 13G under the Securities Exchange Act of 1934:

Name and Address of Beneficial Owner	Amount and Nature of Beneficial Ownership	Percent of Class(a)
BlackRock, Inc.40 East 52nd Street New York, New York 10022	17,992,873	6.66%
Trian Fund Management, L.P. 280 Park Avenue, 41st Floor New York, New York 10017	17,224,823	6.37%

(a) The ownership percentages set forth in this column are based on the Company's outstanding ordinary shares on the Record Date and assumes that each of the beneficial owners continued to own the number of shares reflected in the table above on such date.

(b) Information regarding BlackRock, Inc. and its stockholdings was obtained from a Schedule 13G filed with the SEC on February 11, 2014. The filing indicated that, as of December 31, 2013, BlackRock, Inc. had sole voting power as to 13,535,853 of such shares and sole dispositive power as to 17,959,791 of such shares.

(c) Information regarding Trian and its stockholdings was obtained from the Schedule 13D (Amendment No. 4) filed with the SEC on November 18, 2013 and joint Form 4s filed by Nelson Peltz and Trian Fund Management, L.P. on November 20, 2013 and February 27, 2014. According to the Schedule 13D (Amendment No. 4), Trian Fund Management, L.P. shares voting and dispositive power over all or some of the shares with Trian Partners, L.P., Trian Partners Master Fund, L.P., Trian Partners Parallel Fund I, L.P., Trian Partners Strategic Investment Fund, L.P., Trian Partners Strategic Investment Fund-A, L.P., Trian Partners Strategic Co-Investment Fund-A, L.P., Trian Partners Master Fund (ERISA), L.P., Trian Fund Management GP, LLC, Trian SPV (SUB) VI, L.P., Trian SPV (SUB) VI-A, L.P., Trian IR Holdco Ltd., Nelson Peltz, Peter W. May and Edward P. Garden.

Equity Compensation Plan Information

The following table provides information as of December 31, 2013, with respect to the Company's ordinary shares that may be issued under equity compensation plans:

Plan Category	Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in First Column)
Equity compensation plans approved by security holders (1)	12,142,640	$31.85	19,532,4240
Equity compensation plans not approved by security holders (2)	1,462,171	0	0
Total	13,604,811	$31.85	19,532,424

(1) Consists of the Incentive Stock Plan of 1998, the 2007 Plan, the 2013 Plan and the Trane 2002 Omnibus Incentive Plan.

(2) Consists of EDCP Plans, DDCP Plans and the TDCP. Plan participants acquire Company shares under these plans as a result of the deferral of salary, AIM awards and PSUs.

CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS

The Company does not generally engage in transactions in which its executive officers, directors or nominees for directors, any of their immediate family members or any of its 5% shareholders have a material interest. Pursuant to the Company's written related person transaction policy, any such transaction must be reported to management, which will prepare a summary of the transaction and refer it to the Corporate Governance and Nominating Committee for consideration and approval by the disinterested directors. The Corporate Governance and Nominating Committee reviews the material terms of the related person transaction, including the dollar values involved, the relationships and interests of the parties to the transaction and the impact, if any, to a director's independence. The Corporate Governance and Nominating Committee only approves those transactions that are in the best interest of the Company. In addition, the Company's Code of Conduct, which sets forth standards applicable to all employees, officers and directors of the Company, generally proscribes transactions that could result in a conflict of interest for the Company. Any waiver of the Code of Conduct for any executive officer or director requires the approval of the Company's Board of Directors. Any such waiver will, to the extent required by law or the NYSE, be disclosed on the Company's website at *www.ingersollrand.com* or on a current report on Form 8-K. No such waivers were requested or granted in 2013.

We have not made payments to directors other than the fees to which they are entitled as directors (described under the heading "Compensation of Directors") and the reimbursement of expenses related to their services as directors. We have made no loans to any director or officer nor have we purchased any shares of the Company from any director or officer.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires our directors and officers, and persons who beneficially own more than ten percent of the Company's ordinary shares, to file reports of ownership and reports of changes in ownership with the SEC and the NYSE. To the Company's knowledge, based solely on its review of such forms received by the Company and written representations that no other reports were required, all Section 16(a) filing requirements were complied with for the year 2013 other than with respect to one Form 4 filing for Mr. Weller due to administrative error.

SHAREHOLDER PROPOSALS AND NOMINATIONS

Any proposal by a shareholder intended to be presented at the 2015 Annual General Meeting of shareholders of the Company must be received by the Company at its registered office at 170/175 Lakeview Drive, Airside Business Park, Swords, Co. Dublin, Ireland, Attn: Secretary, no later than December 26, 2014, for inclusion in the proxy materials relating to that meeting. Any such proposal must meet the requirements set forth in the rules and regulations of the SEC, including Rule 14a-8, in order for such proposals to be eligible for inclusion in our 2015 proxy statement.

The Company's Articles of Association set forth procedures to be followed by shareholders who wish to nominate candidates for election to the Board of Directors in connection with annual general meetings of shareholders or pursuant to written shareholder consents or who wish to bring other business before a shareholders' general meeting. All such nominations must be accompanied by certain background and other information specified in the Articles of Association. In connection with the 2015 annual general meeting, written notice of a shareholder's intention to make such nominations or bring business before the annual general meeting must be given to the Secretary of the Company not later than March 6, 2014. If the date of the 2015 annual general meeting occurs more than 30 days before, or 60 days after, the anniversary of the 2014 annual general meeting, then the written notice must be provided to the Secretary of the Company not later than the seventh day after the date on which notice of such annual general meeting is given.

The Corporate Governance and Nominating Committee will consider all shareholder recommendations for candidates for Board membership, which should be sent to the Committee, care of the Secretary of the Company, at the address set forth above. In addition to considering candidates recommended by shareholders, the Committee considers potential candidates recommended by current directors, Company officers, employees and others. As stated in the Company's Corporate Governance Guidelines, all candidates for Board membership are selected based upon their judgment, character, achievements and experience in matters affecting business and industry. Candidates recommended by shareholders are evaluated in the same manner as director candidates identified by any other means.

In order for you to bring other business before a shareholder general meeting, timely notice must be received by the Secretary of the Company within the time limits described above. The notice must include a description of the proposed item, the reasons you believe support your position concerning the item, and other specified matters. These requirements are separate from and in addition to the requirements you must meet to have a proposal included in our Proxy Statement. The foregoing time limits also apply in determining whether notice is timely for purposes of rules adopted by the SEC relating to the exercise of discretionary voting authority.

If a shareholder wishes to communicate with the Board of Directors for any other reason, all such communications should be sent in writing, care of the Secretary of the Company, or by email at *irboard@irco.com*.

HOUSEHOLDING

SEC rules permit a single set of annual reports and proxy statements to be sent to any household at which two or more shareholders reside if they appear to be members of the same family. Each shareholder continues to receive a separate proxy card. This procedure is referred to as householding. While the Company does not household in mailings to its shareholders of record, a number of brokerage firms with account holders who are Company shareholders have instituted householding. In these cases, a single proxy statement and annual report will be delivered to multiple shareholders sharing an address unless contrary instructions have been received from the affected shareholders. Once a shareholder has received notice from his or her broker that the broker will be householding communications to the shareholder's address, householding will continue until the shareholder is notified otherwise or until the shareholder revokes his or her consent. If at any time a shareholder no longer wishes to participate in householding and would prefer to receive a separate proxy statement and annual report, he or she should notify his or her broker. Any shareholder can receive a copy of the Company's proxy statement and annual report by contacting the Company at its registered office at 170/175 Lakeview Drive, Airside Business Park, Swords, Co. Dublin, Ireland, Attention: Secretary or by accessing it on the Company's website at *www.ingersollrand.com* .

Shareholders who hold their shares through a broker or other nominee who currently receive multiple copies of the proxy statement and annual report at their address and would like to request householding of their communications should contact their broker.

Dated: April 24, 2014

Directions to the Annual General Meeting

Directions from Dublin to Adare Manor Hotel & Golf Resort (3 Hours)

- Take the N7 from Dublin to Nenagh (in Co. Tipperary).
- From Nenagh, continue along the N7 until you reach Limerick City.
- Once you reach Limerick City, look for the signs for the N21 (South Side of Limerick City), follow this road which runs through the village of Adare.
- Adare Manor Hotel & Golf Resort is on the left-hand side as you approach the village.

Directions from Shannon Airport to Adare Manor Hotel & Golf Resort (25 mins)

- Follow the N18 from Shannon Airport to Limerick City.
- Continue through the Limerick Tunnel, this is a Toll road, there is a charge of €1.80 for all cars.
- Leave the N18 at Junction 1 (signposted Cork)
- Continue on the N21(signposted Tralee) to the Village of Adare.
- Adare Manor Hotel & Golf Resort is on the left-hand side as you approach the village.

2013 Financials

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K

(Mark One)

X ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2013
or

— TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from ____ to ____
Commission File No. 001-34400
INGERSOLL-RAND PUBLIC LIMITED COMPANY
(Exact name of registrant as specified in its charter)

Ireland	**98-0626632**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*

170/175 Lakeview Dr.
Airside Business Park
Swords, Co. Dublin
Ireland
(Address of principal executive offices)
Registrant's telephone number, including area code: +(353) (0) 18707400
Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Ordinary Shares, Par Value $1.00 per Share	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES_X_ NO____

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. YES____ NO_X_

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES_X_ NO____

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES_X_ NO____

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. [ ]

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.:

Large accelerated filer X	Accelerated filer ____
Non-accelerated filer ____ (Do not check if a smaller reporting company)	Smaller reporting company ______

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). YES____ NO_X_

The aggregate market value of ordinary shares held by nonaffiliates on June 28, 2013 was approximately $15.4 billion based on the closing price of such stock on the New York Stock Exchange.

The number of ordinary shares outstanding as of February 3, 2014 was 278,035,707.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's proxy statement to be filed within 120 days of the close of the registrant's fiscal year in connection with the registrant's Annual General Meeting of Shareholders to be held June 5, 2014 are incorporated by reference into Part II and Part III of this Form 10-K.

INGERSOLL-RAND PLC

Form 10-K
For the Fiscal Year Ended December 31, 2013

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CAUTIONARY STATEMENT FOR FORWARD LOOKING STATEMENTS

Certain statements in this report, other than purely historical information, are “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These forward-looking statements generally are identified by the words “believe,” “project,” “expect,” “anticipate,” “estimate,” “forecast,” “outlook,” “intend,” “strategy,” “plan,” “may,” “should,” “will,” “would,” “will be,” “will continue,” “will likely result,” or the negative thereof or variations thereon or similar terminology generally intended to identify forward-looking statements.

Forward-looking statements may relate to such matters as projections of revenue, margins, expenses, tax provisions, earnings, cash flows, benefit obligations, share or debt repurchases or other financial items; any statements of the plans, strategies and objectives of management for future operations, including those relating to any statements concerning expected development, performance or market share relating to our products and services; any statements regarding future economic conditions or our performance; any statements regarding pending investigations, claims or disputes, including those relating to the Internal Revenue Service audit of our consolidated subsidiaries' tax filings; any statements of expectation or belief; and any statements of assumptions underlying any of the foregoing. These statements are based on currently available information and our current assumptions, expectations and projections about future events. While we believe that our assumptions, expectations and projections are reasonable in view of the currently available information, you are cautioned not to place undue reliance on our forward-looking statements. You are advised to review any further disclosures we make on related subjects in materials we file with or furnish to the SEC. Forward-looking statements speak only as of the date they are made and are not guarantees of future performance. They are subject to future events, risks and uncertainties - many of which are beyond our control - as well as potentially inaccurate assumptions, that could cause actual results to differ materially from our expectations and projections. We do not undertake to update any forward-looking statements.

Factors that might affect our forward-looking statements include, among other things:

- overall economic, political and business conditions in the markets in which we operate;
- the demand for our products and services;
- competitive factors in the industries in which we compete;
- changes in tax requirements (including tax rate changes, new tax laws and revised tax law interpretations);
- the outcome of any litigation, governmental investigations or proceedings;
- the outcome of any income tax audits or settlements;
- interest rate fluctuations and other changes in borrowing costs;
- other capital market conditions, including availability of funding sources and currency exchange rate fluctuations;
- availability of and fluctuations in the prices of key commodities and the impact of higher energy prices;
- the ability to achieve cost savings in connection with our productivity programs;
- impairment of our goodwill, indefinite-lived intangible assets and/or our long-lived assets;
- the possible effects on us of future legislation in the U.S. that may limit or eliminate potential U.S. tax benefits resulting from our incorporation in a non-U.S. jurisdiction, such as Ireland, or deny U.S. government contracts to us based upon our incorporation in such non-U.S. jurisdiction; and
- our ability to fully realize the expected benefits of the spin-off of our commercial and residential security businesses.

Some of the significant risks and uncertainties that could cause actual results to differ materially from our expectations and projections are described more fully in Item 1A “Risk Factors.” You should read that information in conjunction with “Management's Discussion and Analysis of Financial Condition and Results of Operations” in Item 7 of this report and our Consolidated Financial Statements and related notes in Item 8 of this report. We note such information for investors as permitted by the Private Securities Litigation Reform Act of 1995.

PART I

Item 1. **BUSINESS**

Overview

Ingersoll-Rand plc (IR-Ireland), a public limited company incorporated in Ireland in 2009, and its consolidated subsidiaries (collectively, we, our, the Company) is a diversified, global company that provides products, services and solutions to enhance the quality and comfort of air in homes and buildings, transport and protect food and perishables, and increase industrial productivity and efficiency. Our business segments consist of Climate and Industrial, both with strong brands and leading positions within their respective markets. We generate revenue and cash primarily through the design, manufacture, sale and service of a diverse portfolio of industrial and commercial products that include well-recognized, premium brand names such as Trane®, Ingersoll-Rand®, Thermo King®, American Standard® and Club Car®.

To achieve our mission of being a world leader in creating comfortable and efficient environments, we continue to focus on increasing our recurring revenue stream from parts, service, used equipment and rentals; and to continuously improve the efficiencies and capabilities of the products and services of our businesses. We also continue to focus on operational excellence strategies as a central theme to improving our earnings and cash flows.

Recent Divestitures

Discontinued Operations

On December 1, 2013 (the Distribution Date), we completed the spin-off of our commercial and residential security businesses to our shareholders (the spin-off). On the Distribution Date, each of our shareholders of record as of the close of business on November 22, 2013 (the Record Date) received one ordinary share of Allegion, plc (Allegion) for every three Ingersoll-Rand plc ordinary shares held as of the Record Date. Allegion is now an independent public company trading under the symbol “ALLE” on the New York Stock Exchange.

After the Distribution Date, we do not beneficially own any Allegion ordinary shares (other than approximately 7,045 shares received in a deferred compensation trust upon the spin-off as a result of the trust holding ordinary shares of Ingersoll-Rand plc as of the Record Date) and will no longer consolidate Allegion into our financial results. Beginning in the fourth quarter of 2013, Allegion's historical financial results for periods prior to the Distribution Date are reflected in our Consolidated Financial Statements as a discontinued operation.

Divested Operations

On September 30, 2011 and November 30, 2011, we completed transactions to sell our Hussmann refrigerated display case business to a newly-formed affiliate (Hussmann Parent) of private equity firm Clayton Dubilier & Rice, LLC (CD&R). These transactions included the equipment business and certain of the service branches in the U.S. and Canada, and the equipment, service and installation businesses in Mexico, Chile, Australia, New Zealand, and Japan (Hussmann Business) and the remaining North American Hussmann service and installation branches (Hussmann Branches). We negotiated the final terms of the transaction to include our ownership of a portion of the common stock of Hussmann Parent, which represents significant continuing involvement. Therefore, the results of Hussmann are included in continuing operations for all periods presented, with our ownership interest reported using the equity method of accounting subsequent to September 30, 2011.

See “Discontinued Operations and Divestitures” within Management's Discussion and Analysis of Financial Condition and Results of Operations and also Note 16 to the Consolidated Financial Statements for a further discussion of our discontinued and divested operations.

Business Segments

Our business segments provide products, services and solutions used to increase the efficiency and productivity of both industrial and commercial operations and homes, as well as improve the health and comfort of people around the world.

In the fourth quarter of 2013, the Company realigned its organizational structure to provide a greater focus on growth, continue implementation of business operating systems, build on our successful operational excellence philosophy and reduce complexity and costs. The Company’s new reporting structure includes the Climate and Industrial segments.

Our business segments are as follows:

Climate

Our Climate segment delivers energy-efficient solutions globally and includes Trane® and American Standard® Heating & Air Conditioning which provide heating, ventilation and air conditioning (HVAC) systems, and commercial and residential building services, parts, support and controls; and Thermo King® transport temperature control solutions. This segment had 2013 net revenues of $9.4 billion.

Industrial

Our Industrial segment delivers products and services that enhance energy efficiency, productivity and operations. It includes Ingersoll Rand® compressed air systems and services, power tools, material handling systems, ARO® fluid management equipment, as well as Club Car® golf, utility and rough terrain vehicles. This segment had 2013 net revenues of $2.9 billion.

Segment Revenue and profit information and additional financial data and commentary on recent financial results for operating segments are provided in the Review of Business Segments section in Part II, Item7. “Management's Discussion and Analysis of Financial Condition and Results of Operations” and in Note 19 to the Consolidated Financial Statements in Part II, Item 8. “Financial Statements and Supplementary Data” of this Form 10-K Report.

Products and Services

Our principal products and services by business segment include the following:

Climate	
Aftermarket parts and service	Energy management services
Air cleaners	Facility management services
Air conditioners	Furnaces
Air exchangers	Heat pumps
Air handlers	Humidifiers
Airside and terminal devices	Installation contracting
Auxiliary idle reduction	Package heating and cooling systems
Auxiliary temperature management	Performance contracting
Building management systems	Repair and maintenance services
Bus and rail HVAC systems	Service agreements
Chillers	Temporary heating and cooling systems
Coils and condensers	Thermostats/controls
Container refrigeration systems and gensets	Trailer refrigeration systems
Control systems	Unitary systems
Cryogenic refrigeration systems	Vehicle-powered truck refrigeration systems
Diesel-powered refrigeration systems	

Industrial	
Air compressors (centrifugal, reciprocating, and rotary)	Hoists (air, electric, and manual)
Aftermarket parts and accessories	Motion control components
Airends	Power tools (air, cordless, and electric)
Blowers	Precision fastening systems
Dryers	Pumps (diaphragm and piston)
Engine starting systems	Rough terrain (AWD) vehicles
Ergonomic material handling systems	Service contracts and programs
Filters	Utility and low-speed vehicles
Fluid handling systems	Visage® mobile golf information systems
Golf vehicles	Winches (air, electric, and hydraulic)

These products are sold primarily under our name and under other names including American Standard, ARO, Club Car, Thermo King and Trane.

Competitive Conditions

Our products and services are sold in highly competitive markets throughout the world. Due to the diversity of these products and services and the variety of markets served, we encounter a wide variety of competitors that vary by product line and services. They include well-established regional or specialized competitors, as well as larger U.S. and non-U.S. corporations or divisions of larger companies.

The principal methods of competition in these markets relate to price, quality, delivery, service and support, technology and innovation. We believe that we are one of the leading manufacturers in the world of HVAC systems and services, air compression systems, transport temperature control products, air tools, and golf and utility vehicles.

Distribution

Our products are distributed by a number of methods, which we believe are appropriate to the type of product. U.S. sales are made through branch sales offices, distributors and dealers across the country. Non-U.S. sales are made through numerous subsidiary sales and service companies with a supporting chain of distributors throughout the world.

Customers

We have no customer that accounted for more than 10% of our consolidated net revenues in 2013, 2012 or 2011. No material part of our business is dependent upon a single customer or a small group of customers; therefore, the loss of any one customer would not have a material adverse effect on our results of operations or cash flows.

Raw Materials

We manufacture many of the components included in our products, which requires us to employ a wide variety of commodities. Principal commodities, such as steel, copper and aluminum, are purchased from a large number of independent sources around the world. In the past, higher prices for some commodities, particularly steel and non-ferrous metals, have caused pricing pressures in some of our businesses; we have historically been able to pass certain of these cost increases on to customers in the form of price increases; however, we may not always be able to offset these cost increases with price increases.

We believe that available sources of supply will generally be sufficient for the foreseeable future. There have been no commodity shortages which have had a material adverse effect on our businesses. However, significant changes in certain material costs may have an adverse impact on our costs and operating margins. To mitigate this potential impact, we enter into long-term supply contracts in order to manage our exposure to potential supply disruptions.

Working Capital

We manufacture products that usually must be readily available to meet our customers' rapid delivery requirements. Therefore, we maintain an adequate level of working capital to support our business needs and our customers' requirements. Such working capital requirements are not, however, in the opinion of management, materially different from those experienced by our major competitors. We believe our sales and payment terms are competitive in and appropriate for the markets in which we compete.

Seasonality

Demand for certain of our products and services is influenced by weather conditions. For instance, Trane's sales have historically tended to be seasonally higher in the second and third quarters of the year because this represents summer in the U.S. and other northern hemisphere markets, which is the peak season for sales of air conditioning systems and services. Therefore, results of any quarterly period may not be indicative of expected results for a full year and unexpected cool trends or unseasonably warm trends during the summer season could negatively or positively affect certain segments of our business and impact overall results of operations.

Research and Development

We engage in research and development activities in an effort to introduce new products, enhance existing product effectiveness, improve ease of use and reliability as well as expand the various applications for which our products may be appropriate. In addition, we continually evaluate developing technologies in areas that we believe will enhance our business for possible investment or acquisition. We anticipate that we will continue to make significant expenditures for research and development activities as we look to maintain and improve our competitive position. Research and development expenditures were approximately $218.2 million in 2013, $235.4 million in 2012 and $218.4 million in 2011.

Patents and Licenses

We own numerous patents and patent applications, and are licensed under others. Although in aggregate we consider our patents and licenses to be valuable to our operations, we do not believe that our business is materially dependent on a single patent or license or any group of them. In our opinion, engineering, production skills and experience are more responsible for our market position than our patents and/or licenses.

Operations by Geographic Area

More than 40% of our 2013 net revenues were derived outside the U.S. and we sold products in more than 100 countries. Therefore, the attendant risks of manufacturing or selling in a particular country, such as nationalization and establishment of common markets, may have an adverse impact on our non-U.S. operations. For a discussion of risks associated with our non-U.S. operations, see

"Risk Factors – Our global operations subject us to economic risks," and "Risk Factors – Currency exchange rate fluctuations may adversely affect our results," in Item 1A and "Quantitative and Qualitative Disclosure about Market Risk" in Item 7A.

Backlog

Our approximate backlog of orders, believed to be firm, at December 31, was as follows:

In millions	2013	2012
Climate	$ 1,342.7	$ 1,460.2
Industrial	517.4	481.1
Total	$ 1,860.1	$ 1,941.3

These backlog figures are based on orders received. While the major portion of our products are built in advance of order and either shipped or assembled from stock, orders for specialized machinery or specific customer application are submitted with extensive lead times and are often subject to revision, deferral, cancellation or termination. We expect to ship substantially all the December 31, 2013 backlog during 2014.

Environmental Matters

We continue to be dedicated to an environmental program to reduce the utilization and generation of hazardous materials during the manufacturing process and to remediate identified environmental concerns. As to the latter, we are currently engaged in site investigations and remediation activities to address environmental cleanup from past operations at current and former manufacturing facilities.

We are sometimes a party to environmental lawsuits and claims and have received notices of potential violations of environmental laws and regulations from the Environmental Protection Agency and similar state authorities. We have also been identified as a potentially responsible party (PRP) for cleanup costs associated with off-site waste disposal at federal Superfund and state remediation sites. For all such sites, there are other PRPs and, in most instances, our involvement is minimal.

In estimating our liability, we have assumed that we will not bear the entire cost of remediation of any site to the exclusion of other PRPs who may be jointly and severally liable. The ability of other PRPs to participate has been taken into account, based on our understanding of the parties' financial condition and probable contributions on a per site basis. Additional lawsuits and claims involving environmental matters are likely to arise from time to time in the future.

We incurred $(0.5) million, $3.1 million, and $1.2 million of expenses during the years ended December 31, 2013, 2012, and 2011, respectively, for environmental remediation at sites presently or formerly owned or leased by us. As of December 31, 2013 and 2012, we have recorded reserves for environmental matters of $47.9 million and $55.6 million, respectively. Of these amounts $42.1 million and $41.2 million, respectively, relate to remediation of sites previously disposed by us. Our total current environmental reserve at December 31, 2013 and 2012 was $13.5 million and $18.0 million, respectively. Given the evolving nature of environmental laws, regulations and technology, the ultimate cost of future compliance is uncertain.

For a further discussion of our potential environmental liabilities, see also Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, Environmental and Asbestos Matters as well as Note 18 to the Consolidated Financial Statements.

Asbestos Related Matters

Certain of our wholly-owned subsidiaries are named as defendants in asbestos-related lawsuits in state and federal courts. In virtually all of the suits, a large number of other companies have also been named as defendants. The vast majority of those claims have been filed against either Ingersoll-Rand Company (IR-New Jersey) or Trane U.S. Inc. (Trane) and generally allege injury caused by exposure to asbestos contained in certain historical products sold by IR-New Jersey or Trane, primarily pumps, boilers and railroad brake shoes. Neither IR-New Jersey nor Trane was a producer or manufacturer of asbestos, however, some formerly manufactured products utilized asbestos-containing components such as gaskets and packings purchased from third-party suppliers.

We incurred net costs after insurance recoveries of $56.2 million, $7.8 million, and $16.4 million during the years ended December 31, 2013, 2012, and 2011, respectively, related to the settlement and defense of asbestos-related claims. Of these amounts, $55.8 million, $17.9 million and $14.5 million for the years ended December 31, 2013, 2012, and 2011, respectively, relate to discontinued operations. Our total liability for asbestos-related matters and our total asset for probable asbestos-related insurance recoveries were $846.2 million and $321.8 million, respectively, as of December 31, 2013 and $879.5 million and $320.3 million, respectively, as of December 31, 2012. Our total current liability for asbestos-related matters and our total current asset for probable asbestos-related insurance recoveries was $69.1 million and $22.3 million, respectively, as of December 31, 2013 and $69.1 million and $22.5 million, respectively, as of December 31, 2012.

See also the discussion under Part I, Item 3, Legal Proceedings, and Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, Environmental and Asbestos Matters as well as further detail in Note 18 to the Consolidated Financial Statements.

Employees

As of December 31, 2013, we employed approximately 42,000 people throughout the world.

Available Information

We file annual, quarterly, and current reports, proxy statements, and other documents with the SEC under the Securities Exchange Act of 1934. The public may read and copy any materials filed with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Also, the SEC maintains an Internet website that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The public can obtain any documents that are filed by us at http://www.sec.gov.

In addition, this Annual Report on Form 10-K, as well as our quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to all of the foregoing reports, are made available free of charge on our Internet website (http://www.ingersollrand.com) as soon as reasonably practicable after such reports are electronically filed with or furnished to the SEC. The Board of Directors of the Company has also adopted and posted in the Investor Relations section of the Company's website our Corporate Governance Guidelines and charters for each of the Board's standing committees. The contents of the Company's website are not incorporated by reference in this report.

Certifications

New York Stock Exchange Annual Chief Executive Officer Certification

The Company's Chief Executive Officer submitted to the New York Stock Exchange the Annual CEO Certification as the Company's compliance with the New York Stock Exchange's corporate governance listing standards required by Section 303A.12 of the New York Stock Exchange's listing standards.

Sarbanes-Oxley Act Section 302 Certification

The certifications of the Chief Executive Officer and Chief Financial Officer of the Company pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 are filed as exhibits to this Annual Report on Form 10-K.

Item 1A. **RISK FACTORS**

Our business, financial condition, results of operations, and cash flows are subject to a number of risks that could cause the actual results and conditions to differ materially from those projected in forward-looking statements contained in this Annual Report on Form 10-K. The risks set forth below are those we consider most significant. We face other risks, however, that we do not currently perceive to be material but could cause actual results and conditions to differ materially from our expectations. You should evaluate all risks before you invest in our securities. If any of the risks actually occur, our business, financial condition, results of operations or cash flows could be adversely impacted. In that case, the trading price of our ordinary shares could decline, and you may lose all or part of your investment.

Our global operations subject us to economic risks.

Our global operations are dependent upon products manufactured, purchased and sold in the U.S. and internationally, including Europe, China, Brazil, Venezuela, Africa, India, Argentina and Mexico. These activities are subject to risks that are inherent in operating globally, including:

- changes in local laws and regulations or imposition of currency restrictions and other restraints;
- limitation of ownership rights, including expropriation of assets by a local government, and limitation on the ability to repatriate earnings;
- sovereign debt crises and currency instability in developed and developing countries;
- imposition of burdensome tariffs and quotas;
- difficulty in staffing and managing global operations;
- difficulty of enforcing agreements, collecting receivables and protecting assets through non-U.S. legal systems;

- national and international conflict, including war, civil disturbances and terrorist acts; and
- economic downturns, slowing economic growth and social and political instability.

These risks could increase our cost of doing business internationally, increase our counterparty risk, disrupt our operations, disrupt the ability of suppliers and customers to fulfill their obligations, limit our ability to sell products in certain markets and have a material adverse impact on our results of operations, financial condition, and cash flows.

Our growth is dependent, in part, on the development, commercialization and acceptance of new products and services.

We must develop and commercialize new products and services in order to remain competitive in our current and future markets and in order to continue to grow our business. The development and commercialization of new products and services require a significant investment of resources. We cannot provide any assurance that any new product or service will be successfully commercialized in a timely manner, if ever, or, if commercialized, will result in returns greater than our investment. Investment in a product or service could divert our attention and resources from other projects that become more commercially viable in the market. We also cannot provide any assurance that any new product or service will be accepted by the market. Failure to develop new products and services that are accepted by the market could have a material adverse impact on our competitive position, results of operations, financial condition, and cash flows.

The capital and credit markets are important to our business.

Instability in U.S. and global capital and credit markets, including market disruptions, limited liquidity and interest rate volatility, or reductions in the credit ratings assigned to us by independent rating agencies could reduce our access to capital markets or increase the cost of funding our short and long term credit requirements. In particular, if we are unable to access capital and credit markets on terms that are acceptable to us, we may not be able to make certain investments or fully execute our business plans and strategies.

Our suppliers and customers are also dependent upon the capital and credit markets. Limitations on the ability of customers, suppliers or financial counterparties to access credit could lead to insolvencies of key suppliers and customers, limit or prevent customers from obtaining credit to finance purchases of our products and services and cause delays in the delivery of key products from suppliers.

Currency exchange rate fluctuations and other related risks may adversely affect our results.

We are exposed to a variety of market risks, including the effects of changes in currency exchange rates. See Part II Item 7A, Quantitative and Qualitative Disclosure About Market Risk.

More than 40% of our 2013 net revenues were derived outside the U.S., and we expect sales to non-U.S. customers to continue to represent a significant portion of our consolidated net revenues. Although we enter into currency exchange contracts to reduce our risk related to currency exchange fluctuations, changes in the relative values of currencies occur from time to time may, in some instances, have a material impact on our results of operations. Because we do not hedge against all of our currency exposure, our business will continue to be susceptible to currency fluctuations.

We also translate assets, liabilities, revenues and expenses denominated in non-U.S. dollar currencies into U.S. dollars for our Consolidated Financial Statements based on the applicable exchange rates. Consequently, fluctuations in the value of the U.S. dollar versus other currencies could have a material impact on the value of these items in our Consolidated Financial Statements, even if their value has not changed in their original currency.

We also face risks arising from the imposition of exchange controls and currency devaluations. Exchange controls may limit our ability to convert foreign currencies into U.S. dollars or to remit dividends and other payments by our foreign subsidiaries or businesses located in or conducted within a country imposing controls. Currency devaluations result in a diminished value of funds denominated in the currency of the country instituting the devaluation.

Material adverse legal judgments, fines, penalties or settlements could adversely affect our results of operations or financial condition.

We are currently and may in the future become involved in legal proceedings and disputes incidental to the operation of our business or the business operations of previously-owned entities. Our business may be adversely affected by the outcome of these proceedings and other contingencies (including, without limitation, product liability and asbestos-related matters) that cannot be predicted with certainty. Moreover, any insurance or indemnification rights that we may have may be insufficient or unavailable to protect us against the total aggregate amount of losses sustained as a result of such proceedings and contingencies. As required by generally accepted accounting principles in the United States, we establish reserves based on our assessment of contingencies. Subsequent developments in legal proceedings and other events could affect our assessment and estimates of the loss contingency recorded as a reserve and we may be required to make additional material payments, which could have a material adverse impact on our liquidity, results of operations, financial condition, and cash flows.

Our reputation, ability to do business and results of operations could be impaired by improper conduct by any of our employees, agents or business partners.

We are subject to regulation under a wide variety of U.S. federal and state and non-U.S. laws, regulations and policies, including laws related to anti-corruption, export and import compliance, anti-trust and money laundering, due to our global operations. We cannot provide assurance our internal controls will always protect us from the improper conduct of our employees, agents and business partners. Any violations of law or improper conduct could damage our reputation and, depending on the circumstances, subject us to, among other things, civil and criminal penalties, material fines, equitable remedies (including profit disgorgement and injunctions on future conduct), securities litigation and a general loss of investor confidence, any one of which could have a material adverse impact on our business prospects, financial condition, results of operations, cash flows, and the market value of our stock.

We may be subject to risks relating to our information technology systems.

We rely extensively on information technology systems, some of which are supported by third party vendors, to manage and operate our business. We are also investing in new information technology systems that are designed to continue improving our operations. If these systems cease to function properly or if these systems do not provide the anticipated benefits, our ability to manage our operations could be impaired which could have a material adverse impact on our results of operations, financial condition, and cash flows.

Security breaches or disruptions of our technology infrastructure or products could negatively impact our business and financial results.

Our information technology infrastructure and technology embedded in certain of our control products may be subject to cyber attacks and unauthorized security intrusions. Despite instituting security policies and business continuity plans, our systems, networks and certain of our control products may be vulnerable to system damage, malicious attacks from hackers, employee errors or misconduct, viruses, power and utility outages, and other catastrophic events that could cause significant harm to our business by negatively impacting our business operations, compromising the security of our proprietary information and exposing us to litigation that could adversely affect our reputation. Such events could have a material adverse impact on our results of operations, financial condition and cash flows.

Commodity shortages and price increases and higher energy prices could adversely affect our financial results.

We rely on suppliers to secure commodities, particularly steel and non-ferrous metals, required for the manufacture of our products. A disruption in deliveries from our suppliers or decreased availability of commodities could have an adverse effect on our ability to meet our commitments to customers or increase our operating costs. We believe that available sources of supply will generally be sufficient for our needs for the foreseeable future. Nonetheless, the unavailability of some commodities could have a material adverse impact on our results of operations and cash flows.

Volatility in the prices of these commodities could increase the costs of our products and services. We may not be able to pass on these costs to our customers and this could have a material adverse impact on our results of operations and cash flows. We do not currently use financial derivatives to hedge against this volatility. While we use fixed price contracts to mitigate this exposure, we expect any future hedging activity to seek to minimize near-term volatility of the commodity prices which would not protect us from long-term commodity price increases.

Additionally, we are exposed to large fluctuations in the price of petroleum-based fuel due to the instability of current market prices. Higher energy costs increase our operating costs and the cost of shipping our products, and supplying services, to customers around the world. Consequently, sharp price increases, the imposition of taxes or an interruption of supply, could cause us to lose the ability to effectively manage the risk of rising fuel prices and may have a material adverse impact on our results of operations and cash flows.

Our operational excellence efforts may not achieve the improvements we expect.

We utilize a number of tools, such as Lean Six Sigma, to improve operational efficiency and productivity. Implementation of new processes to our operations could cause disruptions and there is no assurance that all of our planned operational excellence projects will be fully implemented or, if implemented, will realize the expected improvements.

We may be required to recognize impairment charges for our goodwill and other indefinite-lived intangible assets.

At December 31, 2013, the net carrying value of our goodwill and other indefinite-lived intangible assets totaled $5.5 billion and $2.6 billion, respectively. In accordance with generally accepted accounting principles, we periodically assess these assets to determine if they are impaired. Significant negative industry or economic trends, disruptions to our business, unexpected significant changes or planned changes in use of the assets, divestitures and market capitalization declines may result in recognition of impairments to goodwill or other indefinite-lived assets. Any charges relating to such impairments could have a material adverse impact on our results of operations in the periods recognized.

Changes in weather patterns and seasonal fluctuations may adversely affect certain segments of the Company's business and impact overall results of operations.

Demand for certain segments of the Company's products and services is influenced by weather conditions. For instance, Trane's sales have historically tended to be seasonally higher in the second and third quarters of the year because, in the U.S. and other northern hemisphere markets, summer is the peak season for sales of air conditioning systems and services. Therefore, results of any quarterly period may not be indicative of expected results for a full year and unexpected cool trends or unseasonably warm trends during the summer season could negatively or positively affect certain segments of the Company's business and impact overall results of operations.

Weakness in the commercial and residential construction markets may adversely impact our results of operations and cash flow.

Our commercial and residential HVAC businesses, which collectively represent 61% of our net revenues, provide products and services to a wide range of markets, including significant sales to the commercial and residential construction markets. Weakness in either or both of these construction markets may negatively impact the demand for our products and services. Decrease in the demand for our products and services could have a material adverse impact on our results of operations and cash flow.

Our operations are subject to regulatory risks.

Our U.S. and non-U.S. operations are subject to a number of laws and regulations, including among others, laws related to the environment and health and safety. We have made, and will be required to continue to make, significant expenditures to comply with these laws and regulations. Changes in current laws and regulations could require us to increase our compliance expenditures, cause us to significantly alter or discontinue offering existing products and services or cause us to develop new products and services. Altering current products and services or developing new products and services to comply with changes in the applicable laws and regulations could require significant research and development investments, increase the cost of providing the products and services and adversely affect the demand for our products and services. In addition, our failure to comply with applicable laws and regulations could lead to significant penalties, fines or other sanctions. If we are unable to effectively respond to changes to applicable laws and regulations or comply with existing and future laws and regulations, our competitive position, results of operations, financial condition and cash flows could be materially adversely impacted.

Risks Relating to our Spin-off of Allegion

We may be unable to achieve some or all of the benefits that we expect to achieve subsequent to the spin-off.

In connection with our spin-off in December 2013 of Allegion, which now owns our former commercial and residential security businesses, we anticipated certain financial, operational, managerial and other benefits to us and our shareholders. In particular, we commenced certain operational excellence and other productivity and strategic initiatives following the spin-off intended to provide a greater focus on growth, and to reduce complexity and overhead cost. We may not be able to achieve the anticipated results of these actions on the scale that we expected, and the anticipated benefits subsequent to the spin-off, and those operational excellence and other productivity and strategic initiatives, may not be fully realized.

If the distribution or certain internal transactions undertaken in anticipation of the spin-off are determined to be taxable for U.S. federal income tax purposes, we, our shareholders as of the time of the distribution that are subject to U.S. federal income tax and/or Allegion could incur significant U.S. federal income tax liabilities.

We have received a ruling from the U.S. Internal Revenue Service (the “IRS”) substantially to the effect that, among other things, the distribution of Allegion plc’s ordinary shares, together with certain related transactions, will qualify for tax-free treatment under Sections 355 and 368(a) of the U.S. Internal Revenue Code of 1986, as amended (the “Code”), with the result that we and our shareholders will not recognize any taxable income, gain or loss for U.S. federal income tax purposes as a result of the spin-off, except to the extent of cash received in lieu of fractional shares (the “IRS Ruling”). The IRS Ruling also provides that specified internal transactions undertaken in anticipation of the distribution will qualify for favorable treatment under the Code. In addition, we have received opinions from the law firm of Simpson Thacher & Bartlett LLP substantially to the effect that specified requirements, including certain requirements that the IRS will not rule on, necessary to obtain tax-free treatment have been satisfied, such that the distribution for U.S. federal income tax purposes and certain other matters relating to the distribution, including certain internal transactions undertaken in anticipation of the distribution, will receive tax-free treatment under Section 355 of the Code. The IRS Ruling and the opinions rely on certain facts and assumptions and certain representations and undertakings from us and Allegion regarding the past and future conduct of our respective businesses and other matters.

Notwithstanding the IRS Ruling and the opinions, the IRS could determine on audit that the distribution or the internal transactions should be treated as taxable transactions if it determines that any of these facts, assumptions, representations or undertakings is not correct or has been violated, or that the distribution or the internal transactions should be taxable for other reasons, including as a result of significant changes in shares or asset ownership after the distribution. A legal opinion represents the tax adviser’s best legal judgment and is not binding on the IRS or the courts, and the IRS or the courts may not agree with the opinion. In addition, the opinion is based on current law and cannot be relied upon if current law changes with retroactive effect. If the distribution, and/or internal transactions, ultimately is determined to be taxable, we or Allegion could incur significant U.S. federal income tax liabilities, which could cause a material adverse impact on our business, financial condition, results of operations and cash flows in future reporting periods.

Furthermore, if, notwithstanding receipt of the IRS Ruling and opinions, the spin-off were determined to be a taxable transaction, each shareholder subject to U.S. federal income tax who received shares of Allegion in the spin-off would generally be treated as receiving a taxable distribution of property in an amount equal to the fair market value of the Allegion shares received. That distribution would be taxable as a dividend to the extent of our then-current and accumulated earnings and profits. Any amount that exceeded our earnings and profits would be treated first as a non-taxable return of capital to the extent of the applicable shareholder's tax basis in our ordinary shares with any remaining amount being taxed as a capital gain.

Under the terms of the Tax Matters Agreement between us and Allegion executed in connection with the spin-off, in the event the distribution or the internal transactions were determined to be taxable as a result of actions taken after the distribution by us or Allegion, the party responsible for such failure would be responsible for all taxes imposed on us or Allegion as a result thereof. If such failure is not the result of actions taken after the distribution by us or Allegion, then Allegion would be responsible for any taxes imposed on us or Allegion as a result of such determination. Such tax amounts could be significant. If Allegion were to default in its obligation to us to pay such taxes, we could be legally liable under applicable tax law for such liabilities and required to make additional tax payments. Accordingly, under certain circumstances, we may be obligated to pay amounts in excess of our agreed-upon share of tax liabilities. To the extent we are responsible for any liability under the Tax Matters Agreement, there could be a material adverse impact on our business, financial condition, results of operations and cash flows in future reporting periods.

We might not be able to engage in desirable strategic transactions and equity issuances as a result of the distribution because of restrictions relating to U.S. federal income tax requirements for tax-free distributions.

We may be deterred from engaging in significant equity transactions in order to preserve, for U.S. federal income tax purposes, the tax-free nature of the distribution. Even if the distribution otherwise qualifies for tax-free treatment under Section 355 of the Code, it may result in corporate-level taxable gain to us and certain of our affiliates under Section 355(e) of the Code if 50% or more, by vote or value, of our shares or Allegion’s shares are acquired or issued as part of a plan or series of related transactions that includes the distribution. Any acquisitions or issuances of our shares or Allegion’s shares within two years after the distribution will generally be presumed to be part of such a plan, although we or Allegion may be able to rebut that presumption. As a result, we may not pursue strategic transactions or engage in new business or other transactions that would otherwise maximize the value of our business.

If the distribution is determined to be taxable for Irish tax purposes, significant Irish tax liabilities may arise.

We have received an opinion of the Irish Revenue regarding the Irish tax consequences of the distribution to the effect that certain reliefs and exemptions for corporate reorganizations apply. In addition to obtaining the opinion from Irish Revenue, we have also received opinions from the law firm of Arthur Cox confirming the applicability of the relevant exemptions and reliefs to the distribution as well as received opinions from other external advisers that certain internal transactions will not trigger Irish tax costs as well. These opinions rely on certain facts and assumptions and certain representations and undertakings from us and Allegion regarding the past and future conduct of our respective businesses and other matters. Notwithstanding the opinions, Irish Revenue could determine on audit that the distribution or the internal transactions do not qualify for the relevant exemptions or reliefs if it determines that any of these facts, assumptions, representations or undertakings is not correct or has been violated. A legal opinion represents the tax adviser’s best legal judgment and is not binding on Irish Revenue or the courts and Irish Revenue or the courts may not agree with the legal opinion. In addition, the legal opinion is based on current law and cannot be relied upon if current law changes with retroactive effect. If the distribution ultimately is determined not to fall within certain exemptions or reliefs, the distribution could result in certain of our shareholders having an Irish tax liability as a result of the distribution, or we or Allegion could incur Irish tax liabilities. To the extent we are responsible for any such liability under the Tax Matters Agreement, there could be a material adverse impact on our business, financial condition, results of operations and cash flows in future reporting periods.

Risks Relating to Our Past Reorganizations

We effected a corporate reorganization in December 2001 to become a Bermuda company (the Bermuda Reorganization) and a subsequent corporate reorganization in July 2009 to become an Irish public limited company. These reorganizations exposed us and our shareholders to the risks described below. In addition, we cannot be assured that all of the anticipated benefits of the reorganizations will be realized.

Changes in tax laws, regulations or treaties, changes in our status under U.S. or non-U.S. tax laws or adverse determinations by taxing authorities could increase our tax burden or otherwise affect our financial condition or operating results, as well as subject our shareholders to additional taxes.

The realization of any tax benefit related to our reorganizations could be impacted by changes in tax laws, tax treaties or tax regulations or the interpretation or enforcement thereof by the U.S. tax authorities or non-U.S. tax authorities. From time to time, proposals have been made and/or legislation has been introduced to change the tax laws of various jurisdictions or limit tax treaty benefits that if enacted could materially increase our tax burden and/or effective tax rate and could have a material adverse impact on our financial condition and results of operations. For instance, recent U.S. legislative proposals would broaden the circumstances under which we would be considered a U.S. resident for U.S. tax purposes, which would significantly diminish the realization of any tax benefit related to our reorganizations. There are other recent U.S. legislative proposals that could modify or eliminate the tax deductibility of various currently deductible payments, which could materially and adversely affect our effective tax rate and cash tax position. Moreover, other U.S. legislative proposals could have a material adverse impact on us by overriding certain tax treaties and limiting the treaty benefits on certain payments by our U.S. subsidiaries to our non-U.S. affiliates, which could increase our tax liability. We cannot predict the outcome of any specific legislation in any jurisdiction.

While we monitor proposals that would materially impact our tax burden and/or effective tax rate and investigate our options, we could still be subject to increased taxation on a going forward basis no matter what action we undertake if certain legislative proposals are enacted, certain tax treaties are amended and/or our interpretation of applicable tax law is challenged and determined to be incorrect. In particular, any changes and/or differing interpretations of applicable tax law that have the effect of disregarding the Ireland Reorganization, limiting our ability to take advantage of tax treaties between jurisdictions, modifying or eliminating the deductibility of various currently deductible payments, or increasing the tax burden of operating or being resident in a particular country, could subject us to increased taxation.

While our U.S. operations are subject to U.S. tax, we believe that a significant portion of our non-U.S. operations are generally not subject to U.S. tax other than withholding taxes. The IRS or a court, however, may not concur with our conclusions including our determination that we, and a significant number of our foreign subsidiaries, are not controlled foreign corporations (CFC) within the meaning of the U.S. tax laws. A contrary determination, which could also arise through significant future acquisitions of our stock by U.S. persons, could also potentially cause U.S. holders (direct, indirect or constructive owners) of 10% or more of our stock (or the voting stock of our non-U.S. subsidiaries) to include in their gross income their pro rata share of certain of our and our non-U.S. subsidiary income for the period during which we (and our non-U.S. subsidiaries) were a CFC. In addition, gain (or a portion of such gain) realized on CFC shares sold by such shareholders may be treated as ordinary income depending on certain facts. Treatment of us or any of our non-U.S. subsidiaries as a CFC could have a material adverse impact on our results of operations, financial condition, and cash flows.

As described further in "Legal Proceedings," we have received several notices from the IRS containing proposed adjustments to our tax filings in connection with audits of the 2001-2006 tax years. The IRS has not contested the validity of our reincorporation in Bermuda in any of these notices. We have and intend to continue to vigorously contest all of these proposed adjustments.

Although the outcome of these matters cannot be predicted with certainty, based upon an analysis of the merits of our position, we believe that we are adequately reserved for these matters and do not expect that the ultimate resolution will have a material adverse impact on our future results of operations, financial condition, or cash flows. As we move forward to resolve these matters with the IRS, the reserves established may be adjusted. Although we continue to contest the IRS's position, there can be no assurance that we will be successful. If the IRS's position with respect to 2002-2006 is ultimately sustained, we would be required to record additional charges and the resulting liability will have a material adverse impact on our future results of operations, financial condition and cash flows.

Although we expect them to do so, at this time the IRS has not yet proposed any similar adjustments for years subsequent to 2006 as the federal income tax audits for those years are still in process or have not yet begun. It is unclear how the IRS will apply its position to subsequent years or whether the IRS will take a similar position in future audits with respect to intercompany debt instruments not outstanding in prior years.

The inability to realize any anticipated tax benefits related to our reorganizations could have a material adverse impact on our results of operations, financial condition, and cash flows.

Legislative and regulatory action could materially and adversely affect us.

The U.S. federal government and various states and municipalities have enacted or may enact legislation intended to deny government contracts to U.S. companies that reincorporate outside of the U.S. or have reincorporated outside of the U.S.

For instance, the Homeland Security Act of 2002, as amended, includes a provision that prohibits "inverted domestic corporations" and their subsidiaries from entering into contracts with the Department of Homeland Security. In addition, the State of California adopted legislation intended to limit the eligibility of certain non-U.S. chartered companies to participate in certain state contracts. More recently, the 2008-2014 Consolidated Appropriations Acts prohibit any federal government agency from using funds appropriated by Congress for fiscal years 2008-2014 to pay an inverted domestic corporation or any of its subsidiaries for work performed or products provided under certain federal contracts ("Affected Contracts"). Although the amount of monies already paid to us or to be paid to us under the Affected Contracts is not material to the Company, we cannot provide any assurance that the impact of future actions taken by the government in this area will not be materially adverse to our operations.

In addition, there continues to be negative publicity regarding, and criticism of, companies that conduct business in the United States and in other countries but have changed their place of incorporation to another country.

Irish law differs from the laws in effect in the United States and may afford less protection to holders of our securities.

The United States currently does not have a treaty with Ireland providing for the reciprocal recognition and enforcement of judgments in civil and commercial matters. As such, there is some uncertainty as to whether the courts of Ireland would recognize or enforce judgments of U.S. courts obtained against us or our directors or officers based on U.S. federal or state civil liability laws, including the civil liability provisions of the U.S. federal or state securities laws, or hear actions against us or those persons based on those laws.

As an Irish company, we are governed by the Irish Companies Act, which differs in some material respects from laws generally applicable to U.S. corporations and shareholders, including, among others, differences relating to interested director and officer transactions and shareholder lawsuits. Likewise, the duties of directors and officers of an Irish company generally are owed to the company only. Shareholders of Irish companies generally do not have a personal right of action against directors or officers of the company and may exercise such rights of action on behalf of the company only in limited circumstances. Accordingly, holders of our securities may have more difficulty protecting their interests than would holders of securities of a corporation incorporated in a jurisdiction of the United States.

In addition, Irish law allows shareholders to authorize share capital which then can be issued by a board of directors without shareholder approval. Also, subject to specified exceptions, Irish law grants statutory pre-emptive rights to existing shareholders to subscribe for new issuances of shares for cash, but allows shareholders to authorize the waiver of the statutory pre-emptive rights with respect to any particular allotment of shares. Under Irish law, these authorizations must be renewed by the shareholders every five years and we cannot guarantee that these authorizations will always be approved. Recently, certain proxy advisory firms are taking the position that Irish companies should limit these authorizations in terms of the number of authorized but unissued shares that can be issued without shareholder approval, the number of shares that can be issued without pre-emptive rights and the duration of the authorizations. If we are required to limit these authorizations in order to obtain shareholder approval, we will be limited in our ability to issue shares in ways that U.S. companies are not limited and will need to renew the authorizations even more frequently than the five-year period provided under Irish law.

Dividends received by our shareholders may be subject to Irish dividend withholding tax.

In certain circumstances, we are required to deduct Irish dividend withholding tax (currently at the rate of 20%) from dividends paid to our shareholders. In the majority of cases, shareholders resident in the United States will not be subject to Irish withholding tax, and shareholders resident in a number of other countries will not be subject to Irish withholding tax provided that they complete certain Irish dividend withholding tax forms. However, some shareholders may be subject to withholding tax, which could have an adverse impact on the price of our shares.

Dividends received by our shareholders could be subject to Irish income tax.

Dividends paid in respect of our shares will generally not be subject to Irish income tax where the beneficial owner of these dividends is exempt from dividend withholding tax, unless the beneficial owner of the dividend has some connection with Ireland other than his or her shareholding in IR-Ireland.

Our shareholders who receive their dividends subject to Irish dividend withholding tax will generally have no further liability to Irish income tax on the dividends unless the beneficial owner of the dividend has some connection with Ireland other than his or her shareholding in IR-Ireland.

Item 1B. **UNRESOLVED STAFF COMMENTS**

None.

Item 2. **PROPERTIES**

As of December 31, 2013, we owned or leased a total of approximately 13 million square feet of space worldwide. Manufacturing and assembly operations are conducted in 50 plants across the world. We also maintain various warehouses, offices and repair centers throughout the world.

The majority of our plant facilities are owned by us with the remainder under long-term lease arrangements. We believe that our plants have been well maintained, are generally in good condition and are suitable for the conduct of our business.

The locations by segment of our principal plant facilities at December 31, 2013 were as follows:

Climate		
Americas	**Europe**	**Asia Pacific and India**
Curitiba, Brazil	Kolin, Czech Republic	Zhong Shan, China
Monterrey, Mexico	Charmes, France	Taicang, China
Arecibo, Puerto Rico	Golbey, France	Chennai, India
Fort Smith, Arkansas	Galway, Ireland	Penang, Malaysia
Pueblo, Colorado	Barcelona, Spain	Samut Prakan, Thailand
Lynn Haven, Florida		
Macon, Georgia		
Vidalia, Georgia		
Rushville, Indiana		
Lexington, Kentucky		
St. Paul, Minnesota		
Hastings, Nebraska		
Trenton, New Jersey		
Columbia, South Carolina		
Clarksville, Tennessee		
Tyler, Texas		
Waco, Texas		
La Crosse, Wisconsin		

Industrial		
Americas	**Europe**	**Asia Pacific and India**
Dorval, Canada	Unicov, Czech Republic	Changzhou, China
Augusta, Georgia	Sin le Noble, France	Guilin, China
Campbellsville, Kentucky	Wasquehal, France	Nanjing, China
Madison Heights, Michigan	Oberhausen, Germany	Wujiang, China
Mocksville, North Carolina	Fogliano Redipuglia, Italy	Naroda, India
Southern Pines, North Carolina	Vignate, Italy	Sahibabad, India
West Chester, Pennsylvania	Logatec, Slovenia	
Kent, Washington		

Item 3. LEGAL PROCEEDINGS

In the normal course of business, we are involved in a variety of lawsuits, claims and legal proceedings, including commercial and contract disputes, employment matters, product liability claims, asbestos-related claims, environmental liabilities, intellectual property disputes, and tax-related matters. In our opinion, pending legal matters are not expected to have a material adverse impact on our results of operations, financial condition, liquidity or cash flows.

Tax Related Matters

In 2007, we received a notice from the IRS containing proposed adjustments to our tax filings in connection with an audit of the 2001 and 2002 tax years. The IRS did not contest the validity of our reincorporation in Bermuda. The IRS proposed to ignore the entities that hold the intercompany debt incurred in connection with our reincorporation in Bermuda (the "2001 Debt") and to which the interest was paid and impose 30% withholding tax on a portion of the interest payments as if they were made directly to a company that was not eligible for reduced U.S. withholding tax under a U.S. income tax treaty. The IRS asserted that we owe additional taxes with respect to 2002 of approximately $84.0 million plus interest. We strongly disagreed with the view of the IRS and filed a protest. In 2010, we received an amended notice from the IRS assessing penalties of 30% on the asserted underpayment of tax described above.

We have so far been unsuccessful in resolving this dispute and recently received a Notice of Deficiency from the IRS for 2002. The Company filed a petition in the United States Tax Court in November 2013 contesting this deficiency. In its January 2014 answer to our petition, the IRS asserted that we also owe 30% withholding tax on the portion of 2002 interest payments made on the 2001 Debt upon which it did not previously assert withholding tax. A 30% withholding tax on this $85.0 million interest payment would increase the total tax liability proposed for 2002 to $109.0 million ($84.0 million referred to in the paragraph above plus this additional $25.0 million) plus 30% penalties and interest.

Recently we received notices from the IRS containing proposed adjustments to the Company's tax filings in connection with an audit of the 2003-2006 tax years. In these notices, the IRS asserts that we owe a total of approximately $665.0 million of additional taxes, as described more fully below, in connection with our interest payments on the 2001 Debt for the 2003-2006 period, plus penalties and interest on these unpaid taxes.

The IRS continues to take the position on the 2001 Debt, which was retired at the end of 2011, that it previously took for our 2002 tax year and which is described above. As a result of this recharacterization, the IRS asserts that we owe approximately $455.0 million of withholding tax for 2003-2006 plus 30% penalties.

The IRS also proposes to extend its position further and to treat all of the interest income from the 2001 Debt as creating earnings and profits at IR-Limited and, as a result, recharacterize the distributions made by IR-Limited during the 2002-2006 tax years as taxable dividends instead of as a return of capital. Consequently the IRS asserts that we owe approximately $210.0 million of income tax on these dividends plus penalties of 20%.

Although we expect it to do so, the IRS has not yet proposed any similar adjustments for years subsequent to 2006, as the federal income tax audits for those years are still in process or have not yet begun. In addition, we do not know how the IRS will apply its position to the different facts presented in those years or whether the IRS will take a similar position in future audits with respect to intercompany debt instruments not outstanding in prior years.

We have vigorously contested all of these proposed adjustments and intend to continue to do so. Although the outcome of these matters cannot be predicted with certainty, based upon an analysis of the merits of our position we believe that we are adequately reserved under the applicable accounting standards for these matters and do not expect that the ultimate resolution will have a material adverse impact on our future results of operations, financial condition, or cash flows. As we move forward to resolve these matters with the IRS, the reserves established may be adjusted. Although we continue to contest the IRS's position, there can be no assurance that we will be successful. If the IRS's position with respect to the 2002-2006 tax years is ultimately sustained we would be required to record additional charges and the resulting liability will have a material adverse impact on our future results of operations, financial condition and cash flows.

For a further discussion of tax matters, see Note 15 to the Consolidated Financial Statements.

Asbestos-Related Matters

Certain wholly-owned subsidiaries of the Company are named as defendants in asbestos-related lawsuits in state and federal courts. In virtually all of the suits, a large number of other companies have also been named as defendants. The vast majority of those claims have been filed against either IR-New Jersey or Trane and generally allege injury caused by exposure to asbestos contained in certain historical products sold by IR-New Jersey or Trane, primarily pumps, boilers and railroad brake shoes. Neither IR-New Jersey nor Trane was a producer or manufacturer of asbestos, however, some formerly manufactured products utilized asbestos-containing components such as gaskets and packings purchased from third-party suppliers.

See also the discussion under Part II, Item 7, Management’s Discussion and Analysis of Financial Condition and Results of Operations, Environmental and Asbestos Matters and also Note 18 to the Consolidated Financial Statements.

Executive Officers of the Registrant

The following is a list of executive officers of the Company as of February 14, 2014.

Name and Age	Date of Service as an Executive Officer	Principal Occupation and Other Information for Past Five Years
Michael W. Lamach (50)	2/16/2004	Chairman of the Board (since June 2010) and Chief Executive Officer and President (since February 2010); President and Chief Operating Officer (2009-2010); Senior Vice President and President, Trane Commercial Systems (2008-2009); Senior Vice President and President, Security Technologies (2004-2008)
Susan K. Carter (55)	10/2/2013	Senior Vice President and Chief Financial Officer (since October 2013); KBR Inc. (a global engineering, construction and services business), Executive Vice President and Chief Financial Officer (2009-2013); Lennox International Inc. (a heating, air conditioning and refirgeration company), Executive Vice President and Chief Financial Officer (2004 to 2009).
Marcia J. Avedon (52)	2/7/2007	Senior Vice President, Human Resources, Communications and Corporate Affairs (since February 2007)
Paul A. Camuti (52)	8/1/2011	Senior Vice President, Innovation and Chief Technology Officer (since August 2011); President, Smart Grid Applications, Siemens Energy, Inc. (an energy technology subsidiary of Siemens Corporation) (2010 -2011); President, Research Division, Siemens Corporation (a diversified global technology company) (2009 - 2010); President and Chief Executive Officer, Siemens Corporate Research, Inc. (the research subsidiary of Siemens Corporation) (2005 - 2009)
Robert L. Katz (51)	11/1/2010	Senior Vice President and General Counsel (since November 2010); Federal- Mogul Corporation (a global automotive supplier), Senior Vice President, General Counsel and Corporate Secretary (2007-2010)
Gary S. Michel (51)	8/1/2011	Senior Vice President and President, Residential HVAC (since December 2013); Senior Vice President and President, Residential Solutions (2011-2013); President and Chief Executive Officer, Club Car (2007 - 2011)
Didier Teirlinck (57)	6/4/2008	Executive Vice President Ingersoll Rand, Climate Segment (since December 2013); Senior Vice President and President, Climate Solutions (2009-2013); President, Climate Control Technologies (2008-2009); President, Climate Control Europe (2005-2008)
Todd D. Wyman (46)	11/16/2009	Senior Vice President, Global Operations and Integrated Supply Chain: (since November 2009); GE Transportation (a unit of General Electric Company), Vice President, Global Supply Chain (2007-2009)
Robert G. Zafari (55)	7/1/2010	Executive Vice President Ingersoll Rand, Industrial Segment (since December 2013); Senior Vice President and President, Industrial Technologies (2010-2013); President, TCS and Climate Solutions EMEIA (2009-2010); President, Security Technologies ESA (2007-2008)
Richard J. Weller (57)	9/8/2008	Vice President and Controller (since September 2008); Vice President, Finance (2008); Vice President, Finance, Security Technologies Sector (2005-2008)

No family relationship exists between any of the above-listed executive officers of the Company. All officers are elected to hold office for one year or until their successors are elected and qualified.

Item 4. **MINE SAFETY DISCLOSURES**

Not applicable.

PART II

Item 5. **MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES**

Information regarding the principal market for our ordinary shares and related shareholder matters is as follows:

Our ordinary shares are traded on the New York Stock Exchange under the symbol IR. As of February 3, 2014, the approximate number of record holders of ordinary shares was 4,156.

The high and low sales price per share and the dividend declared per share for the following periods were as follows:

	Ordinary shares		
2013	High	Low	Dividend
First quarter	$ 56.77	$ 48.06	$ —
Second quarter	58.92	52.03	0.21
Third quarter	66.62	55.32	0.21
Fourth quarter *	71.75	54.83	0.21
2012	High	Low	Dividend
First quarter	$ 41.98	$ 31.24	$ —
Second quarter	45.62	38.24	0.16
Third quarter	47.71	39.21	0.16
Fourth quarter **	50.03	43.85	0.37

* On December 1, 2013, we spun off our commercial and residential security businesses to our shareholders. Each of our shareholders of record as of November 22, 2013 received one ordinary share of Allegion for every three Ingersoll-Rand plc ordinary shares owned.
** In December 2012, we declared a dividend of $0.21 per ordinary share payable on March 28, 2013 to shareholders of record on March 12, 2013.

Future dividends on our ordinary shares, if any, will be at the discretion of our Board of Directors and will depend on, among other things, our results of operations, cash requirements and surplus, financial condition, contractual restrictions and other factors that the Board of Directors may deem relevant, as well as our ability to pay dividends in compliance with the Irish Companies Act. Under the Irish Companies Act, dividends and distributions may only be made from distributable reserves. Distributable reserves, broadly, means the accumulated realized profits of Ingersoll-Rand plc (IR-Ireland). In addition, no distribution or dividend may be made unless the net assets of IR-Ireland are equal to, or in excess of, the aggregate of IR-Ireland's called up share capital plus undistributable reserves and the distribution does not reduce IR-Ireland's net assets below such aggregate.

Information regarding equity compensation plans required to be disclosed pursuant to this Item is incorporated by reference from our definitive proxy statement for the Annual General Meeting of Shareholders.

Issuer Purchases of Equity Securities

The following table provides information with respect to purchases by the Company of its ordinary shares during the quarter ended December 31, 2013:

Period	Total number of shares purchased (000's) (a) (b)	Average price paid per share (a) (b)	Total number of shares purchased as part of program (000's) (a)	Approximate dollar value of shares still available to be purchased under the program ($000's) (a) (c)
October 1 - October 31	1,608.6	$ 65.35	1,606.7	$ 1,103,970
November 1 - November 30	0.3	68.17	—	1,103,970
December 1 - December 31	5,466.0	57.43	5,449.0	791,065
Total	7,074.9	$ 59.81	7,055.7	

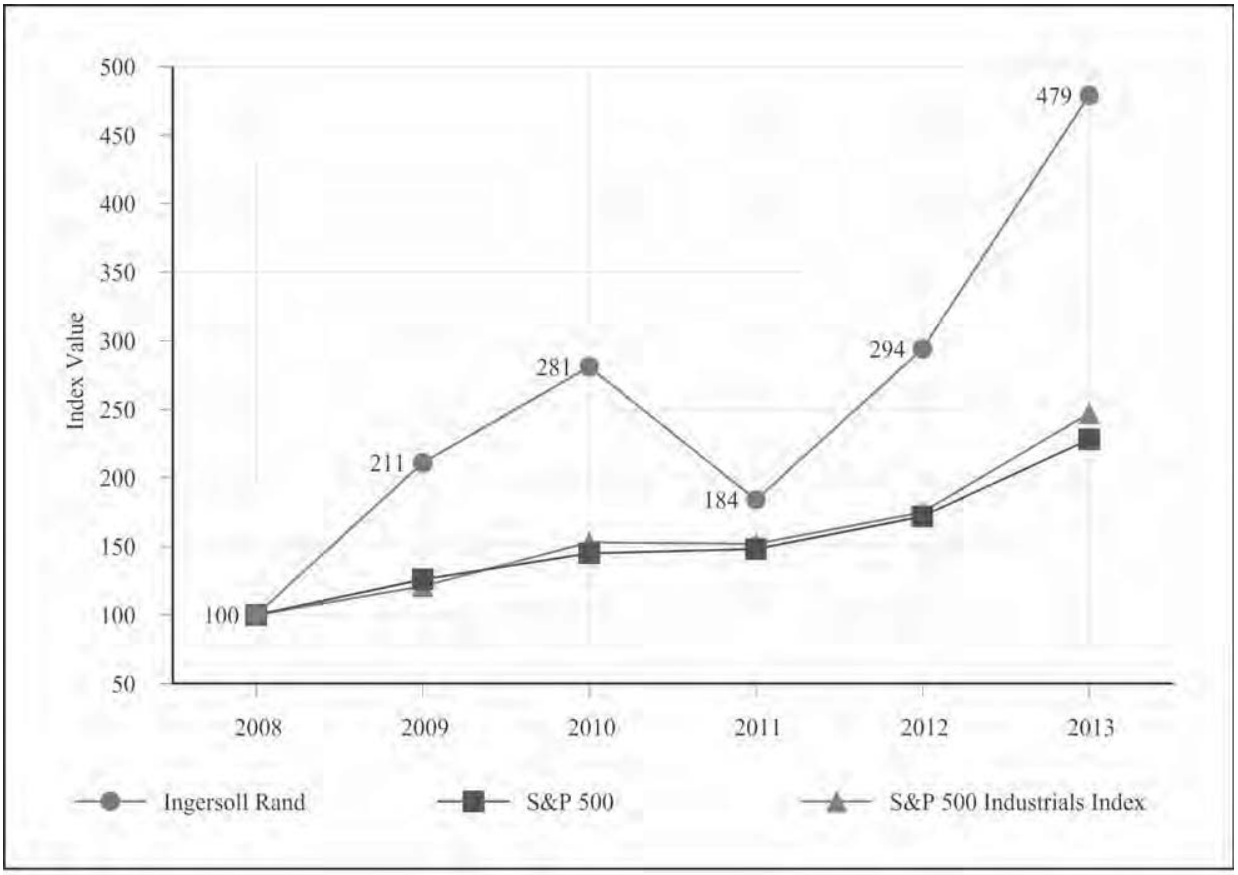
(a) In December 2012, our Board of Directors authorized the repurchase of up to $2.0 billion of our ordinary shares under a share repurchase program. The share repurchase program began in April 2013. Share repurchases will be made from time to time at the discretion of management subject to market conditions, regulatory requirements and other considerations. The repurchase program does not have a prescribed expiration date.

(b) We may also reacquire shares outside of the repurchase program from time to time in connection with the surrender of shares to cover taxes on vesting of share based awards. In October, November and December, 1,859; 294; and 17,044 shares, respectively, were reacquired in transactions outside the repurchase program.

(c) In February 2014, our Board of Directors authorized the repurchase of up to $1.5 billion of our ordinary shares under a new share repurchase program upon completion of the current share repurchase program. Share repurchases will be made from time to time at the discretion of management subject to market conditions, regulatory requirements and other considerations. The repurchase program does not have a prescribed expiration date. The authorized shares under the new share repurchase program are not included in the approximate dollar value of shares still available to be purchased in the table above.

Performance Graph

The following graph compares the cumulative total shareholder return on our ordinary shares with the cumulative total return on (i) the Standard & Poor's 500 Stock Index and (ii) the Standard & Poor's 500 Industrial Index for the five years ended December 31, 2013. The graph assumes an investment of $100 in our ordinary shares, the Standard & Poor's 500 Stock Index and the Standard & Poor's 500 Industrial Index on December 31, 2008 and assumes the reinvestment of dividends. The historical information shown below has been adjusted for the impact of the spin-off of Allegion.



Company/Index	2008	2009	2010	2011	2012	2013
Ingersoll Rand	100	211	281	184	294	479
S&P 500	100	126	145	148	172	228
S&P 500 Industrials Index	100	121	153	152	175	247

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Item 6. **SELECTED FINANCIAL DATA**

In millions, except per share amounts:

At and for the years ended December 31,	2013	2012	2011	2010	2009
Net revenues	$ 12,350.5	$ 11,988.3	$ 12,760.8	$ 12,033.4	$ 10,970.2
Net earnings (loss) attributable to Ingersoll-Rand plc ordinary shareholders:					
Continuing operations	620.1	772.4	123.4	505.2	273.0
Discontinued operations	(1.3)	246.2	219.8	137.0	178.4
Total assets	17,658.1	18,482.1	18,819.6	20,078.0	19,164.7
Total debt	3,521.2	3,229.4	3,637.6	3,677.8	4,088.8
Total Ingersoll-Rand plc shareholders' equity	7,068.9	7,147.8	6,924.3	7,981.3	7,101.8
Earnings (loss) per share attributable to Ingersoll-Rand plc ordinary shareholders:					
Basic:					
Continuing operations	$ 2.11	$ 2.54	$ 0.38	$ 1.56	$ 0.85
Discontinued operations	—	0.81	0.68	0.42	0.56
Diluted:					
Continuing operations	$ 2.08	$ 2.49	$ 0.36	$ 1.49	$ 0.83
Discontinued operations	(0.01)	0.79	0.65	0.40	0.54
Dividends declared per ordinary share	$ 0.63	$ 0.69	$ 0.59	$ 0.28	$ 0.50

1. 2011 amounts represent the operating results of the Hussmann Business and Branches through their respective divestiture and transaction dates of September 30, 2011 and November 30, 2011.
2. 2011 Earnings (loss) from continuing operations include an after-tax loss on sale and impairment charges related to the Hussmann divestiture of $546 million.
3. 2011 Dividends declared per ordinary share includes a dividend of $0.16 per ordinary share, declared in December 2011, and payable on March 30, 2012 to shareholders of record on March 12, 2012.
4. 2012 Dividends declared per ordinary share includes a dividend of $0.21 per ordinary share, declared in December 2012, and payable on March 28, 2013 to shareholders of record on March 12, 2013.
5. 2012-2009 amounts have been recast to reflect the Allegion spin-off as a discontinued operation.

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following Management's Discussion and Analysis of Financial Condition and Results of Operations contains forward-looking statements that involve risks and uncertainties. Our actual results may differ materially from the results discussed in the forward-looking statements. Factors that might cause a difference include, but are not limited to, those discussed under Item 1A. Risk Factors in this Annual Report on Form 10-K. The following section is qualified in its entirety by the more detailed information, including our financial statements and the notes thereto, which appears elsewhere in this Annual Report.

Overview

Organization

We are a diversified, global company that provides products, services and solutions to enhance the quality and comfort of air in homes and buildings, transport and protect food and perishables and increase industrial productivity and efficiency. Our business segments consist of Climate and Industrial, both with strong brands and leading positions within their respective markets. We generate revenue and cash primarily through the design, manufacture, sale and service of a diverse portfolio of industrial and commercial products that include well-recognized, premium brand names such as Trane®, Ingersoll-Rand®, Thermo King®, American Standard® and Club Car®.

To achieve our mission of being a world leader in creating comfortable and efficient environments, we continue to focus on increasing our recurring revenue stream from parts, service, used equipment and rentals; and to continuously improve the efficiencies and capabilities of the products and services of our high-potential businesses. We also continue to focus on operational excellence strategies as a central theme to improving our earnings and cash flows.

Trends and Economic Events

We are a global corporation with worldwide operations. As a global business, our operations are affected by worldwide, regional and industry-specific economic factors, as well as political factors, wherever we operate or do business. Our geographic and industry diversity, as well as the diversity of our product sales and services, has helped mitigate the impact of any one industry or the economy of any single country on our consolidated operating results.

Given the broad range of products manufactured and geographic markets served, management uses a variety of factors to predict the outlook for the Company. We monitor key competitors and customers in order to gauge relative performance and the outlook for the future. In addition, our order rates are indicative of future revenue and thus a key measure of anticipated performance. In those industry segments where we are a capital equipment provider, revenues depend on the capital expenditure budgets and spending patterns of our customers, who may delay or accelerate purchases in reaction to changes in their businesses and in the economy.

Current market conditions, including challenges in international markets, continue to impact our financial results. Uneven global commercial new construction activity is negatively impacting the results of our commercial Heating, Ventilation and Air Conditioning (HVAC) business. However, we believe the commercial HVAC equipment replacement and aftermarket is slowly recovering. We have seen slower worldwide industrial equipment and aftermarket activity. While U.S. residential and consumer markets continue to be a challenge, we continue to see improvements in the U.S. new builder and replacement markets. The residential HVAC business also continues to be impacted by a mix shift to units with a lower Seasonal Energy Efficiency Rating (SEER). As economic conditions stabilize, we expect slight revenue growth along with benefits from restructuring and productivity programs.

Despite the current market environment, we believe we have a solid foundation of global brands and leading market shares in all of our major product lines. Our growing geographic and industry diversity coupled with our large installed product base provides growth opportunities within our service, parts and replacement revenue streams. In addition, we are investing substantial resources to innovate and develop new products and services which we expect will drive our future growth.

Significant events in 2013

Allegion Spin-Off

On December 1, 2013 (the Distribution Date), we completed the spin-off of our commercial and residential security businesses to our shareholders (the spin-off). On the Distribution Date, each of our shareholders of record as of the close of business on November 22, 2013 (the Record Date) received one ordinary share of Allegion, plc (Allegion) for every three Ingersoll-Rand plc ordinary shares held as of the Record Date. Allegion is now an independent public company trading under the symbol “ALLE” on the New York Stock Exchange.

After the Distribution Date, we do not beneficially own any Allegion ordinary shares (other than approximately 7,045 shares received in a deferred compensation trust upon the spin-off as a result of the trust holding ordinary shares of Ingersoll-Rand plc as of the Record Date), and will no longer consolidate Allegion into our financial results. Beginning in the fourth quarter of 2013, Allegion's historical financial results for periods prior to the Distribution Date will be reflected in our Consolidated Financial Statements as a discontinued operation.

See “Discontinued Operations and Divestitures” within Management's Discussion and Analysis of Financial Condition and Results of Operations and also Note 16 to the Consolidated Financial Statements for a further discussion of our discontinued operations.

Senior Notes due 2019, 2023, and 2043

In June 2013, we issued $1.55 billion principal amount of Senior Notes in three tranches through our wholly-owned subsidiary, Ingersoll-Rand Global Holding Company Limited (IR-Global) pursuant to Rule 144A of the U.S. Securities Act of 1933 (Securities Act). The tranches consist of $350 million of 2.875% Senior Notes due in 2019, $700 million of 4.250% Senior Notes due in 2023, and $500 million of 5.750% Senior Notes due in 2043. The notes are fully and unconditionally guaranteed by each of IR-Ireland, Ingersoll-Rand Company Limited (IR-Limited), and Ingersoll-Rand International Holding Limited (IR-International). Interest on the notes will be paid twice a year in arrears. The Company has the option to redeem the notes in whole or in part at any time, and from time to time, prior to their stated maturity date at redemption prices set forth in the indenture agreement. The notes are subject to certain customary covenants, however, none of these covenants are considered restrictive to the Company’s operations. In connection with the issuance of each series of notes, IR-Global, the Guarantors and the initial purchasers of the notes entered into a Registration Rights Agreement. Each Registration Rights Agreement requires IR-Global and the Guarantors to use their commercially reasonable efforts to execute an effective exchange offer registration statement with the SEC no later than 365 days after the closing date of the notes offering and to complete an exchange offer within 30 business days of such effective date. If a registration default occurs additional interest shall accrue on the notes. The proceeds from these notes were used to fund the July 2013 redemption of $600 million of 6.000% Senior Notes due 2013 and $655 million of 9.500% Senior Notes due 2014 and to fund expenses related to the spin-off of the commercial and residential security businesses, with any remaining proceeds to be used for general corporate purposes. Related to this redemption, the Company recorded $45.6 million of premium expense in the third quarter of 2013 in Interest expense.

IRS Exam Results

In 2007, we received a notice from the IRS containing proposed adjustments to our tax filings in connection with an audit of the 2001 and 2002 tax years. The IRS did not contest the validity of our reincorporation in Bermuda. The IRS proposed to ignore the entities that hold the intercompany debt incurred in connection with our reincorporation in Bermuda (the “2001 Debt”) and to which the interest was paid and impose 30% withholding tax on a portion of the interest payments as if they were made directly to a company that was not eligible for reduced U.S. withholding tax under a U.S. income tax treaty. The IRS asserted that we owe additional taxes with respect to 2002 of approximately $84 million plus interest. We strongly disagreed with the view of the IRS and filed a protest. In 2010, we received an amended notice from the IRS assessing penalties of 30% on the asserted underpayment of tax described above.

We have so far been unsuccessful in resolving this dispute and recently received a Notice of Deficiency from the IRS for 2002. The Company filed a petition in the United States Tax Court in November 2013 contesting this deficiency. In its January 2014 answer to our petition, the IRS asserted that we also owe 30% withholding tax on the portion of 2002 interest payments made on the 2001 Debt upon which it did not previously assert withholding tax. A 30% withholding tax on this $85.0 million interest payment would increase the total tax liability proposed for 2002 to $109.0 million ($84 million referred to in the paragraph above plus this additional $25.0 million) plus 30% penalties and interest.

Recently we received notices from the IRS containing proposed adjustments to the Company's tax filings in connection with an audit of the 2003-2006 tax years. In these notices, the IRS asserts that we owe a total of approximately $665.0 million of additional taxes, as described more fully below, in connection with our interest payments on the 2001 Debt for the 2003-2006 period, plus penalties and interest on these unpaid taxes.

The IRS continues to take the position on the 2001 Debt, which was retired at the end of 2011, that it previously took for our 2002 tax year and which is described above. As a result of this recharacterization, the IRS asserts that we owe approximately $455.0 million of withholding tax for 2003-2006 plus 30% penalties.

The IRS also proposes to extend its position further and to treat all of the interest income from the 2001 Debt as creating earnings and profits at IR-Limited and, as a result, recharacterize the distributions made by IR-Limited during the 2002-2006 tax years as taxable dividends instead of as a return of capital. Consequently the IRS asserts that we owe approximately $210.0 million of income tax on these dividends plus penalties of 20%.

Although we expect it to do so, the IRS has not yet proposed any similar adjustments for years subsequent to 2006, as the federal income tax audits for those years are still in process or have not yet begun. In addition, we do not know how the IRS will apply its position to the different facts presented in those years or whether the IRS will take a similar position in future audits with respect to intercompany debt instruments not outstanding in prior years.

We have vigorously contested all of these proposed adjustments and intend to continue to do so. Although the outcome of these matters cannot be predicted with certainty, based upon an analysis of the merits of our position we believe that we are adequately reserved under the applicable accounting standards for these matters and do not expect that the ultimate resolution will have a material adverse impact on our future results of operations, financial condition, or cash flows. As we move forward to resolve these matters with the IRS, the reserves established may be adjusted. Although we continue to contest the IRS's position, there can be no assurance that we will be successful. If the IRS's position with respect to the 2002-2006 tax years is ultimately sustained we would be required to record additional charges and the resulting liability will have a material adverse impact on our future results of operations, financial condition and cash flows.

2014 Dividend Increase and Share Repurchase Program

In February 2014, we announced an increase in our quarterly share dividend from $0.21 to $0.25 per share beginning with our March 2014 payment. The dividend is payable March 31, 2014 to shareholders of record on March 14, 2014.

In February 2014, our Board of Directors authorized the repurchase of up to $1.5 billion of our ordinary shares under a new share repurchase program upon completion of the current share repurchase program. The new share repurchase program is expected to begin in the second quarter of 2014. Share repurchases will be made from time to time at the discretion of management subject to market conditions, regulatory requirements and other considerations.

2013 Share Repurchase Program

In December 2012, our Board of Directors authorized the repurchase of up to $2.0 billion of our ordinary shares under a share repurchase program. The share repurchase program began in April 2013. During 2013 we repurchased 20.8 million shares for $1.2 billion, excluding commissions. These repurchases were accounted for as a reduction of Ordinary shares and Capital in excess of par value as they were canceled upon repurchase.

2011 Share Repurchase Program

Our 2011 share repurchase program was authorized by our Board of Directors in April 2011 and was completed in April 2013. During the year ended December 31, 2012, we repurchased 18.4 million shares for approximately $0.8 billion, excluding commissions.

Significant events in 2012

2012 Dividend Increase

In December 2012, we announced an increase in our quarterly share dividend from $0.16 to $0.21 per share beginning with our March 2013 payment.

Pension and Other Postretirement Plan Amendments

On June 8, 2012, our Board of Directors approved amendments to our retirement plans for certain U.S. and Puerto Rico non-bargained employees. Eligible non-bargained employees hired prior to July 1, 2012 were given a choice of remaining in their respective defined benefit plan until the plan freezes on December 31, 2022 or freezing their accrued benefits in their respective defined benefit plan as of December 31, 2012 and receiving an additional 2% non-matching Company contribution into the Company's applicable defined contribution plan. Eligible employees hired or rehired on or after July 1, 2012 will automatically receive the 2% non-matching Company contribution into the applicable defined contribution plan in lieu of participating in the defined benefit plan. Beginning January 1, 2023, all eligible employees will receive the 2% non-matching contribution into the applicable defined contribution plan.

On February 1, 2012, our Board of Directors approved amendments to our postretirement medical plan with respect to post-65 retiree medical coverage. Effective January 1, 2013, we discontinued offering company-sponsored retiree medical coverage for certain individuals age 65 and older. We transitioned affected individuals to coverage through the individual Medicare market and will provide a tax-advantaged subsidy to those retirees eligible for subsidized company coverage that can be used toward reimbursing premiums and other qualified medical expenses for individual Medicare supplemental coverage that is purchased through our third-party Medicare coordinator.

See Note 10 to the Consolidated Financial Statements for a further discussion of these amendments.

Significant events in 2011

Dividend Increase

In April 2011, we increased our quarterly stock dividend from $0.07 to $0.12 per share beginning with our June 2011 payment. In December 2011, we announced an increase in our quarterly stock dividend from $0.12 per share to $0.16 per share beginning with our March 2012 payment.

Divested Operations

On September 30, 2011 and November 30, 2011, we completed transactions to sell our Hussmann refrigerated display case business to a newly-formed affiliate (Hussmann Parent) of private equity firm Clayton Dubilier & Rice, LLC (CD&R). These transactions included the equipment business and certain of the service branches in the U.S. and Canada, and the equipment, service and installation businesses in Mexico, Chile, Australia, New Zealand, and Japan (Hussmann Business) and the remaining North American Hussmann service and installation branches (Hussmann Branches). We negotiated the final terms of the transaction to include our ownership of a portion of the common stock of Hussmann Parent, which represents significant continuing involvement. Therefore, the results of Hussmann are included in continuing operations for all periods presented, with our ownership interest reported using the equity method of accounting subsequent to September 30, 2011. See “Discontinued Operations and Divestitures” within Management's Discussion and Analysis of Financial Condition and Results of Operations and also Note 16 to the Consolidated Financial Statements for a further discussion of our divested operations.

Results of Operations - For the years ended December 31

Dollar amounts in millions, except per share data		2013	% of Revenues		2012	% of Revenues		2011	% of Revenues
Net revenues	$	12,350.5		$	11,988.3		$	12,760.8	
Cost of goods sold		(8,675.5)	70.3%		(8,538.0)	71.2%		(9,280.0)	72.7%
Selling and administrative expenses		(2,570.0)	20.8%		(2,382.9)	19.9%		(2,395.2)	18.8%
Gain (loss) on sale/asset impairment		—	—%		4.5	—%		(646.9)	5.1%
Operating income		1,105.0	8.9%		1,071.9	8.9%		438.7	3.4%
Interest expense		(278.8)			(252.0)			(278.5)	
Other, net		3.4			28.1			28.4	
Earnings before income taxes		829.6			848.0			188.6	
Provision for income taxes		(189.0)			(56.0)			(45.4)	
Earnings from continuing operations		640.6			792.0			143.2	
Discontinued operations, net of tax		13.3			252.0			226.1	
Net earnings		653.9			1,044.0			369.3	
Less: Net earnings attributable to noncontrolling interests		(35.1)			(25.4)			(26.1)	
Net earnings attributable to Ingersoll-Rand plc	$	618.8		$	1,018.6		$	343.2	
Diluted net earnings (loss) per ordinary share attributable to Ingersoll-Rand plc ordinary shareholders:									
Continuing operations	$	2.08		$	2.49		$	0.36	
Discontinued operations		(0.01)			0.79			0.65	
Net earnings	$	2.07		$	3.28		$	1.01	

Net Revenues

Net revenues for the year ended December 31, 2013 increased by 3.0%, or $362.2 million, compared with the same period of 2012, which primarily resulted from the following:

Volume/product mix	2.3%
Pricing	0.7%
Total	3.0%

The increase in revenues was primarily driven by volume improvements within the Climate segment and improved pricing for both Climate and Industrial.

Net revenues for the year ended December 31, 2012 decreased by 6.1%, or $772.5 million, compared with the same period of 2011, which primarily resulted from the following:

Pricing	1.4 %
Volume/product mix	0.4 %
Currency exchange rates	(1.5)%
Hussmann	(6.4)%
Total	(6.1)%

The decrease in revenues was primarily driven by the absence of Hussmann for the year ended December 31, 2012, which contributed $818.5 million of revenue in the same period in 2011. This decrease was partially offset by improved pricing within both of our segments and higher volumes within the Industrial business segment.

Operating Income/Margin

Operating margin remained flat at 8.9% for the year ended December 31, 2013 and 2012. During 2013 we experienced improved pricing in excess of material inflation (0.5%) and productivity benefits in excess of other inflation (0.4%), offset by increased investment and restructuring spending (0.9%). During 2013 and 2012, the Company incurred costs of $82.3 million and $23.3 million, respectively, associated with ongoing restructuring actions. These actions included workforce reductions as well as the closure and consolidation of manufacturing facilities in an effort to improve the Company's cost structure.

Operating margin improved to 8.9% for the year ended December 31, 2012, compared to 3.4% for the same period of 2011. The improvement was primarily due to Operating income in 2011 including a $646.9 million loss on sale/asset impairment charge related to the divestiture of Hussmann (5.1%), improved pricing in excess of material inflation across (1.3%), and the realization of productivity benefits in excess of other inflation (0.9%). These improvements were partially offset by increased investment and restructuring spending (1.3%) and unfavorable product mix and volume (0.9%).

Interest Expense

Interest expense for the year ended December 31, 2013 increased by $26.8 million compared with the same period of 2012, primarily as a result of the redemption premium expense incurred during the July 2013 debt redemption discussed in Liquidity and Capital Resources.

Interest expense for the year ended December 31, 2012 decreased $26.5 million compared with the same period of 2011 as a result of lower average debt balances in 2012.

Other, Net

The components of Other, net, for the year ended December 31 are as follows:

In millions	2013	2012	2011
Interest income	$ 12.8	$ 16.3	$ 25.5
Exchange gain (loss)	(14.0)	0.2	(1.3)
Earnings (loss) from equity investments	(2.6)	(5.9)	(3.5)
Other	7.2	17.5	7.7
Other, net	$ 3.4	$ 28.1	$ 28.4

Exchange gain (loss) for the year ended December 31, 2013 includes a loss of approximately $3.8 million related to the devaluation of the Venezuela Bolivar. Included within Earnings (loss) from equity investments for the years ended December 31, 2013, 2012 and 2011 is $2.6 million, $5.9 million and $3.5 million of equity loss, respectively, on the Hussmann equity investment incurred subsequent to the Hussmann divestiture transaction dates. The activity included within Other for the year ended December 31, 2012 is primarily related to adjustments to actual and expected insurance recoveries as a result of a settlement.

Provision for Income Taxes

The 2013 effective tax rate was 22.8%. The 2013 effective tax rate is lower than the U.S. Statutory rate of 35% primarily due to earnings in non-U.S. jurisdictions, which in aggregate, have a lower effective rate and a $36 million net reduction in our liability for unrecognized tax benefits primarily due to the settlement of an audit in a major tax jurisdiction, partially offset by a tax charge of $51 million as a result of a change in assertion in certain subsidiary earnings that the company has previously determined to be permanently reinvested and approximately $74 million of Allegion spin-off tax charges, primarily related to a net increase in our valuation allowances on certain deferred tax assets. Revenues from non-U.S. jurisdictions account for approximately 41% of our total revenues, such that a material portion of our pretax income is earned and taxed outside the U.S. at rates ranging from 0% to 38%. When comparing the results of multiple reporting periods, among other factors, the mix of earnings between U.S. and foreign jurisdictions can cause variability on our overall effective tax rate.

The 2012 effective tax rate was 6.6%, which included a tax benefit of approximately $140.0 million resulting from a reduction in valuation allowances on certain Non-U.S. deferred tax assets. The 2012 effective tax rate is lower than the U.S. Statutory rate of 35.0% primarily due to earnings in non-U.S. jurisdictions, which in aggregate, have a lower effective rate and a reduction in valuation allowances mentioned above, partially offset by a net increase in our liability for unrecognized tax benefits.

For a further discussion of tax matters, see Note 15 to the Consolidated Financial Statements.

Review of Business Segments

The segment discussions that follow describe the significant factors contributing to the changes in results for each segment included in continuing operations.

In the fourth quarter of 2013, the Company realigned its organizational structure to provide a greater focus on growth, continue implementation of business operating systems, build on our successful operational excellence philosophy and reduce complexity and costs. The Company’s new reporting structure includes the Climate and Industrial segments.

Segment operating income is the measure of profit and loss that our chief operating decision maker uses to evaluate the financial performance of the business and as the basis for performance reviews, compensation and resource allocation. For these reasons, we believe that Segment operating income represents the most relevant measure of segment profit and loss. We may exclude certain charges or gains from Operating income to arrive at a Segment operating income that is a more meaningful measure of profit and loss upon which to base our operating decisions. We define Segment operating margin as Segment operating income as a percentage of Net revenues.

Climate

Our Climate segment delivers energy-efficient solutions globally and includes Trane® and American Standard® Heating & Air Conditioning which provide heating, ventilation and air conditioning (HVAC) systems, and commercial and residential building services, parts, support and controls; and Thermo King® transport temperature control solutions.

On September 30, 2011 and November 30, 2011, we completed transactions to sell Hussmann to a newly-formed affiliate (Hussmann Parent) of private equity firm Clayton Dubilier & Rice, LLC (CD&R). As part of the deal terms we have an ongoing equity interest in Hussmann Parent, therefore operating results continue to be recorded within continuing operations. However, subsequent to the respective transaction dates our earnings from this equity interest are not reported in Segment operating income. During the year ended December 31, 2011, we recorded a pre-tax loss on sale and asset impairment charges related to the Hussmann divestiture totaling $646.9 million. These charges, as well as related adjustments recorded in 2012, have been excluded from Segment operating income within the Climate segment as management excludes these charges from Operating income when making operating decisions about the business. See "Discontinued Operations and Divestitures" within Management's Discussion and Analysis of Financial Condition and Results of Operations and also Note 16 to the Consolidated Financial Statements for a further discussion of our divested operations.

2011 Net revenues and Segment operating income for the Climate segment includes the operating results of the Hussmann Business and Branches prior to the sale. The operating results for the Hussmann Business and Branches are included in Net revenues and Segment operating income for the Climate segment for the year ended December 31, 2011 as follows:

In millions	2011
Net revenues	$ 818.5
Segment operating income	$ 58.6

Segment results for the years ended December 31 were as follows:

Dollar amounts in millions	2013	% change	2012	% change	2011
Net revenues	$ 9,414.0	4.1%	$ 9,042.5	8.7%	$ 9,907.9
Segment operating income	930.2	13.8%	817.6	2.3%	837.1
Segment operating margin	9.9%		9.0%		8.4%

<u>2013 vs 2012</u>

Net revenues for the year ended December 31, 2013 increased by 4.1% or $371.5 million, compared with the same period of 2012, which primarily resulted from the following:

Volume/product mix	3.5 %
Pricing	0.8 %
Currency exchange rates	(0.2)%
Total	4.1 %

Our Trane commercial HVAC business continues to be impacted by weakness in the worldwide commercial building markets. Trane commercial HVAC revenues increased due to improvements in both equipment and parts, services and solutions markets. Trane residential HVAC revenues increased due to increased volume in all equipment categories. These improvements were slightly offset by a continued mix shift to lower SEER units. Net revenues in our transport businesses increased driven by improvements in the Americas and Europe.

Segment operating margin improved to 9.9% for the year ended December 31, 2013, compared to 9.0% for the same period of 2012. The improvement was primarily driven by productivity benefits in excess of other inflation (0.8%), pricing improvements in excess of material inflation (0.6%) and favorable volume/product mix (0.2%). These improvements were partially offset by increased investment and restructure spending (0.7).

2012 vs 2011
Net revenues for the year ended December 31, 2012 decreased by 8.7% or $865.4 million, compared with the same period of 2011, which primarily resulted from the following:

Pricing	1.3 %
Volume/product mix	(0.5)%
Currency exchange rates	(1.2)%
Hussmann	(8.3)%
Total	(8.7)%

Our Trane commercial HVAC business was impacted by weakness in the worldwide commercial building markets. Trane commercial HVAC revenues increased as growth within our parts, services and solutions markets offset declines in equipment and systems in Europe and Asia. Trane residential HVAC revenues increased due to improved activity levels in both the new residential construction and replacement markets. These improvements were slightly offset by a continued mix shift to lower SEER units. Net revenues in our transport businesses decreased driven by declines in sea-going container revenues. Growth in the Americas was more than offset by declines in Europe.

Segment operating margin improved to 9.0% for the year ended December 31, 2012, compared to 8.4% for the same period of 2011. The improvements due to pricing improvements in excess of material inflation (1.3%) and productivity benefits in excess of other inflation (0.8%), were partially offset by unfavorable volume/product mix (0.9%), increased investment and restructure spending (0.5%), and unfavorable currency impacts (0.2%).

Industrial

Our Industrial segment delivers products and services that enhance energy efficiency, productivity and operations. It includes Ingersoll Rand® compressed air systems and services, power tools, material handling systems, ARO® fluid management equipment, as well as Club Car® golf, utility and rough terrain vehicles.

Segment results for the years ended December 31 were as follows:

Dollar amounts in millions	2013	% change	2012	% change	2011
Net revenues	$ 2,936.5	(0.3)%	$ 2,945.8	3.3%	$ 2,852.9
Segment operating income	456.0	— %	455.8	9.7%	415.5
Segment operating margin	15.5%		15.5%		14.6%

2013 vs 2012
Net revenues for the year ended December 31, 2013 decreased by 0.3% or $9.3 million, compared with the same period of 2012, which primarily resulted from the following:

Pricing	0.6 %
Currency exchange rates	0.3 %
Volume/product mix	(1.2)%
Total	(0.3)%

Air and Productivity revenues decreased due to declines in equipment sales, partially offset by growth in parts, service and solutions. Club Car revenues increased due to growth in both the golf car and utility vehicle markets.

Segment operating margin remained flat at 15.5% for the year end December 31, 2013.and 2012. Productivity benefits in excess of other inflation (1.1%) were offset by increased investment and restructuring spending ($0.7%) and unfavorable volume/product mix (0.4%).

2012 vs 2011
Net revenues for the year ended December 31, 2012 increased by 3.3%, or $92.9 million, compared with the same period of 2011, which primarily resulted from the following:

Volume/product mix	3.9 %
Pricing	1.7 %
Currency exchange rates	(2.3)%
Total	3.3 %

We experienced growth within our Air and Productivity business related to increased volume in the Americas. The growth in the Americas was primarily driven by improved air compressors sales. Club Car revenues increased due to improved pricing and growth in the golf car and utility vehicle markets.

Segment operating margin improved to 15.5% for the year ended December 31, 2012 compared to 14.6%, for the same period of 2011. The improvement was primarily driven by productivity benefits in excess of other inflation (2.1%), pricing improvements in excess of material inflation (0.8%). These improvements were partially offset by increased investment and restructuring spending (1.9%) and unfavorable currency impacts (0.2%).

Discontinued Operations and Divestitures

Discontinued Operations

The components of discontinued operations for the years ended December 31 are as follows:

In millions	2013	2012	2011
Net revenues	$ 1,889.9	$ 2,046.6	$ 2,093.4
Pre-tax earnings (loss) from operations	84.7	379.5	355.7
Pre-tax gain (loss) on sale	—	2.3	(57.7)
Tax benefit (expense)	(71.4)	(129.8)	(71.9)
Discontinued operations, net of tax	$ 13.3	$ 252.0	$ 226.1

Discontinued operations by business for the years ended December 31 are as follows:

In millions	2013	2012	2011
Allegion spin-off, net of tax	$ 12.4	$ 254.2	$ 275.7
Other discontinued operations, net of tax	0.9	(2.2)	(49.6)
Discontinued operations, net of tax	$ 13.3	$ 252.0	$ 226.1

Allegion Spin-Off

On December 1, 2013, (the Distribution Date) we completed the spin-off of our commercial and residential security businesses, now under the name of Allegion, plc (Allegion), to our shareholders (the spin-off). On the Distribution Date, each of our shareholders of record as of the close of business on November 22, 2013 (the Record Date) received one ordinary share of Allegion for every three Ingersoll-Rand plc ordinary shares held as of the Record Date. Allegion is now an independent public company trading under the symbol "ALLE" on the New York Stock Exchange.

Net revenues and after-tax earnings of Allegion for the year ended December 31 were as follows:

In millions	2013	2012	2011
Net revenues	$ 1,889.9	$ 2,046.6	$ 2,021.2
After-tax earnings (loss) from operations	$ 12.4	$ 254.2	$ 275.7

* Included in After-tax earnings (loss) from operations for the year ended December 31, 2013 and 2012 are spin costs of $128.0 million and $5.7 million, respectively, and tax charges related to enacting the spin-off. Also, the 2013 results include a 111.4 million non-cash goodwill impairment charge. For a further discussion, see Note 16 to the Consolidated Financial Statements.

The components of Allegion assets and liabilities recorded as held for spin-off on the Consolidated Balance Sheet at December 31, 2012 are as follows:

In millions	December 31, 2012
Assets	
Current assets	$ 726.1
Property, plant and equipment, net	226.5
Goodwill	646.3
Intangible assets, net	150.5
Other assets and deferred income taxes	68.0
Assets held for spin-off	1,817.4
Liabilities	
Current liabilities	$ 362.9
Noncurrent liabilities	168.9
Liabilities held for spin-off	$ 531.8

In November 2013, prior to the spin-off, the commercial and residential security businesses borrowed $1,274.2 million. The proceeds of the borrowing remained with the Company. On December 1, 2013 we made a distribution of $(0.5) million to the Company's shareholders in connection with the spin-off of Allegion. The distribution included $1,953.7 million of assets, $1,974.2 million of liabilities, $61.1 million of accumulated other comprehensive loss and $41.1 million of noncontrolling interest.

Other Discontinued Operations

The components of other discontinued operations for the years ended December 31 were as follows:

In millions	2013	2012	2011
Retained costs, net of tax	$ 0.9	$ (16.2)	$ (34.8)
Net gain (loss) on disposals, net of tax	—	14.0	(14.8)
Discontinued operations, net of tax	$ 0.9	$ (2.2)	$ (49.6)

On November 30, 2007, we completed the sale of our Bobcat, Utility Equipment and Attachments businesses (collectively, Compact Equipment) to Doosan Infracore for gross proceeds of approximately $4.9 billion, subject to post-closing purchase price adjustments. Compact Equipment manufactured and sold compact equipment, including skid-steer loaders, compact track loaders, mini-excavators and telescopic tool handlers; portable air compressors, generators and light towers; general-purpose light construction equipment; and attachments. We were in dispute regarding post-closing matters with Doosan Infracore. During the second quarter of 2011, we collected approximately $48.3 million of our outstanding receivable from Doosan Infracore related to certain purchase price adjustments. During the second quarter of 2012, Doosan Infracore paid the Company a total of $46.5 million to settle the outstanding receivable and remaining disputed post-closing matters.

Other discontinued operations, net of tax from previously sold businesses is mainly related to postretirement benefits, product liability, worker's compensation, and legal costs (mostly asbestos-related) and tax effects of post-closing purchase price adjustments.

Divested Operations

Hussmann Divestiture

On September 30, 2011, we completed a transaction to sell our Hussmann refrigerated display case business to a newly-formed affiliate (Hussmann Parent) of private equity firm Clayton Dubilier & Rice, LLC (CD&R). This transaction included the equipment business and certain of the service branches in the U.S. and Canada, and the equipment, service and installation businesses in Mexico, Chile, Australia, New Zealand, and Japan (Hussmann Business). The final transaction allowed Hussmann Parent the option to acquire the remaining North American Hussmann service and installation branches (Hussmann Branches). Hussmann Parent completed the acquisition of the Hussmann Branches on November 30, 2011. The Hussmann Business and Branches, which are reported as part of the Climate segment, manufacture, market, distribute, install, and service refrigerated display merchandising equipment, refrigeration systems, over the counter parts, and other commercial and industrial refrigeration applications.

The Hussmann Business divestiture was originally announced on April 21, 2011 and met the criteria for classification as held for sale treatment in accordance with GAAP during the first quarter of 2011. During the third quarter of 2011, we negotiated the final transaction to sell the Hussmann Business and Branches to CD&R in exchange for $370 million in cash, subject to purchase price adjustments, and common stock of Hussmann Parent, such that following the sale, CD&R would own cumulative convertible participating preferred stock of Hussmann Parent, initially representing 60% of the outstanding capital stock (on an as-converted basis) of Hussmann Parent, and we would own all of the common stock, initially representing the remaining 40% of the outstanding capital stock (on an as-converted basis) of Hussmann Parent. Our ownership of common stock of Hussmann Parent represents significant continuing involvement. Therefore, the results of the Hussmann Business and Branches are included in continuing operations for all periods presented. Based on these terms, we recorded a total pre-tax loss on sale/asset impairment charge of $646.9 million during the full year of 2011.

Results for the Hussmann Business and Branches for the year ended December 31, 2011 are as follows:

In millions		2011*	
Net revenues	$	818.5	
Gain (loss) on sale/asset impairment		(646.9)	**
Net earnings (loss) attributable to Ingersoll-Rand plc		(513.1)	
Diluted earnings (loss) per share attributable to Ingersoll-Rand plc ordinary shareholders:		(1.51)	

* Results represent the operating results of Hussmann Business and Branches through their respective divestiture transaction dates.
** Included in Gain (loss) on sale/asset impairment for the year ended December 31, 2011 are transaction costs of $12.2 million.

Hussmann Parent is required to pay a quarterly preferred dividend payment to CD&R in the form of cash or additional preferred shares. Our ownership percentage as of December 31, 2013 was 37.2%. Our ownership interest in Hussmann Parent is reported using the equity method of accounting subsequent to September 30, 2011. Our equity investment in the Hussmann Parent is reported within Other noncurrent assets and the related equity earnings reported in Other, net within Net earnings.

Liquidity and Capital Resources

We earn a significant amount of our operating income in jurisdictions where it is deemed to be permanently reinvested. Our most prominent jurisdiction of operation is the U.S. Other than as discussed below, we currently do not intend nor foresee a need to repatriate funds to the U.S., and no provision for U.S. income taxes has been made with respect to such earnings. We expect existing cash and cash equivalents available to the U.S., the cash generated by our U.S. operations, our committed credit lines as well as our expected ability to access the capital and debt markets will be sufficient to fund our U.S. operating and capital needs for at least the next twelve months and thereafter for the foreseeable future. In addition, we expect existing non-U.S. cash and cash equivalents and the cash generated by our non-U.S. operations will be sufficient to fund our non-U.S. operating and capital needs for at least the next twelve months and thereafter for the foreseeable future. Should we require more capital in the U.S. than is generated by our U.S. operations, and we determine that repatriation of non-U.S. cash is necessary, such amounts would be subject to U.S. federal income taxes.

As a result of the Allegion spin-off and certain internal restructurings, the Company believes it is advantageous to fully repay an intercompany debt obligation between two of its subsidiaries. In order to facilitate the repayment of this intercompany debt, in the fourth quarter of 2013, the Company decided to change its permanent reinvestment assertion as it relates to approximately $740 million of earnings primarily related to subsidiaries in Hong Kong, Australia and Canada. The Company has recorded the tax effects of this change in the fourth quarter of 2013, which resulted in a charge of approximately $51 million. Except where otherwise noted, the Company continues with its permanent reinvestment assertion on its remaining unremitted earnings. For a further discussion, see Note 15 to the Consolidated Financial Statements.

During 2013, we repurchased 20.8 million shares for $1.2 billion, excluding commissions, under our current share repurchase program. These repurchases were accounted for as a reduction of Ordinary shares and Capital in excess of par value as they were canceled upon repurchase.

In February 2014, we announced an increase in our quarterly share dividend from $0.21 to $0.25 per share beginning with our March 2014 payment. The dividend is payable March 31, 2014 to shareholders of record on March 14, 2014. In February 2014, our Board of Directors authorized the repurchase of up to $1.5 billion of our ordinary shares under a new share repurchase program upon completion of the current share repurchase program. The new share repurchase program is expected to begin in the second quarter of 2014. We expect our available cash flow, committed credit lines and access to the capital markets will be sufficient to fund the increased dividend and share repurchases.

Liquidity

The following table contains several key measures to gauge our financial condition and liquidity at the periods ended December 31:

In millions	2013	2012	2011
Cash and cash equivalents	$ 1,937.2	$ 708.4	$ 987.0
Short-term borrowings and current maturities of long-term debt	367.7	962.9	761.9
Long-term debt	3,153.5	2,266.5	2,875.8
Total debt	3,521.2	3,229.4	3,637.7
Total Ingersoll-Rand plc shareholders' equity	7,068.9	7,147.8	6,924.3
Total equity	7,131.3	7,229.3	7,012.4
Debt-to-total capital ratio	33.1%	30.9%	34.2%

Short-term borrowings and current maturities of long-term debt at December 31 consisted of the following:

In millions	2013	2012
Debentures with put feature	$ 343.0	$ 343.0
6.000% Senior notes due 2013	—	600.0
Other current maturities of long-term debt	8.0	10.0
Other short-term borrowings	16.7	9.9
Total	$ 367.7	$ 962.9

Commercial Paper Program

The maximum aggregate amount of unsecured commercial paper notes available to be issued, on a private placement basis, under the commercial paper program is $2 billion as of December 31, 2013. Under the commercial paper program, Ingersoll-Rand Global Holding Company Limited (IR-Global), may issue notes from time to time, and the proceeds of the financing will be used for general corporate purposes. Each of IR-Ireland, Ingersoll-Rand Company Limited (IR-Limited), and Ingersoll-Rand International Holding Limited (IR-International) has provided an irrevocable and unconditional guarantee for the notes issued under the commercial paper program. We had no commercial paper outstanding at December 31, 2013 and December 31, 2012.

Debentures with Put Feature

At December 31, 2013 and December 31, 2012, we had outstanding $343.0 million and $343.0 million, respectively, of fixed rate debentures which only require early repayment at the option of the holder. These debentures contain a put feature that the holders may exercise on each anniversary of the issuance date, subject to a notice requirement. If exercised, we are obligated to repay in whole or in part, at the holder's option, the outstanding principal amount (plus accrued and unpaid interest) of the debentures held by the holder. If these options are not exercised, the final maturity dates would range between 2027 and 2028.

Holders of these debentures had the option to exercise the put feature on $37.2 million of the outstanding debentures in February 2013, subject to the notice requirement. No exercises were made. Holders of the remaining $305.8 million of the outstanding debentures had the option to exercise the put feature, subject to the notice requirement, on the remaining $305.8 million in outstanding debentures in November 2013. No material exercises were made. Holders of these debentures had the option to exercise the put feature on $37.2 million of the outstanding debentures in February 2014, subject to the notice requirement. No notifications were received. Based on our cash flow forecast and access to the capital markets, we believe we will have sufficient liquidity to repay any amounts exercised as a result of the put features.

Senior Notes due 2019, 2023, and 2043

In June 2013, we issued $1.55 billion principal amount of Senior Notes in three tranches through our wholly-owned subsidiary, IR-Global pursuant to Rule 144A of the Securities Act. The tranches consist of $350 million of 2.875% Senior Notes due in 2019, $700 million of 4.250% Senior Notes due in 2023, and $500 million of 5.750% Senior Notes due in 2043. In connection with the issuance of each series of notes, IR-Global, the Guarantors and the initial purchasers of the notes entered into a Registration Rights Agreement. Each Registration Rights Agreement requires IR-Global and the Guarantors to use their commercially reasonable efforts to execute an effective exchange offer registration statement with the SEC no later than 365 days after the closing date of the notes offering and to complete an exchange offer within 30 business days of such effective date. If a registration default occurs additional interest shall accrue on the notes. The proceeds from these notes were used to fund the July 2013 redemption of $600 million of 6.000% Senior Notes due 2013 and $655 million of 9.500% Senior Notes due 2014 and to fund expenses related to the spin-off of the commercial and residential security businesses, with any remaining proceeds to be used for general corporate purposes.

In July 2013, we fully redeemed the outstanding principal amount of $600 million of our 6.000% Senior Notes due 2013 and $655 million of our 9.500% Senior Notes due 2014, resulting in $45.6 million of redemption premium expense, which was recorded in the third quarter of 2013 in Interest expense.

Exchangeable Senior Notes Due 2012

In April 2009, we issued $345 million of 4.5% Exchangeable Senior Notes (the Notes) through our wholly-owned subsidiary, IR-Global. We settled all remaining outstanding Notes during 2012. As a result, we paid $357.0 million in cash and issued 10.8 million ordinary shares to settle the principal, interest and equity portion of the Notes.

Other

As of December 31, 2013, we have a a 4-year, $1.0 billion revolving credit facility maturing on May 20, 2015 and a 5-year, $1.0 billion revolving credit facility maturing on March 15, 2017, through our wholly-owned subsidiary, IR-Global.

IR-Ireland, IR-Limited and IR-International have each provided an irrevocable and unconditional guarantee for these credit facilities. During 2013, the credit facilities were modified to include IR-New Jersey as a guarantor. The total committed revolving credit facilities of $2.0 billion are unused and provide support for our commercial paper program as well as for other general corporate purposes.

In addition, other available non-U.S. lines of credit were $907.3 million, of which $660.0 million was unused at December 31, 2013. These lines provide support for bank guarantees, letters of credit and other general corporate purposes.

Pension Plans

Our investment objective in managing defined benefit plan assets is to ensure that all present and future benefit obligations are met as they come due. We seek to achieve this goal while trying to mitigate volatility in plan funded status, contribution and expense by better matching the characteristics of the plan assets to that of the plan liabilities. We use a dynamic approach to asset allocation whereby a plan's allocation to fixed income assets increases progressively over time towards an ultimate target of 90% as a plan moves toward full funding. We monitor plan funded status and asset allocation regularly in addition to investment manager performance.

We monitor the impact of market conditions on our defined benefit plans on a regular basis. None of our defined benefit pension plans have experienced a significant impact on their liquidity due to the volatility in the markets. For further details on pension plan activity, see Note 10 to the Consolidated Financial Statements.

Cash Flows

The following table reflects the major categories of cash flows for the years ended December 31, respectively. For additional details, please see the Consolidated Statements of Cash Flows in the Consolidated Financial Statements.

In millions	**2013**	**2012**	**2011**
Operating cash flow provided by (used in) continuing operations	$ 877.7	$ 868.1	$ 786.3
Investing cash flow provided by (used in) continuing operations	(213.2)	(128.2)	229.8
Financing cash flow provided by (used in) continuing operations	354.1	(1,295.7)	(1,239.8)

Operating Activities

Net cash provided by operating activities from continuing operations was $877.7 million for the year ended December 31, 2013 compared with $868.1 million in 2012. Operating cash flows for 2013 reflect consistent earnings from continuing operations after taking into account spin-related tax charges with no cash impact in 2013 and favorable changes in working capital management.

Net cash provided by operating activities from continuing operations was $868.1 million for the year ended December 31, 2012 compared with $786.3 million in 2011. Operating cash flows for 2012 and 2011 reflect consistent working capital levels and consistent earnings from continuing operations after taking into account the non-cash loss on sale/asset impairment charges related to the Hussmann divestiture.

Investing Activities

Net cash used in investing activities from continuing operations was $213.2 million for the year ended December 31, 2013 compared with $128.2 million in 2012. The change in investing activities is primarily attributable to increased capital expenditures and decreased net proceeds from business dispositions and equity investments in 2013 compared to 2012.

Net cash used in investing activities from continuing operations was $128.2 million for the year ended December 31, 2012 compared with net cash provided by investing activities from continuing operations of $229.8 million in 2011. The change in investing activities is primarily attributable to decreased net proceeds from business dispositions and sale of property, plant, and equipment in 2012 compared to 2011, partially offset by a $44.3 million dividend from the Company's equity investment in Hussmann Parent in 2012. During 2011, the Company received net proceeds from business dispositions of $400.3 million related to the sale of the

Hussmann Business and Branches and the collection of proceeds for purchase price adjustments on the sale of Doosan Infracore. During 2011, we also received proceeds from the sale of assets from a restructured business in China.

Financing Activities

Net cash provided by financing activities from continuing operations during the year ended December 31, 2013 was $354.1 million, compared with net cash used in financing activities from continuing operations of $1,295.7 million in 2012. The change in financing activities is primarily related to net proceeds from refinancing of our long term debt in 2013 and a transfer of $1,274.2 million from Allegion in connection with the spin-off , partially offset by increased repurchase of ordinary shares in 2013.

Net cash used in financing activities from continuing operations during the year ended December 31, 2012 was $1,295.7 million, compared with $1,239.8 million during 2011. The change in financing activities is primarily related to the settlement of the Exchangeable Senior Notes and increased dividend payments during 2012, partially offset by decreased share repurchases and increased proceeds from shares issued under incentive plans in 2012.

Capital Resources

Based on historical performance and current expectations, we believe our cash and cash equivalents balance, the cash generated from our operations, our committed credit lines and our expected ability to access capital markets will satisfy our working capital needs, capital expenditures, share repurchase programs, upcoming debt maturities, and other liquidity requirements associated with our operations for the foreseeable future.

Capital expenditures were $242.2 million, $243.1 million and $217.1 million for 2013, 2012 and 2011, respectively. Our investments continue to improve manufacturing productivity, reduce costs and provide environmental enhancements and advanced technologies for existing facilities. The capital expenditure program for 2014 is estimated to be approximately $250 million, including amounts approved in prior periods. Many of these projects are subject to review and cancellation at our option without incurring substantial charges.

For financial market risk impacting the Company, see Item 7A. Quantitative and Qualitative Disclosure About Market Risk.

Capitalization

In addition to cash on hand and operating cash flow, we maintain significant credit availability under our Commercial Paper Program. Our ability to borrow at a cost-effective rate under the Commercial Paper Program is contingent upon maintaining an investment-grade credit rating. As of December 31, 2013, our credit ratings were as follows:

	Short-term	Long-term
Moody’s	P-2	Baa2
Standard and Poor’s	A-2	BBB

The credit ratings set forth above are not a recommendation to buy, sell or hold securities and may be subject to revision or withdrawal by the assigning rating organization. Each rating should be evaluated independently of any other rating.

Our public debt does not contain financial covenants and our revolving credit lines have a debt-to-total capital covenant of 65%. As of December 31, 2013, our debt-to-total capital ratio was significantly beneath this limit.

Guarantees

Subsequent to our reorganization as an Irish plc, IR-Ireland and IR-Limited guaranteed fully and unconditionally the outstanding public debt of IR-International, IR-Global and IR-New Jersey. During 2013, IR-Global and IR-International public outstanding indentures were modified to include IR-New Jersey as a co-obligor.

Contractual Obligations

The following table summarizes our contractual cash obligations by required payment periods, in millions:

	Less than 1 year	1 - 3 years	3 - 5 years	More than 5 years	Total
Short-term debt	$ 16.7	$ —	$ —	$ —	$ 16.7
Long-term debt	351.0 *	517.2	765.4	1,877.3	3,510.9
Interest payments on long-term debt	194.3	344.4	314.8	1,531.3	2,384.8
Purchase obligations	954.0	—	—	—	954.0
Operating leases	111.6	149.2	71.6	60.7	393.1
Total contractual cash obligations	$ 1,627.6	$ 1,010.8	$ 1,151.8	$ 3,469.3	$ 7,259.5

* Includes $343 million of debt redeemable at the option of the holder. The scheduled maturities of these bonds range between 2027 and 2028. See Note 8 to the Consolidated Financial Statements for additional information.

Future expected obligations under our pension and postretirement benefit plans, income taxes, environmental, asbestos-related, and product liability matters have not been included in the contractual cash obligations table above.

Pensions

At December 31, 2013, we had net obligations of $554.0 million, which consist of noncurrent pension assets of $4.3 million and current and non-current pension benefit liabilities of $558.3 million. It is our objective to contribute to the pension plans to ensure adequate funds are available in the plans to make benefit payments to plan participants and beneficiaries when required. We currently project that we will contribute approximately $154.1 million to our plans worldwide in 2014. Because the timing and amounts of long-term funding requirements for pension obligations are uncertain, they have been excluded from the preceding table. See Note 10 to the Consolidated Financial Statements for additional information.

Postretirement Benefits Other than Pensions

At December 31, 2013, we had postretirement benefit obligations of $713.3 million. We fund postretirement benefit costs principally on a pay-as-you-go basis as medical costs are incurred by covered retiree populations. Benefit payments, which are net of expected plan participant contributions and Medicare Part D subsidy, are expected to be approximately $66.6 million in 2014. Because the timing and amounts of long-term funding requirements for postretirement obligations are uncertain, they have been excluded from the preceding table. See Note 10 to the Consolidated Financial Statements for additional information.

Income Taxes

At December 31, 2013, we have total unrecognized tax benefits for uncertain tax positions of $363.3 million and $71.9 million of related accrued interest and penalties, net of tax. The liability has been excluded from the preceding table as we are unable to reasonably estimate the amount and period in which these liabilities might be paid. See Note 15 to the Consolidated Financial Statements for additional information regarding matters relating to income taxes, including unrecognized tax benefits and Internal Revenue Service (IRS) tax disputes.

Contingent Liabilities

We are involved in various litigations, claims and administrative proceedings, including those related to environmental, asbestos-related, and product liability matters. We believe that these liabilities are subject to the uncertainties inherent in estimating future costs for contingent liabilities, and will likely be resolved over an extended period of time. Because the timing and amounts of potential future cash flows are uncertain, they have been excluded from the preceding table. See Note 18 to the Consolidated Financial Statements for additional information.

See Note 8 and Note 18 to the Consolidated Financial Statements for additional information on matters affecting our liquidity.

Critical Accounting Policies

Management's Discussion and Analysis of Financial Condition and Results of Operations are based upon our Consolidated Financial Statements, which have been prepared in accordance with accounting principles generally accepted in the United States (GAAP). The preparation of financial statements in conformity with those accounting principles requires management to use judgment in making estimates and assumptions based on the relevant information available at the end of each period. These estimates and assumptions have a significant effect on reported amounts of assets and liabilities, revenue and expenses as well as the disclosure of contingent assets and liabilities because they result primarily from the need to make estimates and assumptions on matters that are inherently uncertain. Actual results may differ from estimates. If updated information or actual amounts are different from previous estimates, the revisions are included in our results for the period in which they become known.

The following is a summary of certain accounting estimates and assumptions made by management that we consider critical.

- Allowance for doubtful accounts – We maintain an allowance for doubtful accounts receivable which represents our best estimate of probable loss inherent in our accounts receivable portfolio. This estimate is based upon our two step policy that results in the total recorded allowance for doubtful accounts. The first step is to create a specific reserve for significant accounts as to which the customer's ability to satisfy their financial obligation to the Company is in doubt due to circumstances such as bankruptcy, deteriorating operating results or financial position. In these circumstances, management uses its judgment to record an allowance based on the best estimate of probable loss, factoring in such considerations as the market value of collateral, if applicable. The second step is to record a portfolio reserve based on the aging of the outstanding accounts receivable portfolio and the Company's historical experience with our end markets, customer base and products. Actual results could differ from those estimates. These estimates and assumptions are reviewed periodically, and the effects of changes, if any, are reflected in the statement of operations in the period that they are determined.

- Goodwill and indefinite-lived intangible assets – We have significant goodwill and indefinite-lived intangible assets on our balance sheet related to acquisitions. Our goodwill and other indefinite-lived intangible assets are tested and reviewed annually during the fourth quarter for impairment or when there is a significant change in events or circumstances that indicate that the fair value of an asset is more likely than not less than the carrying amount of the asset.

  Recoverability of goodwill is measured at the reporting unit level and begins with a qualitative assessment to determine if it is more likely than not that the fair value of each reporting unit is less than its carrying amount as a basis for determining whether it is necessary to perform the two-step goodwill impairment test included in U.S. GAAP. For those reporting units where it is required, the first step compares the carrying amount of the reporting unit to its estimated fair value. If the estimated fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is not impaired and the second step of the impairment test is not necessary. To the extent that the carrying value of the reporting unit exceeds its estimated fair value, a second step is performed, wherein the reporting unit's carrying value of goodwill is compared to the implied fair value of goodwill. To the extent that the carrying value exceeds the implied fair value, impairment exists and must be recognized.

  As quoted market prices are not available for our reporting units, the calculation of their estimated fair value in step one is based on two valuation techniques, a discounted cash flow model (income approach) and a market adjusted multiple of earnings and revenues (market approach), with each method being equally weighted in the calculation. We believe an equal weighting of both approaches is appropriate. The income approach relies on the Company's estimates of future cash flows and explicitly addresses factors such as timing, growth and margins, with due consideration given to forecasting risk. The market approach reflects the market's expectations for future growth and risk, with adjustments to account for differences between the guideline publicly traded companies and the subject reporting units.

  In step 2, the implied fair value of goodwill is determined in the same manner as the amount of goodwill recognized in a business combination. The estimated fair value of the reporting unit is allocated to all of the assets and liabilities of the reporting unit (including any unrecognized intangible assets) as if the reporting unit had been acquired in a business combination and the fair value of the reporting unit, as determined in the first step of the goodwill impairment test, was the price paid to acquire that reporting unit.

  Recoverability of other intangible assets with indefinite useful lives is first assessed using a qualitative assessment to determine whether it is more likely than not that an indefinite-lived intangible asset is impaired. This assessment is used as a basis for determining whether it is necessary to calculate the fair value of an indefinite-lived intangible asset. For those indefinite-lived assets where it is required, a fair value is determined on a relief from royalty methodology (income approach) which is based on the implied royalty paid, at an appropriate discount rate, to license the use of an asset rather than owning the asset. The present value of the after-tax cost savings (i.e. royalty relief) indicates the estimated fair value of the asset. Any excess of the carrying value over the estimated fair value is recognized as an impairment loss equal to that excess.

  The determination of the estimated fair value and the implied fair value of goodwill and other indefinite-lived intangible assets requires us to make assumptions about estimated cash flows, including profit margins, long-term forecasts, discount rates and terminal growth rates. We developed these assumptions based on the market and geographic risks unique to each reporting unit.

  2013 Impairment Test

  For our annual impairment testing performed during the fourth quarter of 2013, we concluded it was necessary to calculate the fair value for each of the reporting units and indefinite-lived intangibles. Based on the results of these calculations, we determined that the fair value of the reporting units and indefinite-lived intangible assets exceeded their respective carrying values. The estimates of fair value are based on the best information available as of the date of the assessment, which primarily incorporates management assumptions about expected future cash flows.

Goodwill - Under the income approach, we assumed a forecasted cash flow period of five years with discount rates ranging from 10.0% to 15.5%, near term growth rates ranging from (0.2)% to 8.7% and terminal growth rates ranging from 3.0% to 4.0%. Under the market approach, we used an adjusted multiple ranging from 7.2 to 9.8 of projected earnings before interest, taxes, depreciation and amortization (EBITDA) and 0.9 to 2.4 of projected revenues based on the market information of comparable companies. Additionally, we compared the estimated aggregate fair value of our reporting units to our overall market capitalization.

For all reporting units, the excess of the estimated fair value over carrying value (expressed as a percentage of carrying value) was a minimum of 15%. A significant increase in the discount rate, decrease in the long-term growth rate, or substantial reductions in our end markets and volume assumptions could have a negative impact on the estimated fair value of these reporting units.

In our 2012 Form 10-K, we disclosed a Security Technologies reporting unit whose excess estimated fair value over carrying value was less than 15%. As a result of the spin-off, beginning in the fourth quarter of 2013, this reporting unit is now presented within discontinued operations. Please see Note 16 to the Consolidated Financial Statements for further discussion of goodwill impairment charges related to discontinued operations.

Other Indefinite-lived intangible assets - In testing our other indefinite-lived intangible assets for impairment, we assumed forecasted revenues for a period of five years with discount rates ranging from 10.5% to 12.0%, terminal growth rate of 3.0%, and royalty rates ranging from 3.0% to 4.5%. For all tradenames, the excess of the estimated fair value over carrying value (expressed as a percentage of carrying value) was a minimum of 15%.

A significant increase in the discount rate, decrease in the long-term growth rate, decrease in the royalty rate or substantial reductions in our end markets and volume assumptions could have a negative impact on the estimated fair values of any of our tradenames.

2012 Impairment Test

For our annual impairment testing performed during the fourth quarter of 2012, we concluded it was necessary to calculate the fair value for each of the reporting units and indefinite-lived intangibles. Based on the results of these calculations, we determined that the fair value of the reporting units and indefinite-lived intangible assets exceeded their respective carrying values. The estimates of fair value are based on the best information available as of the date of the assessment, which primarily incorporates management assumptions about expected future cash flows.

Goodwill - Under the income approach, we assumed a forecasted cash flow period of five years with discount rates ranging from 11.0% to 15.5%, near term growth rates ranging from (3.5)% to 14.5% and terminal growth rates ranging from 2.5% to 4.0%. Under the market approach, we used an adjusted multiple ranging from 6.6 to 9.2 of projected earnings before interest, taxes, depreciation and amortization (EBITDA) and 0.8 to 1.8 of projected revenues based on the market information of comparable companies. Additionally, we compared the estimated aggregate fair value of our reporting units to our overall market capitalization.

For all reporting units except one, the excess of the estimated fair value over carrying value (expressed as a percentage of carrying value) was a minimum of 15%. The reporting unit with a percentage of carrying value less than 15%, reported within the Climate segment, exceeded its carrying value by 14.4%. This reporting unit had goodwill of approximately $599 million at December 31, 2012. A significant increase in the discount rate, decrease in the long-term growth rate, or substantial reductions in our end markets and volume assumptions could have a negative impact on the estimated fair value of these reporting units.

Other Indefinite-lived intangible assets - In testing our other indefinite-lived intangible assets for impairment, we assumed forecasted revenues for a period of five years with discount rates ranging from 12.0% to 12.5%, terminal growth rates ranging from 2.5% to 3.0%, and royalty rates ranging from 3.0% to 4.0%. The fair values of our Trane and American Standard tradenames exceeded their respective carrying amounts by less than 15%. The two tradenames exceeded their carrying value by 10.5% and 13.0%, respectively. The carrying values of these tradenames are approximately $2,497 million and $105 million, respectively, at December 31, 2012.

A significant increase in the discount rate, decrease in the long-term growth rate, decrease in the royalty rate or substantial reductions in our end markets and volume assumptions could have a negative impact on the estimated fair values of any of our tradenames.

- Long-lived assets and finite-lived intangibles – Long-lived assets and finite-lived intangibles are reviewed for impairment whenever events or changes in business circumstances indicate that the carrying amount of an asset may not be fully recoverable. Assets are grouped with other assets and liabilities at the lowest level for which identifiable cash flows can be generated. Impairment in the carrying value of an asset would be recognized whenever anticipated future undiscounted cash flows from an asset are less than its carrying value. The impairment is measured as the amount by which the carrying value exceeds the fair value of the asset as determined by an estimate of discounted cash flows. We believe that our use of estimates and assumptions are reasonable and comply with generally accepted accounting principles. Changes in business conditions could potentially require future adjustments to these valuations.

- Loss contingencies – Liabilities are recorded for various contingencies arising in the normal course of business, including litigation and administrative proceedings, environmental and asbestos matters and product liability, product warranty, worker's compensation and other claims. We have recorded reserves in the financial statements related to these matters, which are developed using input derived from actuarial estimates and historical and anticipated experience data depending on the nature of the reserve, and in certain instances with consultation of legal counsel, internal and external consultants and engineers. Subject to the uncertainties inherent in estimating future costs for these types of liabilities, we believe our estimated reserves are reasonable and do not believe the final determination of the liabilities with respect to these matters would have a material effect on our financial condition, results of operations, liquidity or cash flows for any year.
- Asbestos matters – Certain of our wholly-owned subsidiaries are named as defendants in asbestos-related lawsuits in state and federal courts. We record a liability for our actual and anticipated future claims as well as an asset for anticipated insurance settlements. Asbestos related defense costs are excluded from the asbestos claims liability and are recorded separately as services are incurred. Although we were neither a manufacturer nor producer of asbestos, some of our formerly manufactured components from third party suppliers utilized asbestos-related components. As a result, we record certain income and expenses associated with our asbestos liabilities and corresponding insurance recoveries within discontinued operations, net of tax, as they relate to previously divested businesses, except for amounts associated with Trane U.S. Inc.'s asbestos liabilities and corresponding insurance recoveries which are recorded within continuing operations. Refer to Note 18 to the Consolidated Financial Statements for further details of asbestos-related matters.
- Revenue recognition – Revenue is recognized and earned when all of the following criteria are satisfied: (a) persuasive evidence of a sales arrangement exists; (b) the price is fixed or determinable; (c) collectability is reasonably assured; and (d) delivery has occurred or service has been rendered. Delivery generally occurs when the title and the risks and rewards of ownership have substantially transferred to the customer. Both the persuasive evidence of a sales arrangement and fixed or determinable price criteria are deemed to be satisfied upon receipt of an executed and legally binding sales agreement or contract that clearly defines the terms and conditions of the transaction including the respective obligations of the parties. If the defined terms and conditions allow variability in all or a component of the price, revenue is not recognized until such time that the price becomes fixed or determinable. At the point of sale, the Company validates that existence of an enforceable claim that requires payment within a reasonable amount of time and assesses the collectability of that claim. If collectability is not deemed to be reasonably assured, then revenue recognition is deferred until such time that collectability becomes probable or cash is received. Delivery is not considered to have occurred until the customer has taken title and assumed the risks and rewards of ownership. Service and installation revenue are recognized when earned. In some instances, customer acceptance provisions are included in sales arrangements to give the buyer the ability to ensure the delivered product or service meets the criteria established in the order. In these instances, revenue recognition is deferred until the acceptance terms specified in the arrangement are fulfilled through customer acceptance or a demonstration that established criteria have been satisfied. If uncertainty exists about customer acceptance, revenue is not recognized until acceptance has occurred.

  We offer various sales incentive programs to our customers, dealers, and distributors. Sales incentive programs do not preclude revenue recognition, but do require an accrual for the Company's best estimate of expected activity. Examples of the sales incentives that are accrued for as a contra receivable and sales deduction at the point of sale include, but are not limited to, discounts (i.e. net 30 type), coupons, and rebates where the customer does not have to provide any additional requirements to receive the discount. Sales returns and customer disputes involving a question of quantity or price are also accounted for as a reduction in revenue and a contra receivable. At December 31, 2013 and 2012, the Company had a customer claim accrual (contra receivable) of $1.7 million and $2.1 million, respectively. All other incentives or incentive programs where the customer is required to reach a certain sales level, remain a customer for a certain period of time, provide a rebate form or is subject to additional requirements are accounted for as a reduction of revenue and establishment of a liability. At December 31, 2013 and 2012, the Company had a sales incentive accrual of $80.1 million and $62.2 million, respectively. Each of these accruals represents the best estimate the Company expects to pay related to previously sold units. These estimates are reviewed regularly for accuracy. If updated information or actual amounts are different from previous estimates, the revisions are included in our results for the period in which they become known. Historically, the aggregate differences, if any, between our estimates and actual amounts in any year have not had a material impact on the Consolidated Financial Statements.

  The Company enters into maintenance and extended warranty contracts with customers. Revenue related to these services is recognized on a straight-line basis over the life of the contract, unless sufficient historical evidence indicates that the cost of providing these services is incurred on an other than straight-line basis. In these circumstances, revenue is recognized over the contract period in proportion to the costs expected to be incurred in performing the service.

The Company, primarily through its Climate segment, provides equipment (e.g. HVAC, controls), integrated solutions, and installation designed to customer specifications through construction-type contracts. The term of these types of contracts is typically less than one year, but can be as long as three years. Revenues related to these contracts are recognized using the percentage-of-completion method in accordance with GAAP. This measure of progress toward completion, utilized to recognize sales and profits, is based on the proportion of actual cost incurred to date as compared to the total estimate of contract costs at completion. The timing of revenue recognition often differs from the invoicing schedule to the customer, with revenue recognition in advance of customer invoicing recorded to unbilled accounts receivable and invoicing in advance of revenue recognition recorded to deferred revenue. At December 31, 2013, all recorded receivables (billed and unbilled) are due within one year. The Company re-evaluates its contract estimates periodically and reflects changes in estimates in the current period using the cumulative catch-up method. These periodic reviews have not historically resulted in significant adjustments. If estimated contract costs are in excess of contract revenues, then the excess costs are accrued.

We enter into sales arrangements that contain multiple elements, such as equipment, installation and service revenue. For multiple element arrangements, each element is evaluated to determine the separate units of accounting. The total arrangement consideration is then allocated to the separate units of accounting based on their relative selling price at the inception of the arrangement. The relative selling price is determined using vendor specific objective evidence (VSOE) of selling price, if it exists; otherwise, third-party evidence (TPE) of selling price is used. If neither VSOE nor TPE of selling price exists for a deliverable, a best estimate of the selling price is developed for that deliverable. The Company primarily utilizes VSOE to determine its relative selling price. The Company recognizes revenue for delivered elements when the delivered item has stand-alone value to the customer, the basic revenue recognition criteria have been met, and only customary refund or return rights related to the delivered elements exist.

- Income taxes – Deferred tax assets and liabilities are determined based on temporary differences between financial reporting and tax bases of assets and liabilities, applying enacted tax rates expected to be in effect for the year in which the differences are expected to reverse. We recognize future tax benefits, such as net operating losses and non-U.S. tax credits, to the extent that realizing these benefits is considered in our judgment to be more likely than not. We regularly review the recoverability of our deferred tax assets considering our historic profitability, projected future taxable income, timing of the reversals of existing temporary differences and the feasibility of our tax planning strategies. Where appropriate, we record a valuation allowance with respect to a future tax benefit.

  The provision for income taxes involves a significant amount of management judgment regarding interpretation of relevant facts and laws in the jurisdictions in which we operate. Future changes in applicable laws, projected levels of taxable income, and tax planning could change the effective tax rate and tax balances recorded by us. In addition, tax authorities periodically review income tax returns filed by us and can raise issues regarding our filing positions, timing and amount of income or deductions, and the allocation of income among the jurisdictions in which we operate. A significant period of time may elapse between the filing of an income tax return and the ultimate resolution of an issue raised by a revenue authority with respect to that return. We believe that we have adequately provided for any reasonably foreseeable resolution of these matters. We will adjust our estimate if significant events so dictate. To the extent that the ultimate results differ from our original or adjusted estimates, the effect will be recorded in the provision for income taxes in the period that the matter is finally resolved.

- Employee benefit plans – We provide a range of benefits to eligible employees and retirees, including pensions, postretirement and postemployment benefits. Determining the cost associated with such benefits is dependent on various actuarial assumptions including discount rates, expected return on plan assets, compensation increases, employee mortality, turnover rates and healthcare cost trend rates. Actuarial valuations are performed to determine expense in accordance with GAAP. Actual results may differ from the actuarial assumptions and are generally accumulated and amortized into earnings over future periods. We review our actuarial assumptions at each measurement date and make modifications to the assumptions based on current rates and trends, if appropriate. The discount rate, the rate of compensation increase and the expected long-term rates of return on plan assets are determined as of each measurement date. A discount rate reflects a rate at which pension benefits could be effectively settled. Discount rates for all plans are established using hypothetical yield curves based on the yields of corporate bonds rated AA quality. Spot rates are developed from the yield curve and used to discount future benefit payments. The rate of compensation increase is dependent on expected future compensation levels. The expected long-term rate of return on plan assets reflects the average rate of returns expected on the funds invested or to be invested to provide for the benefits included in the projected benefit obligation. The expected long-term rate of return on plan assets is based on what is achievable given the plan's investment policy, the types of assets held and the target asset allocation. The expected long-term rate of return is determined as of each measurement date. We believe that the assumptions utilized in recording our obligations under our plans are reasonable based on input from our actuaries, outside investment advisors and information as to assumptions used by plan sponsors.

Changes in any of the assumptions can have an impact on the net periodic pension cost or postretirement benefit cost. Estimated sensitivities to the expected 2014 net periodic pension cost of a 0.25% rate decline in the two basic assumptions are as follows: the decline in the discount rate would increase expense by approximately $5.0 million and the decline in the estimated return on assets would increase expense by approximately $6.8 million. A 0.25% rate decrease in the discount rate for postretirement benefits would decrease expected 2014 net periodic postretirement benefit cost by $0.5 million and a 1.0% increase in the healthcare cost trend rate would increase the service and interest cost by approximately $1.2 million.

Recent Accounting Pronouncements

Recently Adopted Accounting Pronouncements

In December 2011, the FASB issued ASU 2011-11, “Disclosures about Offsetting Assets and Liabilities.” ASU 2011-11 requires enhanced disclosures including both gross and net information about financial and derivative instruments eligible for offset or subject to an enforceable master netting arrangement or similar agreement. This new guidance is effective for annual reporting periods beginning on or after January 1, 2013 and subsequent interim periods. The requirements of ASU 2011-11 did not have an impact on our Consolidated Financial Statements.

In January 2013, the FASB issued ASU 2013-01, “Clarifying the Scope of Disclosures about Offsetting Assets and Liabilities.” ASU 2013-01 clarifies the scope of ASU 2011-11 to apply to derivative instruments that are offset or subject to an enforceable master netting arrangement or similar agreement. This clarified guidance is effective for annual reporting periods beginning on or after January 1, 2013 and subsequent interim periods. The revised requirements of ASU 2013-01 did not have an impact on our Consolidated Financial Statements.

In February 2013, the FASB issued ASU 2013-02, “Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income” (AOCI). ASU 2013-02 requires a rollforward of changes in AOCI by component and information about significant reclassifications from AOCI to Net earnings to be presented in one location, either on the face of the financial statements or in the notes. This new guidance is effective for fiscal years beginning after December 15, 2012 and subsequent interim periods. The requirements of ASU 2013-02 did not have a material impact on our Consolidated Financial Statements. The revised disclosure requirements are reflected in Note 11.

In July 2013, the FASB issued ASU 2013-10, “Inclusion of the Fed Funds Effective Swap Rate (or Overnight Index Swap Rate) as a Benchmark Interest Rate for Hedge Accounting Purposes.” ASU 2013-10 allows the Fed Funds Effective Swap Rate (OIS) to be designated as a U.S. benchmark interest rate for hedge accounting purposes, in addition to interest rates on direct Treasury obligations of the U.S. government and the London Interbank Offered Rate. The amendments also remove the restriction on using different benchmark rates for similar hedges. The amendments are effective prospectively for qualifying new or redesignated hedging relationships entered into on or after July 17, 2013. The Company will apply the new guidance, as applicable, to future interest rate hedge relationships.

Recently Issued Accounting Pronouncements

In February 2013, the FASB issued ASU 2013-04, “Obligations Resulting from Joint and Several Liability Arrangements for Which the Total Amount of the Obligation Is Fixed at the Reporting Date.” ASU 2013-04 provides guidance for the recognition, measurement, and disclosure of obligations resulting from joint and several liability arrangements where the total obligation is fixed at the reporting date, and for which no specific guidance currently exists. This new guidance is effective for annual reporting periods beginning on or after December 15, 2013 and subsequent interim periods. We are currently assessing the impact, if any, on our Consolidated Financial Statements.

In March 2013, the FASB issued ASU 2013-05, “Parent's Accounting for the Cumulative Translation Adjustment upon Derecognition of Certain Subsidiaries or Groups of Assets within a Foreign Entity or of an Investment in a Foreign Entity.” ASU 2013-05 clarifies the application of GAAP to the release of cumulative translation adjustments related to changes of ownership in or within foreign entities, including step acquisitions. This new guidance is effective for annual reporting periods beginning on or after December 15, 2013 and subsequent interim periods.

In July 2013, the FASB issued ASU 2013-11, “Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists.” ASU 2013-11 clarifies guidance and eliminates diversity in practice on the presentation of unrecognized tax benefits when a net operating loss carryforward, a similar tax loss, or a tax credit carryforward exists at the reporting date. This new guidance is effective for annual reporting periods beginning on or after December 15, 2013 and subsequent interim periods. We are currently assessing the impact, if any, on our Consolidated Financial Statements.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK

We are exposed to fluctuations in currency exchange rates, interest rates and commodity prices which could impact our results of operations and financial condition.

Foreign Currency Exposures

We have operations throughout the world that manufacture and sell products in various international markets. As a result, we are exposed to movements in exchange rates of various currencies against the U.S. dollar as well as against other currencies throughout the world. We actively manage material currency exposures that are associated with purchases and sales and other assets and liabilities at the operating unit level. Those exposures that cannot be naturally offset to an insignificant amount are hedged with foreign currency derivatives. Derivative instruments utilized by us in our hedging activities are viewed as risk management tools, involve little complexity and are not used for trading or speculative purposes. To minimize the risk of counter party non-performance, derivative instrument agreements are made only through major financial institutions with significant experience in such derivative instruments.

We evaluate our exposure to changes in currency exchange rates on our foreign currency derivatives using a sensitivity analysis. The sensitivity analysis is a measurement of the potential loss in fair value based on a percentage change in exchange rates. Based on the firmly committed currency derivative instruments in place at December 31, 2013, a hypothetical change in fair value of those derivative instruments assuming a 10% adverse change in exchange rates would result in an unrealized loss of approximately $107.8 million, as compared with $97.4 million at December 31, 2012. These amounts, when realized, would be offset by changes in the fair value of the underlying transactions.

Commodity Price Exposures

We are exposed to volatility in the prices of commodities used in some of our products and we use fixed price contracts to manage this exposure. We do not have committed commodity derivative instruments in place at December 31, 2013.

Interest Rate Exposure

Our debt portfolio mainly consists of fixed-rate instruments, and therefore any fluctuation in market interest rates would not have a material effect on our results of operations.

Item 8. **FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

(a) The following Consolidated Financial Statements and Financial Statement Schedules and the report thereon of PricewaterhouseCoopers LLP dated February 14, 2014, are presented following Item 15 of this Annual Report on Form 10-K.

Consolidated Financial Statements:
- Report of independent registered public accounting firm
- Consolidated Statements of comprehensive income for the years ended December 31, 2013, 2012 and 2011
- Consolidated balance sheets at December 31, 2013 and 2012
- For the years ended December 31, 2013, 2012 and 2011:
  - Consolidated statements of equity
  - Consolidated statements of cash flows
- Notes to Consolidated Financial Statements

Financial Statement Schedule:
- Schedule II – Valuation and Qualifying Accounts for the years ended December 31, 2013, 2012 and 2011:

(b) The unaudited selected quarterly financial data for the two years ended December 31, is as follows:

	2013			
In millions, except per share amounts	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Net revenues	$ 2,639.0	$ 3,398.4	$ 3,214.2	$ 3,098.9
Cost of goods sold	(1,904.6)	(2,362.9)	(2,207.7)	(2,200.3)
Operating income	120.0	387.5	379.5	218.0
Net earnings	94.5	324.8	180.9	53.7
Net earnings attributable to Ingersoll-Rand plc	88.0	317.2	165.9	47.7
Earnings per share attributable to Ingersoll-Rand plc ordinary shareholders:				
Basic	$ 0.29	$ 1.07	$ 0.57	$ 0.17
Diluted	$ 0.29	$ 1.05	$ 0.56	$ 0.16

	2012			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Net revenues	$ 2,671.2	$ 3,302.7	$ 3,090.4	$ 2,924.0
Cost of goods sold	(1,963.1)	(2,333.7)	(2,156.3)	(2,084.9)
Operating income	116.4	370.3	337.8	247.4
Net earnings	102.2	372.9	327.1	241.8
Net earnings attributable to Ingersoll-Rand plc	95.6	365.8	321.6	235.6
Earnings per share attributable to Ingersoll-Rand plc ordinary shareholders:				
Basic	$ 0.32	$ 1.18	$ 1.05	$ 0.79
Diluted	$ 0.31	$ 1.16	$ 1.03	$ 0.78

Quarterly amounts for periods prior to December 1, 2013 have been recast to reflect the Allegion spin-off as a discontinued operation.

Item 9. **CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

None.

Item 9A. **CONTROLS AND PROCEDURES**

(a) Evaluation of Disclosure Controls and Procedures

The Company's management, including its Chief Executive Officer and Chief Financial Officer, have conducted an evaluation of the effectiveness of the Company's disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act)), as of the end of the period covered by this Annual Report on Form 10-K. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded as of December 31, 2013, that the Company's disclosure controls and procedures were effective in ensuring that information required to be disclosed by the Company in reports that it files or submits under the Exchange Act has been recorded, processed, summarized and reported, within the time periods specified in the Commission's rules and forms, and that such information has been accumulated and communicated to the Company's management including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

(b) Management's Report on Internal Control Over Financial Reporting

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting as such term is defined under Exchange Act Rules 13a-15(f) and 15d-15(f). Internal control over financial reporting is a process designed by, or under the supervision of, the Chief Executive Officer and Chief Financial Officer and effected by the Company's Board of Directors to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies and procedures may deteriorate.

Management has assessed the effectiveness of internal control over financial reporting as of December 31, 2013. In making its assessment, management has utilized the criteria set forth by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission in Internal Control - Integrated Framework (1992). Management concluded that based on its assessment, the Company's internal control over financial reporting was effective as of December 31, 2013.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2013 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.

(c) Changes in Internal Control Over Financial Reporting

There were no changes in internal control over financial reporting (as defined by Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the quarter ended December 31, 2013 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B. **OTHER INFORMATION**

None.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information regarding our executive officers is included in Part I under the caption "Executive Officers of Registrant."

The other information required by this item is incorporated herein by reference to the information contained under the headings "Item 1. Election of Directors", "Section 16(a) Beneficial Ownership Reporting Compliance" and "Corporate Governance" in our definitive proxy statement for the 2014 annual general meeting of shareholders ("2014 Proxy Statement").

Item 11. EXECUTIVE COMPENSATION

The other information required by this item is incorporated herein by reference to the information contained under the headings "Compensation Discussion and Analysis", "Executive Compensation" and "Compensation Committee Report" in our 2014 Proxy Statement.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The other information required by this item is incorporated herein by reference to the information contained under the headings "Security Ownership of Certain Beneficial Owners and Management" and "Equity Compensation Plan Information" of our 2014 Proxy Statement.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The other information required by this item is incorporated herein by reference to the information contained under the headings "Corporate Governance" and "Certain Relationships and Related Person Transactions" of our 2014 Proxy Statement.

Item 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this item is incorporated herein by reference to the information contained under the caption "Fees of the Independent Auditors" in our 2014 Proxy Statement.

PART IV

Item 15. **EXHIBITS AND FINANCIAL STATEMENT SCHEDULES**

(a) 1. and 2. Financial statements and financial statement schedule
See Item 8.

3. Exhibits

The exhibits listed on the accompanying index to exhibits are filed as part of this Annual Report on Form 10-K.

INGERSOLL-RAND PLC
INDEX TO EXHIBITS
(Item 15(a))

Description

Pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC"), Ingersoll-Rand plc (the "Company") has filed certain agreements as exhibits to this Annual Report on Form 10-K. These agreements may contain representations and warranties by the parties. These representations and warranties have been made solely for the benefit of the other party or parties to such agreements and (i) may have been qualified by disclosures made to such other party or parties, (ii) were made only as of the date of such agreements or such other date(s) as may be specified in such agreements and are subject to more recent developments, which may not be fully reflected in our public disclosure, (iii) may reflect the allocation of risk among the parties to such agreements and (iv) may apply materiality standards different from what may be viewed as material to investors. Accordingly, these representations and warranties may not describe our actual state of affairs at the date hereof and should not be relied upon.

On July 1, 2009, Ingersoll-Rand Company Limited, a Bermuda company, completed a reorganization to change the jurisdiction of incorporation of the parent company from Bermuda to Ireland. As a result, Ingersoll-Rand plc replaced Ingersoll-Rand Company Limited as the ultimate parent company effective July 1, 2009. All references related to the Company prior to July 1, 2009 relate to Ingersoll-Rand Company Limited.

(a) Exhibits

Exhibit No.	Description	Method of Filing
2.1	Asset and Stock Purchase Agreement, dated as of July 29, 2007, among Ingersoll-Rand Company Limited, on behalf of itself and certain of its subsidiaries, and Doosan Infracore Co., Ltd. and Doosan Engine Co., Ltd., on behalf of themselves and certain of their subsidiaries	Incorporated by reference to Exhibit 2.1 to the Company's Form 8-K (File No. 001-16831) filed with the SEC on July 31, 2007.
2.2	Separation and Distribution Agreement, dated as of July 16, 2007, by and between Trane Inc. (formerly American Standard Companies Inc.) and WABCO Holdings Inc.	Incorporated by reference to Exhibit 2.1 to Trane Inc.'s Form 8-K (File No. 001-11415) filed with the SEC on July 20, 2007.
2.3	Separation and Distribution Agreement between Ingersoll-Rand plc and Allegion plc, dated November 29, 2013.	Incorporated by reference to Exhibit 3.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on December 2, 2013.
3.1	Memorandum of Association of Ingersoll-Rand plc	Incorporated by reference to Exhibit 3.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
3.2	Articles of Association of Ingersoll-Rand plc, as amended and restated on June 6,2013.	Incorporated by reference to Exhibit 3.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on June 10, 2013.
3.3	Certificate of Incorporation of Ingersoll-Rand plc	Incorporated by reference to Exhibit 3.3 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.

Exhibit No.	Description	Method of Filing
	The Company and its subsidiaries are parties to several long-term debt instruments under which, in each case, the total amount of securities authorized does not exceed 10% of the total assets of the Company and its subsidiaries on a consolidated basis.	Pursuant to paragraph 4 (iii)(A) of Item 601 (b) of Regulation S-K, the Company agrees to furnish a copy of such instruments to the Securities and Exchange Commission upon request.
4.1	Indenture, dated as of August 12, 2008, among the Company, Ingersoll-Rand Global Holding Company Limited and Wells Fargo Bank, N.A., as Trustee (replacing the Indenture originally filed as Exhibit 4.1 to the Company's Form 10-Q (File No. 001-16831) for the period ended September 30, 2008 as filed with the SEC on November 7, 2008)	Incorporated by reference to Exhibit 4.4 to the Company's Form 10-K for the fiscal year ended 2008 (File No. 001-16831) filed with the SEC on March 2, 2009.
4.2	First Supplemental Indenture, dated as of August 15, 2008, among the Company, Ingersoll-Rand Global Holding Company Limited and Wells Fargo Bank, N.A., as trustee, to that certain Indenture, dated as of August 12, 2008, among the Company, Ingersoll-Rand Global Holding Company Limited and Wells Fargo Bank, N.A., as trustee	Incorporated by reference to Exhibit 1.1 to the Company's Form 8-K (File No. 001-16831) filed with the SEC on August 18, 2008.
4.3	Second Supplemental Indenture, dated as of April 3, 2009, among the Company, Ingersoll-Rand Global Holding Company Limited and Wells Fargo Bank, N.A., as trustee, to that certain Indenture, dated as of August 12, 2008, among the Company, Ingersoll-Rand Global Holding Company Limited and Wells Fargo Bank, N.A., as trustee	Incorporated by reference to Exhibit 4.1 to the Company's Form 8-K (File No. 001-16831) filed with the SEC on April 6, 2009.
4.4	Third Supplemental Indenture, dated as of April 6, 2009, among the Company, Ingersoll-Rand Global Holding Company Limited and Wells Fargo Bank, N.A., as trustee, to that certain Indenture, dated as of August 12, 2008, among the Company, Ingersoll-Rand Global Holding Company Limited and Wells Fargo Bank, N.A., as trustee	Incorporated by reference to Exhibit 4.2 to the Company's Form 8-K (File No. 001-16831) filed with the SEC on April 6, 2009.

Exhibit No.	Description	Method of Filing
4.5	Fourth Supplemental Indenture, dated as of June 29, 2009, among Ingersoll-Rand Global Holding Company Limited, a Bermuda exempted company, Ingersoll-Rand Company Limited, a Bermuda exempted company, Ingersoll-Rand International Holding Limited, a Bermuda exempted company, Ingersoll-Rand plc, an Irish public limited company, and Wells Fargo Bank, N.A., as Trustee, to the Indenture dated as of August 12, 2008	Incorporated by reference to Exhibit 4.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
4.6	Fifth Supplemental Indenture, dated as of June 29, 2009, among Ingersoll-Rand Company, a New Jersey corporation, Ingersoll-Rand plc, an Irish public limited company, Ingersoll-Rand International Holding Limited, a Bermuda exempted company, and The Bank of New York Mellon, as Trustee, to the Indenture dated as of August 1, 1986	Incorporated by reference to Exhibit 4.3 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
4.7	Indenture, dated as of May 24. 2005, among Ingersoll-Rand Company Limited, Ingersoll-Rand Company and Wells Fargo Bank, N.A., as trustee	Incorporated by reference to Exhibit 10.2 to the Company's 8-K (File No. 001-16831) filed with the SEC on May 27, 2005.
4.8	First Supplemental Indenture, dated as of June 29, 2009, among Ingersoll-Rand Company Limited, a Bermuda exempted company, Ingersoll-Rand Company, a New Jersey corporation, Ingersoll-Rand International Holding Limited, a Bermuda exempted company, Ingersoll-Rand plc, an Irish public limited company, and Wells Fargo Bank, N.A., as Trustee, to the Indenture dated as of May 24, 2005	Incorporated by reference to Exhibit 4.2 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
4.9	Second Supplemental Indenture, dated as of November 20, 2013, among Ingersoll-Rand International Holding Limited, a Bermuda company, Ingersoll-Rand Company, a New Jersey corporation, and Wells Fargo Bank, N.A., as Trustee, to the Indenture dated as of May 24, 2005.	Incorporated by reference to Exhibit 4.3 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on November 26, 2013.
4.10	Indenture, dated as of April 1, 2005, among the American Standard Inc., Trane Inc. (formerly American Standard Companies Inc.), American Standard International Inc. and The Bank of New York Trust Company, N.A., as trustee	Incorporated by reference to Exhibit 4.1 to Trane, Inc.'s 8-K (File No. 001-11415) filed with the SEC on April 1, 2005.

Exhibit No.	Description	Method of Filing
4.11	Indenture, dated as of June 20, 2013, by and among Ingersoll-Rand Global Holding Company Limited, as issuer, Ingersoll-Rand plc, Ingersoll-Rand Company Limited and Ingersoll-Rand International Holding Limited, as guarantors and The Bank of New York Mellon, as Trustee.	Incorporated by reference to Exhibit 4.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on June 26, 2013.
4.12	First Supplemental Indenture, dated as of June 20, 2013, by and among Ingersoll-Rand Global Holding Company Limited, as issuer, Ingersoll-Rand plc, Ingersoll-Rand Company Limited and Ingersoll-Rand International Holding Limited, as guarantors and The Bank of New York Mellon, as Trustee, relating to the 2.875% Senior Notes due 2019.	Incorporated by reference to Exhibit 4.2 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on June 26, 2013.
4.13	Second Supplemental Indenture, dated as of June 20, 2013, by and among Ingersoll-Rand Global Holding Company Limited, as issuer, Ingersoll-Rand plc, Ingersoll-Rand Company Limited and Ingersoll-Rand International Holding Limited, as guarantors and The Bank of New York Mellon, as Trustee, relating to the 4.250% Senior Notes due 2023.	Incorporated by reference to Exhibit 4.3 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on June 26, 2013.
4.14	Third Supplemental Indenture, dated as of June 20, 2013, by and among Ingersoll-Rand Global Holding Company Limited, as issuer, Ingersoll-Rand plc, Ingersoll-Rand Company Limited and Ingersoll-Rand International Holding Limited, as guarantors and The Bank of New York Mellon, as Trustee, relating to the 5.750% Senior Notes due 2043.	Incorporated by reference to Exhibit 4.4 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on June 26, 2013.
4.15	Fourth Supplemental Indenture, dated as of November 20, 2013, among Ingersoll-Rand Global Holding Company Limited, a Bermuda company, Ingersoll-Rand Company Limited, a Bermuda company, Ingersoll-Rand International Holding Limited, a Bermuda company, Ingersoll-Rand plc, an Irish public limited company, Ingersoll-Rand Company, a New Jersey corporation, and The Bank of New York Mellon, as Trustee, to the Indenture dated as of June 20, 2013.	Incorporated by reference to Exhibit 4.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on November 26, 2013.

Exhibit No.	Description	Method of Filing
4.16	Fifth Supplemental Indenture, dated as of November 20, 2013, among Ingersoll-Rand Global Holding Company Limited, a Bermuda company, Ingersoll-Rand International Holding Limited, a Bermuda company, Ingersoll-Rand Company, a New Jersey corporation, and Wells Fargo Bank, N.A., as Trustee, to the Indenture dated as of August 12, 2008.	Incorporated by reference to Exhibit 4.2 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on November 26, 2013.
4.17	Form of Registration Rights Agreement, dated as of June 20, 2013, by and among Ingersoll-Rand Global Holding Company Limited, Ingersoll-Rand plc, Ingersoll-Rand Company Limited, Ingersoll-Rand International Holding Limited and the Representatives of the Initial Purchasers named therein.	Incorporated by reference to Exhibit 4.5 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on June 26, 2013.
4.18	Form of Ordinary Share Certificate of Ingersoll-Rand plc	Incorporated by reference to Exhibit 4.6 to the Company's Form S-3 (File No. 333-161334) filed with the SEC on August 13, 2009.
10.1	Form of IR Stock Option Grant Agreement (June 2013)	Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on June 10, 2013.
10.2	Form of IR Restricted Stock Unit Grant Agreement (June 2013)	Incorporated by reference to Exhibit 10.2 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on June 10, 2013.
10.3	Form of IR Performance Stock Unit Grant Agreement (June 2013)	Incorporated by reference to Exhibit 10.3 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on June 10, 2013.
10.4	Credit Agreement among Ingersoll-Rand Global Holding Company Limited, Ingersoll-Rand plc, Ingersoll-Rand Company Limited, Ingersoll-Rand International Holding Limited, JPMorgan Chase Bank, N.A., as Administrative Agent, Citibank, N.A., as Syndication Agent, Bank of America, N.A., BNP Paribas, Deutsche Bank Securities Inc., Goldman Sachs Bank USA, Morgan Stanley MUFG Loan Partners, LLC, and Mizuho Corporate Bank, Ltd., as Documentation Agents, and J.P. Morgan Securities LLC and Citigroup Global Markets Inc., as joint lead arrangers and joint bookrunners; and certain other lending institutions from time to time parties thereto	Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on March 21, 2012.

Exhibit No.	Description	Method of Filing
10.5	Supplement No. 1, dated as of November 20, 2013, between Ingersoll-Rand Company, a New Jersey Corporation, and JPMorgan Chase Bank, N.A., as Administrative Agent, to the Credit Agreement dated as of March 15, 2012.	Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on November 26, 2013.
10.6	Credit Agreement dated as of May 20, 2011 among the Company; Ingersoll-Rand Global Holding Company Limited; J.P. Morgan Chase Bank, N.A., as Administrative Agent, Citibank, N.A., as Syndication Agent, Bank of America, N.A., BNP Paribas, Deutsche Bank Securities Inc., Goldman Sachs Bank USA and Morgan Stanley MUFG Loan Parties, LLC , as Documentation Agents, and J.P. Morgan Securities Inc. and Citigroup Global Markets Inc., as joint lead arrangers and joint bookrunners; and certain lending institutions from time to time parties thereto	Incorporated by reference to Exhibit 10.1 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on May 24, 2011.
10.7	Supplement No. 1, dated as of November 20, 2013, between Ingersoll-Rand Company, a New Jersey Corporation, and JPMorgan Chase Bank, N.A., as Administrative Agent, to the Credit Agreement dated as of May 20, 2011.	Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on November 26, 2013.
10.8	Issuing and Paying Agency Agreement by and among Ingersoll-Rand Global Holding Company Limited, Ingersoll-Rand plc, Ingersoll-Rand Company Limited, Ingersoll-Rand International Holding Limited and JPMorgan Chase Bank, National Association, dated as of July 1, 2009	Incorporated by reference to Exhibit 10.1 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on July 6, 2009.
10.9	Amended and Restated Commercial Paper Dealer Agreement among Ingersoll-Rand Global Holding Company Limited, Ingersoll-Rand Company Limited, Ingersoll-Rand plc, Ingersoll-Rand International Holding Limited and J.P. Morgan Securities Inc., dated as of July 1, 2009	Incorporated by reference to Exhibit 10.2 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on July 6, 2009.
10.10	Amended and Restated Commercial Paper Dealer Agreement among Ingersoll-Rand Global Holding Company Limited, Ingersoll-Rand Company Limited, Ingersoll-Rand plc, Ingersoll-Rand International Holding Limited and Banc of America Securities LLC, dated as of July 1, 2009	Incorporated by reference to Exhibit 10.3 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on July 6, 2009.

Exhibit No.	Description	Method of Filing
10.11	Amended and Restated Commercial Paper Dealer Agreement among Ingersoll-Rand Global Holding Company Limited, Ingersoll-Rand Company Limited, Ingersoll-Rand plc, Ingersoll-Rand International Holding Limited and Citigroup Global Markets Inc., dated as of July 1, 2009	Incorporated by reference to Exhibit 10.4 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 6, 2009.
10.12	Amended and Restated Commercial Paper Dealer Agreement among Ingersoll-Rand Global Holding Company Limited, Ingersoll-Rand Company Limited, Ingersoll-Rand plc, Ingersoll-Rand International Holding Limited and Deutsche Bank Securities Inc., dated as of July 1, 2009	Incorporated by reference to Exhibit 10.5 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 6, 2009.
10.13	Deed Poll Indemnity of Ingersoll-Rand plc, an Irish public limited company, as to the directors, secretary and officers and senior executives of Ingersoll-Rand plc and the directors and officers of Ingersoll-Rand plc's subsidiaries	Incorporated by reference to Exhibit 10.5 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.14	Deed Poll Indemnity of Ingersoll-Rand Company Limited, a Bermuda company, as to the directors, secretary and officers and senior executives of Ingersoll-Rand plc and the directors and officers of Ingersoll-Rand plc's subsidiaries	Incorporated by reference to Exhibit 10.6 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.15	Tax Sharing Agreement, dated as of July 16, 2007, by and among American Standard Companies Inc. and certain of its subsidiaries and WABCO Holdings Inc. and certain of its subsidiaries	Incorporated by reference to Exhibit 10.1 to Trane Inc.'s Form 8-K (File No. 001-11415) filed with the SEC on July 20, 2007.
10.16	Tax Matters Agreement between Ingersoll-Rand plc and Allegion plc, dated November 30, 2013	Incorporated by reference to Exhibit 10.2 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on December 2, 2013.
10.17	Ingersoll-Rand plc Incentive Stock Plan of 2013	Incorporated by reference to Exhibit 4.5 to the Company's Form S-8 (File No. 333-189446) filed with the SEC on June 19, 2013.
10.18	Ingersoll-Rand plc Incentive Stock Plan of 2007 (amended and restated as of December 1, 2010)	Incorporated by reference to Exhibit 10.18 to the Company's Form 10-K for the fiscal year ended 2010 (File No. 001-34400) filed with the SEC on February 22, 2011.
10.19	Ingersoll-Rand plc Incentive Stock Plan of 1998 (amended and restated as of July 1, 2009)	Incorporated by reference to Exhibit 10.8 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.

Exhibit No.	Description	Method of Filing
10.20	Ingersoll-Rand Company Incentive Stock Plan of 1995 (amended and restated effective July 1, 2009)	Incorporated by reference to Exhibit 10.7 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.21	IR Executive Deferred Compensation Plan (as amended and restated effective July 1, 2009)	Incorporated by reference to Exhibit 10.9 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.22	IR Executive Deferred Compensation Plan II (as amended and restated effective July 1, 2009)	Incorporated by reference to Exhibit 10.10 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.23	First Amendment to IR Executive Deferred Compensation Plan II (dated December 22, 2009)	Incorporated by reference to Exhibit 10.19 to the Company’s Form 10-K for the fiscal year ended 2011 (File No. 001-34400) filed with the SEC on February 21, 2012.
10.24	Second Amendment to IR Executive Deferred Compensation Plan II (dated December 23, 2010)	Incorporated by reference to Exhibit 10.20 to the Company’s Form 10-K for the fiscal year ended 2011 (File No. 001-16831) filed with the SEC on February 21, 2012.
10.25	IR-plc Director Deferred Compensation and Stock Award Plan (as amended and restated effective July 1, 2009)	Incorporated by reference to Exhibit 10.11 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.26	IR-plc Director Deferred Compensation and Stock Award Plan II (as amended and restated effective July 1, 2009)	Incorporated by reference to Exhibit 10.12 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.27	Ingersoll-Rand Company Supplemental Employee Savings Plan (amended and restated effective October 1, 2012)	Incorporated by reference to exhibit 10.23 to the Company's Form 10-K for the fiscal year ended 2012 (File No. 001-34400) filed with the SEC on February 14, 2013.
10.28	Ingersoll-Rand Company Supplemental Employee Savings Plan II (effective January 1, 2005 and amended and restated through October 1, 2012)	Incorporated by reference to exhibit 10.24 to the Company's Form 10-K for the fiscal year ended 2012 (File No. 001-34400) filed with the SEC on February 14, 2013.
10.29	Trane Inc. 2002 Omnibus Incentive Plan (restated to include all amendments through July 1, 2009)	Incorporated by reference to Exhibit 10.17 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.30	Trane Inc. Deferred Compensation Plan (as amended and restated as of July 1, 2009, except where otherwise stated)	Incorporated by reference to Exhibit 10.19 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.

Exhibit No.	Description	Method of Filing
10.31	Trane Inc. Supplemental Savings Plan (restated to include all amendments through July 1, 2009)	Incorporated by reference to Exhibit 10.20 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.32	First Amendment to Trane Inc. Supplemental Savings Plan (January 1, 2010)	Incorporated by reference to Exhibit 10.31 to the Company's Form 10-K for the fiscal year ended 2011 (File No. 001-34400) filed with the SEC on February 21, 2012.
10.33	Ingersoll-Rand Company Supplemental Pension Plan (Amended and Restated Effective January 1, 2005)	Incorporated by reference to Exhibit 10.28 to the Company’s Form 10-K for the fiscal year ended 2008 (File No. 001-16831) filed with the SEC on March 2, 2009.
10.34	First Amendment to the Ingersoll-Rand Company Supplemental Pension Plan, dated as of July 1, 2009	Incorporated by reference to Exhibit 10.21 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.35	Ingersoll-Rand Company Supplemental Pension Plan II (Effective January 1, 2005 and Amended and Restated effective October 1, 2012)	Incorporated by reference to exhibit 10.31 to the Company's Form 10-K for the fiscal year ended 2012 (File No. 001-34400) filed with the SEC on February 14, 2013.
10.36	Ingersoll-Rand Company Elected Officers Supplemental Plan II (Effective January 1, 2005 and Amended and Restated effective October 1, 2012)	Incorporated by reference to exhibit 10.32 to the Company's Form 10-K for the fiscal year ended 2012 (File No. 001-34400) filed with the SEC on February 14, 2013.
10.37	Senior Executive Performance Plan	Incorporated by reference to Exhibit 10.39 to the Company's Form 10-K for the fiscal year ended 2011 (File No. 001-34400) filed with the SEC on February 21, 2012.
10.38	Description of Annual Incentive Matrix Program	Incorporated by reference to Exhibit 10.40 to the Company's Form 10-K for the fiscal year ended 2011 (File No. 001-34400) filed with the SEC on February 21, 2012.
10.39	Form of Tier 1 Change in Control Agreement (Officers before May 19, 2009)	Incorporated by reference to Exhibit 99.1 to the Company's Form 8-K (File No. 001-16831) filed with the SEC on December 4, 2006.
10.40	Form of Tier 2 Change in Control Agreement (Officers before May 19, 2009)	Incorporated by reference to Exhibit 99.2 to the Company’s Form 8-K (File No. 001-16831) filed with the SEC on December 4, 2006.

Exhibit No.	Description	Method of Filing
10.41	Form of Tier 1 Change in Control Agreement (New Officers on or after May 19, 2009)	Incorporated by reference to Exhibit 10.32 to the Company's Form 10-Q for the period ended June 30, 2009 (File No. 001-34400) filed with the SEC on August 6, 2009.
10.42	Form of Tier 2 Change in Control Agreement (New Officers on or after May 19, 2009)	Incorporated by reference to Exhibit 10.33 to the Company's Form 10-Q for the period ended June 30, 2009 (File No. 001-34400) filed with the SEC on August 6, 2009.
10.43	Amended and Restated Major Restructuring Severance Plan (as amended and restated effective October 1, 2013)	Filed herewith.
10.44	Steven R. Shawley Offer Letter, dated June 5, 2008	Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K (File No. 001-16831) filed with the SEC on June 10, 2008.
10.45	Addendum to Steven R. Shawley Offer Letter, dated August 7, 2008	Incorporated by reference to Exhibit 10.9 to the Company's Form 10-Q for the period ended June 30, 2008 (File No. 001-16831) filed with the SEC on August 8, 2008.
10.46	Didier Teirlinck Offer Letter, dated June 5, 2008	Incorporated by reference to Exhibit 10.4 to the Company's Form 8-K (File No. 001-16831) filed with the SEC on June 10, 2008.
10.47	Addendum to Didier Teirlinck Offer Letter, dated July 17, 2008	Incorporated by reference to Exhibit 10.13 to the Company's Form 10-Q for the period ended June 30, 2008 (File No. 001-16831) filed with the SEC on August 8, 2008.
10.48	Addendum to Didier Teirlinck Offer Letter, dated December 9, 2013	Filed herewith.
10.49	Michael W. Lamach Letter, dated December 24, 2003	Incorporated by reference to Exhibit 10.23 to the Company's Form 10-K for the fiscal year ended 2003 (File No. 001-16831) filed with the SEC on February 27, 2004.
10.50	Michael W. Lamach Letter, dated June 4, 2008	Incorporated by reference to Exhibit 10.2 to the Company's Form 8-K (File No. 001-16831) filed with the SEC on June 10, 2008.
10.51	Michael W. Lamach Letter, dated February 4, 2009	Incorporated by reference to Exhibit 10.43 to the Company's Form 10-K for the fiscal year ended 2008 (File No. 001-16831) filed with the SEC on March 2, 2009.

Exhibit No.	Description	Method of Filing
10.52	Michael W. Lamach Letter, dated February 3, 2010	Incorporated by reference to Exhibit 10.1 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on February 5, 2010.
10.53	Michael W. Lamach Letter, dated December 23, 2012	Incorporated by reference to exhibit 10.48 to the Company's Form 10-K for the fiscal year ended 2012 (File No. 001-34400) filed with the SEC on February 14, 2013.
10.54	Robert Zafari Letter and Addendum, dated August 25, 2010	Incorporated by reference to Exhibit 10.1 to the Company’s Form 10-Q for the period ended September 30, 2010 (File No. 001-34400) filed with the SEC on November 1, 2010.
10.55	Addendum to Robert Zafari Offer Letter, dated December 9, 2013	Filed herewith.
10.56	Robert L. Katz Letter, dated September 28, 2010	Incorporated by reference to Exhibit 10.65 to the Company’s Form 10-K for the fiscal year ended 2010 (File No. 001-34400) filed with the SEC on February 22, 2011.
10.57	Robert L. Katz Letter, dated December 20, 2012	Incorporated by reference to exhibit 10.51 to the Company's Form 10-K for the fiscal year ended 2012 (File No. 001-34400) filed with the SEC on February 14, 2013.
10.58	Employment Agreement with Marcia J. Avedon, Senior Vice President, dated January 8, 2007	Incorporated by reference to Exhibit 10.45 to the Company's Form 10-K for the fiscal year ended December 31, 2006 (File No. 001-16831) filed with the SEC on March 1, 2007.
10.59	Marcia J. Avedon Letter, dated December 20, 2012	Incorporated by reference to exhibit 10.53 to the Company's Form 10-K for the fiscal year ended 2012 (File No. 001-34400) filed with the SEC on February 14, 2013.
10.60	Susan K. Carter Employment Agreement, dated as of August 19, 2013	Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on October 2, 2013.
10.61	Employee Matters Agreement between Ingersoll-Rand plc and Allegion plc, dated November 30, 2013.	Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on December 2, 2013.
12	Computations of Ratios of Earnings to Fixed Charges	Filed herewith.
21	List of Subsidiaries of Ingersoll-Rand plc	Filed herewith.

Exhibit No.	Description	Method of Filing
23.1	Consent of Independent Registered Public Accounting Firm	Filed herewith.
31.1	Certification of Chief Executive Officer Pursuant to Rule 13a-14(a) or Rule 15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith.
31.2	Certification of Chief Financial Officer Pursuant to Rule 13a-14(a) or Rule 15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith.
32	Certifications of Chief Executive Officer and Chief Financial Officer Pursuant to Rule 13a-14(b) or Rule 15d-14(b) and 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	Furnished herewith.
101	The following materials from the Company's Annual Report on Form 10-K for the year ended December 31, 2013, formatted in XBRL (Extensible Business Reporting Language): (i) the Consolidated Statements of Comprehensive Income, (ii) the Consolidated Balance Sheets, (iii) the Consolidated Statements of Equity, (iv) the Consolidated Statements of Cash Flows, and (v) Notes to Consolidated Financial Statements.	Furnished herewith.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

INGERSOLL-RAND PLC
(Registrant)

By:	/s/ Michael W. Lamach
	Michael W. Lamach
	Chief Executive Officer
Date:	February 14, 2014

Pursuant to the requirement of the Securities Exchange Act of 1934, this report has been signed by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Michael W. Lamach (Michael W. Lamach)	Chairman of the Board, Chief Executive Officer and President (Principal Executive Officer)	February 14, 2014
/s/ Susan K. Carter (Susan K. Carter)	Senior Vice President and Chief Financial Officer (Principal Financial Officer)	February 14, 2014
/s/ Richard J. Weller (Richard J. Weller)	Vice President and Controller (Principal Accounting Officer)	February 14, 2014
/s/ Ann C. Berzin (Ann C. Berzin)	Director	February 14, 2014
/s/ John Bruton (John Bruton)	Director	February 14, 2014
/s/ Jared L. Cohon (Jared L. Cohon)	Director	February 14, 2014
/s/ Gary D. Forsee (Gary D. Forsee)	Director	February 14, 2014
/s/ Edward E. Hagenlocker (Edward E. Hagenlocker)	Director	February 14, 2014
/s/ Constance J. Horner (Constance J. Horner)	Director	February 14, 2014
/s/ Theodore E. Martin (Theodore E. Martin)	Director	February 14, 2014
/s/ Nelson Peltz (Nelson Peltz)	Director	February 14, 2014
/s/ John P. Surma (John P. Surma)	Director	February 14, 2014
/s/ Richard J. Swift (Richard J. Swift)	Director	February 14, 2014
/s/ Tony L. White (Tony L. White)	Director	February 14, 2014

INGERSOLL-RAND PLC
Index to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors of Ingersoll-Rand plc:

In our opinion, the Consolidated Financial Statements listed in the accompanying index present fairly, in all material respects, the financial position of Ingersoll-Rand plc and its subsidiaries (the "Company") at December 31, 2013 and 2012, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2013 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the accompanying index presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2013, based on criteria established in *Internal Control - Integrated Framework (1992)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements and financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying "Management's Report on Internal Control over Financial Reporting." Our responsibility is to express opinions on these financial statements, on the financial statement schedule, and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP
Charlotte, North Carolina
February 14, 2014

Ingersoll-Rand plc
Consolidated Statements of Comprehensive Income
In millions, except per share amounts

For the years ended December 31,	2013	2012	2011
Net revenues	$ 12,350.5	$ 11,988.3	$ 12,760.8
Cost of goods sold	(8,675.5)	(8,538.0)	(9,280.0)
Selling and administrative expenses	(2,570.0)	(2,382.9)	(2,395.2)
Gain (loss) on sale/asset impairment	—	4.5	(646.9)
Operating income	1,105.0	1,071.9	438.7
Interest expense	(278.8)	(252.0)	(278.5)
Other, net	3.4	28.1	28.4
Earnings before income taxes	829.6	848.0	188.6
Provision for income taxes	(189.0)	(56.0)	(45.4)
Earnings from continuing operations	640.6	792.0	143.2
Discontinued operations, net of tax	13.3	252.0	226.1
Net earnings	653.9	1,044.0	369.3
Less: Net earnings attributable to noncontrolling interests	(35.1)	(25.4)	(26.1)
Net earnings attributable to Ingersoll-Rand plc	$ 618.8	$ 1,018.6	$ 343.2
Amounts attributable to Ingersoll-Rand plc ordinary shareholders:			
Continuing operations	$ 620.1	$ 772.4	$ 123.4
Discontinued operations	(1.3)	246.2	219.8
Net earnings	$ 618.8	$ 1,018.6	$ 343.2
Earnings (loss) per share attributable to Ingersoll-Rand plc ordinary shareholders:			
Basic:			
Continuing operations	$ 2.11	$ 2.54	$ 0.38
Discontinued operations	—	0.81	0.68
Net earnings	$ 2.11	$ 3.35	$ 1.06
Diluted:			
Continuing operations	$ 2.08	$ 2.49	$ 0.36
Discontinued operations	(0.01)	0.79	0.65
Net earnings	$ 2.07	$ 3.28	$ 1.01

Ingersoll-Rand plc

Consolidated Statements of Comprehensive Income (continued)

In millions, except per share amounts

For the years ended December 31,	2013	2012	2011
Net earnings	$ 653.9	$ 1,044.0	$ 369.3
Other comprehensive income (loss)			
Currency translation	15.0	85.5	(158.1)
Cash flow hedges and marketable securities			
Unrealized net gains (losses) arising during period	7.8	(0.7)	(1.4)
Net (gains) losses reclassified into earnings	12.1	2.8	2.8
Tax (expense) benefit	(0.2)	1.0	(0.5)
Total cash flow hedges and marketable securities, net of tax	19.7	3.1	0.9
Pension and OPEB adjustments:			
Prior service gains (costs) for the period	(1.2)	58.8	1.3
Net actuarial gains (losses) for the period	358.9	(185.0)	(283.0)
Amortization reclassified into earnings	63.9	62.7	54.8
Settlements/curtailments reclassified to earnings	0.7	4.9	95.9
Currency translation and other	(5.4)	(9.6)	(0.7)
Tax (expense) benefit	(153.6)	(0.2)	59.7
Total pension and OPEB adjustments, net of tax	263.3	(68.4)	(72.0)
Other comprehensive income (loss), net of tax	298.0	20.2	(229.2)
Total comprehensive income (loss), net of tax	$ 951.9	$ 1,064.2	$ 140.1
Less: Total comprehensive (income) loss attributable to noncontrolling interests	(38.4)	(13.0)	(25.5)
Total comprehensive income (loss) attributable to Ingersoll-Rand plc	$ 913.5	$ 1,051.2	$ 114.6

See accompanying notes to Consolidated Financial Statements.

2013 Annual Report

Ingersoll-Rand plc
Consolidated Balance Sheets
In millions, except share amounts

December 31,		2013		2012
ASSETS				
Current assets:				
Cash and cash equivalents	$	1,937.2	$	708.4
Accounts and notes receivable, net		2,071.5		1,870.1
Inventories		1,166.1		1,144.0
Deferred taxes and current tax receivable		359.5		269.5
Other current assets		182.4		184.5
Assets held for spin-off		—		1,817.4
Total current assets		5,716.7		5,993.9
Property, plant and equipment, net		1,468.4		1,426.1
Goodwill		5,540.6		5,492.6
Intangible assets, net		3,922.0		4,050.4
Other noncurrent assets		1,010.4		1,519.1
Total assets	$	17,658.1	$	18,482.1
LIABILITIES AND EQUITY				
Current liabilities:				
Accounts payable	$	1,163.0	$	1,019.4
Accrued compensation and benefits		505.2		448.2
Accrued expenses and other current liabilities		1,311.3		1,321.8
Short-term borrowings and current maturities of long-term debt		367.7		962.9
Current income taxes		61.4		41.8
Liabilities held for spin-off		—		531.8
Total current liabilities		3,408.6		4,325.9
Long-term debt		3,153.5		2,266.5
Postemployment and other benefit liabilities		1,287.8		1,685.2
Deferred and noncurrent income taxes		1,335.8		1,576.7
Other noncurrent liabilities		1,341.1		1,398.5
Total liabilities		10,526.8		11,252.8
Equity:				
Ingersoll-Rand plc shareholders' equity				
Ordinary shares, $1 par value (282,700,041 and 295,605,736 shares issued at December 31, 2013 and 2012, respectively, and net of 21,137 and 22,562 shares owned by subsidiary at December 31, 2013 and 2012, respectively)		282.7		295.6
Capital in excess of par value		158.4		1,014.5
Retained earnings		6,794.5		6,358.7
Accumulated other comprehensive income (loss)		(166.7)		(521.0)
Total Ingersoll-Rand plc shareholders' equity		7,068.9		7,147.8
Noncontrolling interest		62.4		81.5
Total equity		7,131.3		7,229.3
Total liabilities and equity	$	17,658.1	$	18,482.1

See accompanying notes to Consolidated Financial Statements.

Ingersoll-Rand plc
Consolidated Statements of Equity

		Ingersoll-Rand plc shareholders' equity					
		Ordinary Shares					
In millions, except per share amounts	Total equity	Amount	Shares	Capital in excess of par value	Retained earnings	Accumulated other comprehensive income (loss)	Noncontrolling Interest
Balance at December 31, 2010	8,059.1	328.2	328.2	2,571.7	5,389.4	(325.0)	94.8
Net earnings	369.3	—	—	—	343.2	—	26.1
Other comprehensive income (loss)	(229.2)	—	—	—	—	(228.6)	(0.6)
Shares issued under incentive stock plans	133.6	5.2	5.2	128.4	—	—	—
Repurchase of ordinary shares	(1,157.5)	(36.3)	(36.3)	(1,121.2)	—	—	—
Accretion of Exchangeable Senior Notes from Temporary Equity	13.3	—	—	13.3	—	—	—
Share-based compensation	42.6	—	—	42.6	—	—	—
Acquisition/divestiture of noncontrolling interest	(2.4)	—	—	(1.3)	—	—	(1.1)
Dividends declared to noncontrolling interest	(30.1)	—	—	—	—	—	(30.1)
Cash dividends, declared and paid ($0.59 per share)	(184.7)	—	—	—	(184.7)	—	—
Other	(1.6)	—	—	(0.5)	(0.1)	—	(1.0)
Balance at December 31, 2011	7,012.4	297.1	297.1	1,633.0	5,547.8	(553.6)	88.1
Net earnings	1,044.0	—	—	—	1,018.6	—	25.4
Other comprehensive income (loss)	20.2	—	—	—	—	32.6	(12.4)
Shares issued under incentive stock plans	172.5	6.1	6.1	166.4	—	—	—
Settlement of Exchangeable Senior Notes	(4.7)	10.8	10.8	(15.5)	—	—	—
Repurchase of ordinary shares	(839.8)	(18.4)	(18.4)	(821.4)	—	—	—
Accretion of Exchangeable Senior Notes from Temporary Equity	3.3	—	—	3.3	—	—	—
Share-based compensation	49.8	—	—	49.8	—	—	—
Acquisition/divestiture of noncontrolling interest	(1.5)	—	—	(1.1)	—	—	(0.4)
Dividends declared to noncontrolling interest	(19.2)	—	—	—	—	—	(19.2)
Cash dividends declared ($0.69 per share)	(207.7)	—	—	—	(207.7)	—	—
Balance at December 31, 2012	$ 7,229.3	$ 295.6	295.6	$ 1,014.5	$ 6,358.7	$ (521.0)	$ 81.5

Ingersoll-Rand plc
Consolidated Statements of Equity - (Continued)

		Ingersoll-Rand plc shareholders' equity					
		Ordinary Shares					
In millions, except per share amounts	Total equity	Amount	Shares	Capital in excess of par value	Retained earnings	Accumulated other comprehensive income (loss)	Noncontrolling Interest
Net earnings	653.9	—	—	—	618.8	—	35.1
Other comprehensive income (loss)	298.0	—	—	—	—	294.7	3.3
Shares issued under incentive stock plans	272.5	7.9	7.9	264.6	—	—	—
Settlement of Exchangeable Senior Notes	—	—	—	—	—	—	—
Repurchase of ordinary shares	(1,213.2)	(20.8)	(20.8)	(1,192.4)	—	—	—
Accretion of Exchangeable Senior Notes from Temporary Equity	—	—	—	—	—	—	—
Share-based compensation	71.8	—	—	71.8	—	—	—
Dividends declared to noncontrolling interest	(17.6)	—	—	—	—	—	(17.6)
Cash dividends declared ($0.63 per share)	(183.4)	—	—	—	(183.4)	—	—
Distribution of Allegion	18.5	—	—	—	0.5	59.1	(41.1)
Other	1.5	—	—	(0.1)	(0.1)	0.5	1.2
Balance at December 31, 2013	$ 7,131.3	$ 282.7	282.7	$ 158.4	$ 6,794.5	$ (166.7)	$ 62.4

See accompanying notes to Consolidated Financial Statements.

Ingersoll-Rand plc
Consolidated Statements of Cash Flows
In millions

For the years ended December 31,	2013	2012	2011
Cash flows from operating activities:			
Net earnings	$ 653.9	$ 1,044.0	$ 369.3
(Income) loss from discontinued operations, net of tax	(13.3)	(252.0)	(226.1)
Adjustments to arrive at net cash provided by (used in) operating activities:			
(Gain) loss on sale/asset impairment	—	(4.5)	646.9
Depreciation and amortization	333.7	333.8	358.5
Stock settled share-based compensation	71.8	49.8	42.6
(Gain) loss on sale of property, plant and equipment	5.3	(1.2)	(24.6)
Equity earnings, net of dividends	4.2	7.6	5.4
Deferred income taxes	29.4	(47.9)	(171.2)
Other items	194.3	122.7	15.6
Changes in other assets and liabilities			
(Increase) decrease in:			
Accounts and notes receivable	(214.3)	(34.2)	16.0
Inventories	(39.4)	(25.3)	(6.4)
Other current and noncurrent assets	68.3	(68.7)	22.5
Increase (decrease) in:			
Accounts payable	141.0	(12.5)	(55.1)
Other current and noncurrent liabilities	(357.2)	(243.5)	(207.1)
Net cash (used in) provided by continuing operating activities	877.7	868.1	786.3
Net cash (used in) provided by discontinued operating activities	292.7	312.9	400.5
Net cash provided by (used in) operating activities	1,170.4	1,181.0	1,186.8
Cash flows from investing activities:			
Capital expenditures	(242.2)	(243.1)	(217.1)
Acquisition of businesses, net of cash acquired	—	—	(1.9)
Proceeds from sale of property, plant and equipment	24.3	17.9	48.5
Proceeds from business dispositions, net of cash sold	4.7	52.7	400.3
Dividends received from equity investments	—	44.3	—
Net cash (used in) provided by continuing investing activities	(213.2)	(128.2)	229.8
Net cash (used in) provided by discontinued investing activities	(2.2)	(18.3)	(22.3)
Net cash provided by (used in) investing activities	(215.4)	(146.5)	207.5

Ingersoll-Rand plc
Consolidated Statements of Cash Flows - (Continued)
In millions

For the years ended December 31,	2013	2012	2011
Cash flows from financing activities:			
Other short-term borrowings, net	8.9	5.5	35.5
Proceeds from long-term debt	1,547.8	—	3.6
Payments of long-term debt	(1,265.0)	(418.9)	(91.9)
Net proceeds (repayments) in debt	291.7	(413.4)	(52.8)
Debt issuance costs	(13.2)	(2.5)	(2.3)
Excess tax benefit from share-based compensation	19.5	19.6	24.6
Dividends paid to ordinary shareholders	(245.5)	(192.4)	(137.3)
Dividends paid to noncontrolling interests	(12.4)	(13.9)	(20.8)
Acquisition/divestiture of noncontrolling interest	—	(1.5)	(1.3)
Proceeds from shares issued under incentive plans	253.0	152.9	109.0
Repurchase of ordinary shares	(1,213.2)	(839.8)	(1,157.5)
Transfer from Allegion	1,274.2	—	—
Other, net	—	(4.7)	(1.4)
Net cash (used in) provided by continuing financing activities	354.1	(1,295.7)	(1,239.8)
Net cash (used in) provided by discontinued financing activities	(7.5)	(8.2)	(6.6)
Net cash (used in) provided by financing activities	346.6	(1,303.9)	(1,246.4)
Effect of exchange rate changes on cash and cash equivalents	(72.8)	(9.2)	(1.5)
Net increase (decrease) in cash and cash equivalents	1,228.8	(278.6)	146.4
Cash and cash equivalents – beginning of period*	708.4	987.0	840.6
Cash and cash equivalents – end of period*	$ 1,937.2	$ 708.4	$ 987.0
Cash paid during the year for:			
Interest, net of amounts capitalized	$ 238.3	$ 223.7	$ 231.2
Income taxes, net of refunds	$ 162.3	$ 251.3	$ 189.7

*Allegion related cash balance of approximately $173.7 million was reclassified from Cash and cash equivalents to Assets held for spin-off for all reporting periods prior to the spin-off.

See accompanying notes to Consolidated Financial Statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1 – DESCRIPTION OF COMPANY

Ingersoll-Rand plc (IR-Ireland), a public limited company incorporated in Ireland in 2009, and its consolidated subsidiaries (collectively, we, our, the Company) is a diversified, global company that provides products, services and solutions to enhance the quality and comfort of air in homes and buildings, transport and protect food and perishables, and increase industrial productivity and efficiency. Our business segments consist of Climate and Industrial, each with strong brands and leading positions within their respective markets. We generate revenue and cash primarily through the design, manufacture, sale and service of a diverse portfolio of industrial and commercial products that include well-recognized, premium brand names such as Ingersoll-Rand®, Trane®, American Standard®, Thermo King® and Club Car®.

NOTE 2 – SPIN-OFF TRANSACTION

On December 1, 2013 (the Distribution Date), the Company completed the previously announced separation (the spin-off) of its commercial and residential security businesses by distributing the related ordinary shares of Allegion plc (Allegion), on a pro rata basis, to the Company's shareholders of record as of November 22, 2013 (the Record Date). On the Distribution Date, each of the Company's shareholders received one ordinary share of Allegion for every three ordinary shares of the Company held by such shareholder on the Record Date. After the Distribution Date, the Company does not beneficially own any Allegion ordinary shares (other than approximately 7,045 shares received in a deferred compensation trust upon the spin-off as a result of the trust holding ordinary shares of Ingersoll-Rand plc as of the Record Date) and Allegion is an independent publicly traded company.

The results of our commercial and residential security business are presented as a discontinued operation in the Consolidated Statement of Comprehensive Income and Consolidated Statement of Cash Flows for all periods presented. The balance sheet of the commercial and residential security business has been reclassified to held for spin-off at December 31, 2012. The statement of equity of the commercial and residential security business is included within our Consolidated Statement of Equity through December 1, 2013. Except where otherwise noted, all disclosures in the related footnotes represent the results of continuing operations.

In connection with the spin-off of Allegion, the Company and Allegion entered into several agreements covering administrative and tax matters to provide or obtain services on a transitional basis, as needed, for varying periods after the spin-off. The administrative agreements cover various services such as information technology, human resources and finance. The Company expects all services to be substantially complete within one year after the spin-off. For further discussion of the tax matters agreement see Note 15.

During the years ended December 31, 2013 and 2012, the Company incurred $128.0 million and $5.7 million of professional service fees related to the spin-off, respectively. These costs are reported within discontinued operations as they represent a cost to execute the spin-off transaction. See Note 16 for further discussion of the spin-off transaction.

NOTE 3 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A summary of significant accounting policies used in the preparation of the accompanying Consolidated Financial Statements follows:

Basis of Presentation: The accompanying Consolidated Financial Statements reflect the consolidated operations of the Company and have been prepared in accordance with U.S. Generally Accepted Accounting Principles (GAAP) as defined by the Financial Accounting Standards Board (FASB) within the FASB Accounting Standards Codification (ASC).

The Consolidated Financial Statements include all majority-owned subsidiaries of the Company. A noncontrolling interest in a subsidiary is considered an ownership interest in a majority-owned subsidiary that is not attributable to the parent. The Company includes Noncontrolling interest as a component of Total equity in the Consolidated Balance Sheet and the Net earnings attributable to noncontrolling interests are presented as an adjustment from Net earnings used to arrive at Net earnings attributable to Ingersoll-Rand plc in the Consolidated Statement of Comprehensive Income.

Partially-owned equity affiliates represent 20-50% ownership interests in investments where we demonstrate significant influence, but do not have a controlling financial interest. Partially-owned equity affiliates are accounted for under the equity method. The Company is also required to consolidate variable interest entities in which it bears a majority of the risk to the entities' potential losses or stands to gain from a majority of the entities' expected returns. Intercompany accounts and transactions have been eliminated. The assets, liabilities, results of operations and cash flows of all discontinued operations have been separately reported as discontinued operations and held for spin-off for all periods presented.

During 2012, the company received a $44.3 million dividend from the equity investment in Hussmann Parent. The receipt of this dividend is classified in investing activities within the Consolidated Statement of Cash Flows due to the cumulative negative equity earnings to date from Hussmann Parent.

Certain changes in classification of amounts reported in prior years have been made to conform to the 2013 classification.

Use of Estimates: The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosures of contingent assets and liabilities at the date of the financial statements as well as the reported amounts of revenues and expenses during the reporting period. Estimates are based on several factors including the facts and circumstances available at the time the estimates are made, historical experience, risk of loss, general economic conditions and trends, and the assessment of the probable future outcome. Some of the more significant estimates include accounting for doubtful accounts, useful lives of property, plant and equipment and intangible assets, purchase price allocations of acquired businesses, valuation of assets including goodwill and other intangible assets, product warranties, sales allowances, pension plans, postretirement benefits other than pensions, taxes, environmental costs, product liability, asbestos matters and other contingencies. Actual results could differ from those estimates. Estimates and assumptions are reviewed periodically, and the effects of changes, if any, are reflected in the statement of operations in the period that they are determined.

Currency Translation: Assets and liabilities of non-U.S. subsidiaries, where the functional currency is not the U.S. dollar, have been translated at year-end exchange rates, and income and expense accounts have been translated using average exchange rates throughout the year. Adjustments resulting from the process of translating an entity's financial statements into the U.S. dollar have been recorded in the Equity section of the Consolidated Balance Sheet within Accumulated other comprehensive income (loss). Transactions that are denominated in a currency other than an entity's functional currency are subject to changes in exchange rates with the resulting gains and losses recorded within Net earnings.

Cash and Cash Equivalents: Cash and cash equivalents include cash on hand, demand deposits and all highly liquid investments with original maturities at the time of purchase of three months or less.

Inventories: Depending on the business, U.S. inventories are stated at the lower of cost or market using the last-in, first-out (LIFO) method or the lower of cost or market using the first-in, first-out (FIFO) method. Non-U.S. inventories are primarily stated at the lower of cost or market using the FIFO method. At December 31, 2013 and 2012, approximately 45% and 55%, respectively, of all inventory utilized the LIFO method.

Allowance for Doubtful Accounts: The Company maintains an allowance for doubtful accounts receivable which represents the best estimate of probable loss inherent in the Company's accounts receivable portfolio. This estimate is based upon a two step policy that results in the total recorded allowance for doubtful accounts. The first step is to create a specific reserve for significant accounts as to which the customer's ability to satisfy their financial obligation to the Company is in doubt due to circumstances such as bankruptcy, deteriorating operating results or financial position. In these circumstances, management uses its judgment to record an allowance based on the best estimate of probable loss, factoring in such considerations as the market value of collateral, if applicable. The second step is to record a portfolio reserve based on the aging of the outstanding accounts receivable portfolio and the Company's historical experience with our end markets, customer base and products. Actual results could differ from those estimates. These estimates and assumptions are reviewed periodically, and the effects of changes, if any, are reflected in the Consolidated Statement of Comprehensive Income in the period that they are determined. The Company reserved $35.4 million and $24.8 million for doubtful accounts as of December 31, 2013 and 2012, respectively.

Property, Plant and Equipment: Property, plant and equipment are stated at cost, less accumulated depreciation. Assets placed in service are recorded at cost and depreciated using the straight-line method over the estimated useful life of the asset except for leasehold improvements, which are depreciated over the shorter of their economic useful life or their lease term. The range of useful lives used to depreciate property, plant and equipment is as follows:

Buildings	10	to	50	years
Machinery and equipment	2	to	12	years
Software	2	to	7	years

Repair and maintenance costs that do not extend the useful life of the asset are charged against earnings as incurred. Major replacements and significant improvements that increase asset values and extend useful lives are capitalized.

The Company assesses the recoverability of the carrying value of its property, plant and equipment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. Recoverability is measured by a comparison of the carrying amount of an asset to the future net undiscounted cash flows expected to be generated by the asset. If the undiscounted cash flows are less than the carrying amount of the asset, an impairment loss is recognized for the amount by which the carrying value of the asset exceeds the fair value of the assets.

Goodwill and Intangible Assets: The Company records as goodwill the excess of the purchase price over the fair value of the net assets acquired. Once the final valuation has been performed for each acquisition, adjustments may be recorded.

In accordance with GAAP, goodwill and other indefinite-lived intangible assets are tested and reviewed annually for impairment during the fourth quarter or whenever there is a significant change in events or circumstances that indicate that the fair value of the asset is more likely than not less than the carrying amount of the asset.

Recoverability of goodwill is measured at the reporting unit level and begins with a qualitative assessment to determine if it is more likely than not that the fair value of each reporting unit is less than its carrying amount as a basis for determining whether it is necessary to perform the two-step goodwill impairment test included in U.S. GAAP. For those reporting units where it is required, the first step compares the carrying amount of the reporting unit to its estimated fair value. If the estimated fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is not impaired and the second step of the impairment test is not necessary. To the extent that the carrying value of the reporting unit exceeds its estimated fair value, a second step is performed, wherein the reporting unit's carrying value of goodwill is compared to the implied fair value of goodwill. To the extent that the carrying value exceeds the implied fair value, impairment exists and must be recognized.

The calculation of estimated fair value is based on two valuation techniques, a discounted cash flow model (income approach) and a market adjusted multiple of earnings and revenues (market approach), with each method being equally weighted in the calculation. The implied fair value of goodwill is determined in the same manner as the amount of goodwill recognized in a business combination. The estimated fair value of the reporting unit is allocated to all of the assets and liabilities of the reporting unit (including any unrecognized intangible assets) as if the reporting unit had been acquired in a business combination and the fair value of the reporting unit, as determined in the first step of the goodwill impairment test, was the price paid to acquire that reporting unit.

Recoverability of other intangible assets with indefinite useful lives (i.e. Tradenames) is first assessed using a qualitative assessment to determine whether it is more likely than not that an indefinite-lived intangible asset is impaired. This assessment is used as a basis for determining whether it is necessary to calculate the fair value of an indefinite-lived intangible asset. For those indefinite-lived assets where it is required, a fair value is determined on a relief from royalty methodology (income approach) which is based on the implied royalty paid, at an appropriate discount rate, to license the use of an asset rather than owning the asset. The present value of the after-tax cost savings (i.e. royalty relief) indicates the estimated fair value of the asset. Any excess of the carrying value over the estimated fair value is recognized as an impairment loss equal to that excess.

Intangible assets such as patents, customer-related intangible assets and other intangible assets with finite useful lives are amortized on a straight-line basis over their estimated economic lives. The weighted-average useful lives approximate the following:

Customer relationships	20	years
Completed technology/patents	10	years
Other	15	years

Recoverability of intangible assets with finite useful lives is assessed in the same manner as property, plant and equipment as described above.

Income Taxes: Deferred tax assets and liabilities are determined based on temporary differences between financial reporting and tax bases of assets and liabilities, applying enacted tax rates expected to be in effect for the year in which the differences are expected to reverse. The Company recognizes future tax benefits, such as net operating losses and non-U.S. tax credits, to the extent that realizing these benefits is considered in its judgment to be more likely than not. The Company regularly reviews the recoverability of its deferred tax assets considering its historic profitability, projected future taxable income, timing of the reversals of existing temporary differences and the feasibility of its tax planning strategies. Where appropriate, the Company records a valuation allowance with respect to a future tax benefit.

Product Warranties: Standard product warranty accruals are recorded at the time of sale and are estimated based upon product warranty terms and historical experience. The Company assesses the adequacy of its liabilities and will make adjustments as necessary based on known or anticipated warranty claims, or as new information becomes available.

The Company's extended warranty liability represents the deferred revenue associated with its extended warranty contracts and is amortized into Revenue on a straight-line basis over the life of the contract, unless another method is more representative of the costs incurred. The Company assesses the adequacy of its liability by evaluating the expected costs under its existing contracts to ensure these expected costs do not exceed the extended warranty liability.

Treasury Stock: The Company, through one of its consolidated subsidiaries, has repurchased its common shares from time to time as authorized by the Board of Directors. These repurchases are at the discretion of management subject to market conditions, regulatory requirements and other considerations. Amounts are recorded at cost and included within the Equity section of the Consolidated Balance Sheet.

Revenue Recognition: Revenue is recognized and earned when all of the following criteria are satisfied: (a) persuasive evidence of a sales arrangement exists; (b) the price is fixed or determinable; (c) collectability is reasonably assured; and (d) delivery has occurred or service has been rendered. Delivery generally occurs when the title and the risks and rewards of ownership have substantially transferred to the customer. Both the persuasive evidence of a sales arrangement and fixed or determinable price criteria are deemed to be satisfied upon receipt of an executed and legally binding sales agreement or contract that clearly defines the terms and conditions of the transaction including the respective obligations of the parties. If the defined terms and conditions allow variability in all or a component of the price, revenue is not recognized until such time that the price becomes fixed or determinable. At the point of sale, the Company validates that existence of an enforceable claim that requires payment within a reasonable amount of time and assesses the collectability of that claim. If collectability is not deemed to be reasonably assured, then revenue recognition is deferred until such time that collectability becomes probable or cash is received. Delivery is not considered to have occurred until the customer has taken title and assumed the risks and rewards of ownership. Service and installation revenue are recognized when earned. In some instances, customer acceptance provisions are included in sales arrangements to give the buyer the ability to ensure the delivered product or service meets the criteria established in the order. In these instances, revenue recognition is deferred until the acceptance terms specified in the arrangement are fulfilled through customer acceptance or a demonstration that established criteria have been satisfied. If uncertainty exists about customer acceptance, revenue is not recognized until acceptance has occurred.

The Company offers various sales incentive programs to customers, dealers, and distributors. Sales incentive programs do not preclude revenue recognition, but do require an accrual for the Company's best estimate of expected activity. Examples of the sales incentives that are accrued for as a contra receivable and sales deduction at the point of sale include, but are not limited to, discounts (i.e. net 30 type), coupons, and rebates where the customer does not have to provide any additional requirements to receive the discount. Sales returns and customer disputes involving a question of quantity or price are also accounted for as a reduction in revenue and a contra receivable. At December 31, 2013 and 2012, the Company had a customer claim accrual (contra receivable) of $1.7 million and $2.1 million, respectively. All other incentives or incentive programs where the customer is required to reach a certain sales level, remain a customer for a certain period of time, provide a rebate form or is subject to additional requirements are accounted for as a reduction of revenue and establishment of a liability. At December 31, 2013 and 2012, the Company had a sales incentive accrual of $80.1 million and $62.2 million, respectively. Each of these accruals represents the best estimate the Company expects to pay related to previously sold units. These estimates are reviewed regularly for accuracy. If updated information or actual amounts are different from previous estimates, the revisions are included in the results for the period in which they become known. Historically, the aggregate differences, if any, between our estimates and actual amounts in any year have not had a material impact on the Consolidated Financial Statements.

The Company enters into maintenance and extended warranty contracts with customers. Revenue related to these services is recognized on a straight-line basis over the life of the contract, unless sufficient historical evidence indicates that the cost of providing these services is incurred on an other than straight-line basis. In these circumstances, revenue is recognized over the contract period in proportion to the costs expected to be incurred in performing the service.

The Company, primarily through its Climate segment, provides equipment (e.g. HVAC, controls), integrated solutions, and installation designed to customer specifications through construction-type contracts. The term of these types of contracts is typically less than one year, but can be as long as three years. Revenues related to these contracts are recognized using the percentage-of-completion method in accordance with GAAP. This measure of progress toward completion, utilized to recognize sales and profits, is based on the proportion of actual cost incurred to date as compared to the total estimate of contract costs at completion. The timing of revenue recognition often differs from the invoicing schedule to the customer, with revenue recognition in advance of customer invoicing recorded to unbilled accounts receivable and invoicing in advance of revenue recognition recorded to deferred revenue. At December 31, 2012, all recorded receivables (billed and unbilled) are due within one year. The Company re-evaluates its contract estimates periodically and reflects changes in estimates in the current period using the cumulative catch-up method. These periodic reviews have not historically resulted in significant adjustments. If estimated contract costs are in excess of contract revenues, then the excess costs are accrued.

The Company enters into sales arrangements that contain multiple elements, such as equipment, installation and service revenue. For multiple element arrangements, each element is evaluated to determine the separate units of accounting. The total arrangement consideration is then allocated to the separate units of accounting based on their relative selling price at the inception of the arrangement. The relative selling price is determined using vendor specific objective evidence (VSOE) of selling price, if it exists; otherwise, third-party evidence (TPE) of selling price is used. If neither VSOE nor TPE of selling price exists for a deliverable, a best estimate of the selling price is developed for that deliverable. The Company primarily utilizes VSOE to determine its relative selling price. The Company recognizes revenue for delivered elements when the delivered item has stand-alone value to the customer, the basic revenue recognition criteria have been met, and only customary refund or return rights related to the delivered elements exist.

Environmental Costs: The Company is subject to laws and regulations relating to protecting the environment. Environmental expenditures relating to current operations are expensed or capitalized as appropriate. Expenditures relating to existing conditions caused by past operations, which do not contribute to current or future revenues, are expensed. Liabilities for remediation costs are recorded when they are probable and can be reasonably estimated, generally no later than the completion of feasibility studies or the Company's commitment to a plan of action. The assessment of this liability, which is calculated based on existing technology, does not reflect any offset for possible recoveries from insurance companies, and is not discounted. Refer to Note 18 for further details of environmental matters.

Asbestos Matters: Certain wholly-owned subsidiaries of the Company are named as defendants in asbestos-related lawsuits in state and federal courts. The Company records a liability for its actual and anticipated future claims as well as an asset for anticipated insurance settlements. Asbestos related defense costs are excluded from the asbestos claims liability and are recorded separately as services are incurred. Although the Company was neither a manufacturer nor producer of asbestos, some of its formerly manufactured components from third party suppliers utilized asbestos-related components. As a result, amounts related to asbestos are recorded within Discontinued operations, net of tax, except for amounts related to Trane U.S. Inc. asbestos liabilities, which are recorded in Earnings from continuing operations. Refer to Note 18 for further details of asbestos-related matters.

Research and Development Costs: The Company conducts research and development activities for the purpose of developing and improving new products and services. These expenditures are expensed when incurred. For the years ended December 31, 2013, 2012 and 2011, these expenditures amounted to approximately $218.2 million, $235.4 million and $218.4 million, respectively.

Software Costs: The Company capitalizes certain qualified internal-use software costs during the application development stage and subsequently amortizes those costs over the software's useful life, which ranges from 2 to 7 years. Refer to Note 5 for further details on software.

Employee Benefit Plans: The Company provides a range of benefits, including pensions, postretirement and postemployment benefits to eligible current and former employees. Determining the cost associated with such benefits is dependent on various actuarial assumptions, including discount rates, expected return on plan assets, compensation increases, employee mortality, turnover rates, and healthcare cost trend rates. Actuaries perform the required calculations to determine expense in accordance with GAAP. Actual results may differ from the actuarial assumptions and are generally accumulated into Accumulated other comprehensive income (loss) and amortized into Net earnings over future periods. The Company reviews its actuarial assumptions at each measurement date and makes modifications to the assumptions based on current rates and trends, if appropriate. Refer to Note 10 for further details on employee benefit plans.

Loss Contingencies: Liabilities are recorded for various contingencies arising in the normal course of business, including litigation and administrative proceedings, environmental matters, product liability, product warranty, worker's compensation and other claims. The Company has recorded reserves in the financial statements related to these matters, which are developed using input derived from actuarial estimates and historical and anticipated experience data depending on the nature of the reserve, and in certain instances with consultation of legal counsel, internal and external consultants and engineers. Subject to the uncertainties inherent in estimating future costs for these types of liabilities, the Company believes its estimated reserves are reasonable and does not believe the final determination of the liabilities with respect to these matters would have a material effect on the financial condition, results of operations, liquidity or cash flows of the Company for any year. Refer to Note 18 for further details on loss contingencies.

Derivative Instruments: The Company periodically enters into cash flow and other derivative transactions to specifically hedge exposure to various risks related to interest rates and currency rates. The Company recognizes all derivatives on the Consolidated Balance Sheet at their fair value as either assets or liabilities. For cash flow designated hedges, the effective portion of the changes in fair value of the derivative contract are recorded in Accumulated other comprehensive income (loss), net of taxes, and are recognized in Net earnings at the time earnings are affected by the hedged transaction. For other derivative transactions, the changes in the fair value of the derivative contract are immediately recognized in Net earnings. Refer to Note 9 for further details on derivative instruments.

Recent Accounting Pronouncements

Recently Adopted Accounting Pronouncements

In December 2011, the FASB issued Accounting Standards Update (ASU) 2011-11, "Disclosures about Offsetting Assets and Liabilities." ASU 2011-11 requires enhanced disclosures including both gross and net information about financial and derivative instruments eligible for offset or subject to an enforceable master netting arrangement or similar agreement. This new guidance is effective for annual reporting periods beginning on or after January 1, 2013 and subsequent interim periods. The requirements of ASU 2011-11 did not have an impact on the Consolidated Financial Statements.

In January 2013, the FASB issued ASU 2013-01, "Clarifying the Scope of Disclosures about Offsetting Assets and Liabilities." ASU 2013-01 clarifies the scope of ASU 2011-11 to apply to derivative instruments that are offset or subject to an enforceable master netting arrangement or similar agreement. This clarified guidance is effective for annual reporting periods beginning on or after January 1, 2013 and subsequent interim periods. The revised requirements of ASU 2013-01 did not have an impact on the Consolidated Financial Statements.

In February 2013, the FASB issued ASU 2013-02, “Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income” (AOCI). ASU 2013-02 requires a rollforward of changes in AOCI by component and information about significant reclassifications from AOCI to Net earnings to be presented in one location, either on the face of the financial statements or in the notes. This new guidance is effective for fiscal years beginning after December 15, 2012 and subsequent interim periods. The requirements of ASU 2013-02 did not have a material impact on the Company's Consolidated Financial Statements. The revised disclosure requirements are reflected in Note 11.

In July 2013, the FASB issued ASU 2013-10, “Inclusion of the Fed Funds Effective Swap Rate (or Overnight Index Swap Rate) as a Benchmark Interest Rate for Hedge Accounting Purposes.” ASU 2013-10 allows the Fed Funds Effective Swap Rate (OIS) to be designated as a U.S. benchmark interest rate for hedge accounting purposes, in addition to interest rates on direct Treasury obligations of the U.S. government and the London Interbank Offered Rate. The amendments also remove the restriction on using different benchmark rates for similar hedges. The amendments are effective prospectively for qualifying new or redesignated hedging relationships entered into on or after July 17, 2013. The Company will apply the new guidance, as applicable, to future interest rate hedge relationships.

Recently Issued Accounting Pronouncements

In February 2013, the FASB issued ASU 2013-04, “Obligations Resulting from Joint and Several Liability Arrangements for Which the Total Amount of the Obligation Is Fixed at the Reporting Date.” ASU 2013-04 provides guidance for the recognition, measurement, and disclosure of obligations resulting from joint and several liability arrangements where the total obligation is fixed at the reporting date, and for which no specific guidance currently exists. This new guidance is effective for annual reporting periods beginning on or after December 15, 2013 and subsequent interim periods. The Company is currently assessing the impact, if any, on the Consolidated Financial Statements.

In March 2013, the FASB issued ASU 2013-05, “Parent's Accounting for the Cumulative Translation Adjustment upon Derecognition of Certain Subsidiaries or Groups of Assets within a Foreign Entity or of an Investment in a Foreign Entity.” ASU 2013-05 clarifies the application of GAAP to the release of cumulative translation adjustments related to changes of ownership in or within foreign entities, including step acquisitions. This new guidance is effective for annual reporting periods beginning on or after December 15, 2013 and subsequent interim periods.

In July 2013, the FASB issued ASU 2013-11, “Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists.” ASU 2013-11 clarifies guidance and eliminates diversity in practice on the presentation of unrecognized tax benefits when a net operating loss carryforward, a similar tax loss, or a tax credit carryforward exists at the reporting date. This new guidance is effective for annual reporting periods beginning on or after December 15, 2013 and subsequent interim periods. The Company is currently assessing the impact, if any, on the Consolidated Financial Statements.

NOTE 4 – INVENTORIES

At December 31, the major classes of inventory were as follows:

In millions	2013	2012
Raw materials	$ 378.0	$ 423.2
Work-in-process	100.7	87.2
Finished goods	760.2	704.8
	1,238.9	1,215.2
LIFO reserve	(72.8)	(71.2)
Total	$ 1,166.1	$ 1,144.0

NOTE 5 – PROPERTY, PLANT AND EQUIPMENT

At December 31, the major classes of property, plant and equipment were as follows:

In millions	2013	2012
Land	$ 64.2	$ 67.1
Buildings	654.8	582.5
Machinery and equipment	1,612.0	1,544.9
Software	511.3	539.6
	2,842.3	2,734.1
Accumulated depreciation	(1,373.9)	(1,308.0)
Total	$ 1,468.4	$ 1,426.1

Depreciation expense for the years ended December 31, 2013, 2012 and 2011 was $199.5 million, $194.5 million and $202.9 million, which include amounts for software amortization of $44.3 million, $48.5 million and $48.7 million, respectively.

NOTE 6 – GOODWILL

The changes in the carrying amount of Goodwill are as follows:

In millions	Climate	Industrial	Total
December 31, 2011 (gross)	$ 7,593.2	$ 366.8	$ 7,960.0
Acquisitions and adjustments *	(3.8)	—	(3.8)
Currency translation	30.5	1.9	32.4
December 31, 2012 (gross)	7,619.9	368.7	7,988.6
Acquisitions and adjustments	(1.1)	1.1	—
Currency translation	44.8	3.2	48.0
December 31, 2013 (gross)	7,663.6	373.0	8,036.6
Accumulated impairment **	(2,496.0)	—	(2,496.0)
Goodwill (net)	$ 5,167.6	$ 373.0	$ 5,540.6

* During 2012, the Company recorded certain purchase accounting adjustments within the Climate sector of $4.8 million.
** Accumulated impairment relates to a charge of $2,496.0 million recorded in the fourth quarter of 2008 as a result of the Company's annual impairment testing.

The Company records as goodwill the excess of the purchase price over the fair value of the net assets acquired. Once the final valuation has been performed for each acquisition, adjustments may be recorded.

In accordance with the Company’s goodwill impairment testing policy outlined in Note 3, the Company performed its annual impairment test on goodwill in the fourth quarter of each 2013, 2012, and 2011. In each year, the Company determined that the fair values of all identified reporting units exceeded their respective carrying values. Therefore, no impairment charges were recorded during 2013, 2012, and 2011.

The Company performed an interim impairment test on goodwill of its former Security Technologies Europe, Middle East, India, and Africa (EMEIA) reporting unit during the third quarter of 2013. The results of the third quarter 2013 interim impairment test indicated that the estimated fair value of the Security Technologies EMEIA reporting unit was less than its carrying value; consequently, the Company completed the second step of the interim impairment test which resulted in a $111.4 million non-cash pre-tax goodwill impairment charge. Such charge is recorded within discontinued operations for the year ended December 31, 2013. See Note 16 for further discussion.

NOTE 7 – INTANGIBLE ASSETS

The following table sets forth the gross amount and related accumulated amortization of the Company's intangible assets at December 31:

	2013			2012		
In millions	Gross carrying amount	Accumulated amortization	Net carrying amount	Gross carrying amount	Accumulated amortization	Net carrying amount
Completed technologies/patents	$ 174.1	$ (128.7)	$ 45.4	$ 179.1	$ (112.7)	$ 66.4
Customer relationships	1,865.9	(599.5)	1,266.4	1,863.1	(490.7)	1,372.4
Other	60.4	(52.2)	8.2	56.2	(46.6)	9.6
Total finite-lived intangible assets	2,100.4	$ (780.4)	1,320.0	2,098.4	$ (650.0)	1,448.4
Trademarks (indefinite-lived)	2,602.0		2,602.0	2,602.0		2,602.0
Total	$ 4,702.4		$ 3,922.0	$ 4,700.4		$ 4,050.4

The Company amortizes intangible assets with finite useful lives on a straight-line basis over their estimated economic lives in accordance with GAAP. Indefinite-lived intangible assets are not subject to amortization, but instead, are tested for impairment at least annually (more frequently if certain indicators are present).

Intangible asset amortization expense for 2013, 2012 and 2011 was $128.9 million, $129.2 million and $132.2 million, respectively. Future estimated amortization expense on existing intangible assets in each of the next five years amounts to approximately $118 million for 2014, $116 million for 2015, $101 million for 2016, $101 million for 2017, and $100 million for 2018.

In accordance with the Company's indefinite-lived intangible asset impairment testing policy outlined in Note 3, the Company performed its annual impairment test in the fourth quarter of each 2013, 2012 and 2011. In each year, the Company determined the fair value of all indefinite-lived intangible assets to exceed their respective carrying values. Therefore, no impairment charges were recorded during 2013, 2012 and 2011.

NOTE 8 – DEBT AND CREDIT FACILITIES

At December 31, short-term borrowings and current maturities of long-term debt consisted of the following:

In millions	2013	2012
Debentures with put feature	$ 343.0	$ 343.0
6.000% Senior notes due 2013	—	600.0
Other current maturities of long-term debt	8.0	10.0
Other short-term borrowings	16.7	9.9
Total	$ 367.7	$ 962.9

The weighted-average interest rate for total short-term borrowings and current maturities of long-term debt at December 31, 2013 and 2012 was 6.5% and 6.2%, respectively.

At December 31, long-term debt excluding current maturities consisted of:

In millions	2013	2012
9.500% Senior notes due 2014	—	655.0
5.50% Senior notes due 2015	198.1	196.4
4.75% Senior notes due 2015	299.8	299.7
6.875% Senior notes due 2018	749.5	749.4
2.875% Senior notes due 2019	349.5	—
9.00% Debentures due 2021	125.0	125.0
4.250% Senior notes due 2023	698.8	—
7.20% Debentures due 2014-2025	82.5	90.0
6.48% Debentures due 2025	149.7	149.7
5.750% Senior notes due 2043	498.0	—
Other loans and notes, at end-of-year average interest rates of 3.01% in 2013 and 1.00% in 2012, maturing in various amounts to 2019	2.6	1.3
Total	$ 3,153.5	$ 2,266.5

At December 31, 2013, long-term debt retirements are as follows:

In millions	
2014	$ 351.0
2015	507.2
2016	7.8
2017	7.7
2018	757.2
Thereafter	1,873.6
Total	$ 3,504.5

Commercial Paper Program

The maximum aggregate amount of unsecured commercial paper notes available to be issued, on a private placement basis, under the commercial paper program is $2 billion as of December 31, 2013. Under the commercial paper program, Ingersoll-Rand Global Holding Company Limited (IR-Global), may issue notes from time to time, and the proceeds of the financing will be used for general corporate purposes. Each of IR-Ireland, Ingersoll-Rand Company Limited (IR-Limited), and Ingersoll-Rand International Holding Limited (IR-International) has provided an irrevocable and unconditional guarantee for the notes issued under the commercial paper program. The Company had no commercial paper outstanding at December 31, 2013 and December 31, 2012.

Debentures with Put Feature

At December 31, 2013 and December 31, 2012, the Company had outstanding $343.0 million of fixed rate debentures which only require early repayment at the option of the holder. These debentures contain a put feature that the holders may exercise on each anniversary of the issuance date. If exercised, the Company is obligated to repay in whole or in part, at the holder's option, the outstanding principal amount (plus accrued and unpaid interest) of the debentures held by the holder. If these options are not exercised, the final maturity dates would range between 2027 and 2028.

Holders of these debentures had the option to exercise the put feature on $37.2 million of the outstanding debentures in February 2013, subject to the notice requirement. No exercises were made. Holders of the remaining $305.8 million in outstanding debentures had the option to exercise the put feature, subject to the notice requirement, in November 2013. No material exercises were made.

Senior Notes due 2019, 2023, and 2043

In June 2013, we issued $1.55 billion principal amount of Senior Notes in three tranches through our wholly-owned subsidiary, IR-Global pursuant to Rule 144A of the Securities Act. The tranches consist of $350 million of 2.875% Senior Notes due in 2019, $700 million of 4.250% Senior Notes due in 2023, and $500 million of 5.750% Senior Notes due in 2043. The notes are fully and unconditionally guaranteed by each of IR-Ireland, Ingersoll-Rand Company Limited (IR-Limited), and Ingersoll-Rand International Holding Limited (IR-International). Interest on the notes will be paid twice a year in arrears. The Company has the option to redeem the notes in whole or in part at any time, and from time to time, prior to their stated maturity date at redemption prices set forth in the indenture agreement. The notes are subject to certain customary covenants, however, none of these covenants are considered restrictive to the Company's operations. In connection with the issuance of each series of notes, IR-Global, the

Guarantors and the initial purchasers of the notes entered into a Registration Rights Agreement. Each Registration Rights Agreement requires IR-Global and the Guarantors to use their commercially reasonable efforts to execute an effective exchange offer registration statement with the SEC no later than 365 days after the closing date of the notes offering and to complete an exchange offer within 30 business days of such effective date. If a registration default occurs additional interest shall accrue on the notes. The proceeds from these notes were used to fund the July 2013 redemption of $600 million of 6.000% Senior Notes due 2013 and $655 million of 9.500% Senior Notes due 2014 and to fund expenses related to the spin-off of the commercial and residential security businesses, with any remaining proceeds used for general corporate purposes. The July 2013 redemption resulted in $45.6 million of premium expense, which was recorded in 2013 in Interest expense.

Other Debt

As of December 31, 2013, the Company has a 4-year, $1.0 billion revolving credit facility maturing on May 20, 2015 and a 5-year, $1.0 billion revolving credit facility maturing on March 15, 2017, through its wholly-owned subsidiary, IR-Global.

IR-Ireland, IR-Limited, and IR-International have each provided an irrevocable and unconditional guarantee for these credit facilities. During 2013, the credit facilities were modified to include IR-New Jersey as a guarantor. The total committed revolving credit facilities of $2.0 billion are unused and provide support for the Company's commercial paper program, as well as other general corporate purposes.

In addition, other available non-U.S. lines of credit were $907.3 million, of which $660.0 million was unused at December 31, 2013. These lines provide support for bank guarantees, letters of credit and other general corporate purposes.

Fair Value of Debt

The carrying value of the Company's short-term borrowings is a reasonable estimate of fair value due to the short-term nature of the instruments. The Company measures the fair value of its long-term debt instruments based upon observable market prices quoted on public exchanges for similar assets. These fair value inputs are considered Level 2 within the fair value hierarchy discussed in Note 10. The methodologies used by the Company to determine the fair value of its long-term debt instruments at December 31, 2013 are the same as those used at December 31, 2012. There have been no transfers between levels of the fair value hierarchy. The fair value of the Company's debt instruments at December 31, 2013 and December 31, 2012 was $3,803.8 million and $3,663.1 million, respectively.

Guarantees

Subsequent to the Company's reorganization as an Irish plc, IR-Ireland and IR-Limited guaranteed fully and unconditionally the outstanding public debt of IR-International, IR-Global and IR-New Jersey. During 2013, IR-Global and IR-International public outstanding indentures were modified to include IR-New Jersey as a co-obligor.

NOTE 9 – FINANCIAL INSTRUMENTS

In the normal course of business, the Company may use various financial instruments, including derivative instruments, to manage the risks associated with interest rate and currency rate exposures. These financial instruments are not used for trading or speculative purposes.

On the date a derivative contract is entered into, the Company designates the derivative instrument as a cash flow hedge of a forecasted transaction or as an undesignated derivative. The Company formally documents its hedge relationships, including identification of the derivative instruments and the hedged items, as well as its risk management objectives and strategies for undertaking the hedge transaction. This process includes linking derivative instruments that are designated as hedges to specific assets, liabilities or forecasted transactions.

The fair market value of derivative instruments is determined through market-based valuations and may not be representative of the actual gains or losses that will be recorded when these instruments mature due to future fluctuations in the markets in which they are traded.

The Company assesses at inception and at least quarterly thereafter, whether the derivatives used in cash flow hedging transactions are highly effective in offsetting the changes in the cash flows of the hedged item. To the extent the derivative is deemed to be a highly effective hedge, the fair market value changes of the instrument are recorded to Accumulated other comprehensive income (AOCI).

Any ineffective portion of a derivative instrument's change in fair value is recorded in Net earnings in the period of change. If the hedging relationship ceases to be highly effective, or it becomes probable that a forecasted transaction is no longer expected to occur, the hedging relationship will be undesignated and any future gains and losses on the derivative instrument will be recorded in Net earnings.

Currency Hedging Instruments

The notional amount of the Company's currency derivatives was $1,510.0 million and $1,613.6 million at December 31, 2013 and 2012, respectively. At December 31, 2013 and 2012, a loss of $3.1 million and $3.8 million, net of tax, respectively, was included in AOCI related to the fair value of the Company's currency derivatives designated as accounting hedges. The amount expected to be reclassified into Net earnings over the next twelve months is a loss of $3.1 million. The actual amounts that will be reclassified to Net earnings may vary from this amount as a result of changes in market conditions. Gains and losses associated with the Company's currency derivatives not designated as hedges are recorded in Net earnings as changes in fair value occur. At December 31, 2013, the maximum term of the Company's currency derivatives was approximately 12 months.

Other Derivative Instruments

In February 2013, the Company entered into forward starting interest rate swaps for $750.0 million of the forecasted issuance of $1.2 billion of Senior Notes due in 2023 and 2043. These interest rate swaps met the criteria to be accounted for as cash flow hedges of a forecasted transaction. Consequently, the changes in fair value of the interest rate swaps were recognized in AOCI. No further gain or loss will be recognized in AOCI related to these interest rate swaps as the contracts were terminated upon the June 2013 issuance of the underlying debt. The amount of AOCI associated with these interest rate swaps at the time of termination will be recognized in Interest expense over the term of the notes. At December 31, 2013, $10.1 million of gains remained in AOCI related to these interest rate swaps. The amount expected to be reclassified into Interest expense over the next twelve months is $0.7 million.

The Company previously entered into interest rate locks for the forecasted issuance of approximately $1.7 billion of Senior Notes due in 2013, 2015 and 2018. These interest rate locks met the criteria to be accounted for as cash flow hedges of a forecasted transaction. Consequently, the changes in fair value of the interest rate locks were recognized in AOCI. No further gain or loss will be recognized in AOCI related to these interest rate locks as the contracts were effectively terminated upon issuance of the underlying debt. However, the amount of AOCI associated with these interest rate locks at the time of termination are recognized into Interest expense over the term of the notes. During 2013, the Company repaid $600 million due under the Senior Notes due in 2013, at which time any amounts remaining in AOCI related to such notes were reclassified into Interest expense. At December 31, 2013 and 2012, $7.4 million and $10.3 million, respectively, of losses remained in AOCI related to these interest rate locks. The amount expected to be reclassified into Interest expense over the next twelve months is $2.5 million.

The Company measures the fair value of its derivative instruments on a recurring basis based on a pricing model that uses spot rates and forward prices from actively quoted currency markets that are readily accessible and observable. These fair value inputs are considered Level 2 within the fair value hierarchy discussed in Note 10. The methodologies used by the Company to determine the fair value of its derivative instruments at December 31, 2013 are the same as those used at December 31, 2012. There have been no transfers between levels of the fair value hierarchy.

The fair values of derivative instruments included within the Consolidated Balance Sheet as of December 31 were as follows:

	Asset derivatives		Liability derivatives	
In millions	**2013**	**2012**	**2013**	**2012**
Derivatives designated as hedges:				
Currency derivatives	$ 0.1	$ —	$ 3.4	$ 4.3
Derivatives not designated as hedges:				
Currency derivatives	3.1	4.6	13.6	7.1
Total derivatives	$ 3.2	$ 4.6	$ 17.0	$ 11.4

Asset and liability derivatives included in the table above are recorded within Other current assets and Accrued expenses and other current liabilities, respectively.

The amounts associated with derivatives designated as hedges affecting Net earnings and AOCI for the years ended December 31 were as follows:

In millions	Amount of gain (loss) recognized in AOCI			Location of gain (loss) reclassified from AOCI and recognized into Net earnings	Amount of gain (loss) reclassified from AOCI and recognized into Net earnings		
	2013	2012	2011		2013	2012	2011
Currency derivatives - continuing	$ (9.8)	$ (6.1)	$ 2.1	Cost of goods sold	$ (10.8)	$ 0.4	$ 1.4
Currency derivatives - discontinued	2.0	(1.1)	0.3	Discontinued operations	1.1	(0.2)	(1.3)
Interest rate swaps	10.5	—	—	Interest expense	0.4	—	—
Interest rate locks	—	—	—	Interest expense	(2.8)	(3.0)	(2.9)
Total	$ 2.7	$ (7.2)	$ 2.4		$ (12.1)	$ (2.8)	$ (2.8)

The amounts associated with derivatives not designated as hedges affecting Net earnings for the years ended December 31 were as follows:

In millions	Location of gain (loss) recognized in Net earnings	Amount of gain (loss) recognized in Net earnings		
		2013	2012	2011
Currency derivatives	Other, net	$ (42.2)	$ 28.5	$ (7.4)
Total		$ (42.2)	$ 28.5	$ (7.4)

The gains and losses associated with the Company's undesignated currency derivatives are materially offset in Net earnings by changes in the fair value of the underlying transactions.

Concentration of Credit Risk

The counterparties to the Company's forward contracts consist of a number of investment grade major international financial institutions. The Company could be exposed to losses in the event of nonperformance by the counterparties. However, the credit ratings and the concentration of risk in these financial institutions are monitored on a continuous basis and present no significant credit risk to the Company.

Fair Value of Other Financial Instruments

The carrying value of cash and cash equivalents, accounts receivable and accounts payable are a reasonable estimate of their fair value due to the short-term nature of these instruments. See Note 8 for a discussion of the fair value measurement of the Company's debt instruments and Note 10 for a discussion of the fair value measurement of the Company's pension assets and liabilities.

NOTE 10 – PENSIONS AND POSTRETIREMENT BENEFITS OTHER THAN PENSIONS

The Company sponsors several U.S. defined benefit and defined contribution plans covering substantially all of our U.S. employees. Additionally, the Company has many non-U.S. defined benefit and defined contribution plans covering eligible non-U.S. employees. Postretirement benefits, other than pensions, provide healthcare benefits, and in some instances, life insurance benefits for certain eligible employees.

Pension Plans

The noncontributory defined benefit pension plans covering non-collectively bargained U.S. employees provide benefits on a final average pay formula while plans for most collectively bargained U.S. employees provide benefits on a flat dollar benefit formula or a percentage of pay formula. The non-U.S. pension plans generally provide benefits based on earnings and years of service. The Company also maintains additional other supplemental plans for officers and other key or highly compensated employees.

In connection with the 2013 spin-off, the Company transferred its obligations for pension benefits for all current and former employees of the commercial and residential security businesses to Allegion. The transfer of these obligations reduced our pension liabilities by $631.1 million, pension assets by $543.5 million, and accumulated other comprehensive losses by $164.8 million.

On June 8, 2012, the Board of Directors approved amendments to the Company's retirement plans for certain U.S. and Puerto Rico non-bargained employees. Eligible non-bargained employees hired prior to July 1, 2012 were given a choice of remaining in their respective defined benefit plan until the plan freezes on December 31, 2022 or freezing their accrued benefits in their respective defined benefit plan as of December 31, 2012 and receiving an additional 2% non-matching Company contribution into the Company's applicable defined contribution plan. Eligible employees hired or rehired on or after July 1, 2012 will automatically receive the 2% non-matching Company contribution into the applicable defined contribution plan in lieu of participating in the defined benefit plan. Beginning January 1, 2023, all eligible employees will receive the 2% non-matching contribution into the applicable defined contribution plan . As a result of these changes, the Company's projected benefit obligations for the amended plans were remeasured as of June 8, 2012, which included updating the discount rate assumption to 4.00% from the 4.25% assumed at December 31, 2011. The amendments resulted in a 2012 curtailment loss of $4.0 million. The amendment and remeasurement resulted in an increase of $1.0 million to the projected benefit obligation, an increase of $29.4 million to the plan assets, an actuarial gain of $28.4 million and a credit of $4.0 million to prior service cost during 2012.

The following table details information regarding the Company’s pension plans at December 31:

In millions	2013	2012
Change in benefit obligations:		
Benefit obligation at beginning of year	$ 4,228.6	$ 3,841.1
Service cost	88.5	96.8
Interest cost	156.9	163.6
Employee contributions	1.5	1.5
Amendments	1.2	3.4
Actuarial (gains) losses	(314.4)	374.3
Benefits paid	(211.6)	(217.2)
Currency translation	19.5	37.4
Curtailments and settlements	(3.7)	(63.4)
Impact of spin-off	(631.1)	—
Other, including expenses paid	(2.2)	(8.9)
Benefit obligation at end of year	$ 3,333.2	$ 4,228.6
Change in plan assets:		
Fair value at beginning of year	$ 3,310.2	$ 3,100.4
Actual return on assets	98.9	320.5
Company contributions	109.7	89.1
Employee contributions	1.5	1.5
Benefits paid	(211.6)	(217.2)
Currency translation	17.7	31.0
Settlements	(1.6)	(5.6)
Impact of spin-off	(543.5)	—
Other, including expenses paid	(2.1)	(9.5)
Fair value of assets end of year	$ 2,779.2	$ 3,310.2
Funded status:		
Plan assets less than the benefit obligations	$ (554.0)	$ (918.4)
Amounts included in the balance sheet:		
Other noncurrent assets	$ 4.3	$ 5.1
Accrued compensation and benefits	(30.8)	(9.0)
Postemployment and other benefit liabilities	(527.5)	(799.6)
Liabilities held for spin-off	—	(114.9)
Net amount recognized	$ (554.0)	$ (918.4)

It is the Company’s objective to contribute to the pension plans to ensure adequate funds, and no less than required by law, are available in the plans to make benefit payments to plan participants and beneficiaries when required. However, certain plans are not or cannot be funded due to either legal, accounting, or tax requirements in certain jurisdictions. As of December 31, 2013, approximately six percent of our projected benefit obligation relates to plans that cannot be funded.

The pretax amounts recognized in Accumulated other comprehensive income (loss) were as follows:

In millions	Prior service cost	Net actuarial losses	Total
December 31, 2012	$ (23.5)	$ (1,318.9)	$ (1,342.4)
Current year changes recorded to Accumulated other comprehensive income (loss)	(1.2)	249.0	247.8
Amortization reclassified to earnings	4.7	63.0	67.7
Settlements/curtailments reclassified to earnings	—	0.7	0.7
Impact of spin-off	2.3	162.5	164.8
Currency translation and other	—	(5.4)	(5.4)
December 31, 2013	$ (17.7)	$ (849.1)	$ (866.8)

Weighted-average assumptions used:

Benefit obligations at December 31,	2013	2012
Discount rate:		
U.S. plans	4.75%	3.75%
Non-U.S. plans	4.25%	4.25%
Rate of compensation increase:		
U.S. plans	4.00%	4.00%
Non-U.S. plans	4.25%	4.00%

The accumulated benefit obligation for all defined benefit pension plans was $3,194.8 million and $4,032.2 million at December 31, 2013 and 2012, respectively. The projected benefit obligation, accumulated benefit obligation, and fair value of plan assets for pension plans with accumulated benefit obligations more than plan assets were $3,291.3 million, $3,159.3 million and $2,735.5 million, respectively, as of December 31, 2013, and $4,182.8 million, $3,994.0 million and $3,263.9 million, respectively, as of December 31, 2012.

Pension benefit payments are expected to be paid as follows:

In millions	
2014	$ 219.3
2014	201.0
2016	199.0
2017	205.2
2018	214.6
2019 — 2023	1,142.9

The components of the Company's net periodic pension benefit costs for the years ended December 31 include the following:

In millions	2013	2012	2011
Service cost	$ 88.5	$ 96.8	$ 93.5
Interest cost	156.9	163.6	185.5
Expected return on plan assets	(166.3)	(173.6)	(219.6)
Net amortization of:			
Prior service costs	4.7	5.1	5.6
Transition amount	—	—	—
Plan net actuarial losses	63.0	60.6	51.1
Net periodic pension benefit cost	146.8	152.5	116.1
Net curtailment and settlement (gains) losses	0.7	4.9	62.5
Net periodic pension benefit cost after net curtailment and settlement (gains) losses	$ 147.5	$ 157.4	$ 178.6
Amounts recorded in continuing operations	$ 119.2	$ 125.5	$ 160.8
Amounts recorded in discontinued operations	28.3	31.9	17.8
Total	$ 147.5	$ 157.4	$ 178.6

The curtailment and settlement losses in 2012 are associated with the recent amendments to the pension plans and lump sum distributions under the supplemental benefit plans for officers and other key employees. The curtailment and settlement losses in 2011 are associated with the divestiture of Hussmann and lump sum distributions under supplemental benefit plans for officers and other key employees.

Pension expense for 2014 is projected to be approximately $105.2 million, utilizing the assumptions for calculating the pension benefit obligations at the end of 2013. The amounts expected to be recognized in net periodic pension cost during the year ended 2014 for prior service cost and plan net actuarial losses are $4.1 million and $35.9 million, respectively.

Weighted-average assumptions used:

Net periodic pension cost for the year ended December 31,	2013	2012	2011
Discount rate:			
U.S. plans			
For the period January 1 to June 7	3.75%	4.25%	5.00%
For the period June 8 to November 30	3.75%	4.00%	5.00%
For the period December 1 to December 31	4.50%	4.00%	5.00%
Non-U.S. plans	4.25%	5.00%	5.50%
Rate of compensation increase:			
U.S. plans	4.00%	4.00%	4.00%
Non-U.S. plans	4.00%	4.00%	4.50%
Expected return on plan assets:			
U.S. plans	5.25%	5.75%	7.25%
Non-U.S. plans	5.00%	5.75%	6.25%

The expected long-term rate of return on plan assets reflects the average rate of returns expected on the funds invested or to be invested to provide for the benefits included in the projected benefit obligation. The expected long-term rate of return on plan assets is based on what is achievable given the plan's investment policy, the types of assets held and target asset allocations. The expected long-term rate of return is determined as of the measurement date. The Company reviews each plan and its historical returns and target asset allocations to determine the appropriate expected long-term rate of return on plan assets to be used.

The Company's objective in managing its defined benefit plan assets is to ensure that all present and future benefit obligations are met as they come due. It seeks to achieve this goal while trying to mitigate volatility in plan funded status, contribution, and expense by better matching the characteristics of the plan assets to that of the plan liabilities. The Company utilizes a dynamic approach to asset allocation whereby a plan's allocation to fixed income assets increases as the plan's funded status improves. The Company monitors plan funded status and asset allocation regularly in addition to investment manager performance.

Fair Value Measurements

Fair value is defined as the exchange price that would be received to sell an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Fair value measurements are based on a framework that utilizes the inputs market participants use to determine the fair value of an asset or liability and establishes a fair value hierarchy to prioritize those inputs. The fair value hierarchy is comprised of three levels that are described below:

- Level 1 - Inputs based on quoted prices in active markets for identical assets or liabilities.
- Level 2 - Inputs other than Level 1 quoted prices, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the asset or liability.
- Level 3 - Unobservable inputs based on little or no market activity and that are significant to the fair value of the assets and liabilities.

The fair value hierarchy requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. Observable inputs are obtained from independent sources and can be validated by a third party, whereas unobservable inputs reflect assumptions regarding what a third party would use in pricing an asset or liability based on the best information available under the circumstances. A financial instrument's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

The fair values of the Company's pension plan assets at December 31, 2013 by asset category are as follows:

	Fair value measurements			
In millions	Level 1	Level 2	Level 3	Total fair value
Cash and cash equivalents	$ 4.1	$ 37.9	$ —	$ 42.0
Equity investments:				
Registered mutual funds – equity specialty[a]	6.0	—	—	6.0
Commingled funds – equity specialty[a]	—	826.8	—	826.8
	6.0	826.8	—	832.8
Fixed income investments:				
U.S. government and agency obligations	—	702.9	—	702.9
Corporate and non-U.S. bonds[b]	—	748.4	—	748.4
Asset-backed and mortgage-backed securities	—	59.4	—	59.4
Registered mutual funds – fixed income specialty[c]	32.3	—	—	32.3
Commingled funds – fixed income specialty[c]	—	268.5	—	268.5
Other fixed income[d]	—	—	22.6	22.6
	32.3	1,779.2	22.6	1,834.1
Derivatives	—	—	—	—
Real estate[e]	—	—	19.3	19.3
Other[f]	—	—	58.1	58.1
Total assets at fair value	$ 42.4	$ 2,643.9	$ 100.0	$ 2,786.3
Receivables and payables, net[g]				(7.1)
Net assets available for benefits				$ 2,779.2

(a) This class comprises commingled and registered mutual funds that focus on equity investments. It includes both indexed and actively managed funds.

(b) This class includes state and municipal bonds.

(c) This class comprises commingled and registered mutual funds that focus on fixed income securities.

(d) This class includes group annuity and guaranteed interest contracts.

(e) This class includes private equity funds that invest in real estate, including funds of funds.

(f) This investment comprises the Company's non-significant, non-U.S. pension plan assets. It mostly includes insurance contracts.

(g) Includes an estimated $20.0 million payable to Allegion in accordance with the terms of the Employee Matters Agreement.

The fair values of the Company's pension plan assets at December 31, 2012 by asset category are as follows:

In millions	Fair value measurements Level 1	Level 2	Level 3	Total fair value
Cash and cash equivalents	$ 5.8	$ 25.5	$ —	$ 31.3
Equity investments:				
Registered mutual funds – equity specialty[(a)]	5.9	—	—	5.9
Commingled funds – equity specialty[(a)]	—	935.2	—	935.2
	5.9	935.2	—	941.1
Fixed income investments:				
U.S. government and agency obligations	—	817.0	—	817.0
Corporate and non-U.S. bonds[(b)]	—	890.2	—	890.2
Asset-backed and mortgage-backed securities	—	53.0	—	53.0
Registered mutual funds – fixed income specialty[(c)]	33.8	—	—	33.8
Commingled funds – fixed income specialty[(c)]	—	439.1	—	439.1
Other fixed income[(d)]	—	—	21.9	21.9
	33.8	2,199.3	21.9	2,255.0
Derivatives	—	(0.1)	—	(0.1)
Real estate[(e)]	—	—	29.2	29.2
Other[(f)]	—	—	54.4	54.4
Total assets at fair value	$ 45.5	$ 3,159.9	$ 105.5	$ 3,310.9
Receivables and payables, net				(0.7)
Net assets available for benefits				$ 3,310.2

(a) This class comprises commingled and registered mutual funds that focus on equity investments. It includes both indexed and actively managed funds.

(b) This class includes state and municipal bonds.

(c) This class comprises commingled and registered mutual funds that focus on fixed income securities.

(d) This class includes group annuity and guaranteed interest contracts.

(e) This class includes private equity funds that invest in real estate. It includes both direct investment funds and funds-of-funds.

(f) This investment comprises the Company's non-significant, non-U.S. pension plan assets. It mostly includes insurance contracts.

Cash equivalents are valued using a market approach with inputs including quoted market prices for either identical or similar instruments. Fixed income securities are valued through a market approach with inputs including, but not limited to, benchmark yields, reported trades, broker quotes and issuer spreads. Commingled funds are valued at their daily net asset value (NAV) per share or the equivalent. NAV per share or the equivalent is used for fair value purposes as a practical expedient. NAVs are calculated by the investment manager or sponsor of the fund. Private real estate fund values are reported by the fund manager and are based on valuation or appraisal of the underlying investments.

The methodologies used by the Company to determine the fair value of its financial assets and liabilities at December 31, 2013 are the same as those used at December 31, 2012. There have been no significant transfers between levels of the fair value hierarchy.

The Company made required and discretionary contributions to its pension plans of $109.7 million in 2013, $89.1 million in 2012, and $57.3 million in 2011. The Company currently projects that it will contribute approximately $154.1 million to its plans worldwide in 2014. The Company's policy allows it to fund an amount, which could be in excess of or less than the pension cost expensed, subject to the limitations imposed by current tax regulations. The Company anticipates funding the plans in 2014 in accordance with contributions required by funding regulations or the laws of each jurisdiction.

Most of the Company's U.S. employees are covered by defined contribution plans. Employer contributions are determined based on criteria specific to the individual plans and amounted to approximately $89.0 million, $76.8 million, and $79.2 million in 2013, 2012 and 2011, respectively. The Company's contributions relating to non-U.S. defined contribution plans and other non-U.S. benefit plans were $33.8 million, $27.1 million and $28.8 million in 2013, 2012 and 2011, respectively.

Multiemployer Pension Plans

The Company also participates in a number of multiemployer defined benefit pension plans related to collectively bargained U.S. employees of Trane. The Company's contributions, and the administration of the fixed retirement payments, are determined by the terms of the related collective-bargaining agreements. These multiemployer plans pose different risks to the Company than single-employer plans, including:

1. The Company's contributions to multiemployer plans may be used to provide benefits to all participating employees of the program, including employees of other employers.
2. In the event that another participating employer ceases contributions to a plan, the Company may be responsible for any unfunded obligations along with the remaining participating employers.
3. If the Company chooses to withdraw from any of the multiemployer plans, the Company may be required to pay a withdrawal liability, based on the underfunded status of the plan.

As of December 31, 2013, the Company does not contribute to any plans which are individually significant, nor is the Company an individually significant contributor to any of these plans. Total contributions to multiemployer plans, excluding Hussmann, for the years ended December 31 were as follows:

In millions	2013	2012	2011
Total contributions	$ 5.4	$ 5.4	$ 5.2

Contributions to these plans may increase in the event that any of these plans are underfunded.

During 2011, the Company divested the Hussmann Business and Branches which participated in various multiemployer pension plans. For the year ended December 31, 2011, the Company contributed approximately $6.4 million to such plans. These contributions will not occur in future periods.

Postretirement Benefits Other Than Pensions

The Company sponsors several postretirement plans that provide for healthcare benefits, and in some instances, life insurance benefits that cover certain eligible employees. These plans are unfunded and have no plan assets, but are instead funded by the Company on a pay-as-you-go basis in the form of direct benefit payments. Generally, postretirement health benefits are contributory with contributions adjusted annually. Life insurance plans for retirees are primarily noncontributory.

In connection with the 2013 spin-off, the Company transferred its obligations for post retirement benefits other than pension for all current and former employees of the commercial and residential security businesses to Allegion. The transfer of these obligations reduced our post retirement plan liabilities by $14.1 million, and increased our accumulated other comprehensive income by $5.6 million.

The Board of Directors approved amendments on February 1, 2012 to its postretirement medical plan with respect to post-65 retiree medical coverage. Effective January 1, 2013, the Company discontinued offering company-sponsored retiree medical coverage for certain individuals age 65 and older. The Company transitioned affected individuals to coverage through the individual Medicare market and will provide a tax-advantaged subsidy to those retirees eligible for subsidized company coverage that can be used toward reimbursing premiums and other qualified medical expenses for individual Medicare supplemental coverage that is purchased through our third-party Medicare coordinator.

As a result of these changes, the Company's projected benefit obligations were remeasured as of February 1, 2012, which included updating the discount rate assumption to 3.75% from the 4.00% assumed at December 31, 2011. The remeasurement resulted in a decrease of $40.5 million to the projected benefit obligation, an actuarial loss of $21.3 million and a credit of $61.8 million to prior service cost.

The following table details information regarding the Company's postretirement plans at December 31:

In millions	2013	2012
Change in benefit obligations:		
Benefit obligation at beginning of year	$ 851.4	$ 919.9
Service cost	6.6	7.3
Interest cost	26.0	30.8
Plan participants' contributions	11.2	19.1
Actuarial (gains) losses	(109.8)	15.4
Benefits paid, net of Medicare Part D subsidy *	(56.4)	(78.8)
Settlements/curtailments	—	—
Amendments	—	(62.3)
Impact of spin-off	(14.1)	—
Other	(1.6)	—
Benefit obligations at end of year	$ 713.3	$ 851.4

* Amounts are net of Medicare Part D subsidy of $12.8 million and $0.7 million in 2013 and 2012, respectively

	2013	2012
Funded status:		
Plan assets less than benefit obligations	$ (713.3)	$ (851.4)
Amounts included in the balance sheet:		
Accrued compensation and benefits	$ (65.2)	$ (67.2)
Postemployment and other benefit liabilities	(648.1)	(766.2)
Liabilities held for spin-off	—	(18.0)
Total	$ (713.3)	$ (851.4)

The pretax amounts recognized in Accumulated other comprehensive income (loss) were as follows:

In millions	Prior service gains	Net actuarial losses	Total
Balance at December 31, 2012	$ 56.9	$ (180.3)	$ (123.4)
Current year changes recorded to Accumulated other comprehensive income (loss)	—	109.9	109.9
Amortization reclassified to earnings	(10.3)	6.5	(3.8)
Impact of spin-off	(7.2)	1.6	(5.6)
Balance at December 31, 2013	$ 39.4	$ (62.3)	$ (22.9)

The components of net periodic postretirement benefit (income) cost for the years ended December 31 were as follows:

In millions	2013	2012	2011
Service cost	$ 6.6	$ 7.3	$ 8.4
Interest cost	26.0	30.8	42.0
Net amortization of:			
Prior service gains	(10.3)	(10.3)	(3.5)
Net actuarial losses	6.5	7.3	1.6
Net periodic postretirement benefit cost	28.8	35.1	48.5
Net curtailment and settlement (gains) losses	—	—	(10.1)
Net periodic postretirement benefit (income) cost after net curtailment and settlement (gains) losses	$ 28.8	$ 35.1	$ 38.4
Amounts recorded in continuing operations	$ 19.8	$ 22.2	$ 18.7
Amounts recorded in discontinued operations	9.0	12.9	19.7
Total	$ 28.8	$ 35.1	$ 38.4

The curtailment and settlement gains in 2011 are associated with the divestiture of Hussmann. Postretirement cost for 2014 is projected to be $25.8 million. The amount expected to be recognized in net periodic postretirement benefits cost in 2014 for prior service gains is $8.9 million.

Assumptions:	2013	2012	2011
Weighted-average discount rate assumption to determine:			
Benefit obligations at December 31	4.25%	3.25%	4.00%
Net periodic benefit cost			
For the period January 1 to January 31	3.25%	4.00%	5.00%
For the period February 1 to November 30	3.25%	3.75%	5.00%
For the period November 30 to December 31	4.00%	3.75%	5.00%
Assumed health-care cost trend rates at December 31:			
Current year medical inflation	7.65%	8.05%	8.45%
Ultimate inflation rate	5.00%	5.00%	5.00%
Year that the rate reaches the ultimate trend rate	2021	2021	2021

A 1% change in the medical trend rate assumed for postretirement benefits would have the following effects at December 31, 2013:

In millions	1% Increase	1% Decrease
Effect on total of service and interest cost components	$ 1.2	$ (1.0)
Effect on postretirement benefit obligation	27.9	(24.5)

Benefit payments for postretirement benefits, which are net of expected plan participant contributions and Medicare Part D subsidy, are expected to be paid as follows:

In millions	
2014	$ 66.6
2015	66.7
2016	64.7
2017	62.4
2018	59.8
2019 — 2023	264.3

NOTE 11 – EQUITY

Ordinary Shares

At December 31, 2013, a reconciliation of ordinary shares is as follows:

In millions	Total
December 31, 2012	295.6
Shares issued under incentive plans	7.9
Repurchase of ordinary shares	(20.8)
December 31, 2013	282.7

In December 2012, the Board of Directors authorized the repurchase of up to $2.0 billion of the Company's ordinary shares under a share repurchase program. During 2013, the Company repurchased 20.8 million shares for approximately $1.2 billion, excluding commissions. These repurchases were accounted for as a reduction of Ordinary shares and Capital in excess of par value as they were canceled upon repurchase.

In December 2012, the Company declared a dividend of $0.21 per ordinary share payable on March 28, 2013 to shareholders of record on March 12, 2013. This represents a non-cash financing activity and has been excluded from the 2012 Consolidated Statement of Cash Flows. The cash impact of the dividend will be reflected in the 2013 Consolidated Statement of Cash Flows in 2013 as the dividend was paid in 2013.

The authorized share capital of IR-Ireland is 1,185,040,000 shares, consisting of (1) 1,175,000,000 ordinary shares, par value $1.00 per share, (2) 40,000 ordinary shares, par value EUR 1.00 and (3) 10,000,000 preference shares, par value $0.001 per share. No preference shares were outstanding at December 31, 2013 or 2012.

Other Comprehensive Income (Loss)

The changes in Accumulated other comprehensive income (loss) are as follows:

In millions	Cash flow hedges and marketable securities	Pension and OPEB Items	Foreign Currency Items	Total
December 31, 2011	$ (4.5)	$ (897.1)	$ 348.0	$ (553.6)
Other comprehensive income (loss), net of tax	3.1	(67.1)	96.6	32.6
December 31, 2012	$ (1.4)	$ (964.2)	$ 444.6	$ (521.0)
Other comprehensive income (loss), net of tax	19.7	263.3	11.7	294.7
Impact of spin-off and other activities	$ (17.9)	$ 138.1	$ (60.6)	$ 59.6
December 31, 2013	$ 0.4	$ (562.8)	$ 395.7	$ (166.7)

The amounts of Other comprehensive income (loss) attributable to noncontrolling interests are as follows:

In millions	2013	2012	2011
Pension and OPEB items	$ —	$ (1.3)	$ (0.6)
Foreign currency items	3.3	(11.1)	—
Total other comprehensive income (loss) attributable to noncontrolling interests	$ 3.3	$ (12.4)	$ (0.6)

During 2012, the Company reclassified a $11.5 million currency translation loss to Noncontrolling interests from IR-Ireland shareholders' equity related to activity from prior to 2012. This reclassification corrects the allocation of currency translation gains (losses) between the Equity components. The Company does not believe this reclassification adjustment is material to 2012 or to any of its previously issued annual or interim financial statements.

NOTE 12 – SHARE-BASED COMPENSATION

The Company records share-based compensation awards using a fair value method and recognizes compensation expense for an amount equal to the fair value of the share-based payment issued in its financial statements. The Company's share-based compensation plans include programs for stock options, stock appreciation rights (SARs), restricted stock units (RSUs), performance share units (PSUs), and deferred compensation.

In connection with the spin-off of the commercial and residential security businesses, the provisions of our existing compensation plans required adjustments to the number and terms of outstanding employee stock options, SARs, RSUs and PSUs to preserve the intrinsic value of the awards immediately before and after the spin-off. The outstanding awards will continue to vest over the original vesting period, which is generally three years from the grant date.

The stock awards held as of December 1, 2013 were adjusted as follows:

- *Stock options and SARs*: Holders of Ingersoll Rand vested stock option and SARs awards received one stock option of Allegion for every three Ingersoll Rand vested and exercisable stock options held. The exercise price for each award was also adjusted to preserve the overall intrinsic value of the awards. Unvested stock options held at the time of the spin-off were converted into stock options of the holder's employer following the spin-off, with the number of underlying shares and the exercise price adjusted accordingly to preserve the overall intrinsic value of the awards.
- *Restricted stock units*: Ingersoll Rand restricted stock units were converted into restricted stock units of the holder's employer following the spin-off with adjustments to the number of underlying shares as appropriate to preserve the intrinsic value of such awards immediately prior to the spin-off.
- *Performance share units*: Participants with active and outstanding performance share units had the number of units held adjusted for the change in Ingersoll Rand stock price before and after the spin-off. A corresponding adjustment was made to the calculation of earnings per share and total shareholder return to appropriately reflect the spin-off.

Under the Company's incentive stock plan, the total number of ordinary shares authorized by the shareholders is 20.0 million, of which 19.5 million remains available as of December 31, 2013 for future incentive awards.

Compensation Expense

Share-based compensation expense related to continuing operations is included in Selling and administrative expenses. The following table summarizes the expenses recognized:

In millions	2013	2012	2011
Stock options	$ 23.0	$ 5.7	$ 22.3
RSUs	29.9	22.0	21.1
PSUs	20.2	22.5	(0.5)
Deferred compensation	1.9	0.1	1.1
Other	2.9	2.3	(0.9)
Pre-tax expense	77.9	52.6	43.1
Tax benefit	29.8	20.1	16.5
After-tax expense	$ 48.1	$ 32.5	$ 26.6
Amounts recorded in continuing operations	$ 43.4	$ 28.6	$ 24.0
Amounts recorded in discontinued operations	4.7	3.9	2.6
Total	$ 48.1	$ 32.5	$ 26.6

During 2012, the Company recorded a correcting adjustment resulting in the reversal of $13.5 million ($8.3 million after tax) of previously charged compensation expense related to the accounting for stock option forfeitures. The Company does not believe the correcting adjustment is material to 2012 or to any of its previously issued annual or interim financial statements.

Stock Options / RSUs

Eligible participants may receive (i) stock options, (ii) RSUs or (iii) a combination of both stock options and RSUs. The fair value of each of the Company's stock option and RSU awards is expensed on a straight-line basis over the required service period, which is generally the 3-year vesting period. However, for stock options and RSUs granted to retirement eligible employees, the Company recognizes expense for the fair value at the grant date.

The average fair value of the stock options granted for the year ended December 31, 2013 and 2012 was estimated to be $16.55 per share and $13.67 per share, respectively, using the Black-Scholes option-pricing model. The following assumptions were used:

	2013	2012
Dividend yield	1.60%	1.33%
Volatility	42.15%	43.60%
Risk-free rate of return	0.85%	0.92%
Expected life	5.1	5.1

Expected volatility is based on the historical volatility from traded options on the Company's stock. The risk-free rate of return is based on the yield curve of a zero-coupon U.S. Treasury bond on the date the award is granted with a maturity equal to the expected term of the award. Historical data is used to estimate forfeitures within the Company's valuation model. The expected life of the Company's stock option awards is derived from historical experience and represents the period of time that awards are expected to be outstanding.

For stock options granted prior to the spin-off, the weighted-average exercise prices in the table below reflect the historical exercise prices. Changes in options outstanding under the plans for the years 2013, 2012 and 2011 are as follows:

	Shares subject to option	Weighted-average exercise price	Aggregate intrinsic value (millions)	Weighted-average remaining life
December 31, 2010	21,706,228	$ 32.30		
Granted	1,834,564	44.99		
Exercised	(4,275,088)	30.00		
Cancelled	(650,428)	35.36		
December 31, 2011	18,615,276	33.97		
Granted	1,463,352	40.67		
Exercised	(5,578,783)	28.87		
Cancelled	(408,883)	41.30		
December 31, 2012	14,090,962	36.47		
Granted	1,341,602	52.71		
Exercised	(6,994,024)	35.33		
Cancelled	(110,496)	44.57		
Impact of spin-off	371,984	****		
Outstanding December 31, 2013	8,700,028	$ 31.87	$ 258.7	5.6
Exercisable December 31, 2013	5,695,290	$ 29.71	$ 184.5	4.2

The following table summarizes information concerning currently outstanding and exercisable options as adjusted for the spin-off as discussed above:

	Options outstanding			Options exercisable		
Range of exercise price	Number outstanding at December 31, 2013	Weighted-average remaining life	Weighted-average exercise price	Number outstanding at December 31, 2013	Weighted-average remaining life	Weighted-average exercise price
10.01 — 20.00	850,559	3.5	14.81	850,559	3.5	14.81
20.01 — 30.00	1,635,997	5.1	25.53	1,378,461	4.6	25.69
30.01 — 40.00	4,648,123	5.2	33.81	3,263,037	4.3	33.66
40.01 — 50.00	1,561,333	8.3	41.97	203,233	3.8	41.85
50.01 — 60.00	4,016	9.8	51.92	—	0.0	—
$ 14.80 — $ 51.92	8,700,028	5.6	$ 31.87	5,695,290	4.2	$ 29.21

At December 31, 2013, there was $13.6 million of total unrecognized compensation cost from stock option arrangements granted under the plan, which is primarily related to unvested shares of non-retirement eligible employees. The aggregate intrinsic value of options exercised during the year ended December 31, 2013 and 2012 was $155.5 million and $89.7 million, respectively. Generally, stock options expire ten years from their date of grant.

For restricted stock awarded prior to the spin-off, grant price information in the table below reflects historical market prices. The following table summarizes RSU activity for the years 2013, 2012 and 2011:

	RSUs	Weighted-average grant date fair value
Outstanding and unvested at December 31, 2010	1,300,174	$ 26.14
Granted	672,185	43.87
Vested	(512,614)	24.20
Cancelled	(152,572)	34.87
Outstanding and unvested at December 31, 2011	1,307,173	$ 35.00
Granted	643,822	40.74
Vested	(575,214)	30.05
Cancelled	(91,089)	38.92
Outstanding and unvested at December 31, 2012	1,284,692	$ 39.81
Granted	685,441	53.78
Vested	(669,079)	38.44
Cancelled	(63,954)	43.98
Impact of spin-off	103,882	****
Outstanding and unvested at December 31, 2013	1,340,982	$ 38.49

At December 31, 2013, there was $21.5 million of total unrecognized compensation cost from RSU arrangements granted under the plan, which is related to unvested shares of non-retirement eligible employees.

Performance Shares

The Company has a Performance Share Program (PSP) for key employees. The program provides awards in the form of PSUs based on performance against pre-established objectives. The annual target award level is expressed as a number of the Company's ordinary shares. All PSUs are settled in the form of ordinary shares.

Awards granted in 2011 and 2010 are based upon the Company's relative earnings-per-share (EPS) growth as compared to the industrial group of companies in the S&P 500 Index over the 3-year performance period.

In 2011 the Compensation Committee approved certain changes to the Company's PSP to be implemented beginning with the 2012 grant year. Under these changes, PSU awards are based 50% upon a performance condition, measured at each reporting period by relative EPS growth to the industrial group of companies in the S&P 500 Index and the fair market value of the Company's stock on the date of grant, and 50% upon a market condition, measured by the Company's relative total shareholder return (TSR) as compared to the TSR of the industrial group of companies in the S&P 500 Index over the 3-year performance period. The fair value of the market condition is estimated using a Monte Carlo Simulation approach in a risk-neutral framework based upon historical volatility, risk-free rates and correlation matrix.

In 2012 the Compensation Committee approved a change to fix the measurement of EPS for all outstanding 2010 and 2011 PSU awards, effective January 31, 2012. This change results in fixed accounting being applied as of the date of change. The fair value of the Company's stock price used to fix the remaining amount of expense to be recorded over the life of the awards was $34.94.

The grant price information for performance share units awarded prior to the spin-off reflects historical market prices which were not adjusted to reflect the spin-off. The following table summarizes PSU activity for the maximum number of shares that may be issued for the years 2013, 2012 and 2011:

	PSUs	Weighted-average grant date fair value
Outstanding and unvested at December 31, 2010	3,768,706	$ 20.36
Granted	614,006	46.66
Vested	(633,504)	16.95
Forfeited	(1,116,212)	19.31
Outstanding and unvested at December 31, 2011	2,632,996	$ 27.76
Granted	649,668	50.75
Vested	—	—
Forfeited	(1,423,028)	18.68
Outstanding and unvested at December 31, 2012	1,859,636	$ 40.30
Granted	580,910	61.24
Vested	(718,040)	34.94
Forfeited	(150,636)	51.43
Impact of spin-off	380,780	****
Outstanding and unvested at December 31, 2013	1,952,650	$ 39.20

At December 31, 2013, there was $12.9 million of total unrecognized compensation cost from the PSP based on current performance, which is related to unvested shares. This compensation will be recognized over the required service period, which is generally the three-year vesting period.

Deferred Compensation

The Company allows key employees to defer a portion of their eligible compensation into a number of investment choices, including its ordinary share equivalents. Any amounts invested in ordinary share equivalents will be settled in ordinary shares of the Company at the time of distribution.

Other Plans

The Company has not granted stock appreciation rights (SARs) since 2006 and does not anticipate additional grants in the future. As of December 31, 2013, there were 96,415 SARs outstanding, all of which are vested and expire 10 years from the date of grant. All SARs exercised are settled with the Company's ordinary shares.

The Company has issued stock grants as an incentive plan for certain key employees, with varying vesting periods. All stock grants are settled with the Company's ordinary shares. At December 31, 2013, there were 52,565 stock grants outstanding, all of which were vested.

NOTE 13 – RESTRUCTURING ACTIVITIES

Restructuring charges recorded during the years ended December 31 were as follows:

In millions	2013	2012	2011
Climate	$ 47.5	$ 12.9	$ 17.1
Industrial	14.5	7.6	6.7
Corporate and Other	20.3	2.8	0.3
Total	$ 82.3	$ 23.3	$ 24.1
Cost of goods sold	$ 15.2	$ 10.3	$ 6.8
Selling and administrative expenses	67.1	13.0	17.3
Total	$ 82.3	$ 23.3	$ 24.1

The changes in the restructuring reserve were as follows:

In millions	Climate	Industrial	Corporate and Other	Total
December 31, 2011	$ 5.1	$ 4.2	$ 1.7	$ 11.0
Additions, net of reversals	12.9	7.6 *	2.8	23.3
Cash and non-cash uses	(13.4)	(9.7)	(2.6)	(25.7)
Currency translation	0.1	—	—	0.1
December 31, 2012	4.7	2.1	1.9	8.7
Additions, net of reversals	47.5	14.5	20.3	82.3
Cash and non-cash uses	(34.2)	(7.1)	(17.2)	(58.5)
Currency translation	—	—	—	—
December 31, 2013	$ 18.0	$ 9.5	$ 5.0	$ 32.5

* Amount includes the reversal of $6.7 million of previously accrued restructuring charges.

During 2013, 2012, and 2011, the Company incurred costs of $82.3 million, $23.3 million, and $24.1 million respectively, associated with ongoing restructuring actions. These actions included workforce reductions as well as the closure and consolidation of manufacturing facilities in an effort to improve the Company's cost structure. Due to changes in various economic factors, the Company made a decision in the first quarter of 2011 to continue operating a facility for which the Company had previously accrued approximately $6.7 million of restructuring charges. As of December 31, 2013, the Company had $32.5 million accrued for costs associated with its ongoing restructuring actions, of which a majority is expected to be paid within one year.

In addition to the 2013 restructuring charges described above, the Company incurred $0.7 million of non-qualified restructuring charges during the year ended December 31, 2013, which represent costs that are directly attributable to restructuring activities, but do not fall into the severance, exit or disposal category. These non-qualified restructuring charges were incurred to improve the Company's cost structure.

NOTE 14 – OTHER, NET

At December 31, the components of Other, net were as follows:

In millions	2013	2012	2011
Interest income	$ 12.8	$ 16.3	$ 25.5
Exchange gain (loss)	(14.0)	0.2	(1.3)
Earnings (loss) from equity investments	(2.6)	(5.9)	(3.5)
Other	7.2	17.5	7.7
Other, net	$ 3.4	$ 28.1	$ 28.4

Exchange gain (loss) for the year ended December 31, 2013 includes a loss of approximately $3.8 million related to the devaluation of the Venezuela Bolivar. Included within Earnings (loss) from equity investments for the years ended December 31, 2013, 2012 and 2011 is $2.6 million, $5.9 million and $3.5 million of equity loss, respectively, on the Hussmann equity investment incurred subsequent to the Hussmann divestiture transaction dates. The activity included within Other for the year ended December 31, 2012 is primarily related to adjustments to actual and expected insurance recoveries as a result of a settlement.

NOTE 15 – INCOME TAXES

Earnings before income taxes for the years ended December 31 were taxed within the following jurisdictions:

In millions	2013	2012	2011
United States	$ (147.4)	$ (49.3)	$ (1,066.3)
Non-U.S.	977.0	897.3	1,254.9
Total	$ 829.6	$ 848.0	$ 188.6

The components of the Provision for income taxes for the years ended December 31 were as follows:

In millions	2013	2012	2011
Current tax expense (benefit):			
United States	$ 2.1	$ (70.1)	$ 46.7
Non-U.S.	157.5	174.0	170.0
Total:	159.6	103.9	216.7
Deferred tax expense (benefit):			
United States	19.2	116.9	(215.4)
Non-U.S.	10.2	(164.8)	44.2
Total:	29.4	(47.9)	(171.2)
Total tax expense (benefit):			
United States	21.3	46.8	(168.7)
Non-U.S.	167.7	9.2	214.1
Total	$ 189.0	$ 56.0	$ 45.4

The Provision for income taxes differs from the amount of income taxes determined by applying the applicable U.S. statutory income tax rate to pretax income, as a result of the following differences:

	Percent of pretax income		
	2013	2012	2011
Statutory U.S. rate	35.0%	35.0%	35.0%
Increase (decrease) in rates resulting from:			
Non-U.S. tax rate differential	(26.8)	(22.5)	(120.4)
Tax on U.S. subsidiaries on non-U.S. earnings	2.0	4.1	24.0
State and local income taxes (1)	6.3	0.3	(6.1)
Valuation allowances	2.5	(16.6)	(0.8)
Change in permanent reinvestment assertion (2)	6.2	—	—
Non-deductible goodwill write-off - Hussmann	—	—	75.4
Reserves for uncertain tax positions	(2.9)	2.4	15.3
Impact of change in taxation of retiree drugs subsidy	—	1.9	—
Provision to return and other true-up adjustments	(0.7)	(0.1)	(0.8)
Other adjustments	1.2	2.1	2.5
Effective tax rate	22.8%	6.6%	24.1%

(1) Net of changes in valuation allowances
(2) Net of foreign tax credits

Tax incentives, in the form of tax holidays, have been granted to the Company in certain jurisdictions to encourage industrial development. The expiration of these tax holidays varies by country. The tax holidays are conditional on the Company meeting certain employment and investment thresholds. The most significant tax holidays relate to the Company's qualifying locations in China, Puerto Rico, and Belgium. The benefit for the tax holidays for the years ended December 31, 2013 and 2012 was $25.3 million and $13.7 million, respectively.

At December 31, a summary of the deferred tax accounts were as follows:

In millions	2013	2012
Deferred tax assets:		
Inventory and accounts receivable	$ 19.7	$ 21.1
Fixed assets and intangibles	3.3	3.6
Postemployment and other benefit liabilities	643.1	755.0
Product liability	221.7	237.6
Other reserves and accruals	198.5	174.6
Net operating losses and credit carryforwards	707.1	868.8
Other	59.2	63.2
Gross deferred tax assets	1,852.6	2,123.9
Less: deferred tax valuation allowances	(218.5)	(156.2)
Deferred tax assets net of valuation allowances	$ 1,634.1	$ 1,967.7
Deferred tax liabilities:		
Inventory and accounts receivable	$ (46.8)	$ (48.8)
Fixed assets and intangibles	(2,046.8)	(2,090.6)
Postemployment and other benefit liabilities	(3.3)	(0.3)
Other reserves and accruals	(6.0)	(3.4)
Other	(49.1)	(6.0)
Gross deferred tax liabilities	(2,152.0)	(2,149.1)
Net deferred tax assets (liabilities)	$ (517.9)	$ (181.4)

At December 31, 2013, no deferred taxes have been provided for any portion of the approximately $7.4 billion of undistributed earnings of the Company's subsidiaries, since these earnings have been, and under current plans will continue to be, permanently reinvested in these subsidiaries. Due to the number of legal entities and jurisdictions involved and the complexity of the legal entity structure of the Company, the complexity of the tax laws in the relevant jurisdictions, including, but not limited to the rules pertaining to the utilization of foreign tax credits in the United States and the impact of projections of income for future years to any calculations, the Company believes it is not practicable to estimate, within any reasonable range, the amount of additional taxes which may be payable upon distribution of these earnings.

As a result of the Allegion spin-off and certain internal restructurings, the Company believes it is advantageous to fully repay an intercompany debt obligation between two of its subsidiaries. In order to facilitate the repayment of this intercompany debt, in the fourth quarter of 2013, the Company decided to change its permanent reinvestment assertion as it relates to approximately $740 million of earnings primarily related to subsidiaries in Hong Kong, Australia and Canada. The Company has recorded the tax effects of this change in the fourth quarter of 2013, which resulted in a charge of approximately $51 million. Except where otherwise noted, the Company continues with its permanent reinvestment assertion on its remaining unremitted earnings.

At December 31, 2013, the Company had the following operating loss and tax credit carryforwards available to offset taxable income in prior and future years:

In millions	Amount	Expiration Period
U.S. Federal net operating loss carryforwards	$ 895.0	2014-2033
U.S. Federal credit carryforwards	42.7	2014-Unlimited
U.S. State net operating loss carryforwards	3,044.2	2014-2033
U.S. State credit carryforwards	29.8	2014-Unlimited
Non-U.S. net operating loss carryforwards	1,128.0	2014-Unlimited
Non-U.S. credit carryforwards	1.0	Unlimited

The amount of net operating loss carryforwards for which a benefit would be recorded in additional paid in capital when realized is $158.7 million.

The U.S. state net operating loss carryforwards were incurred in various jurisdictions. The non-U.S. net operating loss carryforwards were incurred in various jurisdictions, predominantly in Barbados, Belgium, Brazil, India, Spain, and the United Kingdom.

Activity associated with the Company's valuation allowance is as follows:

In millions		2013		2012		2011
Beginning balance	$	156.2	$	308.4	$	351.2
Increase to valuation allowance		89.3		44.5		14.9
Decrease to valuation allowance		(26.3)		(192.4)		(22.3)
Other deductions		—		—		(0.3)
Accumulated other comprehensive income (loss)		(0.7)		(4.3)		(35.1)
Ending balance	$	218.5	$	156.2	$	308.4

The Company has total unrecognized tax benefits of $363.3 million and $497.5 million as of December 31, 2013, and December 31, 2012, respectively. The amount of unrecognized tax benefits that, if recognized, would affect the continuing operations effective tax rate are $278.3 million as of December 31, 2013. A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

In millions		2013		2012		2011
Beginning balance	$	497.5	$	503.4	$	505.6
Additions based on tax positions related to the current year		19.9		8.5		16.1
Additions based on tax positions related to acquisitions		—		—		—
Additions based on tax positions related to prior years		152.9		88.2		56.7
Reductions based on tax positions related to prior years		(215.3)		(24.1)		(62.2)
Reductions related to settlements with tax authorities		(84.7)		(50.6)		(3.7)
Reductions related to lapses of statute of limitations		(8.4)		(29.5)		(9.2)
Translation (gain) loss		1.4		1.6		0.1
Ending balance	$	363.3	$	497.5	$	503.4

In connection with the Company's spin-off of Allegion, the Company and Allegion entered into a tax sharing agreement for the allocation of taxes. Of the total unrecognized tax benefit of $363.3 million at December 31, 2013, Allegion has agreed to indemnify Ingersoll Rand for $4.1 million, which is reflected in an other long-term receivable account. Additionally, included in this other long-term receivable account is an indemnity receivable from Allegion in the amount of $55.8 million related to a filing for competent authority relief in connection with an unrecognized tax benefit included in the table above. The $55.8 million is exclusive of interest and penalties in the amount of $10.4 million. The Company also has an indemnity payable to Allegion in the amount of $9.5 million of tax and interest primarily related to competent authority relief filings.

In connection with Trane's spin-off of WABCO Holdings Inc. (WABCO), Trane and WABCO entered into a tax sharing agreement for the allocation of pre spin-off taxes. Of the total unrecognized tax benefit of $363.3 million at December 31, 2013, WABCO has agreed to indemnify Trane for $3.7 million, which is reflected in an other long-term receivable account.

The Company records interest and penalties associated with the uncertain tax positions within its Provision for income taxes. The Company had reserves associated with interest and penalties, net of tax, of $71.9 million and $85.3 million at December 31, 2013 and December 31, 2012, respectively. For the year ended December 31, 2013 and December 31, 2012, the Company recognized $(5.9) million and $11.8 million, respectively, in interest and penalties net of tax in continuing operations related to these uncertain tax positions.

The total amount of unrecognized tax benefits relating to the Company's tax positions is subject to change based on future events including, but not limited to, the settlements of ongoing audits and/or the expiration of applicable statutes of limitations. Although the outcomes and timing of such events are highly uncertain, it is reasonably possible that the balance of gross unrecognized tax benefits, excluding interest and penalties, could potentially be reduced by up to approximately $4.5 million during the next 12 months.

The provision for income taxes involves a significant amount of management judgment regarding interpretation of relevant facts and laws in the jurisdictions in which the Company operates. Future changes in applicable laws, projected levels of taxable income and tax planning could change the effective tax rate and tax balances recorded by the Company. In addition, tax authorities periodically review income tax returns filed by the Company and can raise issues regarding its filing positions, timing and amount of income or deductions, and the allocation of income among the jurisdictions in which the Company operates. A significant period of time may elapse between the filing of an income tax return and the ultimate resolution of an issue raised by a revenue authority with respect to that return. In the normal course of business the Company is subject to examination by taxing authorities throughout the world, including such major jurisdictions as Brazil, Canada, China, France, Germany, Ireland, Italy, Mexico, Switzerland, the

Netherlands and the United States. In general, the examination of the Company's material tax returns is complete for the years prior to 2001, with certain matters being resolved through appeals and litigation.

In 2007, the Company received a notice from the IRS containing proposed adjustments to the Company's tax filings in connection with an audit of the 2001 and 2002 tax years. The IRS did not contest the validity of the Company's reincorporation in Bermuda. The IRS proposed to ignore the entities that hold the intercompany debt incurred in connection with the Company's reincorporation in Bermuda (the "2001 Debt") and to which the interest was paid and impose 30% withholding tax on a portion of the interest payments as if they were made directly to a company that was not eligible for reduced U.S. withholding tax under a U.S. income tax treaty. The IRS asserted that the Company owed additional taxes with respect to 2002 of approximately $84 million plus interest. The Company strongly disagreed with the view of the IRS and filed a protest. In 2010, the Company received an amended notice from the IRS assessing penalties of 30% on the asserted underpayment of tax described above.

The Company has so far been unsuccessful in resolving this dispute and recently received a Notice of Deficiency from the IRS for 2002. The Company filed a petition in the United States Tax Court in November 2013 contesting this deficiency. In its January 2014 answer to the Company's petition, the IRS asserted that the Company also owes 30% withholding tax on the portion of 2002 interest payments made on the 2001 Debt upon which it did not previously assert withholding tax. A 30% withholding tax on this $85.0 million interest payment would increase the total tax liability proposed for 2002 to $109.0 million ($84 million referred to in the paragraph above plus this additional $25.0 million) plus 30% penalties and interest.

Recently the Company received notices from the IRS containing proposed adjustments to the Company's tax filings in connection with an audit of the 2003-2006 tax years. In these notices, the IRS asserts that the Company owes a total of approximately $665.0 million of additional taxes, as described more fully below, in connection with the Company's interest payments on the 2001 Debt for the 2003-2006 period, plus penalties and interest on these unpaid taxes.

The IRS continues to take the position on the 2001 Debt, which was retired at the end of 2011, that it previously took for the Company's 2002 tax year and which is described above. As a result of this recharacterization, the IRS asserts that the Company owes approximately $455.0 million of withholding tax for 2003-2006 plus 30% penalties.

The IRS also proposes to extend its position further and to treat all of the interest income from the 2001 Debt as creating earnings and profits at IR-Limited and, as a result, recharacterize the distributions made by IR-Limited during the 2002-2006 tax years as taxable dividends instead of as a return of capital. Consequently the IRS asserts that the Company owes approximately $210.0 million of income tax on these dividends plus penalties of 20%.

Although the Company expects it to do so, the IRS has not yet proposed any similar adjustments for years subsequent to 2006, as the federal income tax audits for those years are still in process or have not yet begun. In addition, the Company does not know how the IRS will apply its position to the different facts presented in those years or whether the IRS will take a similar position in future audits with respect to intercompany debt instruments not outstanding in prior years.

The Company has vigorously contested all of these proposed adjustments and intends to continue to do so. Although the outcome of these matters cannot be predicted with certainty, based upon an analysis of the merits of the Company's position the Company believes that it is adequately reserved under the applicable accounting standards for these matters and does not expect that the ultimate resolution will have a material adverse impact on its future results of operations, financial condition, or cash flows. As the Company moves forward to resolve these matters with the IRS, the reserves established may be adjusted. Although the Company continues to contest the IRS's position, there can be no assurance that it will be successful. If the IRS's position with respect to the 2002-2006 tax years is ultimately sustained the Company would be required to record additional charges and the resulting liability will have a material adverse impact on its future results of operations, financial condition and cash flows.

The Company believes that it has adequately provided for any reasonably foreseeable resolution of any tax disputes, but will adjust its reserves if events so dictate in accordance with GAAP. To the extent that the ultimate results differ from the original or adjusted estimates of the Company, the effect will be recorded in the Provision for income taxes.

As a result of the Patient Protection and Affordable Care Act and the Healthcare and Education Reform Reconciliation Bill of 2010 (collectively, the Healthcare Reform Legislation), effective 2013, the tax benefits available to the Company are reduced to the extent its prescription drug expenses are reimbursed under the Medicare Part D retiree drug subsidy program. Although the provisions of the Healthcare Reform Legislation relating to the retiree drug subsidy program did not take effect until 2013, the Company is required to recognize the full accounting impact in its financial statements in the reporting period in which the Healthcare Reform Legislation is enacted. As retiree healthcare liabilities and related tax impacts were already reflected in the Company's financial statements, the Healthcare Reform Legislation resulted in a non-cash charge to income tax expense in the first quarter of 2010 of $36.6 million. In 2012, the Company recorded a $15.8 million non-cash charge to income tax expense related to the required tax accounting between the enactment date of March 30, 2010 and the effective date of January 1, 2013 of the Healthcare Reform Legislation.

During 2012, the Company identified certain accounting errors associated with its previously reported income tax balances and tax positions. The Company corrected these errors in 2012 resulting in a tax charge of $24.0 million primarily related to the accrual of previously unrecorded unrecognized tax benefits. The Company does not believe that the accounting errors are material to 2012 or to any of its previously issued financial statements. As a result, the Company did not adjust any prior period amount.

During 2013, the Company recorded to continuing operations a tax charge of approximately $74.3 million as result of increases to its deferred tax asset valuation allowance for non-U.S. and U.S. state and local net operating losses and other net deferred tax assets. During 2013, the Company also recorded to continuing operations a net tax benefit of $36.0 million related to its liability for unrecognized tax benefits primarily driven by a tax benefit of $75.0 million as a result of the settlement of an audit in a major tax jurisdiction, partially offset by an increase in our liability for unrecognized tax benefits in non-U.S. tax jurisdictions.

During 2012 the Company recorded to continuing operations a tax benefit of approximately $140.0 million as a result of reducing its deferred tax asset valuation allowance for state net operating losses.

During 2011, the Company identified certain accounting errors associated with its previously reported income tax balances and tax positions. The Company corrected these errors in 2011 resulting in a tax charge of approximately $38.2 million, of which $3.9 million related to discontinued operations, primarily related to the accrual of a previously unrecorded future withholding tax liability. The Company does not believe that the accounting errors are material to 2011 or to any of its previously issued financial statements. As a result, the Company did not adjust any prior period amounts.

NOTE 16 – DISCONTINUED OPERATIONS AND DIVESTITURES

Discontinued Operations

The components of discontinued operations for the years ended December 31 are as follows:

In millions	2013	2012	2011
Net revenues	$ 1,889.9	$ 2,046.6	$ 2,093.4
Pre-tax earnings (loss) from operations	$ 84.7	$ 379.5	$ 355.7
Pre-tax gain (loss) on sale	—	2.3	(57.7)
Tax benefit (expense)	(71.4)	(129.8)	(71.9)
Discontinued operations, net of tax	$ 13.3	$ 252.0	$ 226.1

Discontinued operations by business for the years ended December 31 are as follows:

In millions	2013	2012	2011
Allegion, net of tax	$ 12.4	$ 254.2	$ 275.7
Other discontinued operations, net of tax	0.9	(2.2)	(49.6)
Discontinued operations, net of tax	$ 13.3	$ 252.0	$ 226.1

Allegion Spin Off

On December 1, 2013, the Company completed the previously announced separation of its commercial and residential security businesses by distributing the related ordinary shares of Allegion, on a pro rata basis, to the Company's shareholders of record as of November 22, 2013. On the Distribution Date, each of the Company's shareholders received one ordinary share of Allegion for every three ordinary shares of the Company held by such shareholder on the Record Date. After the Distribution Date, the Company does not beneficially own any Allegion ordinary shares (other than approximately 7,045 shares received in a deferred compensation trust upon the spin-off as a result of the trust holding ordinary shares of Ingersoll-Rand plc as of the Record Date) and Allegion is an independent publicly traded company.

The results of our commercial and residential security businesses are presented as a discontinued operation on the Consolidated Statement of Comprehensive Income and Consolidated Statement of Cash Flows for all periods presented. The balance sheet of the commercial and residential security business has been reclassified to held for spin-off at December 31, 2012. The statement of equity of the commercial and residential security business is included within our Consolidated Statement of Equity through December 1, 2013.

Net revenues and after-tax earnings of Allegion for the year ended December 31 were as follows:

In millions	2013	2012	2011
Net revenues	$ 1,889.9	$ 2,046.6	$ 2,021.2
After-tax earnings (loss) from operations *	$ 12.4	$ 254.2	$ 275.7

* Included in After-tax earnings (loss) from operations for the year ended December 31, 2013 and 2012 are spin costs of $128 million and $5.7 million, respectively, and tax charges of $148.2 million. Also, the 2013 results include a $111.4 million non-cash goodwill impairment charge. See below for further discussion of the impairment.

During the third quarter of 2013, the Company determined that it was required to complete the first step of the two-step impairment test related to the former Security Technologies -Europe, Middle East, India and Africa (EMEIA) reporting unit. The results of the impairment test indicated that the estimated fair value of the Security Technologies-EMEIA reporting unit was less than its carrying value; consequently, the Company performed the second step of the impairment test to quantify the amount of the non-cash, goodwill impairment charge. For the three months ended September 30, 2013, the Company recorded a non-cash, pre-tax goodwill impairment charge of $111.4 million ($106.2 million after-tax). This charge is recorded within Allegion's After-tax earnings (loss) from operations for the year ended December 31, 2013.

The components of Allegion assets and liabilities recorded as held for spin-off on the Consolidated Balance Sheet at December 31, 2012 are as follows:

In millions	December 31, 2012
Assets	
Current assets	$ 726.1
Property, plant and equipment, net	226.5
Goodwill	646.3
Intangible assets, net	150.5
Other assets and deferred income taxes	68.0
Assets held for spin-off	$ 1,817.4
Liabilities	
Current liabilities	$ 362.9
Noncurrent liabilities	168.9
Liabilities held for spin-off	$ 531.8

In November 2013, prior to the spin-off, the commercial and residential security businesses borrowed $1,274.2 million. The proceeds of the borrowing remained with the Company. On December 1, 2013 we made a distribution of $(0.5) million to the Company's shareholders in connection with the spin-off of Allegion. The distribution included $1,953.7 million of assets, $1,974.2 million of liabilities, $61.1 million of accumulated other comprehensive loss and $41.1 million of noncontrolling interest.

Other Discontinued Operations

The components of other discontinued operations for the years ended December 31 were as follows:

In millions	2013	2012	2011
Retained costs, net of tax	$ 0.9	$ (16.2)	$ (34.8)
Net gain (loss) on disposals, net of tax	—	14.0	(14.8)
Discontinued operations, net of tax	$ 0.9	$ (2.2)	$ (49.6)

On November 30, 2007, the Company completed the sale of its Bobcat, Utility Equipment and Attachments businesses (collectively, Compact Equipment) to Doosan Infracore for gross proceeds of approximately $4.9 billion, subject to post-closing purchase price adjustments. Compact Equipment manufactured and sold compact equipment, including skid-steer loaders, compact track loaders, mini-excavators and telescopic tool handlers; portable air compressors, generators and light towers; general-purpose light construction equipment; and attachments. The Company was in dispute regarding post-closing matters with Doosan Infracore. During the second quarter of 2011, the Company collected approximately $48.3 million of its outstanding receivable from Doosan Infracore related to certain purchase price adjustments. During the second quarter of 2012, Doosan Infracore paid the Company a total of $46.5 million to settle the outstanding receivable and remaining disputed post-closing matters.

Other discontinued operations, net of tax from previously sold businesses is mainly related to postretirement benefits, product liability, worker's compensation, and legal costs (mostly asbestos-related) and tax effects of post-closing purchase price adjustments.

Divested Operations

Hussmann Divestiture

On September 30, 2011, the Company completed a transaction to sell its Hussmann refrigerated display case business to a newly-formed affiliate (Hussmann Parent) of private equity firm Clayton Dubilier & Rice, LLC (CD&R). This transaction included the equipment business and certain of the service branches in the U.S. and Canada, and the equipment, service and installation businesses in Mexico, Chile, Australia, New Zealand, and Japan (Hussmann Business). The final transaction allowed Hussmann Parent the option to acquire the remaining North American Hussmann service and installation branches (Hussmann Branches). Hussmann Parent completed the acquisition of the Hussmann Branches on November 30, 2011. The Hussmann Business and Branches, which are reported as part of the Climate segment, manufacture, market, distribute, install, and service refrigerated display merchandising equipment, refrigeration systems, over the counter parts, and other commercial and industrial refrigeration applications.

The Hussmann Business divestiture was originally announced on April 21, 2011 and met the criteria for classification as held for sale treatment in accordance with GAAP during the first quarter of 2011. During the third quarter of 2011, the Company negotiated the final transaction to sell the Hussmann Business and Branches to CD&R in exchange for $370 million in cash, subject to purchase price adjustments, and common stock of Hussmann Parent, such that following the sale, CD&R would own cumulative convertible participating preferred stock of Hussmann Parent, initially representing 60% of the outstanding capital stock (on an as-converted basis) of Hussmann Parent, and the Company would own all of the common stock, initially representing the remaining 40% of the outstanding capital stock (on an as-converted basis) of Hussmann Parent. The Company's ownership of common stock of Hussmann Parent represents significant continuing involvement. Therefore, the results of the Hussmann Business and Branches are included in continuing operations for all periods presented. Based on these terms, the Company recorded a total pre-tax loss on sale/asset impairment charge of $646.9 million during the full year of 2011.

Results for the Hussmann Business and Branches for the years ended December 31, 2011 are as follows:

In millions	2011*
Net revenues	$ 818.5
Gain (loss) on sale/asset impairment	(646.9) **
Net earnings (loss) attributable to Ingersoll-Rand plc	(513.1)
Diluted earnings (loss) per share attributable to Ingersoll-Rand plc ordinary shareholders:	(1.51)

* Results represent the operating results of Hussmann Business and Branches through their respective divestiture transaction dates.
** Included in Gain (loss) on sale/asset impairment for the year ended December 31, 2011 are transaction costs of $12.2 million.

Hussmann Parent is required to pay a quarterly preferred dividend payment to CD&R in the form of cash or additional preferred shares. The Company's ownership percentage as of December 31, 2013 was 37.2%. The Company's ownership interest in Hussmann Parent is reported using the equity method of accounting subsequent to September 30, 2011. The Company's equity investment in the Hussmann Parent is reported within Other noncurrent assets and the related equity earnings reported in Other, net within Net earnings.

NOTE 17 – EARNINGS PER SHARE (EPS)

Basic EPS is calculated by dividing Net earnings attributable to Ingersoll-Rand plc by the weighted-average number of ordinary shares outstanding for the applicable period. Diluted EPS is calculated after adjusting the denominator of the basic EPS calculation for the effect of all potentially dilutive ordinary shares, which in the Company's case, includes shares issuable under share-based compensation plans and the effects of the Exchangeable Senior Notes issued in April 2009. The following table summarizes the weighted-average number of ordinary shares outstanding for basic and diluted earnings per share calculations:

In millions	2013	2012	2011
Weighted-average number of basic shares	294.1	303.9	324.8
Shares issuable under incentive stock plans	4.2	3.7	3.8
Exchangeable Senior Notes	—	3.0	10.7
Weighted-average number of diluted shares	298.3	310.6	339.3
Anti-dilutive shares	19.1	5.2	5.0

The Company settled all remaining outstanding Exchangeable Senior Notes during 2012. As a result, the Company issued 10.8 million ordinary shares related to the equity portion of the Notes. See Note 8 for a further discussion.

NOTE 18 – COMMITMENTS AND CONTINGENCIES

The Company is involved in various litigations, claims and administrative proceedings, including those related to environmental, asbestos, and product liability matters. Amounts recorded for identified contingent liabilities are estimates, which are reviewed periodically and adjusted to reflect additional information when it becomes available. Subject to the uncertainties inherent in estimating future costs for contingent liabilities, except as expressly set forth in this note, management believes that any liability which may result from these legal matters would not have a material adverse effect on the financial condition, results of operations, liquidity or cash flows of the Company.

Environmental Matters

The Company continues to be dedicated to an environmental program to reduce the utilization and generation of hazardous materials during the manufacturing process and to remediate identified environmental concerns. As to the latter, the Company is currently engaged in site investigations and remediation activities to address environmental cleanup from past operations at current and former manufacturing facilities.

The Company is sometimes a party to environmental lawsuits and claims and has received notices of potential violations of environmental laws and regulations from the Environmental Protection Agency and similar state authorities. It has also been identified as a potentially responsible party (PRP) for cleanup costs associated with off-site waste disposal at federal Superfund and state remediation sites. For all such sites, there are other PRPs and, in most instances, the Company's involvement is minimal.

In estimating its liability, the Company has assumed it will not bear the entire cost of remediation of any site to the exclusion of other PRPs who may be jointly and severally liable. The ability of other PRPs to participate has been taken into account, based on our understanding of the parties' financial condition and probable contributions on a per site basis. Additional lawsuits and claims involving environmental matters are likely to arise from time to time in the future.

The Company incurred $(0.5) million, $3.1 million, and $1.2 million of expenses during the years ended December 31, 2013, 2012 and 2011, respectively, for environmental remediation at sites presently or formerly owned or leased by us. As of December 31, 2013 and 2012, the Company has recorded reserves for environmental matters of $47.9 million and $55.6 million, respectively. Of these amounts $42.1 million and $41.2 million, respectively, relate to remediation of sites previously disposed by the Company. Environmental reserves are classified as Accrued expenses and other current liabilities, or Other noncurrent liabilities based on their expected term. The Company's total current environmental reserve at December 31, 2013 and 2012 was $13.5 million and $18.0 million, respectively. Given the evolving nature of environmental laws, regulations and technology, the ultimate cost of future compliance is uncertain.

Asbestos-Related Matters

Certain wholly-owned subsidiaries of the Company are named as defendants in asbestos-related lawsuits in state and federal courts. In virtually all of the suits, a large number of other companies have also been named as defendants. The vast majority of those claims have been filed against either Ingersoll-Rand Company (IR-New Jersey) or Trane U.S. Inc. (Trane) and generally allege injury caused by exposure to asbestos contained in certain historical products sold by IR-New Jersey or Trane, primarily pumps, boilers and railroad brake shoes. Neither IR-New Jersey nor Trane was a producer or manufacturer of asbestos, however, some formerly manufactured products utilized asbestos-containing components such as gaskets and packings purchased from third-party suppliers.

The Company engages an outside expert to assist in calculating an estimate of the Company's total liability for pending and unasserted future asbestos-related claims and annually performs a detailed analysis with the assistance of an outside expert to update its estimated asbestos-related assets and liabilities. The methodology used to project the Company's total liability for pending and unasserted potential future asbestos-related claims relied upon and included the following factors, among others:

- the outside expert's interpretation of a widely accepted forecast of the population likely to have been occupationally exposed to asbestos;
- epidemiological studies estimating the number of people likely to develop asbestos-related diseases such as mesothelioma and lung cancer;
- the Company's historical experience with the filing of non-malignancy claims and claims alleging other types of malignant diseases filed against the Company relative to the number of lung cancer claims filed against the Company;
- the outside expert's analysis of the number of people likely to file an asbestos-related personal injury claim against the Company based on such epidemiological and historical data and the Company's most recent three-year claims history;
- an analysis of the Company's pending cases, by type of disease claimed and by year filed;
- an analysis of the Company's most recent three-year history to determine the average settlement and resolution value of claims, by type of disease claimed;

- an adjustment for inflation in the future average settlement value of claims, at a 2.5% annual inflation rate, adjusted downward to 1.5% to take account of the declining value of claims resulting from the aging of the claimant population; and
- an analysis of the period over which the Company has and is likely to resolve asbestos-related claims against it in the future.

At December 31, 2013, over 80 percent of the open claims against the Company are non-malignancy claims, many of which have been placed on inactive or deferral dockets and the vast majority of which have little or no settlement value against the Company, particularly in light of recent changes in the legal and judicial treatment of such claims.

The Company’s liability for asbestos-related matters and the asset for probable asbestos-related insurance recoveries are included in the following balance sheet accounts:

In millions	December 31, 2013	December 31, 2012
Accrued expenses and other current liabilities	$ 69.1	$ 69.1
Other noncurrent liabilities	777.1	810.4
Total asbestos-related liabilities	$ 846.2	$ 879.5
Other current assets	$ 22.3	$ 22.5
Other noncurrent assets	299.5	297.8
Total asset for probable asbestos-related insurance recoveries	$ 321.8	$ 320.3

The Company's asbestos insurance receivable related to IR-New Jersey and Trane was $137.6 million and $172.0 million at December 31, 2013, and $125.5 million and $194.8 million at December 31, 2012, respectively.

The (costs) income associated with the settlement and defense of asbestos-related claims after insurance recoveries, for the years ended December 31, were as follows:

In millions	2013	2012	2011
Continuing operations	$ (0.4)	$ 10.1	$ (1.9)
Discontinued operations	(55.8)	(17.9)	(14.5)
Total	$ (56.2)	$ (7.8)	$ (16.4)

IR-New Jersey records income and expenses associated with its asbestos liabilities and corresponding insurance recoveries within discontinued operations, as they relate to previously divested businesses, primarily Ingersoll-Dresser Pump, which was sold in 2000. Income and expenses associated with Trane’s asbestos liabilities and corresponding insurance recoveries are recorded within continuing operations.

Trane has now settled claims regarding asbestos coverage with most of its insurers. The settlements collectively account for approximately 95% of its recorded asbestos-related insurance receivable as of December 31, 2013. Most of Trane’s settlement agreements constitute “coverage-in-place” arrangements, in which the insurer signatories agree to reimburse Trane for specified portions of its costs for asbestos bodily injury claims and Trane agrees to certain claims-handling protocols and grants to the insurer signatories certain releases and indemnifications. Trane remains in litigation in an action that Trane filed in November 2010 in the Circuit Court for La Crosse County, Wisconsin, relating to claims for insurance coverage for a subset of Trane's historical asbestos-related liabilities.

On January 12, 2012, IR-New Jersey filed an action in the Superior Court of New Jersey, Middlesex County, seeking a declaratory judgment and other relief regarding the Company's rights to defense and indemnity for asbestos claims. The defendants are several dozen solvent insurance companies, including companies that have been paying a portion of IR-New Jersey's asbestos claim defense and indemnity costs. The action involves certain of IR-New Jersey's unexhausted insurance policies applicable to the asbestos claims that are not subject to any settlement agreement. The responding defendants generally challenged the Company's right to recovery, and raised various coverage defenses. In December 2013, IR-New Jersey filed a similar action in the same court against an insurer that was not a party to the 2012 action.

The Company continually monitors the status of pending litigation that could impact the allocation of asbestos claims against the Company's various insurance policies. The Company has concluded that its IR-New Jersey insurance receivable is probable of recovery because of the following factors:

- a review of other companies in circumstances comparable to IR-New Jersey, including Trane, and the success of other companies in recovering under their insurance policies, including Trane's favorable settlement discussed above;

- the Company's confidence in its right to recovery under the terms of its policies and pursuant to applicable law; and
- the Company's history of receiving payments under the IR-New Jersey insurance program, including under policies that had been the subject of prior litigation.

The amounts recorded by the Company for asbestos-related liabilities and insurance-related assets are based on currently available information. The Company's actual liabilities or insurance recoveries could be significantly higher or lower than those recorded if assumptions used in the calculations vary significantly from actual results. Key variables in these assumptions include the number and type of new claims to be filed each year, the average cost of resolution of each such new claim, the resolution of coverage issues with insurance carriers, and the solvency risk with respect to the Company's insurance carriers. Furthermore, predictions with respect to these variables are subject to greater uncertainty as the projection period lengthens. Other factors that may affect the Company's liability include uncertainties surrounding the litigation process from jurisdiction to jurisdiction and from case to case, reforms that may be made by state and federal courts, and the passage of state or federal tort reform legislation.

The aggregate amount of the stated limits in insurance policies available to the Company for asbestos-related claims acquired over many years and from many different carriers, is substantial. However, limitations in that coverage, primarily due to the considerations described above, are expected to result in the projected total liability to claimants substantially exceeding the probable insurance recovery.

Warranty Liability

Standard product warranty accruals are recorded at the time of sale and are estimated based upon product warranty terms and historical experience. The Company assesses the adequacy of its liabilities and will make adjustments as necessary based on known or anticipated warranty claims, or as new information becomes available.

The changes in the standard product warranty liability for the year ended December 31, were as follows:

In millions	2013	2012
Balance at beginning of period	$ 253.4	$ 255.3
Reductions for payments	(156.7)	(146.3)
Accruals for warranties issued during the current period	153.9	144.6
Changes to accruals related to preexisting warranties	(5.5)	(0.8)
Translation	0.6	0.6
Balance at end of period	$ 245.7	$ 253.4

Standard product warranty liabilities are classified as Accrued expenses and other current liabilities, or Other noncurrent liabilities based on their expected term. The Company's total current standard product warranty reserve at December 31, 2013 and December 31, 2012 was $127.9 million and $137.8 million, respectively.

The Company's extended warranty liability represents the deferred revenue associated with its extended warranty contracts and is amortized into Revenue on a straight-line basis over the life of the contract, unless another method is more representative of the costs incurred. The Company assesses the adequacy of its liability by evaluating the expected costs under its existing contracts to ensure these expected costs do not exceed the extended warranty liability.

The changes in the extended warranty liability for the year ended December 31, were as follows:

In millions	2013	2012
Balance at beginning of period	$ 375.1	$ 372.0
Amortization of deferred revenue for the period	(105.6)	(102.6)
Additions for extended warranties issued during the period	87.1	105.2
Changes to accruals related to preexisting warranties	3.0	0.2
Translation	(0.5)	0.3
Balance at end of period	$ 359.1	$ 375.1

The extended warranty liability is classified as Accrued expenses and other current liabilities or Other noncurrent liabilities based on the timing of when the deferred revenue is expected to be amortized into Revenue. The Company's total current extended warranty liability at December 31, 2013 and December 31, 2012 was $98.5 million. For the years ended December 31, 2013 and 2012, the Company incurred costs of $61.6 million and $60.3 million, respectively, related to extended warranties.

Other Commitments and Contingencies

Certain office and warehouse facilities, transportation vehicles and data processing equipment are leased by the Company. Total rental expense was $165.0 million in 2013, $167.0 million in 2012 and $192.3 million in 2011. Minimum lease payments required under non-cancelable operating leases with terms in excess of one year for the next five years are as follows: $111.6 million in 2014, $85.2 million in 2015, $64.0 million in 2016, $42.7 million in 2017, and $28.9 million in 2018.

Trane has commitments and performance guarantees, including energy savings guarantees, totaling $422.4 million extending from 2013-2032. These guarantees are provided under long-term service and maintenance contracts related to its air conditioning equipment and system controls. Through 2013, the Company has experienced no significant losses under such arrangements and considers the probability of any significant future losses to be remote.

NOTE 19 – BUSINESS SEGMENT INFORMATION

The accounting policies of the operating segments are the same as those described in the summary of significant accounting policies except that the operating segments' results are prepared on a management basis that is consistent with the manner in which the Company prepares financial information for internal review and decision making. The Company largely evaluates performance based on Segment operating income and Segment operating margins. Intercompany sales between segments are considered immaterial.

In the fourth quarter of 2013, the Company realigned its organizational structure to provide a greater focus on growth, continue implementation of business operating systems, build on our successful operational excellence philosophy and reduce complexity and costs. The Company's new reporting structure includes the Climate and Industrial segments. The Company's historical segment results have been recast for the new reporting structure.

Our Climate segment delivers energy-efficient solutions globally and includes Trane® and American Standard® Heating & Air Conditioning which provide heating, ventilation and air conditioning (HVAC) systems, and commercial and residential building services, parts, support and controls; and Thermo King® transport temperature control solutions.

Our Industrial segment delivers products and services that enhance energy efficiency, productivity and operations. It includes Ingersoll Rand® compressed air systems and services, power tools, material handling systems, ARO® fluid management equipment, as well as Club Car® golf, utility and rough terrain vehicles.

Segment operating income is the measure of profit and loss that the Company's chief operating decision maker uses to evaluate the financial performance of the business and as the basis for performance reviews, compensation and resource allocation. For these reasons, the Company believes that Segment operating income represents the most relevant measure of segment profit and loss. The Company may exclude certain charges or gains from Operating income to arrive at a Segment operating income that is a more meaningful measure of profit and loss upon which to base its operating decisions.

On September 30, 2011 and November 30, 2011, the Company completed transactions to sell the Hussmann Business and Branches, respectively, to a newly-formed affiliate (Hussmann Parent) of private equity firm Clayton Dubilier & Rice, LLC (CD&R). During 2011, the Company recorded a pre-tax loss on sale and impairment charges related to the Hussmann divestiture of $646.9 million. These charges, as well as related adjustments recorded in 2012, have been excluded from Segment operating income within the Climate segment as management excludes these charges from Operating income when making operating decisions about the business. See Note 16 for a further discussion of the Hussmann divestiture.

2011 Net revenues and Segment operating income for the Climate segment includes the operating results of the Hussmann Business and Branches prior to the sale. The operating results for the Hussmann Business and Branches are included in Net revenues and Segment operating income for the Climate segment for the years ended December 31 as follows:

In millions	2011
Net revenues	$ 818.5
Segment operating income	$ 58.6

A summary of operations by reportable segments for the years ended December 31 were as follows:

Dollar amounts in millions	2013	2012	2011
Climate			
Net revenues	$ 9,414.0	$ 9,042.5	$ 9,907.9
Segment operating income *	930.2	817.6	837.1
Segment operating income as a percentage of revenues	9.9%	9.0%	8.4%
Depreciation and amortization	252.8	257.0	273.6
Capital expenditures	129.4	105.1	105.3
Industrial			
Net revenues	2,936.5	2,945.8	2,852.9
Segment operating income	456.0	455.8	415.5
Segment operating income as a percentage of revenues	15.5%	15.5%	14.6%
Depreciation and amortization	43.9	42.9	40.3
Capital expenditures	44.0	62.6	57.2
Total net revenues	$ 12,350.5	$ 11,988.3	$ 12,760.8
Reconciliation to Operating Income			
Segment operating income from reportable segments	1,386.2	1,273.4	1,252.6
Gain (loss) on sale/asset impairment *	—	4.5	(646.9)
Unallocated corporate expense	(281.2)	(206.0)	(167.0)
Total operating income	$ 1,105.0	$ 1,071.9	$ 438.7
Total operating income as a percentage of revenues	8.9%	8.9%	3.4%
Depreciation and amortization from reportable segments	296.7	299.9	313.9
Unallocated depreciation and amortization	37.0	33.9	44.6
Total depreciation and amortization	$ 333.7	$ 333.8	$ 358.5
Capital expenditures from reportable segments	173.4	167.7	162.5
Corporate capital expenditures	68.8	51.8	54.6
Total capital expenditures	$ 242.2	$ 219.5	$ 217.1

* During year ended December 31, 2011, the Company recorded a pre-tax loss on sale/asset impairment charge related to the Hussmann divestiture totaling $646.9 million. During the year ended December 31, 2012, the Company recorded $4.5 million of purchase price adjustments related to the Hussmann sale. These amounts have been excluded from Segment operating income within the Climate segment as management excludes these charges from Operating income when making operating decisions about the business.

Included in Segment operating income for Climate for the year ended December 31, 2011 is a $23 million gain associated with the sale of assets from a restructured business in China.

Revenues by destination and long-lived assets by geographic area for the years ended December 31 were as follows:

In millions	2013	2012	2011
Revenues			
United States	$ 7,298.0	$ 7,039.0	$ 7,442.4
Non-U.S.	5,052.5	4,949.3	5,318.4
Total	$ 12,350.5	$ 11,988.3	$ 12,760.8

In millions	2013	2012
Long-lived assets		
United States	$ 2,216.8	$ 2,090.9
Non-U.S.	571.6	783.6
Total	$ 2,788.4	$ 2,874.5

NOTE 20 – GUARANTOR FINANCIAL INFORMATION

Ingersoll-Rand plc, a public limited company incorporated in Ireland in 2009 (IR-Ireland), is the successor to Ingersoll-Rand Company Limited, a Bermuda company (IR-Limited), following a corporate reorganization that became effective on July 1, 2009 (the Ireland Reorganization). IR-Limited is the successor to Ingersoll-Rand Company, a New Jersey corporation (IR-New Jersey), following a corporate reorganization that occurred on December 31, 2001 (the Bermuda Reorganization). Both the Ireland Reorganization and the Bermuda Reorganization were accounted for as a reorganization of entities under common control and accordingly, did not result in any changes to the consolidated amounts of assets, liabilities and equity.

As a part of the Bermuda Reorganization, IR-Limited issued non-voting, Class B common shares to IR-New Jersey and certain IR-New Jersey subsidiaries in exchange for a $3.6 billion note and shares of certain IR-New Jersey subsidiaries. The note had a fixed rate of interest of 11% per annum payable semi-annually and imposed certain restrictive covenants upon IR-New Jersey. In 2002, IR-Limited contributed the note to a wholly-owned subsidiary, which subsequently transferred portions of the note to several other subsidiaries, all of which are included in the “Other Subsidiaries” column below. In the fourth quarter of 2011, the Company repaid the remaining $1.0 billion outstanding of the original $3.6 billion note. In the fourth quarter of 2013, the Class B common shares were redeemed.

In addition, as part of the Bermuda Reorganization, IR-Limited fully and unconditionally guaranteed all of the issued public debt securities of IR-New Jersey. IR-New Jersey unconditionally guaranteed payment of the principal, premium, if any, and interest on IR-Limited’s 4.75% Senior Notes due in 2015 in the aggregate principal amount of $300 million. See Note 8 for a discussion of the 2013 financing activities which included the payment in full of of the 2015 Senior Notes. The guarantee was unsecured and provided on an unsubordinated basis. The guarantee ranked equally in right of payment with all of the existing and future unsecured and unsubordinated debt of IR-New Jersey.

As part of the Ireland Reorganization, the guarantor financial statements were revised to present IR-Ireland as the ultimate parent company and Ingersoll-Rand International Holding Limited (IR-International) as a stand-alone subsidiary. In addition, the guarantee structure was updated to reflect the newly created legal structure under which (i) IR-International assumed the obligations of IR-Limited as issuer or guarantor, as the case may be, and (ii) IR-Ireland and IR-Limited fully and unconditionally guaranteed the obligations under the various indentures covering the currently outstanding public debt of IR-International, Ingersoll-Rand Global Holding Company Limited (IR-Global), and IR-New Jersey. Also as part of the Ireland Reorganization, IR-Limited transferred all the shares of IR-Global to IR-International in exchange for a note payable that initially approximated $15 billion, which was then immediately reduced by the settlement of net intercompany payables of $4.1 billion. In the fourth quarter of 2013, this note payable was fully repaid by IR-International.

During 2013, IR-Global and IR-International public outstanding indentures were modified to include IR-New Jersey as a co-obligor.

The Condensed Consolidating Financial Statements present the investments of IR-Ireland, IR-Limited, IR-Global, IR-International and IR-New Jersey and their subsidiaries using the equity method of accounting. Intercompany investments in the non-voting Class B common shares are accounted for on the cost method and are reduced by intercompany dividends. In accordance with generally accepted accounting principles, the amounts related to the issuance of the Class B shares have been recorded as a reduction of Total equity. The Notes payable affiliate continues to be reflected on the Condensed Consolidating Balance Sheet of IR-International and is enforceable in accordance with their terms.

See Note 8 for a further discussion of public debt issuances and related guarantees.

The following condensed consolidating financial information for IR-Ireland, IR-Limited, IR-Global, IR-International and IR-New Jersey, and all their other subsidiaries is included so that separate financial statements of IR-Ireland, IR-Limited, IR-Global, IR-International, and IR-New Jersey are not required to be filed with the U.S. Securities and Exchange Commission. IR-Ireland's subsidiary debt issuers and guarantors are directly or indirectly 100% owned by IR-Ireland and the guarantees are full and unconditional and joint and several.

Condensed Consolidating Statement of Comprehensive Income
For the year ended December 31, 2013

In millions	IR Ireland	IR Limited	IR International	IR Global	IR New Jersey	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Net revenues	$ —	$ —	$ —	$ —	$ 1,674.0	$ 10,676.5	$ —	$ 12,350.5
Cost of goods sold	0.7	—	—	—	(1,100.4)	(7,575.8)	—	(8,675.5)
Selling and administrative expenses	(60.0)	(0.1)	—	(1.1)	(509.0)	(1,999.8)	—	(2,570.0)
Operating income (loss)	(59.3)	(0.1)	—	(1.1)	64.6	1,100.9	—	1,105.0
Equity earnings (loss) in affiliates, net of tax	696.2	696.7	791.0	1,008.0	161.8	792.1	(4,145.8)	—
Interest expense	—	—	(15.8)	(196.4)	(75.1)	8.5	—	(278.8)
Intercompany interest and fees	(14.1)	(0.4)	(33.8)	(34.0)	(13.7)	96.0	—	—
Other, net	(3.9)	—	1.6	0.8	38.5	(30.6)	(3.0)	3.4
Earnings (loss) before income taxes	618.9	696.2	743.0	777.3	176.1	1,966.9	(4,148.8)	829.6
Benefit (provision) for income taxes	(0.3)	—	—	—	39.5	(228.2)	—	(189.0)
Earnings (loss) from continuing operations	618.6	696.2	743.0	777.3	215.6	1,738.7	(4,148.8)	640.6
Discontinued operations, net of tax	0.2	—	—	—	(165.2)	178.3	—	13.3
Net earnings (loss)	618.8	696.2	743.0	777.3	50.4	1,917.0	(4,148.8)	653.9
Less: Net (earnings) loss attributable to noncontrolling interests	—	—	—	—	(1.2)	(36.9)	3.0	(35.1)
Net earnings (loss) attributable to Ingersoll-Rand plc	$ 618.8	$ 696.2	$ 743.0	$ 777.3	$ 49.2	$ 1,880.1	$ (4,145.8)	$ 618.8
Total comprehensive income (loss)	913.5	1,050.3	744.2	789.0	138.8	2,173.5	(4,857.4)	951.9
Less: Total comprehensive (income) loss attributable to noncontrolling interests	—	0.4	—	—	2.1	(43.9)	3.0	(38.4)
Total comprehensive income (loss) attributable to Ingersoll-Rand plc	$ 913.5	$ 1,050.7	$ 744.2	$ 789.0	$ 140.9	$ 2,129.6	$ (4,854.4)	$ 913.5

Condensed Consolidating Statement of Comprehensive Income
For the year ended December 31, 2012

In millions	IR Ireland	IR Limited	IR International	IR Global	IR New Jersey	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Net revenues	$ —	$ —	$ —	$ —	$ 932.7	$ 11,055.6	$ —	$ 11,988.3
Cost of goods sold	—	—	—	—	(613.7)	(7,924.3)	—	(8,538.0)
Selling and administrative expenses	(14.9)	(0.3)	—	(0.6)	(327.6)	(2,039.5)	—	(2,382.9)
Gain (loss) on sale/asset impairment	—	—	—	—	—	4.5	—	4.5
Operating income (loss)	(14.9)	(0.3)	—	(0.6)	(8.6)	1,096.3	—	1,071.9
Equity earnings (loss) in affiliates, net of tax	1,048.8	848.3	919.1	1,339.9	198.3	979.3	(5,333.7)	—
Interest expense	—	(0.1)	(15.8)	(168.3)	(50.0)	(17.8)	—	(252.0)
Intercompany interest and fees	(10.5)	—	(44.3)	(48.8)	0.6	103.0	—	—
Other, net	(4.8)	—	0.7	(200.6)	53.9	1.2	177.7	28.1
Earnings (loss) before income taxes	1,018.6	847.9	859.7	921.6	194.2	2,162.0	(5,156.0)	848.0
Benefit (provision) for income taxes	(0.3)	—	—	—	(56.2)	0.5	—	(56.0)
Earnings (loss) from continuing operations	1,018.3	847.9	859.7	921.6	138.0	2,162.5	(5,156.0)	792.0
Discontinued operations, net of tax	0.3	—	—	—	(18.3)	270.0	—	252.0
Net earnings (loss)	1,018.6	847.9	859.7	921.6	119.7	2,432.5	(5,156.0)	1,044.0
Less: Net (earnings) loss attributable to noncontrolling interests	—	—	—	—	—	(48.7)	23.3	(25.4)
Net earnings (loss) attributable to Ingersoll-Rand plc	$ 1,018.6	$ 847.9	$ 859.7	$ 921.6	$ 119.7	$ 2,383.8	$ (5,132.7)	$ 1,018.6
Total comprehensive income (loss)	1,051.2	880.6	860.9	922.0	185.4	2,386.0	(5,221.9)	1,064.2
Less: Total comprehensive (income) loss attributable to noncontrolling interests	—	—	—	—	—	(36.3)	23.3	(13.0)
Total comprehensive income (loss) attributable to Ingersoll-Rand plc	$ 1,051.2	$ 880.6	$ 860.9	$ 922.0	$ 185.4	$ 2,349.7	$ (5,198.6)	$ 1,051.2

Condensed Consolidating Statement of Comprehensive Income
For the year ended December 31, 2011

In millions	IR Ireland	IR Limited	IR International	IR Global Holding	IR New Jersey	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Net revenues	$ —	$ —	$ —	$ —	$ 867.8	$ 11,893.0	$ —	$ 12,760.8
Cost of goods sold	—	—	—	—	(584.8)	(8,695.2)	—	(9,280.0)
Selling and administrative expenses	(9.2)	(0.1)	—	(0.4)	(276.7)	(2,108.8)	—	(2,395.2)
Gain (loss) on sale/asset impairment	—	—	—	—	—	(646.9)	—	(646.9)
Operating income (loss)	(9.2)	(0.1)	—	(0.4)	6.3	442.1	—	438.7
Equity earnings (loss) in affiliates, net of tax	358.8	614.8	757.5	653.0	116.0	595.2	(3,095.3)	—
Interest expense	—	—	(15.7)	(193.2)	(50.7)	(18.9)	—	(278.5)
Intercompany interest and fees	(2.5)	—	(129.4)	52.5	(117.9)	197.3	—	—
Other, net	(3.9)	(5.2)	1.7	251.5	77.9	(33.5)	(260.1)	28.4
Earnings (loss) before income taxes	343.2	609.5	614.1	763.4	31.6	1,182.2	(3,355.4)	188.6
Benefit (provision) for income taxes	—	—	—	—	18.9	(64.3)	—	(45.4)
Earnings (loss) from continuing operations	343.2	609.5	614.1	763.4	50.5	1,117.9	(3,355.4)	143.2
Discontinued operations, net of tax	—	—	—	—	(69.3)	295.4	—	226.1
Net earnings (loss)	343.2	609.5	614.1	763.4	(18.8)	1,413.3	(3,355.4)	369.3
Less: Net (earnings) loss attributable to noncontrolling interests	—	—	—	—	—	(35.5)	9.4	(26.1)
Net earnings (loss) attributable to Ingersoll-Rand plc	$ 343.2	$ 609.5	$ 614.1	$ 763.4	$ (18.8)	$ 1,377.8	$ (3,346.0)	$ 343.2
Total comprehensive income (loss)	114.3	380.6	615.3	757.1	(115.7)	1,291.3	(2,902.8)	140.1
Less: Total comprehensive (income) loss attributable to noncontrolling interests	—	—	—	—	—	(34.9)	9.4	(25.5)
Total comprehensive income (loss) attributable to Ingersoll-Rand plc	$ 114.3	$ 380.6	$ 615.3	$ 757.1	$ (115.7)	$ 1,256.4	$ (2,893.4)	$ 114.6

Condensed Consolidating Balance Sheet
December 31, 2013

In millions	IR Ireland	IR Limited	IR International	IR Global	IR New Jersey	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Current assets:								
Cash and cash equivalents	$ —	$ —	$ —	$ 975.3	$ 1,038.5	$ —	$ (76.6)	$ 1,937.2
Accounts and notes receivable, net	—	—	—	—	1,518.8	552.7	—	2,071.5
Inventories	—	—	—	—	846.2	319.9	—	1,166.1
Other current assets	0.1	—	—	0.2	607.3	(65.7)	—	541.9
Accounts and notes receivable affiliates	1,086.9	309.6	2.3	1,496.6	2,368.3	15,729.2	(20,992.9)	—
Total current assets	1,087.0	309.6	2.3	2,472.1	6,379.1	16,536.1	(21,069.5)	5,716.7
Investment in affiliates	8,697.8	13,696.0	11,339.0	7,144.5	34,774.1	23,921.0	(99,572.4)	—
Property, plant and equipment, net	—	—	—	—	1,088.8	379.6	—	1,468.4
Intangible assets, net	—	—	—	—	8,582.4	880.2	—	9,462.6
Other noncurrent assets	—	(4.3)	0.3	18.8	689.5	306.1	—	1,010.4
Total assets	$ 9,784.8	$ 14,001.3	$ 11,341.6	$ 9,635.4	$ 51,513.9	$ 42,023.0	$ (120,641.9)	$ 17,658.1
Current liabilities:								
Accounts payable and accruals	$ 30.6	$ —	$ 12.1	$ 27.5	$ 2,189.1	$ 858.2	$ (76.6)	$ 3,040.9
Short-term borrowings and current maturities of long-term debt	—	—	—	—	354.2	13.5	—	367.7
Accounts and note payable affiliates	2,685.3	3,780.6	4,803.3	5,982.2	6,905.6	(3,082.0)	(21,075.0)	—
Total current liabilities	2,715.9	3,780.6	4,815.4	6,009.7	9,448.9	(2,210.3)	(21,151.6)	3,408.6
Long-term debt	—	—	299.8	2,295.7	557.5	0.5	—	3,153.5
Other noncurrent liabilities	—	—	3.8	—	3,749.3	211.6	—	3,964.7
Total liabilities	2,715.9	3,780.6	5,119.0	8,305.4	13,755.7	(1,998.2)	(21,151.6)	10,526.8
Equity:								
Total equity	7,068.9	10,220.7	6,222.6	1,330.0	37,758.2	44,021.2	(99,490.3)	7,131.3
Total liabilities and equity	$ 9,784.8	$ 14,001.3	$ 11,341.6	$ 9,635.4	$ 51,513.9	$ 42,023.0	$ (120,641.9)	$ 17,658.1

Condensed Consolidating Balance Sheet
December 31, 2012

In millions	IR Ireland	IR Limited	IR International	IR Global	IR New Jersey	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Current assets:								
Cash and cash equivalents	$ —	$ —	$ —	$ 61.9	$ 59.1	$ 587.4	$ —	$ 708.4
Accounts and notes receivable, net	—	—	—	—	128.8	1,741.3	—	1,870.1
Inventories	—	—	—	—	73.1	1,070.9	—	1,144.0
Other current assets	0.1	—	0.1	0.2	149.3	304.3	—	454.0
Accounts and notes receivable affiliates	148.9	3,039.2	2.0	2,189.0	8,669.5	23,772.0	(37,820.6)	—
Assets held for spin-off	—	—	—	—	—	1,817.4	—	1,817.4
Total current assets	149.0	3,039.2	2.1	2,251.1	9,079.8	29,293.3	(37,820.6)	5,993.9
Investment in affiliates	8,885.1	7,095.3	21,185.6	18,589.8	8,179.9	99,205.0	(163,140.7)	—
Property, plant and equipment, net	—	—	—	0.2	254.0	1,171.9	—	1,426.1
Intangible assets, net	—	—	—	—	83.8	9,459.2	—	9,543.0
Other noncurrent assets	—	—	0.5	10.0	867.3	641.3	—	1,519.1
Total assets	$ 9,034.1	$ 10,134.5	$ 21,188.2	$ 20,851.1	$ 18,464.8	$ 139,770.7	$ (200,961.3)	$ 18,482.1
Current liabilities:								
Accounts payable and accruals	$ 70.5	$ —	$ 4.0	$ 46.0	$ 420.2	$ 2,290.5	$ —	$ 2,831.2
Short-term borrowings and current maturities of long-term debt	—	—	—	600.0	350.5	12.4	—	962.9
Accounts and note payable affiliates	1,734.3	34.3	4,888.9	7,602.2	13,337.7	9,867.6	(37,465.0)	—
Liabilities held for spin-off	—	—	—	—	—	531.8	—	531.8
Total current liabilities	1,804.8	34.3	4,892.9	8,248.2	14,108.4	12,702.3	(37,465.0)	4,325.9
Long-term debt	—	—	299.7	1,404.4	364.7	197.7	—	2,266.5
Note payable affiliate	—	—	10,755.7	—	—	—	(10,755.7)	—
Other noncurrent liabilities	—	4.3	3.8	—	1,620.0	3,032.3	—	4,660.4
Total liabilities	1,804.8	38.6	15,952.1	9,652.6	16,093.1	15,932.3	(48,220.7)	11,252.8
Equity:								
Total equity	7,229.3	10,095.9	5,236.1	11,198.5	2,371.7	123,838.4	(152,740.6)	7,229.3
Total liabilities and equity	$ 9,034.1	$ 10,134.5	$ 21,188.2	$ 20,851.1	$ 18,464.8	$ 139,770.7	$ (200,961.3)	$ 18,482.1

Condensed Consolidating Statement of Cash Flows
For the year ended December 31, 2013

In millions	IR Ireland	IR Limited	IR International	IR Global	IR New Jersey	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Net cash provided by (used in) continuing operating activities	$ (63.2)	$ (0.1)	$ (14.2)	$ (196.7)	$ 540.8	$ 3,927.7	$ (3,316.6)	$ 877.7
Net cash provided by (used in) discontinued operating activities	—	—	—	—	(78.5)	371.2	—	292.7
Net cash provided by (used in) operating activities	(63.2)	(0.1)	(14.2)	(196.7)	462.3	4,298.9	(3,316.6)	1,170.4
Cash flows from investing activities:								—
Capital expenditures	—	—	—	—	(151.9)	(90.3)	—	(242.2)
Proceeds from sale of property, plant and equipment	—	—	—	—	11.2	13.1	—	24.3
Proceeds from business disposition, net of cash sold	—	—	—	—	—	4.7	—	4.7
Net cash provided by (used in) continuing investing activities	—	—	—	—	(140.7)	(72.5)	—	(213.2)
Net cash provided by (used in) discontinued investing activities	—	—	—	—	—	(2.2)	—	(2.2)
Net cash provided by (used in) investing activities	—	—	—	—	(140.7)	(74.7)	—	(215.4)
Cash flows from financing activities:								—
Net proceeds (repayments) in debt	—	—	—	291.2	(6.7)	7.2	—	291.7
Debt issuance costs	—	—	—	(13.2)	—	—	—	(13.2)
Excess tax benefit from share based compensation	19.5	—	—	—	—	—	—	19.5
Net inter-company proceeds (payments)	(24.8)	1,274.3	699.7	2,106.3	664.5	(4,720.0)	—	—
Dividends paid to ordinary shareholderrs	(245.5)	(1,274.2)	(685.5)	(1,274.2)	—	(1.2)	3,235.1	(245.5)
Dividends paid to noncontrolling interests	—	—	—	—	—	(12.4)	—	(12.4)
Proceeds from shares issued under incentive plans	253.0	—	—	—	—	—	—	253.0
Repurchase of ordinary shares	(1,213.2)	—	—	—	—	—	—	(1,213.2)
Transfer from Allegion	1,274.2	—	—	—	—	—	—	1,274.2
Net cash provided by (used in) continuing financing activities	63.2	0.1	14.2	1,110.1	657.8	(4,726.4)	3,235.1	354.1
Net cash provided by (used in) discontinued financing activities	—	—	—	—	—	(12.4)	4.9	(7.5)
Net cash provided by (used in) financing activities	63.2	0.1	14.2	1,110.1	657.8	(4,738.8)	3,240.0	346.6
Effect of exchange rate changes on cash and cash equivalents	—	—	—	—	—	(72.8)	—	(72.8)
Net increase (decrease) in cash and cash equivalents	—	—	—	913.4	979.4	(587.4)	(76.6)	1,228.8
Cash and cash equivalents - beginning of period	—	—	—	61.9	59.1	587.4	—	708.4
Cash and cash equivalents - end of period	$ —	$ —	$ —	$ 975.3	$ 1,038.5	$ —	$ (76.6)	$ 1,937.2

Condensed Consolidating Statement of Cash Flows
For the year ended December 31, 2012

In millions	IR Ireland	IR Limited	IR International	IR Global	IR New Jersey	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Net cash provided by (used in) continuing operating activities	$ (19.7)	$ (0.4)	$ (15.1)	$ (570.5)	$ (103.5)	$ 1,896.8	$ (319.5)	$ 868.1
Net cash provided by (used in) discontinued operating activities	—	—	—	—	(18.3)	331.2	—	312.9
Net cash provided by (used in) operating activities	(19.7)	(0.4)	(15.1)	(570.5)	(121.8)	2,228.0	(319.5)	1,181.0
Cash flows from investing activities:								
Capital expenditures	—	—	—	—	(74.9)	(168.2)	—	(243.1)
Proceeds from sale of property, plant and equipment	—	—	—	—	3.1	14.8	—	17.9
Proceeds from business disposition, net of cash sold	—	—	—	—	—	52.7	—	52.7
Dividends received from equity investments	—	—	—	—	—	44.3	—	44.3
Net cash provided by (used in) continuing investing activities	—	—	—	—	(71.8)	(56.4)	—	(128.2)
Net cash provided by (used in) discontinued investing activities	—	—	—	—	—	(18.3)	—	(18.3)
Net cash provided by (used in) investing activities	—	—	—	—	(71.8)	(74.7)	—	(146.5)
Cash flows from financing activities:								
Net proceeds (repayments) in debt	—	—	—	(344.5)	(9.2)	(59.7)	—	(413.4)
Debt issuance costs	—	—	—	(2.5)	—	—	—	(2.5)
Excess tax benefit from share based compensation	19.6	—	—	—	—	—	—	19.6
Net inter-company proceeds (payments)	884.5	0.4	15.1	737.6	184.1	(1,821.7)	—	—
Dividends paid to ordinary shareholders	(192.4)	—	—	—	—	(314.0)	314.0	(192.4)
Dividends paid to noncontrolling interests	—	—	—	—	—	(13.9)	—	(13.9)
Acquisition/divestiture of noncontrolling interests	(0.4)	—	—	—	—	(1.1)	—	(1.5)
Proceeds from shares issued under incentive plans	152.9	—	—	—	—	—	—	152.9
Repurchase of ordinary shares	(839.8)	—	—	—	—	—	—	(839.8)
Transfer from discontinued operations	—	—	—	—	—	—	—	—
Other, net	(4.7)	—	—	—	—	—	—	(4.7)
Net cash provided by (used in) continuing financing activities	19.7	0.4	15.1	390.6	174.9	(2,210.4)	314.0	(1,295.7)
Net cash provided by (used in) discontinued financing activities	—	—	—	—	—	(13.7)	5.5	(8.2)
Net cash provided by (used in) financing activities	19.7	0.4	15.1	390.6	174.9	(2,224.1)	319.5	(1,303.9)
Effect of exchange rate changes on cash and cash equivalents	—	—	—	—	—	(9.2)	—	(9.2)
Net increase (decrease) in cash and cash equivalents	—	—	—	(179.9)	(18.7)	(80.0)	—	(278.6)
Cash and cash equivalents - beginning of period	—	—	—	241.8	77.8	667.4	—	987.0
Cash and cash equivalents - end of period	$ —	$ —	$ —	$ 61.9	$ 59.1	$ 587.4	$ —	$ 708.4

Condensed Consolidating Statement of Cash Flows
For the year ended December 31, 2011

In millions	IR Ireland	IR Limited	IR International	IR Global	IR New Jersey	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Net cash provided by (used in) continuing operating activities	$ (13.1)	$ (5.3)	$ (14.0)	$ (185.3)	$ 133.2	$ 892.3	$ (21.5)	$ 786.3
Net cash provided by (used in) discontinued operating activities	—	—	—	—	(69.3)	469.8	—	400.5
Net cash provided by (used in) operating activities	(13.1)	(5.3)	(14.0)	(185.3)	63.9	1,362.1	(21.5)	1,186.8
Cash flows from investing activities:								
Capital expenditures	—	—	—	—	(47.6)	(169.5)	—	(217.1)
Acquisition of businesses, net of cash acquired	—	—	—	—	—	(1.9)	—	(1.9)
Proceeds from sale of property, plant and equipment	—	—	—	—	3.1	45.4	—	48.5
Proceeds from business disposition, net of cash sold	—	—	—	—	—	400.3	—	400.3
Net cash provided by (used in) continuing investing activities	—	—	—	—	(44.5)	274.3	—	229.8
Net cash provided by (used in) discontinued investing activities	—	—	—	—	—	(22.3)	—	(22.3)
Net cash provided by (used in) investing activities	—	—	—	—	(44.5)	252.0	—	207.5
Cash flows from financing activities:								
Net proceeds (repayments) in debt	—	—	—	(0.2)	(7.7)	(44.9)	—	(52.8)
Debt issuance costs	—	—	—	(2.3)	—	—	—	(2.3)
Excess tax benefit from share based compensation	—	—	—	—	11.8	12.8	—	24.6
Net inter-company proceeds (payments)	1,199.0	5.3	2.0	329.7	(81.2)	(1,454.8)	—	—
Dividends paid to ordinary shareholders	(137.3)	—	—	—	—	(12.5)	12.5	(137.3)
Dividends paid to noncontrolling interests	—	—	—	—	—	(20.8)	—	(20.8)
Acquisition/divestiture of noncontrolling interests	—	—	—	—	—	(1.3)	—	(1.3)
Proceeds from shares issued under incentive plans	109.0	—	—	—	—	—	—	109.0
Repurchase of ordinary shares	(1,157.5)	—	—	—	—	—	—	(1,157.5)
Other, net	(0.5)	—	—	—	—	(0.9)	—	(1.4)
Net cash provided by (used in) continuing financing activities	12.7	5.3	2.0	327.2	(77.1)	(1,522.4)	12.5	(1,239.8)
Net cash provided by (used in) discontinued financing activities	—	—	—	—	—	(15.6)	9.0	(6.6)
Net cash provided by (used in) financing activities	12.7	5.3	2.0	327.2	(77.1)	(1,538.0)	21.5	(1,246.4)
Effect of exchange rate changes on cash and cash equivalents	—	—	—	—	—	(1.5)	—	(1.5)
Net increase (decrease) in cash and cash equivalents	(0.4)	—	(12.0)	141.9	(57.7)	74.6	—	146.4
Cash and cash equivalents - beginning of period	0.4	—	12.0	99.9	135.5	592.8	—	840.6
Cash and cash equivalents - end of period	$ —	$ —	$ —	$ 241.8	$ 77.8	$ 667.4	$ —	$ 987.0

SCHEDULE II

INGERSOLL-RAND PLC
VALUATION AND QUALIFYING ACCOUNTS
FOR THE YEARS ENDED December 31, 2013, 2012 AND 2011
(Amounts in millions)

Allowances for Doubtful Accounts:	
Balance December 31, 2010	$ 36.4
Additions charged to costs and expenses	11.7
Deductions*	(23.9)
Business acquisitions and divestitures, net	(0.2)
Currency translation	(0.3)
Balance December 31, 2011	23.7
Additions charged to costs and expenses	13.7
Deductions*	(12.8)
Currency translation	(0.6)
Other	0.8
Balance December 31, 2012	24.8
Additions charged to costs and expenses	20.8
Deductions*	(9.7)
Business acquisitions and divestitures, net	(7.2)
Currency translation	(0.5)
Other	7.2
Balance December 31, 2013	$ 35.4

(*) “Deductions” include accounts and advances written off, less recoveries.

Executive Leadership Team

From Left to Right: Robert L. Katz, *Senior Vice President and General Counsel;* **Robert G. Zafari,** *Executive Vice President, Industrial Segment;* **Todd D. Wyman,** *Senior Vice President, Global Operations and Integrated Supply Chain;* **M. Stephen Hagood,** *Vice President and Chief Information Officer;* **Allen W. Ge,** *President, HVAC and Transport, Asia Pacific and India;* **Didier P. M. Teirlinck,** *Executive Vice President, Climate Segment;* **Michael W. Lamach,** *Chairman and Chief Executive Officer;* **Paul A. Camuti,** *Senior Vice President, Innovation and Chief Technology Officer;* **Raymond D. Pittard,** *President, Transport, North America and EMEA;* **Marcia J. Avedon,** *Senior Vice President, Human Resources, Communications and Corporate Affairs;* **Manlio Valdés,** *President, Compressed Air Systems and Services;* **Venkatesh Valluri,** *President, Ingersoll Rand India;* **Susan K. Carter,** *Senior Vice President and Chief Financial Officer;* **David S. Regnery,** *President, Commercial HVAC, North America and EMEA;* **Gary S. Michel,** *Senior Vice President and President, Residential HVAC*

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Executive Leadership Team

Michael W. Lamach
Chairman and Chief Executive Officer

Marcia J. Avedon
Senior Vice President, Human Resources, Communications and Corporate Affairs

Paul A. Camuti
Senior Vice President, Innovation and Chief Technology Officer

Susan K. Carter
Senior Vice President and Chief Financial Officer

Allen W. Ge
President, HVAC and Transport, Asia Pacific and India

M. Stephen Hagood
Vice President and Chief Information Officer

Robert L. Katz
Senior Vice President and General Counsel

Gary S. Michel
Senior Vice President and President, Residential HVAC

Raymond D. Pittard
President, Transport, North America and EMEA

David S. Regnery
President, Commercial HVAC, North America and EMEA

Didier P. M. Teirlinck
Executive Vice President, Climate Segment

Manlio Valdés
President, Compressed Air Systems and Services

Venkatesh Valluri
President, Ingersoll Rand India

Todd D. Wyman
Senior Vice President, Global Operations and Integrated Supply Chain

Robert G. Zafari
Executive Vice President, Industrial Segment

Other Senior Leaders

Lawrence R. Kurland
Vice President, Tax

Evan M. Turtz
Vice President and Secretary

Janet C. M. Pfeffer
Treasurer and Vice President, Treasury and Investor Relations

Richard J. Weller
Vice President and Controller

Corporate Data

Shareholder Information Services
The company's 2013 Annual Report on Form 10-K as filed with the United States Securities and Exchange Commission, and other company information, is available through Ingersoll Rand's website, www.ingersollrand.com. Securities analysts, portfolio managers and representatives of institutional investors seeking information about the company should contact:

Joe Fimbianti
Director, Investor Relations
704-655-4721

Annual General Meeting
June 5, 2014, 2:30 p.m.

Adare Manor Hotel,
Adare, County Limerick
Ireland

Stock Exchange
New York
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Telephone inquiries: 866-229-8405
Website: www.computershare.com/investor

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Ingersoll Rand
Inspiring Progress™

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Delivering Results

2012 Annual Report
2013 Notice and Proxy Statement

Ingersoll Rand
Inspiring Progress™

Ingersoll Rand's ability to achieve premier performance is based on the successful execution of our three enterprise strategies: *Operational Excellence; Growth through Innovation, Emerging Markets and Services; and Building a Progressive, Diverse and Inclusive Culture*. Through our enterprise strategies, our people, systems, products and services work together to enhance the quality of life for our customers. Improving the energy efficiency of buildings and cities globally exemplifies one way Ingersoll Rand is helping to create a world of sustainable progress and enduring results.

Automotive technicians are able to make quick work out of their toughest jobs, thanks to the innovation delivered by Ingersoll Rand's new cordless impact tool launched in 2012.

Our Market-Leading Brands

Ingersoll Rand (NYSE:IR) advances the quality of life by creating and sustaining safe, comfortable and efficient environments in commercial, residential and industrial markets around the world. Our people and our market-leading family of brands—including Club Car®, Ingersoll Rand®, Schlage®, Thermo King® and Trane®—work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; secure homes and commercial properties; and increase industrial productivity and efficiency. We are a $14 billion global business committed to a world of sustainable progress and enduring results. For more information, visit ingersollrand.com.

This report and the 2012 online sustainability supplement at ingersollrand.com/sustainabilitysupplement follow the Global Reporting Initiative (GRI) G3.1 Guidelines and report on our financial and non-financial performance. GRI validates that this report meets the criteria for an Application Level B. Visit the GRI Content Index to learn more about our report. For more information on GRI Application Levels, please visit: www.globalreporting.org/resourcelibrary/G3.1-Application-Levels.pdf

The following letter to shareholders contains "forward-looking statements," which are statements that are not historical facts, including our ability to address environmental and social challenges, the future success of our operational excellence initiatives, our future financial performance, our ability to successfully complete the spin-off of our commercial and residential security businesses, and our positioning in and the performance of the markets in which we operate. These statements are based on currently available information and our current assumptions, expectations and projections about future events. While we believe that our assumptions, expectations and projections are reasonable in view of the currently available information, you are cautioned not to place undue dependence on our forward-looking statements. Forward-looking statements speak only as of the date they are made and are not guarantees of future performance. They are subject to future events, risks and uncertainties—many of which are beyond our control—as well as potentially inaccurate assumptions that could cause actual results to differ materially from our expectations and projections. You are advised to review the factors described under the captions "Risk Factors" and "Management's Discussion and Analysis of Financial Conditions and Results of Operations" in our Form 10-K for the fiscal year ended December 31, 2012, and any further disclosures we make on related subjects in materials we file with or furnish to the SEC. We do not undertake to update any forward-looking statements.

Dear Shareholder:

Michael W. Lamach
Chairman and Chief Executive Officer

I am pleased to report that Ingersoll Rand delivered strong performance in 2012. Our ability to grow earnings, cash flow and operating margins during weak market conditions affirms that our strategies—operational excellence, growth through innovation and a progressive, diverse and inclusive culture (PDI)—are the right ones to achieve premier performance. We have maintained a relentless focus on leveraging costs, investing in growth markets, increasing productivity, and deploying capital to fund growth and deliver attractive returns to our shareholders.

Our Path to Premier Performance

Highlighting Our Financial Performance

When I became CEO in 2010, we began a journey to increase the operating capability of the company, focusing on innovation and operational excellence. These initiatives have increased our operating margins almost 400 basis points over the last three years, while enabling a consistent increase in investments in the business.

Ingersoll Rand continued to make great progress in 2012. We improved the competitive strength of our businesses, increased operating margins and improved earnings per share (EPS). Below are some of our financial highlights:

- Year-over-year EPS increase of 23 percent on a 1 percent comparable revenue increase, excluding Hussmann;
- Annual dividend increase of 20 cents, reflecting a 31 percent increase; the dividend will, in 2013, exceed the 2008 peak dividend by 17 percent;
- Repurchased shares totaling $840 million; and
- Achieved one of the highest total shareholder returns in our peer group and outperformed the S&P 500 and S&P Industrials, as we have for three of the past four years.

Total Net Revenues (Billions)

$1 Billion
Increase from 2009 to 2012

Adjusted Operating Margins

3.9 Percentage Points
Increase from 2009 to 2012

*Excludes impairment charges with 4.4 percentage points of negative operating margin impact.

Adjusted Earnings Per Share from Continuing Operations

123%
Increase from 2009 to 2012

*Excludes impairment charges with a negative after-tax impact of $1.64; includes $0.14 from Hussmann.

While pleased with our progress, we also had our share of challenges this year. Although our financial performance was strong, we did not achieve our growth objectives, largely due to slower economic conditions in many key markets around the world. Comparable revenue increased 1 percent to 2011 with full-year net revenues just over $14 billion. We know that premier performance cannot be achieved by productivity alone, and we are committed to growing revenues through operational excellence, innovation and investments to develop new markets.

Operational Excellence

In the past year, we advanced our operational excellence to reduce working capital, expand operating margins and increase market share across our businesses. We define operational excellence as the implementation of lean principles throughout our value streams and within our functional processes, the strategic sourcing of materials and services as well as the strategic management and pricing of products and services. Our pricing excellence program delivered price realization that significantly surpassed direct material inflation.

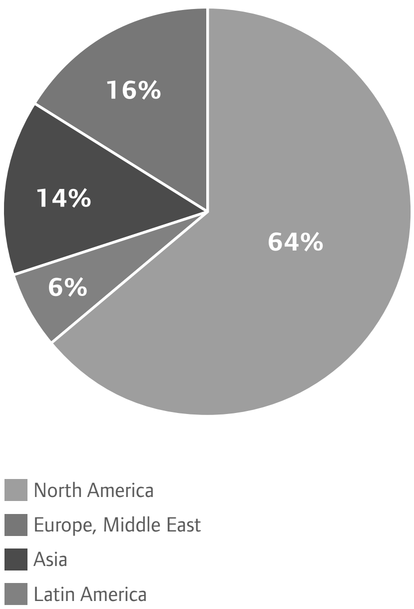
We improved our level of operational execution by adopting a centralized sourcing model. We also strengthened our capabilities in emerging markets to better support supplier qualifications, supplier development and strategic sourcing in those regions by localizing our engineering, research and development.

An area of intense focus for us in 2012 was our value stream work, which expanded during the year to cover 30 percent of our operations. I am pleased the value streams continue to deliver superior results and show positive separation in performance versus the remainder of the company. The value streams reduced past due days by 66 percent, compressed cycle time by more than 40 percent and contributed to a five point increase in employee engagement scores compared with the remainder of the company. We plan to expand value stream coverage in 2013 to 40 percent of our enterprise operations.

Growth through Innovation, Emerging Markets and Services

Beyond operational excellence, we have also continued to invest in growth markets. Those investments are yielding a strong pipeline of new products and services in every sector of the business—from air compressors to unitary HVAC to electronic locks to new service offerings. We have almost doubled the proportion of our revenues from innovation, which we measure as the total revenues delivered by new products introduced over the last three years. Innovation revenues totaled approximately $3.3 billion in 2012.

2012 Revenues by Geography



2012 was marked with new products designed to meet customer needs and market demand. For example, our Thermo King business, launched the Precedent platform to address new regulations for engine emissions. Precedent set an industry standard in both fuel efficiency and emission reduction by delivering double-digit fuel savings, best-in-class performance and lower life cycle costs. We also launched the Ameristar home HVAC system, making headway into the entry-level, lower price point market segment. These customer-centric products, services and solutions are fundamental to our vision.

We strive for continual improvement in our products, services and processes, and in the value we provide to our customers, employees and the communities we serve. We embrace sustainability as a catalyst for business growth and innovation. Ingersoll Rand's Center for Energy Efficiency and Sustainability (CEES) works collaboratively with our businesses to address global issues that impact energy, food and water by providing sustainable solutions, product stewardship and supporting initiatives that deliver results. As the company's sustainability thought leader, the CEES works with non-governmental organizations (NGOs), universities and industry leaders to identify trends and business opportunities to accelerate energy efficiency, drive growth for the company and better meet our customers' challenges.

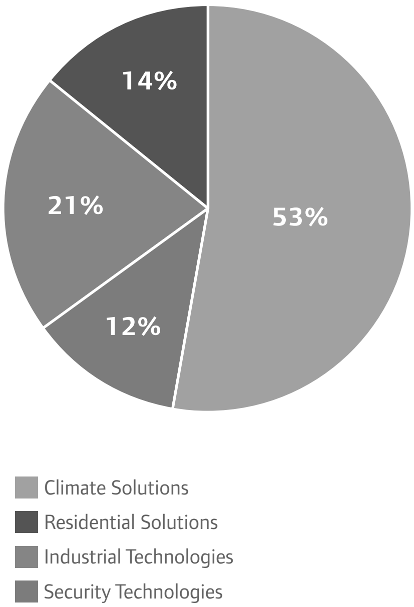
Progressive, Diverse and Inclusive Culture

At Ingersoll Rand, our global success is powered by our employees' diverse backgrounds, experiences, skills and talents. We believe a culture of mutual respect, collaboration and inclusion improves employee retention and engagement, enabling Ingersoll Rand to deliver growth and maintain a competitive advantage in markets worldwide.

One way we create this culture is through engaged employees who feel valued and believe their contributions are meaningful. Ingersoll Rand employee resource groups are an example of how we link engagement, diversity and innovation to drive growth. Employee resource groups afford employees the opportunity to spur innovative business ideas and participate in community involvement and recruiting events. In 2012, we expanded our Women's Network globally and launched our Black Employee Network and Veterans' Group, among others.

We will continue to pursue this enterprise strategy to create a culture that is inclusive and allows for our diverse and highly capable employees to generate new ideas improving our performance and exceeding customer expectations globally.

2012 Revenues by Sector



Leading Our Business into the Future

I am confident we are on the right track. The numbers tell our story—we have three successive years of moving up in key operating metrics. We have built a multiyear record of growing earnings and cash flow with little help from our markets. We have achieved several years of delivering high operating leverage and margin improvement, while still investing.

Our 2012 results are a testament to what our employees can achieve when we focus on our goals. The health and vitality of our businesses are excellent and I thank Ingersoll Rand employees around the world for their exceptional effort. We will continue to build our operational capability, further integrate our businesses and invest to foster profitable growth through innovation.

2013 will be a year that will redefine Ingersoll Rand. Work is under way to combine our residential and commercial security businesses and create a new, standalone public company. When the spin-off is complete, which is expected by the end of this year, the new security company will become a leading provider of electronic and mechanical security solutions for customers globally. The spin-off is expected to create value for both companies and their shareholders. This is a milestone in Ingersoll Rand's evolution to a premier performing company, creating a more focused company with greater opportunities for growth in areas of advantage that differentiate us from our competitors. Ingersoll Rand will continue to grow profitably from a more focused core in creating comfortable, sustainable and efficient environments through its industrial, transport refrigeration and heating, ventilation and air conditioning businesses.

I am excited by the opportunities ahead for Ingersoll Rand and by the opportunities the new security company will have as an independent enterprise.

The collective inspiration and determination that have served our company, customers and communities for more than 140 years will ensure we continue to deliver for generations to come.

Sincerely,

Michael W. Lamach
Chairman and Chief Executive Officer, Ingersoll Rand

Addressing Global Challenges

Creating a world of sustainable progress and enduring results drives our efforts to address critical global challenges.

At Ingersoll Rand, we provide products, services and solutions to tackle issues that deliver results for shareholders, customers and our communities. Our solutions help our customers strengthen their social, economic and environmental performance.

Our market-leading brands and services help our customers reduce their operating costs, lessen their environmental footprint and secure their future through our energy-efficient solutions.

Challenge: Climate Change and Energy Efficiency
Climate change is a global threat to future social, environmental and business performance. For example, residential and commercial buildings account for 41 percent of the total U.S. energy consumption and 40 percent of the total U.S. greenhouse gas emissions, according to the U.S. Department of Energy. In the U.S., and other developed markets, Ingersoll Rand is actively engaged in improving efficiency standards and reducing energy intensity. For developing markets, Ingersoll Rand is in a position to enable growth in a less energy intensive way.

Solution: Efficient and Intelligent Buildings—Engaging U.S. Policy Makers and Customers on the Future of Energy Efficiency in Buildings
Adding an expert voice to the energy efficiency issue is just as important as providing the solutions. Chairman and Chief Executive Officer Mike Lamach participated in an event held in Charlotte, North Carolina during the 2012 U.S. Democratic National Convention. Ingersoll Rand, the U.S. Green Building Council (USGBC) and the International Facility Management Association (IFMA) hosted the event, "Building the Future of Energy Efficiency." Ninety-five elected officials, industry leaders, members of the media and Ingersoll Rand leaders attended. The event educated our customers, elected officials and special guests such as General (Ret.) Wesley Clark about the value of energy efficiency in buildings.

Lamach stressed the importance of making current and future building infrastructure more intelligent and efficient, providing the most immediate and tangible returns for business and government. With the instability of energy costs and global challenge of climate change, energy efficiency provides the opportunity to invest available capital in growth, to innovate and create new jobs. Ingersoll Rand supports a combined approach of new building codes, incentives and public disclosure to help make buildings more energy efficient. This approach allows businesses to manage energy costs and reduce buildings' environmental footprints.

Retired General Wesley Clark speaking at the event,"Building the Future of Energy Efficiency."

Challenge: Rapid Urbanization in Emerging Markets

Urbanization is accelerating in developing markets. In Asia, more than 50 percent of the population is expected to be living in urban communities by 2020. Successfully addressing energy efficiency is a key lever to enable growth in these dynamic regions in a less energy intensive way.

Allen Ge, President of Climate Solutions in Asia Pacific, and Mike Lamach met with Qiu Baoxing, Vice Minister of Ministry of Housing and Urban-Rural Development, to discuss the Ministry's policies to encourage energy-saving building initiatives and how an industry leader like Ingersoll Rand can help support an energy-efficient future in China.

Solution: Providing China Innovative and Efficient Solutions

In 2012, our Trane China Controls and Contracting team created an innovative solution for a customer by building a pre-packaged chiller plant for their new baby care manufacturing facility in South China. This system integrates proven chiller technology, efficient systems design, and advanced controls to produce and distribute chilled water in the most energy efficient and cost effective way. This innovation is 20 percent more energy efficient and can save up to 40 percent on installation costs when compared to conventional solutions. By delivering a pre-packaged system, our chiller plant provides significant savings on materials and labor, keeping the project under budget and on schedule.

Located in the Yunnan province in southwest China, the Kunming International Airport opened in 2012 to meet the rising demand for air travel associated with rapid urbanization. The airport is regarded as a major hub and the fourth largest airport in the country. Ingersoll Rand Security Technologies partnered with Kunming International Airport, providing closed-system television monitoring, access control and intrusion alert systems to ensure the safety and security of employees and travelers.

Challenge: Delivering Food and Perishables

Rapid urbanization is increasing the distance to market and limiting the availability of fresh, safe food. Safe and efficient transportation of fresh food and perishables is critical to the health and vitality of global urban centers around the world.

Thermo King's UT series, introduced in Europe in 2012, is lighter, quieter and more fuel efficient to allow optimum load management while maximizing fleet profitability.

Solution: Thermo King Refrigeration Solutions

Thermo King's refrigeration solutions ensures efficient supply of perishables and fresh food. Thermo King's new UT series, which is 10 percent more efficient than its predecessor, responds to high-volume specialty cargo transport needs such as meats and fresh produce. The units' undermount application also maximizes available cargo space, enabling more room for food transport. A standard in-cab display shows information in symbols which can be understood by operators across the globe. These innovations reduce operating costs and provide a solution for food transport operators globally.

Leadership

> "I have been very impressed with Mike and the leadership team. It's clear they take the three enterprise initiatives seriously. Their commitment resulted in real progress—which cannot be said about all strategic plans."
>
> - Dr. Jared Cohon, Ingersoll Rand Board Member, President of Carnegie Mellon University

Delivering Results

Premier performing companies are able to deliver results for customers, shareholders and employees consistently over time. In 2012, Ingersoll Rand delivered on our commitments while systematically re-engineering our business processes, shaping our culture and improving how we implement innovation within the company. In this section, Ingersoll Rand leaders discuss what we have achieved in executing against our three enterprise strategies.

(From Left to Right): M. Stephen Hagood, Vice President and Chief Information Officer (back); Venkatesh Valluri, President, Ingersoll Rand India; Jeff Zhenning Song, President, Ingersoll Rand China; John W. Conover IV, Senior Vice President and President, Security Technologies; Paul A. Camuti, Senior Vice President, Innovation and Chief Technology Officer; Michael W. Lamach, Chairman and Chief Executive Officer; Marcia J. Avedon, Senior Vice President, Human Resources and Communications; Didier P.M. Teirlinck, Senior Vice President and President, Climate Solutions; Steven R. Shawley, Senior Vice President and Chief Financial Officer; Robert L. Katz, Senior Vice President and General Counsel; Robert G. Zafari, Senior Vice President and President, Industrial Technologies; (back), Todd D. Wyman, Senior Vice President, Global Operations and Integrated Supply Chain; Gary S. Michel, Senior Vice President and President, Residential Solutions

Achieving Operational Excellence

Todd Wyman, Senior Vice President, Global Operations and Integrated Supply Chain

"In 2012, we achieved more than 70 percent operating leverage through operational excellence and margin expansion activities. By centralizing our procurement processes, we are rationalizing the thousands of suppliers we do business with. This favorably impacts our bottom line and allows us to provide more predictable delivery for our customers. Our operational excellence approach also enabled us to make progress with our sustainability efforts. We are well on the path to meet our goals around waste and energy reduction, improving our financial and environmental performance."

Growth through Innovation

Paul Camuti, Senior Vice President, Innovation and Chief Technology Officer

"Last year, we laid the foundation to build our capability to innovate in emerging markets by creating a comprehensive innovation system. In 2012, 24 percent of revenue came from products less than three years old. By having a consistent way to prioritize and invest in new technologies, we will bring greater value for customers and accelerate the time that new products and services are launched into the marketplace."

Building a Progressive, Diverse and Inclusive Culture

Neddy Perez, Vice President, Diversity and Inclusion

"In 2012, we focused on strengthening the integration and alignment of our three enterprise strategies. In reality, these three enterprise strategies are designed to support each other. An inclusive and diverse culture strengthens employee engagement—which enhances innovative thinking, brings new perspectives and creates a sense of ownership of results among our employees. We listen to our people and incorporate their ideas to improve operations. Through this engagement, we can harvest ideas for product and service innovation."

Sustainability Council

Ingersoll Rand's Sustainability Strategy Council includes senior leaders from multiple businesses and functions who set the priorities and deliver advice on key sustainability initiatives. The Council meets quarterly to discuss strategic opportunities and to integrate sustainability into Ingersoll Rand's overall business strategy.

Center for Energy Efficiency and Sustainability (CEES)

Ingersoll Rand established the CEES to further drive energy efficiency and sustainability into our innovation pipeline, manufacturing operations and employee education initiatives. We believe that premier performance and enduring results will come from addressing urgent global, social and environmental challenges in a way that is valuable to our customers.

About Us

The Ingersoll Rand Commitment

We are passionate about building a better future—a world of sustainable progress and enduring results. We inspire progress through unleashing the potential in people and technologies to advance the quality of life. By making environments safe, comfortable and efficient, we enable our customers to achieve real progress and create a positive impact in the world.

At Ingersoll Rand, we promote five values: Integrity, Respect, Innovation, Courage and Teamwork, and we act with our competencies in mind: Model our Values; Inspire our People; Focus on Customers; Create Long-Term Value and Deliver Premier Performance.

Engaging Customers

Our diverse products, services and operations reach thousands of customers, employees, shareholders and communities every year. These groups directly influence Ingersoll Rand's ability to deliver results to stakeholders across the globe and advance the quality of life. Stakeholder engagement helps us better understand critical issues and interests of these various parties.

Improving the customer experience by ensuring customer satisfaction and loyalty continues to be one of our highest priorities. In 2012, we made significant progress with customer satisfaction by focusing on delivery and product quality. We improved delivery performance by more than 70 percent, ending the year at one day past due, and improved our cost of poor quality performance by nearly 20 percent. We are engaging our distribution networks and customers to further improve our results and identify additional steps we can take to enhance the customer experience.

MB Air Systems

MB Air Systems is part of Ingersoll Rand's distributor network in Europe and focuses primarily on the sales, service and aftermarket of compressed air systems and industrial lifting equipment. In 2012, MB Air Systems became an inaugural member to Ingersoll Rand's European Distributor Advisory Council. This council enhances communications between Ingersoll Rand and the 10 best-in-class distributors in Europe. Strengthening our connection with key distributors enhances the manufacturer-distributor relationship and promotes a consistent source of recurring revenue as well as a common platform to share ideas. MB Air Systems commended Ingersoll Rand for the creation of this council and the efforts made to reduce feedback time, demonstrate leadership and strengthen relationships with channel partners and distributors.

"Ingersoll Rand excels at listening to customers and partners to uncover new opportunities to innovate and develop intimate customer relationships."

- Kommie Yousef-Nejad, Director, MB Air Systems

Achieving Operational Excellence

Ingersoll Rand's focus on operational excellence drives growth and improves operational performance including financial, safety and environmental results across the enterprise.

Our global strategy is rooted in continuous improvement and focuses on standardizing work flows and processes to work better, faster and more efficiently. This approach delivers results for our employees, customers and shareholders. Going forward, we continue to focus on opportunities to improve our operations.

Our focus on lean within our value streams continues to improve the customer experience. In 2012, we reduced our value stream past due days to nearly one day, achieved a 40 percent reduction in cycle time and experienced a higher employee engagement score as a result.

Our plant in Taicang, China made significant improvements in our value streams. By localizing suppliers, we were able to provide a 30 percent shorter lead time and 31 percent cost reduction. This program is on target to save more than $52 million through 2013.

By creating standard processes and improving flow of information, we reduced the time required to complete a customer order by 90 percent at our Campbellsville, Kentucky plant, which grew revenue by 11 percent year-over-year.

We are dedicated to building internal capability by making sure that we have the right skills to accelerate our improvement. Our problem-solving training program launched in 2012 helped equip employees with basic lean tools to identify and solve problems effectively. Partnering with APICS The Association for Operations Management to elevate our materials management enabled us to improve our delivery performance in 2012 by more than 70 percent.

Safety

Creating and sustaining a zero-incident culture is a top priority for everyone in the company. A safe work environment is essential to delivering positive results for our customers, shareholders and employees.

In 2012, we continued to make progress in our key safety metrics, aspiring to the five-year goal we set in 2009 of reducing our total recordable incident rate by 67 percent by 2013.

We reduced our lost-time incident rate (LTIR) by 14 percent and total recordable incident rate (TRIR) by 5 percent over 2011. To continue improving our results, we are reinforcing a zero-incident culture throughout the company. Our efforts to improve safety are a core component of our future success.

Energy and Climate Change

As a world leader in providing energy-efficiency solutions for our customers, Ingersoll Rand believes improving our operations' energy efficiency and reducing our carbon footprint are company responsibilities.

Ingersoll Rand reduced energy use, normalized by net revenue, by 30 percent since 2009 and absolute energy use by 18 percent overall. We were effective in reducing overall energy consumption with increased production globally. Ingersoll Rand remains committed to optimizing our energy consumption to reduce our environmental footprint and maximize operational efficiency at our facilities around the globe.

Absolute Energy Use (Billion BTU)

2012	2011	2010	2009
4,387	4,651	5,414	5,340

Normalized Energy Use (Billion BTU)

2012	2011	2010	2009
313	333	420	445

Absolute Greenhouse Gas Emissions (Thousand Metric Tons)

2012	2011	2010	2009
710	728	810	866

Normalized Greenhouse Gas Emissions (Thousand Metric Tons)

2012	2011	2010	2009
51	52	63	72

Waste and Recycling

Reducing our waste has a positive impact on both the environment and our economic performance. Ingersoll Rand aspires to produce zero waste at our operating facilities around the world. Through actively engaged Green Teams and performing rapid improvement events, Ingersoll Rand continues to find ways to reduce, reuse and recycle our waste.

In 2012, we realized a 24 percent reduction in hazardous waste and a 15 percent reduction in non-hazardous waste-to-landfill.

Hazardous Waste (Metric Tons)

2012	2011	2010
1,467	1,920*	2,622

Non-Hazardous Waste (Metric Tons)

2012	2011	2010
9,853	11,644	14,947

*2011 total hazardous waste is restated due to improvements resulting from audits of prior data.

Sustainability Listing

Dow Jones Sustainability Indexes
Member 2012/13

Dow Jones Sustainability Index

Sustainability rankings like the Dow Jones Sustainability Index (DJSI) help drive performance by benchmarking peer companies with a common set of metrics. In 2012, we once again were honored to be listed on both the Dow Jones World and North America Sustainability Indexes. Although we recognize there is more work to do, we continue to improve year-over-year. Participating in the DJSI requires an annual review of our systems and processes to manage financial and non-financial risks and opportunities. We utilize this framework as a way to measure our sustainability performance, and we value the process as much as the recognition on the Index. Achieving premier performance drives us to create more sustainable outcomes at Ingersoll Rand.

Interested in learning more? Visit Ingersoll Rand's Sustainability Supplement online at www.ingersollrand.com/sustainabilitysupplement

Growth through Innovation

Growth through innovation, emerging markets and services requires understanding our customers, connecting our existing capabilities and delivering results in new and innovative ways.

One of Ingersoll Rand's more than 4,000 engineers conducts quality control testing.

Core to our innovation strategy, we remain focused on delivering energy-efficient solutions to our customers. Virtually all product designs developed in 2012 focused on improving energy efficiency.

In 2012, we made considerable capital investments in strengthening our research and development. We opened a new laboratory in the Czech Republic and expanded our capabilities in China, further increasing the energy efficiency of our product offerings. These laboratories are specifically dedicated to research, development and testing, allowing us to improve time to market and react quickly to changing customer demands while developing local solutions required by the European and Asian markets.

"In 2012, we improved our innovation capabilities in emerging markets. Our research and design centers in China and the Czech Republic will help advance new innovations customized for local market demands."

- Paul Camuti, Senior Vice President, Innovation and Chief Technology Officer

Ingersoll Rand Product Development Process

Innovation drives our ability to advance the quality of life and deliver results to our customers. In 2012, we launched the Ingersoll Rand Product Development Process (PDP) to create efficiency and productivity in product development. We follow the PDP process to assess risk, sustainability and intellectual property throughout the entire product development cycle.

This new process applies a consistent methodology to track the total revenue potential of all projects, ensuring adequate resources are allocated to innovation and our project pipeline will support revenue goals. In addition, we embed sustainability at the start of product development. Ingersoll Rand's PDP will address customer needs while reducing our product offerings' overall environmental footprint.

Ingersoll Rand performs in-depth audits of compressed air systems to achieve optimal performance. These audits are one way we strengthen our customer relationships by delivering positive results toward their sustainability performance.

The Trane XL20i Heat Pump is just one of the high-efficiency products visible at the VISION House® in INNOVENTIONS® presented by Green Builder® Media.

Expanding Relationships through Innovative Services

Ingersoll Rand's relationship with BASF spans 150 BASF manufacturing sites throughout North America. Together, Ingersoll Rand and BASF have completed nearly 50 energy audits surveying compressed air systems resulting in $6 million savings in operating expenditures. During the audits, BASF discovered it was overusing nitrogen and, as a result, switched to compressed air which provides the same result at one-seventh of the cost. This success resulted in an expanded relationship, providing another brand, Trane, the opportunity to perform 15 additional energy audits at smaller BASF facilities. In addition, our Security Technologies sector works with BASF globally as their locking and access control partner.

"Ingersoll Rand is a great partner that provides unmatched customer service. Our account manager contacts me when we open up new operations to help us sidestep the wrong path and avoid future costs. I wish our other service providers provided the same level of service and trust."

- Tom Theising, Energy Manager, BASF Chemical Company

VISION House® in INNOVENTIONS Attraction at *Epcot®* Presented by Green Builder® Media

Ingersoll Rand is demonstrating our commitment to sustainability and delivering the ultimate customer experience through the VISION House® presented by Green Builder® Media, which opened on Earth Day 2012. The VISION House® offers guests the opportunity to experience our home intelligence system. Guests enter the home and learn how a mobile device can turn on lights, open the door, or check on family members. They finish the tour with a view of the highest-efficiency Trane air conditioning unit.

Since opening, the VISION House® has educated guests about how various products can help them create a more sustainable home and how they can save money while saving the planet. The exhibit displays Ingersoll Rand's innovative, energy-saving and intelligent products that homeowners can implement themselves.

Nexia™ Home Intelligence

Run the most important systems at home—thermostats, locks, lights and cameras—from anywhere with Nexia™ Home Intelligence. Supported by leading brands Schlage® and Trane®, Nexia continuously introduces new features and products allowing homeowners to run their home from wherever.

Building a Progressive, Diverse and Inclusive Culture

Ingersoll Rand is strengthened by the diverse perspectives, cultural heritages and experiences of our people, and we support their personal and professional growth as their ideas become the innovative products and solutions of the future.

Members of the Ingersoll Rand Black Employee Network review results from their 2012 employee retention study to identify opportunities for professional development training.

Rewarding Workplace

It is important to us to provide a work environment that supports employees' personal and professional goals. Ingersoll Rand provides much more than competitive compensation and benefits to allow employees to make progress in their lives. From comprehensive learning, development and career opportunities, to wellness and financial planning support, to community involvement activities, the value of being part of Ingersoll Rand goes far beyond the paycheck.

Diversity and Inclusion

The diversity of our workforce powers our global success and enables us to deliver results to the markets we serve. In 2012, we made positive strides in evolving our culture and Ingersoll Rand expects to further enhance our diversity and inclusion initiatives.

Demonstrating our continued commitment to diversity and inclusion, we expanded our employee resource groups (ERGs). In 2012, ERGs for women expanded globally and ERGs for New Hires and Veterans were created. These groups serve as a catalyst for employees to share ideas, celebrate differences, and appreciate the strength and value of a diverse workforce. ERGs are open to all employees and are not restricted by a particular ethnicity, gender, or sexual orientation to join.

Flexible Working Program

Ingersoll Rand established flexible time programs in our Annandale, New Jersey; Carmel, Indiana; Davidson, North Carolina and Indian offices. We align our focus on the quality of work and meeting customer expectations knowing that it does not always matter where the work or the time of day it gets done. This gives our employees a sense of trust and respect in their roles at Ingersoll Rand. The program has garnered positive results, including reduced transportation costs for employees and a more engaged and productive workforce for Ingersoll Rand.

Women's Network

The Women's Network went global in 2012 and has nearly 1,700 members and 10 chapters around the world. The network is active in engaging all employees with meaningful events, networking and professional development opportunities, guest speakers, content and resources.

Health and Wellness

Ingersoll Rand helps employees and their families make well-being a priority, in turn, creating a healthy and productive workforce. Health Progress is our health and productivity program, designed to empower participants to improve their health and well-being. The program takes a holistic approach to address individual needs. Core components include biometric health screening, well-being assessment, well-being plan, wellness coaching, condition management, back pain program, HealthMiles activity program and the QuitNet tobacco cessation program. Approximately 10,000 employees participate in the program. Heath Progress-sponsored education is also offered to employees globally for World No Cancer Day, World No Smoking Day and World Mental Health Day.

Employee Engagement

Highly engaged employees help build and sustain a culture where people want to work and are excited to deliver great results. In return, employees have a positive impact on our relationships with customers, suppliers and communities. We understand, appreciate and embrace our differences at Ingersoll Rand, and use these strengths to continuously improve our business.

In 2012, we conducted an engagement survey of approximately 43,000 employees, representing a 91 percent response rate. Although significant actions followed the 2010 survey and many categories showed improvement, our overall 2012 employee engagement score remained flat. We aim to raise our overall score by at least two points in 2013.

We have implemented a new approach to employee engagement that encourages managers to demonstrate authentic leadership and drive engagement locally. Our approach provides coaching to help managers engage employees on what matters most to them. This local accountability will drive more tailored and meaningful actions.

$5.3 million

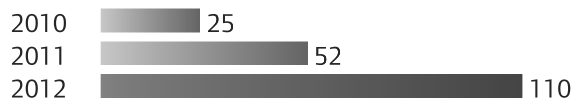
In 2012, we donated more than $5.3 million in philanthropic gifts and our employees volunteered more than 12,400 hours to positively impact communities across the globe—an 8 percent increase over last year.

Green Teams

One of our most successful engagement programs is our Green Teams. These volunteer teams are focused on reducing Ingersoll Rand's environmental footprint and improving overall operations.

Green Team Major Milestones

Growth of Green Teams



Measured Impact

- 2,470,000 lbs. of reduced waste to landfill
- 5,650 metric tons CO_2 emissions reduced
- 37 billion BTUs energy conserved
- $770,000 in annual savings associated with Green Team projects
- Nearly 7,000 employees actively engaged in more than 450 sustainability projects, Green Team activities or events

Community Investment

Advancing the quality of life requires taking an active role in providing solutions that address social issues impacting our company and communities. We emphasize investments that lead to positive and measurable changes in people, communities and our environment. In 2012, we refined the Ingersoll Rand Foundation's purpose, giving priorities and processes. The Foundation advances our efforts to create a world of sustainable progress through our charitable partnerships. We are creating a mutually beneficial relationship with the communities in which we operate. Doing so engages employees and sustains trust and credibility in our external relationships.

Red Cross

American Red Cross

In 2012, Ingersoll Rand developed a mutually beneficial long-term partnership with the Red Cross. Through our gift of $250,000 to the Disaster Responders program, Ingersoll Rand helps secure a reliable funding base for disaster relief services that enables the Red Cross to respond immediately to individuals and families impacted by disaster anywhere in the world, regardless of cost.

Vision

A world of sustainable progress and enduring results.

Purpose

We advance the quality of life by creating and sustaining safe, comfortable and efficient environments.

Values

Integrity: We act with the highest ethical and legal standards in everything we do.

Respect: We respect and value the worth of all people, cultures, viewpoints and backgrounds.

Teamwork: We work together and share resources to provide greater value to our customers, employees, business partners and shareholders.

Innovation: We use our diverse skills, talents and ideas to develop customer-driven, innovative and imaginative solutions.

Courage: We speak up for what we believe is right and take measured risks to create progress.

2013 Notice and Proxy Statement

Ingersoll Rand

Ingersoll Rand

Ingersoll-Rand plc
Registered in Ireland No. 469272

U.S. Mailing Address:
One Centennial Avenue
Piscataway, NJ 08854
(732) 652-7000

NOTICE OF 2013 ANNUAL GENERAL MEETING OF SHAREHOLDERS

The Annual General Meeting of Shareholders of Ingersoll-Rand plc (the "Company") will be held on Thursday, June 6, 2013, at 2:30 p.m., local time, at Adare Manor Hotel, Adare, County Limerick, Ireland, to consider and vote upon the following proposals:

1. By separate resolutions, to re-elect as directors for a period of 1 year expiring at the end of the Annual General Meeting of Shareholders of Ingersoll-Rand plc in 2014, the following 12 individuals:

    (a) Ann C. Berzin
    (b) John Bruton
    (c) Jared L. Cohon
    (d) Gary D. Forsee
    (e) Edward E. Hagenlocker
    (f) Constance J. Horner
    (g) Michael W. Lamach
    (h) Theodore E. Martin
    (i) Nelson Peltz
    (j) John P. Surma
    (k) Richard J. Swift
    (l) Tony L. White

2. To give advisory approval of the compensation of the Company's named executive officers.
3. To approve the appointment of PricewaterhouseCoopers as independent auditors of the Company and authorize the Audit Committee of the Board of Directors to set the auditors' remuneration.
4. To approve the Company's Incentive Stock Plan of 2013.
5. To amend the Company's Articles of Association to give the Board of Directors authority to declare non-cash dividends. *(Special Resolution)*
6. To approve a capital reduction and creation of distributable reserves. *(Special Resolution)*
7. To amend the Company's Articles of Association to expand the authority to execute instruments of transfer. *(Special Resolution)*
8. To amend the Company's Articles of Association to provide for escheatment in accordance with U.S. laws. *(Special Resolution)*
9. To conduct such other business properly brought before the meeting.

Only shareholders of record as of the close of business on April 8, 2013, are entitled to receive notice of and to vote at the Annual General Meeting. **Whether or not you plan to attend the meeting, please provide your proxy by either using the Internet or telephone as further explained in the accompanying proxy statement or filling in, signing, dating, and promptly mailing a proxy card.**

Directions to the meeting can be found in Appendix A of the attached Proxy Statement.

Registered Office:

170/175 Lakeview Dr.
Airside Business Park
Swords, Co. Dublin
Ireland

By Order of the Board of Directors,

BARBARA A. SANTORO

Vice President—Corporate Governance and Secretary

IF YOU ARE A SHAREHOLDER WHO IS ENTITLED TO ATTEND AND VOTE, THEN YOU ARE ENTITLED TO APPOINT A PROXY OR PROXIES TO ATTEND AND VOTE ON YOUR BEHALF. A PROXY IS NOT REQUIRED TO BE A SHAREHOLDER IN THE COMPANY. IF YOU WISH TO APPOINT AS PROXY ANY PERSON OTHER THAN THE INDIVIDUALS SPECIFIED ON THE PROXY CARD, PLEASE CONTACT THE COMPANY SECRETARY AT OUR REGISTERED OFFICE.

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS

FOR THE ANNUAL GENERAL MEETING OF SHAREHOLDERS TO BE HELD ON JUNE 6, 2013

The Annual Report and Proxy Statement are available at www.proxyvote.com.

The Notice of Internet Availability of Proxy Materials, or this Notice of 2013 Annual General Meeting of Shareholders, the Proxy Statement and the Annual Report are first being mailed to shareholders on or about April 25, 2013.

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SUMMARY INFORMATION

This summary highlights information contained elsewhere in this Proxy Statement. For more complete information about these topics, please review Ingersoll-Rand plc's Annual Report on Form 10-K and the entire Proxy Statement.

Annual General Meeting of Shareholders

Date and Time:	June 6, 2013 at 2:30 p.m., local time
Place:	Adare Manor Hotel Adare, County Limerick Ireland
Record Date:	April 8, 2013
Voting:	Shareholders as of the record date are entitled to vote. Each ordinary share is entitled to one vote for each director nominee and each of the other proposals.
Attendance:	All shareholders may attend the meeting.

Meeting Agenda and Voting Recommendations

The Board of Directors recommends that you vote "For" each of the following items that will be submitted for shareholder approval at the Annual General Meeting.

Agenda Item	Vote Required	Page
Election of 12 directors named in the proxy statement.	Majority of votes cast	4
Advisory approval of the compensation of the Company's named executive officers.	Majority of votes cast	10
Approval of appointment of PricewaterhouseCoopers LLP as the Company's independent auditors and authorize the Audit Committee to set auditors' remuneration.	Majority of votes cast	11
Approval of the Company's Incentive Stock Plan of 2013.	Majority of votes cast	13
Amendment of the Company's Articles of Association to give the Board of Directors authority to declare non-cash dividends. (*Special Resolution*)	75% of votes cast	18
Approval of a capital reduction and creation of distributable reserves. (*Special Resolution*)	75% of votes cast	19
Amendment of the Company's Articles of Association to expand the authority to execute instruments of transfer. (*Special Resolution*)	75% of votes cast	20
Amendment of the Company's Articles of Association to provide for escheatment in accordance with U.S. laws. (*Special Resolution*)	75% of votes cast	21

Corporate Governance Highlights

- Substantial majority of independent directors (11 of 12)
- Annual election of directors
- Majority vote for directors
- Independent Lead Director
- Board oversight of risk management
- Succession planning at all levels, including for Board and CEO
- Annual Board and committee self-assessments
- Executive sessions of non-management directors
- Continuing director education
- Executive and director stock ownership guidelines
- Board oversight of sustainability program

Director Nominees

Set forth below is summary information about each director nominee.

Nominee	Age	Director Since	Principal Occupation	Independent	Committee Memberships
Ann C. Berzin	61	2001	Former Chairman and CEO of Financial Guaranty Insurance Company	✓	• Audit • Finance
John Bruton	65	2010	Former Prime Minister of the Republic of Ireland	✓	• Compensation • Corporate Governance and Nominating
Jared L. Cohon	65	2008	President of Carnegie Mellon University	✓	• Compensation • Corporate Governance and Nominating
Gary D. Forsee	63	2007	Former President of University of Missouri System	✓	• Compensation • Corporate Governance and Nominating (Chair)
Edward E. Hagenlocker	73	2008	Former Vice Chairman of Ford Motor Company	✓	• Audit • Finance
Constance J. Horner	71	1994	Former Commissioner of U.S. Commission on Civil Rights	✓	• Compensation • Corporate Governance and Nominating
Michael W. Lamach	49	2010	Chairman and CEO of Ingersoll-Rand plc		
Theodore E. Martin	73	1996	Former President and CEO of Barnes Group Inc.	✓	• Audit • Finance
Nelson Peltz	70	2012	CEO of Trian Fund Management, L.P.	✓	• Finance • Corporate Governance and Nominating
John P. Surma	58	2013	Chairman and CEO of United States Steel Corporation	✓	• Audit • Finance
Richard J. Swift	68	1995	Former Chairman of Financial Accounting Standards Advisory Council	✓	• Audit (Chair) • Finance
Tony L. White	66	1997	Former Chairman and CEO of Applied Biosystems Inc.	✓	• Compensation (Chair) • Corporate Governance and Nominating

Advisory Approval of Our Executive Compensation

We are asking for your advisory approval of the compensation of our named executive officers. While our Board of Directors intends to carefully consider the shareholder vote resulting from the proposal, the final vote will not be binding on us and is advisory in nature. Before considering this proposal, please read our Compensation Discussion and Analysis, which explains our executive compensation programs and the Compensation Committee's compensation decisions.

Executive Compensation

Pay-for Performance

Our executive compensation programs are based on the principles of (i) program competitiveness, (ii) pay for performance, (iii) appropriate mix of short and long-term incentives, (iv) internal parity, (v) shareholder alignment and (vi) alignment with business strategies. Consistent with these principles, the Compensation Committee has adopted executive compensation programs with a strong link between pay and achievement of short and long-term Company goals.

2012 Results

In a year with a challenging business environment, we achieved solid financial performance in the key operating metrics that are aligned with our business strategy. In particular, we achieved the following results in 2012:

- Adjusted annual revenue of $14.035 billion, an increase of 0.09% over 2011;
- Adjusted operating income margin of 10.8%, an increase of 0.2 percentage points from 10.6% in 2011;
- Adjusted available cash flow of 111.5% of after-tax income;
- Adjusted earnings per share ("EPS") of $3.29, an increase of 22.76% over 2011;
- Relative 3-year EPS growth (2010 - 2012) of 138.41%, which ranks at approximately the 75th percentile of the companies in the S&P 500 Industrial Index; and
- Total shareholder return of 59.5%.

Based on our 2012 results, we achieved:

- a financial score of 77.94% of target for the enterprise under our annual incentive program (Annual Incentive Matrix or "AIM");
- an AIM financial score of 0.00% and 132.96% of target for Climate Solutions and Residential Solutions, respectively, two of our four sectors whose presidents were named executive officers in 2012; and
- 199% of target for our 2010 to 2012 performance share units.

Approval of Appointment of Independent Auditors

We are asking you to approve the appointment of PricewaterhouseCoopers LLP ("PwC") as our independent auditors for 2013 and to authorize the Audit Committee to set PwC's remuneration.

Approval of the Company's Incentive Stock Plan of 2013

The Board of Directors believes that maintaining an equity compensation plan is an important means of attracting, retaining and motivating key personnel and is necessary for us to achieve superior performance in the future. As such, we are asking you to approve the Incentive Stock Plan of 2013 ("2013 Plan"), which would replace the Incentive Stock Plan of 2007 ("2007 Plan"). The 2013 Plan is intended to continue the incentive arrangements of the 2007 Plan. The 2013 Plan covers 20,000,000 ordinary shares. Upon shareholder approval of the 2013 Plan, no further grants will be made under the 2007 Plan except for any off-cycle grants made at the June 6, 2013 meeting of our Compensation Committee. Approximately 2,700,000 shares remaining under the 2007 Plan will no longer be available for new awards upon shareholder approval of the 2013 Plan.

Amendment of Articles of Association to give the Board of Directors Authority to Declare Non-Cash Dividends

We are asking you to approve an amendment to the Articles of Association to provide the Board of Directors with the authority to declare non-cash dividends. This authority is common for boards of directors of companies listed on the New York Stock Exchange.

Capital Reduction and Creation of Distributable Reserves

We are asking you to approve the reduction of our share capital and the creation of additional distributable reserves in the amount of approximately $8.7 billion. The creation of these distributable reserves will allow the Company to maintain its ability to make future distributions to shareholders.

Amendment of Articles of Association to Expand the Authority to Execute Instruments of Transfer

We are asking you to approve an amendment to the Articles of Association to allow the Company's Secretary and Assistant Secretary to delegate the power to execute instruments of transfer, which are required under Irish law in connection with each transfer of shares on our register of members. This amendment will allow greater efficiency and flexibility in creating these instruments of transfer.

Amendment of Articles of Association to Provide for Escheatment in Accordance with U.S. laws

We are asking for you to approve an amendment to the Articles of Association to harmonize our obligations under Irish law with our obligations under U.S. laws related to unclaimed property.

2014 Annual Meeting

Deadline for shareholder proposals for inclusion in the proxy statement:	December 26, 2013
Deadline for business proposals and nominations for director:	March 7, 2014

Ingersoll-Rand plc

U.S. Mailing Address:
One Centennial Avenue
Piscataway, NJ 08855
(732) 652-7000

PROXY STATEMENT

In this Proxy Statement, "Ingersoll Rand," the "Company," "we," "us" and "our" refer to Ingersoll-Rand plc, an Irish public limited company. This Proxy Statement and the enclosed proxy card, or the Notice of Internet Availability of Proxy Materials, are first being mailed to shareholders of record on April 8, 2013 (the "Record Date") on or about April 25, 2013.

PROPOSALS REQUIRING YOUR VOTE

Item 1. Election of Directors

The Company uses a majority of votes cast standard for the election of directors. A majority of the votes cast means that the number of votes cast "for" a director nominee must exceed the number of votes cast "against" that director nominee. Each director of the Company is being nominated for election for a one-year term beginning at the 2013 Annual General Meeting of Shareholders to be held on June 6, 2013 (the "Annual General Meeting") and expiring at the end of the 2014 Annual General Meeting of Shareholders.

Under our articles of association, if a director is not re-elected in a director election, the director shall retire at the close or adjournment of the Annual General Meeting. Each director standing for election was elected as a director at our 2012 Annual General Meeting, other than Mr. Peltz, who was appointed to the Board of Directors in August 2012, and Mr. Surma, who was appointed to the Board of Directors effective January 2013. Messrs. Peltz and Surma were appointed to the Board based on the recommendation of the Corporate Governance and Nominating Committee. Mr. Peter Godsoe is retiring at the Annual General Meeting in accordance with our Corporate Governance Guidelines due to his attaining the age 75 prior to such meeting.

The Board of Directors recommends a vote FOR the directors nominated for election listed under proposals 1(a) through (l) below.

(a) Ann C. Berzin – age 61, director since 2001

- Chairman and Chief Executive Officer of Financial Guaranty Insurance Company (insurer of municipal bonds and structured finance obligations), a subsidiary of General Electric Capital Corporation, from 1992 to 2001.
- Current Directorships:
  - Exelon Corporation
- Other Directorships Held in the Past Five Years:
  - Constellation Energy Group, Inc.
  - Kindred Healthcare, Inc.

Ms. Berzin's extensive experience in finance at a global diversified industrial firm and her expertise in complex investment and financial products and services bring critical insight to the Company's financial affairs, including its borrowings, capitalization, and liquidity. In addition, Ms. Berzin's relationships across the global financial community strengthen Ingersoll Rand's access to capital markets. Her board memberships provide deep understanding of trends in the energy and healthcare sectors, both of which present ongoing challenges and opportunities for Ingersoll Rand.

(b) John Bruton – age 65, director since 2010

- European Union Commission Head of Delegation to the United States from 2004 to 2009.
- Prime Minister of the Republic of Ireland from 1994 to 1997.
- Current Directorships:
  - Montpelier Re Holding Ltd.
- Other Directorships Held in the Past Five Years: None

Mr. Bruton's long and successful career of public service on behalf of Ireland and Europe provides extraordinary insight into critical regional and global economic, social and political issues, all of which directly influence the successful execution of the Company's strategic plan. In particular, Mr. Bruton's leadership role in transforming Ireland into one of the world's leading economies during his tenure, as well as in preparing the governing document for managing the Euro, lend substantial authority to Ingersoll Rand's economic and financial oversight.

(c) Jared L. Cohon – age 65, director since 2008

- President of Carnegie Mellon University since 1997 and also appointed Professor of Civil and Environmental Engineering and Professor of Engineering and Public Policy.
- Current Directorships:
  - Lexmark, Inc.
- Other Directorships Held in the Past Five Years:
  - Trane Inc. (formerly American Standard)
- Other Activities:
  - Appointed by President George W. Bush to serve on his Homeland Security Advisory Council in 2002 and reappointed in 2010 by President Barack Obama.

Dr. Cohon's extensive career in academics, including 15 years as president of an institution known throughout the world for its leadership in the fields of computer science, robotics, and advanced-technology teaching and research, offers the Company tremendous insight into the latest developments in areas critical to commercial innovation and manufacturing process improvement. A member of the National Academy of Engineering, Dr. Cohon is a recognized authority on environmental and water resources systems analysis and management. As such, Dr. Cohon also brings unique perspectives on sustainable business practices, both within our own operations and on behalf of our customers and communities. In 2008 and 2009, at the request of Congress, Dr. Cohon chaired the National Research Council Committee that produced the report, "Hidden Costs of Energy: Unpriced Consequences of Energy Production and Use." Finally, Dr. Cohon's more than nine years of service as a member of Trane Inc.'s (formerly American Standard) board of directors provides critical insight into that part of the Company's business.

(d) Gary D. Forsee – age 63, director since 2007

- President, University of Missouri System from 2008 to 2011.
- Chairman of the Board (from 2006 to 2007) and Chief Executive Officer (from 2005 to 2007) of Sprint Nextel Corporation (a telecommunications company).
- Current Directorships:
  - Great Plains Energy Inc.
- Other Directorships Held in the Past Five Years: None
- Other Activities:
  - Trustee, National Board of Trustees, Boy Scouts of America
  - Trustee, Midwest Research Institute
  - Trustee, University of Missouri - Kansas City Foundation

In addition to his broad operational and financial expertise, Mr. Forsee's experience as chairman and chief executive officer with the third largest U.S. firm in the global telecommunications industry offers a deep understanding of the challenges and opportunities within markets experiencing significant technology-driven change. His recent role as president of a major university system provides insight into the Company's talent development initiatives, which remain a critical enabler of Ingersoll Rand's long-term success. Mr. Forsee's membership on the board of an energy services utility also benefits the Company as it seeks to achieve more energy-efficient operations and customer solutions.

(e) Edward E. Hagenlocker – age 73, director since 2008

- Vice-Chairman of Ford Motor Company (an automobile manufacturer) from 1996 until his retirement in 1999.
- Chairman of Visteon Automotive Systems (a manufacturer and supplier of automobile products) from 1997 to 1999.
- Current Directorships:
  - AmeriSourceBergen Corporation
- Other Directorships Held in the Past Five Years:
  - Alcatel-Lucent
  - Air Products and Chemicals, Inc.
  - Trane Inc. (formerly American Standard)

Mr. Hagenlocker's nearly 35 years in the automotive industry, including experience as the vice chairman of the largest independent U.S. automotive company and as chairman of a major automotive systems supplier, brings to Ingersoll Rand extensive expertise in global manufacturing, engineering, design, marketing and channel management, as well as consumer-focused business disciplines. Mr. Hagenlocker's seven years of service as a member of Trane Inc.'s (formerly American Standard) board of directors provides critical insight into that part of the Company's business. In addition, his board memberships include businesses engaged in the manufacture of specialty and atmospheric gases for industrial processes, which provides insight into new technologies for our operations, and pharmaceutical distribution and services, which enhances our understanding of trends and developments in the healthcare sector.

(f) Constance J. Horner – age 71, director since 1994

- Guest Scholar at the Brookings Institution (a non-partisan research institute) from 1993 to 2005.
- Commissioner of U.S. Commission on Civil Rights from 1993 to 1998.
- Assistant to the President and Director of Presidential Personnel from 1991 to 1993.
- Deputy Secretary, U.S. Department of Health and Human Services from 1989 to 1991.
- Current Directorships:
  - Pfizer Inc.
  - Prudential Financial, Inc.
- Other Directorships Held in the Past Five Years: None
- Other Activities:
  - Trustee, The Prudential Foundation
  - Fellow, National Academy of Public Administration

Ms. Horner's substantial leadership experience and public-policy expertise resulting from her service in two presidential administrations and several U.S. government departments provide Ingersoll Rand with important perspective on matters that directly affect the Company's operations and financial affairs. In particular, Ms. Horner has deep insight into employee relations, talent development, diversity, operational management and healthcare through her leadership positions at various federal departments and commissions. Ms. Horner's board memberships afford ongoing engagement in the areas of healthcare, risk management and financial services, all of which have a direct influence on Ingersoll Rand's success.

(g) Michael W. Lamach – age 49, Chairman since June 2010 and director since February 2010

- President and Chief Executive Officer (since February 2010) of the Company.
- President and Chief Operating Officer of the Company from February 2009 to February 2010.
- Senior Vice President and President, Trane Commercial Systems, of the Company from June 2008 to September 2009.
- Senior Vice President and President, Security Technologies, of the Company from February 2004 to June 2008.
- Current Directorships:
  - Iron Mountain Incorporated
- Other Directorships Held in the Past Five Years: None

Mr. Lamach's extensive career of successfully leading global businesses, including nine years with Ingersoll Rand, brings significant experience and expertise to the Company's management and governance. His 28 years of business leadership encompass global automotive components, controls, security and HVAC systems businesses, representing a broad and diverse range of products and services, markets, channels, applied technologies and operational profiles. In his most recent role as president and chief operating officer of the Company, he was instrumental in driving strong productivity improvement and cost savings across the Company's global operations. Mr. Lamach's board membership with a leading information management systems firm provides ongoing insight into trends and developments in the critical areas of data security and information protection and retention.

(h) Theodore E. Martin – age 73, director since 1996

- President and Chief Executive Officer of Barnes Group Inc. (manufacturer and distributor of automotive and aircraft components and maintenance products) from 1995 until his retirement in 1998.
- Current Directorships: None
- Other Directorships Held in the Past Five Years:
  - Applied Biosystems, Inc. (formerly known as Applera Corporation)
  - C. R. Bard, Inc.
  - Unisys Corporation
- Other Activities:
  - Chairman, Edna McConnell Clark Foundation

Mr. Martin's experience as chief executive officer of a diversified global industrial firm lends valuable and direct expertise across all aspects of Ingersoll Rand's operational and financial activities. In particular, Mr. Martin's leadership of a large industrial manufacturing organization provides practical insight to help drive the Company's long-term productivity initiatives. His board memberships, which include organizations at the forefront of healthcare products and information technology, enhance the Company's access to important developments in these sectors.

(i) Nelson Peltz – age 70, director since 2012

- Chief Executive Officer and a founding partner of Trian Fund Management, L.P. (a management company for various investment funds and accounts) since 2005.
- Chairman and Chief Executive Officer of Triarc Companies, Inc. (which owned consumer and industrial businesses) from 1993 to 2007.
- Current Directorships:
  - H.J. Heinz Company
  - Legg Mason, Inc.
  - The Wendy's Company, Inc. (Non-Executive Chairman)
- Other Directorships Held in the Past Five Years:
  - Trian Acquisition I Corp.

Mr. Peltz's experience as a successful investor provides the Company with a valuable investor's perspective on how to create value for shareholders. In addition, through his 40 years of experience in investing in and building companies, Mr. Peltz has strong operating experience and strategic planning skills that will benefit the Company's operational excellence initiatives and its long-term strategic planning.

(j) John P. Surma– age 58, director since 2013

- Chairman (since 2006) and Chief Executive Officer (since 2004) of United States Steel Corporation (a steel manufacturing company).
- Current Directorships:
  - Marathon Petroleum Corporation
  - MPLX LP (a publicly traded subsidiary of Marathon Petroleum Corporation)
- Other Directorships Held in the Past Five Years:
  - The Bank of New York Mellon Corporation
  - Calgon Carbon Corporation
- Other Activities:
  - Vice Chairman, U.S. President's Advisory Committee for Trade Policy and Negotiations
  - Director, Federal Reserve Bank of Cleveland
  - Trustee, Pennsylvania State University

Mr. Surma's experience as the chairman and chief executive officer of a large industrial company provides significant and direct expertise across all aspects of Ingersoll Rand's operational and financial affairs. In particular, Mr. Surma's financial experience, having previously served as the chief financial officer of United States Steel Corporation and as a partner of the audit firm PricewaterhouseCoopers, provides the Board with valuable insight into financial reporting and accounting oversight of a public company. Mr. Surma's board memberships and other activities provide the Board an understanding of developments in the energy sector as the Company seeks to develop more energy-efficient operations and insight into national and international business and trade policy that could impact the Company.

(k) Richard J. Swift – age 68, Lead Director since 2010 and director since 1995

- Chairman of Financial Accounting Standards Advisory Council from 2002 through 2006.
- Chairman, President and Chief Executive Officer of Foster Wheeler Ltd. (provider of design, engineering, construction, manufacturing, management and environmental services) from 1994 to 2001.
- Current Directorships:
  - CVS Caremark Corporation
  - Hubbell Incorporated
  - Kaman Corporation
  - Public Service Enterprise Group
- Other Directorships Held in the Past Five Years: None

Mr. Swift's experience as chairman and chief executive officer of a global engineering firm and his five-year leadership of the advisory organization to a major accounting standards board imparts substantial expertise to all of the Company's operational and financial matters. His leadership of an organization that was instrumental in some of the world's most significant engineering projects provides unique insight into the complex systems involved in the efficient and effective development of buildings and industrial operations, which represent key global market segments for Ingersoll Rand's products and services. Mr. Swift's board memberships include firms engaged in the manufacture and distribution of industrial, electrical and electronic products, which directly correspond to key elements of the Company's growth and operational strategies.

(l) Tony L. White – age 66, director since 1997

- Chairman, President and Chief Executive Officer of Applied Biosystems Inc. (a developer, manufacturer and marketer of life science systems and genomic information products) from 1995 until his retirement in 2008.
- Current Directorships:
  - C.R. Bard, Inc.
  - CVS Caremark Corporation
- Other Directorships Held in the Past Five Years:
  - Applied Biosystems Inc. (formerly known as Applera Corporation)

Mr. White's extensive management experience, including 13 years as chairman and chief executive officer of an advanced-technology life sciences firm, provides substantial expertise and guidance across all aspects of Ingersoll Rand's operational and financial affairs. In particular, Mr. White's leadership of an organization whose success was directly connected to innovation and applied technologies aligns with the Company's focus on innovation as a key source of growth. The Company benefits from Mr. White's ongoing board memberships, where developments related to biotechnology and healthcare delivery systems can offer instructive process methodologies to accelerate our innovation efforts.

Item 2. Advisory Approval of the Compensation of Our Named Executive Officers

The Company is presenting the following proposal, commonly known as a "Say-on-Pay" proposal, which gives you as a shareholder the opportunity to endorse or not endorse our compensation program for named executive officers by voting for or against the following resolution:

"RESOLVED, that the shareholders approve the compensation of the Company's named executive officers, as disclosed in the Compensation Discussion and Analysis, the compensation tables, and the related disclosure contained in the Company's proxy statement."

While our Board of Directors intends to carefully consider the shareholder vote resulting from the proposal, the final vote will not be binding on us and is advisory in nature.

In considering your vote, please be advised that our compensation program for named executive officers is guided by our design principles, as described in the Compensation Discussion and Analysis section of this Proxy Statement:

- *Program competitiveness*
- *Pay for performance*
- *Appropriate mix of short and long-term incentives*
- *Internal parity*
- *Shareholder alignment*
- *Alignment with business strategies*

By following these design principles, we believe that our compensation program for named executive officers is strongly aligned with the long-term interests of our shareholders.

The Board of Directors recommends that you vote FOR advisory approval of the compensation of our named executive officers as disclosed in the Compensation Discussion and Analysis, the compensation tables, and the related disclosure contained in this proxy statement.

Item 3. Approval of Appointment of Independent Auditors

At the Annual General Meeting, shareholders will be asked to approve the appointment of PricewaterhouseCoopers ("PwC") as our independent auditors for the fiscal year ending December 31, 2013, and to authorize the Audit Committee of our Board of Directors to set the independent auditors' remuneration. PwC has been acting as our independent auditors for many years and, both by virtue of its long familiarity with the Company's affairs and its ability, is considered best qualified to perform this important function.

Representatives of PwC will be present at the Annual General Meeting and will be available to respond to appropriate questions. They will have an opportunity to make a statement if they so desire.

The Board of Directors recommends a vote FOR the proposal to approve the appointment of PwC as independent auditors of the Company and to authorize the Audit Committee of the Board of Directors to set the auditors' remuneration.

Audit Committee Report

While management has the primary responsibility for the financial statements and the reporting process, including the system of internal controls, the Audit Committee reviews the Company's audited financial statements and financial reporting process on behalf of the Board of Directors. The independent auditors are responsible for performing an independent audit of the Company's consolidated financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States) and to issue a report thereon. The Audit Committee monitors those processes. In this context, the Audit Committee has met and held discussions with management and the independent auditors regarding the fair and complete presentation of the Company's results. The Audit Committee has discussed significant accounting policies applied by the Company in its financial statements, as well as alternative treatments. Management has represented to the Audit Committee that the Company's consolidated financial statements were prepared in accordance with United States generally accepted accounting principles, and the Audit Committee has reviewed and discussed the consolidated financial statements with management and the independent auditors. The Audit Committee also discussed with the independent auditors the matters required to be discussed by Statement on Auditing Standards No. 61, as amended (Communication With Audit Committees), as adopted by the Public Company Accounting Oversight Board (United States).

In addition, the Audit Committee has received and reviewed the written disclosures and the letter from PwC required by the Public Company Accounting Oversight Board regarding PwC's communications with the Audit Committee concerning independence and discussed with PwC the auditors' independence from the Company and its management in connection with the matters stated therein. The Audit Committee also considered whether the independent auditors' provision of non-audit services to the Company is compatible with the auditors' independence. The Audit Committee has concluded that the independent auditors are independent from the Company and its management.

The Audit Committee discussed with the Company's internal and independent auditors the overall scope and plans for their respective audits. The Audit Committee meets separately with the internal and independent auditors, with and without management present, to discuss the results of their examinations, the evaluations of the Company's internal controls and the overall quality of the Company's financial reporting.

In reliance on the reviews and discussions referred to above, the Audit Committee recommended to the Board of Directors, and the Board has approved, that the audited financial statements be included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2012 ("2012 Form 10-K"), for filing with the Securities and Exchange Commission (the "SEC"). The Audit Committee has selected PwC, subject to shareholder approval, as the Company's independent auditors for the fiscal year ending December 31, 2013.

AUDIT COMMITTEE

Richard J. Swift (Chair)
Ann C. Berzin
Peter C. Godsoe
Edward E. Hagenlocker
Theodore E. Martin
John P. Surma

Fees of the Independent Auditors

The following table shows the fees paid or accrued by the Company for audit and other services provided by PwC for the fiscal years ended December 31, 2012 and 2011:

	2012	2011
Audit Fees (a)	$ 14,753,000	$ 14,141,000
Audit-Related Fees (b)	1,003,000	2,184,000
Tax Fees (c)	6,703,000	4,607,000
All Other Fees (d)	934,000	207,000
Total	$ 23,393,000	$ 21,139,000

(a) Audit Fees for the fiscal years ended December 31, 2012 and 2011, respectively, were for professional services rendered for the audits of the Company's annual consolidated financial statements and its internal controls over financial reporting, including quarterly reviews, statutory audits, issuance of consents, comfort letters and assistance with, and review of, documents filed with the SEC.

(b) Audit-Related Fees consist of assurance services that are related to performing the audit and review of our financial statements. Audit-Related Fees for the fiscal year ended December 31, 2012 include employee benefit plan audits, abandoned and unclaimed property tax assessments and systems implementation risk assessment. Audit-Related Fees for the fiscal year ended December 31, 2011 include services related to carve-out audits of disposed businesses, employee benefit plan audits, abandoned and unclaimed property tax assessments, and advise on internal financial accounting and compliance controls to be included in an integrated information system.

(c) Tax Fees for the fiscal years ended December 31, 2012 and 2011 include consulting and compliance services in the U.S. and non-U.S. locations.

(d) All Other Fees for the fiscal year ended December 31, 2012 include trading platform redesign services, integrated supply chain materials and parts planning and license fees for technical accounting software. All Other Fees for the fiscal year ended December 31, 2011 include certain consulting services associated with the integrated supply chain operations and license fees for technical accounting software.

The Audit Committee has adopted policies and procedures which require that the Audit Committee pre-approve all non-audit services that may be provided to the Company by its independent auditors. The policy: (i) provides for pre-approval of an annual budget for each type of service; (ii) requires Audit Committee approval of specific projects over $100,000, even if included in the approved budget; and (iii) requires Audit Committee approval if the forecast of expenditures exceeds the approved budget on any type of service. The Audit Committee pre-approved all of the services described under "Audit-Related Fees," "Tax Fees" and "All Other Fees." The Audit Committee has determined that the provision of all such non-audit services is compatible with maintaining the independence of PwC.

Item 4. Approval of the Company's Incentive Stock Plan of 2013

At the Annual General Meeting, we are asking shareholders to approve the Ingersoll-Rand plc Incentive Stock Plan of 2013 (the "2013 Plan"). The 2013 Plan is intended to continue the incentive arrangements of the Ingersoll-Rand plc Incentive Stock Plan of 2007 (Amended and Restated as of December 1, 2010) (the "2007 Plan"). We are seeking approval of 20,000,000 ordinary shares under the 2013 Plan. Upon shareholder approval of the 2013 Plan, no further grants will be made under the 2007 Plan except for any off-cycle grants made at the June 6, 2013 meeting of our Compensation Committee which will not exceed 35,000 ordinary shares, calculated under the current 2.05 fungible share counting ratio. As a result, approximately 2,700,000 ordinary shares that were previously authorized and were available for grant under the 2007 Plan will no longer be available for new awards.

As of the Record Date, our overhang was 6.0% and our share utilization rate was 0.9%. This compares to a median overhang of 8.6% and 0.9% share utilization rate of our executive compensation peer group. Assuming shareholders approve the 2013 Plan, our overhang will be 11.8%. For this purpose, "overhang" is defined as the amount of outstanding shares that have been awarded to key employees and directors under the 2007 Plan and prior Company equity incentive plans, plus shares available for future grant, divided by ordinary shares outstanding, and "share utilization" is the number of shares underlying equity awards granted to key employees and directors in a fiscal year, divided by ordinary shares outstanding. Although, after adoption of the 2013 Plan, our overhang will exceed the median of our executive compensation peer group, this is typical upon receipt of shareholder approval for additional shares and this rate is expected to decrease each year as shares underlying restricted stock units ("RSUs") and performance share units ("PSUs") vest and stock options are exercised.

On the Record Date, the closing price of our ordinary shares traded on the New York Stock Exchange ("NYSE") was $54.90 per share.

Reasons Why the Board of Directors Recommends Voting for the 2013 Plan

We grant annual equity awards each February and grant off-cycle equity awards at other times throughout the year as approved by the Compensation Committee. These awards have reduced the number of shares available for issuance under the 2007 Plan by an average of approximately 4.3 million shares per year. As we intend to continue issuing annual and off-cycle awards to key employees in accordance with our past practice, there are not sufficient shares remaining available under the 2007 Plan to complete the 2014 annual grant. The 2013 Plan is projected to provide sufficient shares to permit making equity grants to employees in accordance with past practice through 2020. In evaluating the Company's request to recommend that our Board of Directors adopt the 2013 Plan, the Compensation Committee considered the number of shares required to continue making equity grants in accordance with past practice, along with the dilutive impact of the 2013 Plan. Upon concluding this analysis, the Compensation Committee recommended and the Board of Directors approved the adoption of the 2013 Plan and inclusion of this proposal in our proxy statement.

We have had shareholder-approved incentive compensation programs since 1959 as a means of providing long-term incentives to our key executives and other key employees. The Board of Directors believes that these plans are an important means of attracting, retaining and motivating key personnel in a manner that is aligned with shareholder interest and are necessary for us to achieve superior performance in the future. Therefore, shareholder approval of the adoption of the 2013 Plan is vitally important.

Shareholder approval is necessary under the NYSE rules and, among other requirements, necessary for tax deductibility of certain performance-based awards under the 2013 Plan pursuant to Section 162(m) of the Internal Revenue Code of 1986, as amended (the "Code"). Section 162(m) limits the annual federal tax deduction for compensation paid to our Chief Executive Officer and the other three most highly compensated executive officers, other than the Chief Financial Officer, to $1 million. Certain performance-based compensation is excluded from this limitation.

The following is a summary of the principal features of the 2013 Plan and is qualified in its entirety by reference to the 2013 Plan, which is attached to this proxy statement as Appendix B. The summary does not purport to be a complete description of all the provisions of the 2013 Plan.

Description of the 2013 Plan

Purpose

The purpose of the 2013 Plan is to assist the Company and its affiliates in recruiting and retaining key employees and directors and in motivating such individuals to exert their best efforts on behalf of the Company and its shareholders by providing appropriate stock incentive awards.

Shares Subject to the Plan

The 2013 Plan authorizes the issuance of up to 20,000,000 ordinary shares in connection with stock incentives. Each share issued in connection with awards other than stock options or stock appreciation rights (“SARs”) (awards under the 2013 Plan other than stock options or SARs are “Full Value Awards”) shall count as 2.54 shares for purposes of the overall share limit under the 2013 Plan. Shares not issued because of the termination or cancellation of individual stock incentives or in order to satisfy tax withholding obligations on Full Value Awards can be reused under the 2013 Plan. Awards granted in assumption of or substitution for awards granted by companies we acquire are not counted against the 2013 Plan’s share limit.

Governance Features

The following features of the 2013 Plan illustrate the Company’s commitment to good corporate governance practices:

- The 2013 Plan prohibits reducing the exercise price of stock options or SARs without shareholder approval.
- The 2013 Plan prohibits the cancellation of stock options or SARs and replacement with a cash payment that is greater than the fair market value of the stock option or SAR or with a new award that has a lower exercise price than the replaced stock option or SAR without shareholder approval.
- The 2013 Plan prohibits the granting of stock options or SARs with an exercise price that is lower than the fair market values of the Company’s ordinary shares on the date of grant.
- The total number of shares available under the 2013 Plan will be reduced by 2.54 shares for each ordinary share subject to a Full Value Award.
- Awards granted under the 2013 Plan will be subject to the Company’s clawback policy.
- Neither dividends nor dividend equivalents will be payable with respect to outstanding stock options or SARs.
- Dividend equivalents are accumulated on unvested stock-based awards, other than stock options and SARs, including performance-based awards, but are not paid unless and until the corresponding award vests.
- Any material amendment to the 2013 Plan requires shareholder approval to be effective.

Awards granted under the 2013 Plan are also subject to our policies and procedures, including our Insider Trading Policy and restrictions on the hedging or pledging of our securities.

Eligibility

The 2013 Plan permits the grant of awards to key employees as approved by the Compensation Committee and to all non-employee directors. Approximately 1,800 employees (3.7% of the total of current employees), including our executive officers, were granted awards under the 2007 Plan. We have not granted directors stock based awards since 2009.

Stock Options and Stock Appreciation Rights

Stock options and SARs are forms of stock incentives. Neither stock options nor SARs may be granted at less than the fair market value of our ordinary shares (defined as the average of the high and low stock price of an ordinary share on the NYSE on such date) on the date of grant. The term of a stock option or a SAR cannot exceed ten years. Other than with respect to adjusted or substitute awards in connection with certain corporate transactions, the 2013 Plan prohibits amending, or canceling and re-granting, a stock option or a SAR to lower the exercise price or to provide for cancellation of such an award and replacement with a cash payment or taking of any other action with respect to such awards that would be considered a “repricing” for purposes of the shareholder approval rules of any securities exchange on which the ordinary shares of the Company are traded.

SARs entitle the holder to receive ordinary shares with a value equal to the difference between the closing price of the ordinary shares on the NYSE on the exercise date and the fair market value at the time the SARs were granted. Payment is made in ordinary shares. SARs may be granted either independently or in conjunction with stock options.

Stock options and SARs generally vest over a three year period, subject to accelerated vesting upon a change in control or upon termination of employment due to death or disability, and partial vesting upon group termination events. Stock options and SARs terminate within specified periods following the holder’s termination of employment. A holder of stock options or SARs may not exercise them under any circumstances once they have expired.

Shares purchased under a stock option may be paid for in cash (or its equivalent) in full at the time of the exercise or through the cashless exercise method, subject to the Company withholding for the payment of taxes associated with the exercise of stock options.

Stock Awards

The 2013 Plan permits the payment of incentive awards in ordinary shares. A stock award may, but need not, be contingent in whole or in part upon the attainment of certain pre-established performance objectives, as described below. Shares subject to an award may be issued at the time the award is granted, or at any time thereafter, or in installments and may be subject to forfeiture as the Compensation Committee may decide. Since 2009, we have granted RSUs as part of our annual equity grant, which typically vest ratably over three years from the date of grant, subject to accelerated vesting upon a change in control or upon a termination of employment due to death or disability, and partial vesting upon group termination events.

Performance-Based Awards

The 2013 Plan sets forth the following performance criteria that the Compensation Committee may apply to determine the amount of performance-based awards: consolidated earnings before or after taxes (including earnings before interest, taxes, depreciation and amortization), net income, operating income, operating income margin, gross margin, earnings per share, book value per share, return on shareholders' equity, expense management, return on invested capital, improvements in capital structure, profitability of an identifiable business unit or product, maintenance or improvement of profit margins or revenue, stock price, market share, revenues or sales, costs, available cash flow, working capital, return on assets, total shareholder return, productivity ratios and economic value added. In addition, to the extent consistent with Section 162(m) of the Code, the performance criteria may be determined without regard to extraordinary items.

The maximum amount of performance-based awards that may be awarded to a participant during any calendar year cannot exceed: (i) with respect to performance-based awards that are stock options or SARs, 750,000 shares and (ii) with respect to performance-based awards that are not stock options or SARs, $15,000,000 in value on the date of the award. In addition, the Compensation Committee can reduce, but not increase, the amount of any performance-based award payable to a participant as it deems appropriate in its discretion.

Adjustment and Change in Control Provisions

The 2013 Plan provides that in the event of a reorganization, recapitalization, split-up or consolidation of ordinary shares of, or other significant corporate transaction involving the Company, shares subject to a stock incentive shall be equitably adjusted by the Compensation Committee as to number, classification, exercise price or any other affected terms of the applicable award, including, without limitation, affected performance measures or goals applicable to performance-based awards.

Upon a change in control, all outstanding stock options and SARs held by such participant shall become fully vested and exercisable and non-performance based stock awards held by such participant shall become vested and payable. With respect to performance-based awards, other than stock options and SARs, participants shall be deemed to have earned their target award opportunity for the performance periods multiplied by a fraction, the numerator of which is the number of full plus partial months in the performance period that have elapsed prior to the date of the change in control and the denominator of which is the total number of months in the performance period. In addition, the Compensation Committee has authority to take certain actions upon a change in control, including, without limitation, cancellation of awards for fair value or providing for the issuance of substitute awards.

Subject to approval of the 2013 Plan by shareholders, our Compensation Committee intends to adopt equity award agreements under the 2013 Plan that provide that following an involuntary loss of job without cause or a good reason termination that occurs between December 10, 2012 and the first anniversary of the consummation of a Major Restructuring (as defined below) unless the termination is substantially unrelated to the Major Restructuring, the participant will be provided with (i) immediate vesting of unvested stock options and the ability to exercise all vested stock options at any time within the following three-year period or the remaining term of the stock option, if shorter, (ii) immediate vesting of RSUs, except that retirement eligible participants would continue their existing vesting schedule, (iii) prorated payout of outstanding PSUs based on actual performance at the end of performance period following termination of employment, and (iv) the ability to exercise all vested SARs at any time within the following three-year period or the remaining term of the SAR, if shorter. A "Major Restructuring" is defined as a reorganization, recapitalization, extraordinary stock dividend, merger, sale, spin-off or other similar transaction or series of transactions, which individually or in the aggregate, has the effect of resulting in the elimination of all, or the majority of, any one or more of the Company's four business sectors (*i.e.*, Climate Solutions, Residential Solutions, Industrial Technologies and Security Technologies), so long as such transaction or transactions do not constitute a change in control.

Term, Administration and Amendment

The 2013 Plan has a term of ten years and is administered by the Compensation Committee, which is composed of independent directors. In general, the Compensation Committee may exercise all of our authority under the 2013 Plan, including establishing the terms and conditions of awards, except for amending the 2013 Plan (other than amendments the Compensation Committee deems necessary to permit the granting of awards to meet the requirements of the Code or other applicable law either in the United States or in foreign jurisdictions). In addition, all determinations in respect of awards to any executive officer or to non-employee directors are made, based upon the recommendations of the Compensation Committee, a committee consisting of all "non-employee directors" under Rule 16b-3 under the Securities Exchange Act of 1934 and as "outside directors" under Section 162(m) of the Code.

The 2013 Plan may be amended, altered or discontinued by the Board of Directors at any time without shareholder approval. However, no amendment shall be effective without shareholder approval if it (1) increases the total number of shares that may be issued under the 2013 Plan other than through application of the adjustments and change in control provisions of the 2013 Plan as described above, (2) extends the term of the 2013 Plan, (3) materially expands the classes of persons eligible to receive awards or the types of award available under the 2013 Plan or (4) is otherwise an amendment requiring shareholder approval pursuant to any law or the rules of any exchange on which the Company's ordinary shares are listed for trading. No amendment may materially diminish the rights of a participant under any outstanding award without their consent.

U.S. Federal Income Tax Consequences

The following is a brief description of the U.S. Federal income tax consequences generally arising with respect to the grant, exercise and disposition of stock options and other stock-based incentives, based on current U.S. Federal income tax laws. This summary is not intended to be exhaustive, does not constitute tax advice and, among other things, does not describe state, local or foreign tax consequences, all of which may be substantially different.

Section 162(m). Section 162(m) of the Code may limit our ability to deduct certain compensation payable to certain executive officers. This limit does not apply to performance-based awards that satisfy certain conditions. The 2013 Plan is intended to allow us to grant awards that may be exempt from Section 162(m) of the Code because they are performance-based awards.

Stock Options. Generally, the grant of a stock option will create no tax consequences for the participant or for us. Upon exercise of a nonqualified stock option (which all stock options granted under the 2007 Plan have been), the participant will generally recognize ordinary income equal to the excess of the share's fair market value on the exercise date over the stock option exercise price. We generally will be entitled to a tax deduction at the same time and in the same amount. Upon exercise of an incentive stock option (as defined in the Code), no taxable income will be recognized by the participant and we will not be entitled to a tax deduction by reason of such exercise. However, if shares purchased pursuant to the exercise of an incentive stock option are sold within two years from the date of grant or within one year after the transfer of such shares to the participant, then the participant will recognize ordinary income in the year of disposition equal to the difference, with certain adjustments, between the fair market value of the shares at the date of exercise and the stock option exercise price and we will generally be entitled to a tax deduction at the same time and in the same amount. In the event of a sale of shares purchased upon exercise of either a nonqualified stock option or an incentive stock option, any appreciation above or depreciation below the fair market value at the date of exercise will generally qualify as capital gain or loss. If shares purchased upon the exercise of a nonqualified stock option are transferred to the participant subject to restrictions, then, depending upon the nature of the restrictions, the income realized by the participant and our tax deduction may be deferred and measured by the excess of the fair market value of the shares over the stock option price at the time the restrictions lapse.

Restricted Stock Units. A participant generally will not recognize taxable income on the grant of a RSU until shares subject to the award are distributed. At that time, the amount of the ordinary income will be the fair market value of the shares on the date of distribution. Any dividend equivalents paid on the RSUs at vesting are taxable as ordinary income when paid to the participant. Generally, we will be entitled to an income tax deduction at the same time and in the same amount. However, participants may be subject to FICA at the time of grant if "retirement eligible", or, if later, on the date they become "retirement eligible" as defined in the award, to the extent that the award provides for continued vesting after termination of employment when retirement eligible. In the event the RSUs are subject to FICA before vesting, there will be no FICA owed on any dividend equivalents payable upon vesting.

Restricted Stock. Generally, a participant who receives restricted stock will recognize ordinary income at the time that the restricted stock is no longer subject to a substantial risk of forfeiture and we will be entitled to a corresponding income tax deduction at that time. The amount of this ordinary income will be the fair market value of the shares on that date. However, a participant may elect under Section 83(b) of the Code, within 30 days after the grant, to recognize ordinary income on the date of grant in an amount equal to the excess of the fair market value of the shares on that date over the amount, if any, paid for the restricted shares. By reason of such an election, the participant will have a tax basis in the restricted shares equal to the fair market value of the shares (determined without regard to the restriction imposed on the shares under the 2013 Plan) on the date of grant. If the shares are forfeited after an 83(b) election, the participant will not be entitled to a deduction, loss or credit for the ordinary income recognized or the taxes paid in respect of the election, but will generally be entitled to a capital loss for the amount, if any, paid for the restricted shares.

Stock Awards. A participant will recognize taxable income on the grant of unrestricted stock in an amount equal to the fair market value of the shares on the grant date. Subject to certain limitations, we will generally be entitled to a deduction at the same time and in the same amounts as the ordinary income recognized by the participant.

Stock Appreciation Rights (SARs). A participant generally will not recognize taxable income at the time stock-settled SARs are granted but will recognize ordinary income upon the exercise of a stock-settled SAR in an amount equal to the difference between the fair market value of shares received on exercise and the fair market value of shares on the date the SAR was granted. Subject to certain limitations, we will generally be entitled to a deduction at the same time and in the same amounts as the ordinary income recognized by the participant.

Section 409A. Section 409A of the Code may cause certain deferred compensation amounts to be deemed currently taxable and at a rate of income taxation that would be at least 20% higher than would otherwise apply to such amounts, if the conditions specified in Section 409A are not satisfied. It is intended that awards made under the 2013 Plan that are treated as deferred compensation under Section 409A shall be administered in a manner that is compliant with Section 409A.

THE FOREGOING IS ONLY A GENERAL SUMMARY OF THE EFFECT OF U.S. FEDERAL INCOME TAXATION WITH RESPECT TO THE GRANT AND EXERCISE OF AWARDS UNDER THE 2013 PLAN. IT DOES NOT PURPORT TO BE COMPLETE AND THERE MAY BE EXCEPTIONS TO THE TAX CONSEQUENCES DESCRIBED ABOVE BASED UPON INDIVIDUAL CIRCUMSTANCES OR SPECIAL TERMS OF AN AWARD WITH RESPECT TO RETIREMENT.

New Plan Benefits. Awards issued after the Annual General Meeting will be subject to the terms and conditions of the 2013 Plan, if it is approved by our shareholders. Subject to the limits set forth in the 2013 Plan, the number and types of awards that will be granted to any individual or category of individuals under the 2013 Plan are not determinable, as the Compensation Committee, and in the case of director awards, the Board of Directors, will make these determinations in their discretion.

Recommendation. The Board of Directors believes strongly that approval of the adoption of the 2013 Plan is essential to the Company's success. The Company's employees are one of its most valuable assets and equity-based awards such as those provided under the 2013 Plan are vital to the Company's ability to attract and retain outstanding talent and leadership. For the reasons stated above our shareholders are being asked to approve the adoption of the 2013 Plan.

The Board of Directors recommends a vote FOR this proposal to approve the adoption of the 2013 Plan.

Item 5: Amend the Company's Articles of Association to give the Board of Directors Authority to Declare Non-Cash Dividends

It is common for boards of directors of companies listed on the NYSE to have the authority to declare dividends in cash or other assets, including shares of the capital stock of a company subsidiary. Our Articles of Association do not address the authority of our Board of Directors to declare non-cash interim dividends. We are proposing to amend our Articles of Association to expressly provide our Board of Directors with the authority to declare non-cash interim dividends without additional shareholder approval. If approved, the proposed amendment would take effect immediately following shareholder approval.

We have disclosed that we plan to spin off our commercial and residential security businesses into a stand-alone public company. One way to implement this transaction would be to declare a non-cash dividend to our shareholders to be settled with shares of a legal entity that would own the commercial and residential security assets. If shareholders approve the proposed amendment to our Articles of Association, our Board of Directors would be expressly authorized, without the need for shareholder approval, to declare a non-cash dividend to effect a spin-off of the commercial and residential security businesses, as well as any other non-cash dividend that the Board of Directors may determine appropriate in the future. The Board of Directors may decide not to separate the commercial and residential security businesses, whether by means of a non-cash dividend or by other means, regardless of whether the shareholders approve the proposed amendment to our Articles of Association.

Special Resolution

The text of the resolution, which, if thought fit, will be passed as a special resolution at the Annual General Meeting is as follows:

> RESOLVED, that the Company's Articles of Association be and hereby are amended by the insertion into Article 101 of the underlined language below:
>
> 101. Any general meeting declaring a dividend or bonus <u>and any resolution of the Directors declaring an interim dividend</u> may direct payment of such dividend or bonus <u>or interim dividend</u> wholly or partly by the distribution of specific assets and in particular of paid up shares, debentures or debenture stocks of any other company or in any one or more of such ways, and the Directors shall give effect to such resolution, and where any difficulty arises in regard to such distribution, the Directors may settle the same as they think expedient, and in particular may issue fractional certificates and fix the value for distribution of such specific assets or any part thereof and may determine that cash payments shall be made to any members upon the footing of the value so fixed, in order to adjust the rights of all the parties, and may vest any such specific assets in trustees as may seem expedient to the Directors.

The Board of Directors recommends that you vote <u>FOR</u> the proposal to amend the Company's Articles of Association to expressly authorize the Board of Directors to declare non-cash interim dividends without additional shareholder approval.

Item 6: Capital Reduction and Creation of Distributable Reserves

Under Irish law, we must maintain "distributable reserves" in our unconsolidated balance sheet in order to make distributions (*i.e.,* cash or non-cash dividends) to our shareholders, or to buy back or redeem shares. In 2009, following the Scheme of Arrangement pursuant to which we reorganized as an Irish public limited company and undertook a subsequent "reduction of capital" process, we had distributable reserves of approximately $6.5 billion. Our distributable reserves have been reduced to approximately $3.8 billion as of March 31, 2013, primarily as a result of distributions to shareholders through dividends and share buyback programs.

On December 10, 2012, we announced (a) our plan to spin-off our commercial and residential security businesses into a stand-alone public company, (b) the adoption of a new $2 billion share repurchase program and (c) the increase of our dividend by approximately 31%. Each of these actions would, if implemented, reduce the distributable reserves that are available to make future distributions to shareholders. In order to maintain our ability to make distributions to shareholders in the future, we are seeking shareholder approval of this Proposal. To increase our distributable reserves, we propose to reduce our share capital to create a reserve to be treated as distributable reserves. In order to effect a reduction of capital, we must seek the Irish High Court's confirmation of this proposed reduction. If shareholders approve this Proposal, we will seek the Irish High Court's confirmation as soon as practicable. We expect to obtain the Irish High Court's confirmation within three to four weeks of making an application, but it may take substantially longer depending on the court's schedule. The Irish High Court is in summer recess during the months of August and September.

Although we are not aware of any reason why the Irish High Court would not confirm the reduction of capital so as to enable us to create distributable reserves, there is no guarantee of such confirmation. Even if the Irish High Court does confirm the reduction of capital so as to enable us to create distributable reserves, it may take substantially longer than we anticipate.

As a preliminary step before making an application to the Irish High Court, we increased our share capital by revaluing our assets from historic cost value to the market value at the date of the revaluation, which resulted in the creation of a revaluation reserve. We then issued 10 (ten) preferred shares with a nominal value of US$0.001 each to an Irish incorporated special purpose entity (the "Subscriber"). We subsequently used the revaluation reserve to pay up share capital by making a bonus issue of an additional 10 (ten) preferred shares with a nominal value of US$0.001 per share and paid up with a share premium of $775,039,460.492 per share (*i.e.,* an amount equal to one tenth of the sum held to the credit of the revaluation reserve less the nominal value of the preferred share of $0.001) to the Subscriber, the holder of the existing 10 (ten) preferred shares in issue. The 20 (twenty) preferred shares in existence following the bonus issue were subsequently redeemed at their nominal value and cancelled. These steps resulted in an increase in the amount held in our share premium account from $982,834,622 to $8,733,229,227. We propose to reduce our entire share premium account, including the additional $7,750,394,604.92 of share premium created as a result of these steps.

Proxy Statement

Special Resolution

The text of the resolution, which, if thought fit, will be passed as a special resolution at the Annual General Meeting is as follows:

RESOLVED, that subject to and with the consent of the Irish High Court:

(i) the share capital of the Company be reduced by the cancellation of the entire amount standing to the credit of the Company's share premium account, which as at March 31, 2013 was $8,733,229,227 (which amount may be greater as determined in accordance with paragraph (ii) below), the reserve resulting from the cancellation of the share premium to be treated as profits available for distribution as defined by section 45 of Companies (Amendment) Act 1983; and

(ii) the Board of Directors be and are hereby authorized to determine, on behalf of the Company, to proceed to seek the confirmation of the Irish High Court to a reduction of share capital, comprising of the entire amount standing to the credit of the Company's share premium account, which amount may include (in addition to the share premium referred to in paragraph (i) above) any share premium created as a result of the Company issuing shares in the capital of the Company during the period between March 31, 2013 and the date that the Company files the application to seek the approval of the Irish High Court, subject to a maximum additional amount of $100,000,000.

The Board of Directors recommends that you vote <u>FOR</u> the proposal to reduce the share capital of the Company to create distributable reserves.

Item 7: Amend the Company’s Articles of Association to Expand the Authority to Execute Instruments of Transfer

Pursuant to the Irish Companies Acts, we may not record a transfer of shares on our register of members unless an executed instrument of transfer has been delivered to the Company. Our Articles of Association currently provide that our Secretary or Assistant Secretary, as agent for a transferor, may execute and deliver an instrument of transfer on behalf of a transferor and that such an instrument of transfer signed by our Secretary or Assistant Secretary shall be a proper instrument of transfer for the purposes of the Irish Companies Acts. We propose to amend our Articles of Association to provide transferors and the Company with greater efficiency and flexibility in creating the required instruments of transfer by allowing other persons, nominated by the Secretary or Assistant Secretary, to prepare, execute and deliver instruments of transfer on behalf of a transferor.

If approved, the proposed amendment would take effect immediately following shareholder approval.

Special Resolution

The text of the resolution, which, if thought fit, will be passed as a special resolution at the Annual General Meeting is as follows:

RESOLVED, that the Company’s Articles of Association be and hereby are amended by the insertion into Article 13(a) of the underlined language and the deletion from Article 13(a) of the struck through language below:

13. (a) The instrument of transfer of any share may be executed for and on behalf of the transferor by the Secretary ~~or~~, an Assistant Secretary or more person(s) (whether an individual, body corporate, officeholder or firm) that the Secretary or Assistant Secretary nominates for that purpose from time to time (whether in respect of specific transfers or pursuant to a general standing authorisation), and the Secretary ~~or~~, Assistant Secretary or a relevant nominee shall be deemed to have been irrevocably appointed agent for the transferor of such share or shares with full power to execute, complete and deliver in the name of and on behalf of the transferor of such share or shares all such transfers of shares held by the members in the share capital of the Company. Any document which records the name of the transferor, the name of the transferee, the class and number of shares agreed to be transferred and the date of the agreement to transfer shares, shall, once executed by the transferor or the Secretary ~~or~~, Assistant Secretary or a relevant nominee as agent for the transferor, be deemed to be a proper instrument of transfer for the purposes of section 81 of the Act. The transferor shall be deemed to remain the Holder of the share until the name of the transferee is entered on the Register in respect thereof, and neither the title of the transferee nor the title of the transferor shall be affected by any irregularity or invalidity in the proceedings in reference to the sale should the Directors so determine.

The Board of Directors recommends that you vote FOR the proposal to amend the Company’s Articles of Association to expand the authority to execute an instrument of transfer.

Item 8: Amend the Company's Articles of Association to Provide for Escheatment in Accordance with U.S. Laws

Ingersoll-Rand plc is an Irish company and our Articles of Association are those of an Irish company. We are, however, listed on the NYSE and subject to regulation by the SEC. Accordingly, we are subject to U.S. laws relating to unclaimed property. Property becomes unclaimed property when its owner cannot be located after a designated period of time. Our stock transfer agent maintains information regarding addresses of our registered members and is often responsible for disseminating shareholder communications as well as dividend payments. For various reasons, transfer agents occasionally have outdated or incorrect addresses for some shareholders. As a result, these shareholders do not receive dividend and other payments to which they are entitled. Pursuant to SEC regulations, our transfer agent is required to conduct searches to try to locate lost shareholders and to file information regarding lost shareholders with the SEC. If the transfer agent is unable to locate a shareholder prior to the expiration of the applicable U.S. state's escheat period, the issuer must turn over that shareholder's assets to the applicable state's unclaimed property administrator. The "applicable state" is usually the last known state of residence of the shareholder. Given that over 90% of our shareholders are resident in the U.S., it is reasonably likely that we will be called upon to comply with U.S. laws relating to unclaimed property.

This proposed amendment to our Articles of Association is intended to harmonize our obligations under Irish law with our obligations under U.S. law and explicitly acknowledges our obligation to comply with U.S. laws relating to unclaimed property. If approved, the proposed amendment would take effect immediately following shareholder approval.

Special Resolution

The text of the resolution, which, if thought fit, will be passed as a special resolution at the Annual General Meeting is as follows:

RESOLVED, that the Company's Articles of Association be and hereby are amended by the insertion into Article 118 of the following new sub-paragraphs (c), (d) and (e) following the existing sub-paragraph (b):

(c) To the extent necessary in order to comply with any laws or regulations to which the Company is subject in relation to escheatment, abandonment of property or other similar or analogous laws or regulations ("Applicable Escheatment Laws"), the Company may deal with any share of any member and any unclaimed cash payments relating to such share in any manner which it sees fit, including (but not limited to) transferring or selling such share and transferring to third parties any unclaimed cash payments relating to such share.

(d) The Company may only exercise the powers granted to it in sub-paragraph (a) above in circumstances where it has complied with, or procured compliance with, the required procedures (as set out in the Applicable Escheatment Laws) with respect to attempting to identify and locate the relevant member of the Company.

(e) Any stock transfer form to be executed by the Company in order to sell or transfer a share pursuant to sub-paragraph (a) may be executed in accordance with Article 13(a).

The Board of Directors recommends that you vote FOR the proposal to amend the Company's Articles of Association to provide for escheatment in accordance with U.S. laws.

CORPORATE GOVERNANCE

Corporate Governance Guidelines

Our Corporate Governance Guidelines, together with the charters of the various Board committees, provide a framework for the corporate governance of the Company. The following is a summary of our Corporate Governance Guidelines. A copy of our Corporate Governance Guidelines, as well as the charters of each of our Board committees, are available on our website at *www.ingersollrand.com* under the heading "Investor Relations – Corporate Governance."

Role of the Board of Directors

The Company's business is managed under the direction of the Board of Directors. The role of the Board of Directors is to oversee the management and governance of the Company and monitor senior management's performance.

Board Responsibilities

The Board of Directors' core responsibilities include:

- selecting, monitoring, evaluating and compensating senior management;
- assuring that management succession planning is ongoing;
- reviewing the Company's financial controls and reporting systems;
- overseeing the Company's management of enterprise risk;
- reviewing the Company's ethical standards and compliance procedures; and
- evaluating the performance of the Board of Directors, Board committees and individual directors.

Board Leadership Structure

The positions of Chairman of the Board and CEO at the Company are held by the same person, except in unusual circumstances, such as during a CEO transition. This policy has worked well for the Company. It is the Board of Directors' view that the Company's corporate governance principles, the quality, stature and substantive business knowledge of the members of the Board, as well as the Board's culture of open communication with the CEO and senior management are conducive to Board effectiveness with a combined Chairman and CEO position.

In addition, the Board of Directors has a strong, independent Lead Director and it believes this role adequately addresses the need for independent leadership and an organizational structure for the independent directors. The Board of Directors appoints a Lead Director for a three-year minimum term from among the Board's independent directors. The Lead Director coordinates the activities of all of the Board's independent directors. The Lead Director is the principal confidant to the CEO and ensures that the Board of Directors has an open, trustful relationship with the Company's senior management team. In addition to the duties of all directors, as set forth in the Company's Governance Guidelines, the specific responsibilities of the Lead Director are as follows:

- Chair the meetings of the independent directors when the Chairman is not present;
- Ensure the full participation and engagement of all Board members in deliberations;
- Lead the Board of Directors in all deliberations involving the CEO's employment, including hiring, contract negotiations, performance evaluations, and dismissal;
- Counsel the Chairman on issues of interest/concern to directors and encourage all directors to engage the Chairman with their interests and concerns;
- Work with the Chairman to develop an appropriate schedule of Board meetings and approve such schedule, to ensure that the directors have sufficient time for discussion of all agenda items, while not interfering with the flow of Company operations;
- Work with the Chairman to develop the Board and Committee agendas and approve the final agendas;
- Keep abreast of key Company activities and advise the Chairman as to the quality, quantity and timeliness of the flow of information from Company management that is necessary for the directors to effectively and responsibly perform their duties; although Company management is responsible for the preparation of materials for the Board of Directors, the Lead Director will approve information provided to the Board and may specifically request the inclusion of certain material;
- Engage consultants who report directly to the Board of Directors and assist in recommending consultants that work directly for Board Committees;

- Work in conjunction with the Corporate Governance and Nominating Committee in compliance with Governance Committee processes to interview all Board candidates and make recommendations to the Board of Directors;
- Assist the Board of Directors and Company officers in assuring compliance with and implementation of the Company's Governance Guidelines; work in conjunction with the Corporate Governance Committee to recommend revisions to the Governance Guidelines;
- Call, coordinate and develop the agenda for and chair executive sessions of the Board's independent directors; act as principal liaison between the independent directors and the CEO;
- Work in conjunction with the Corporate Governance and Nominating Committee to identify for appointment the members of the various Board Committees, as well as selection of the Committee chairs;
- Be available for consultation and direct communication with major shareholders;
- Make a commitment to serve in the role of Lead Director for a minimum of three years; and
- Help set the tone for the highest standards of ethics and integrity.

Mr. Swift has been the Company's Lead Director since January 2010.

Board Risk Oversight

The Board of Directors has oversight responsibility of the processes established to report and monitor systems for material risks applicable to the Company. The Board of Directors focuses on the Company's general risk management strategy and the most significant risks facing the Company and ensures that appropriate risk mitigation strategies are implemented by management. The full Board is responsible for considering strategic risks and succession planning and, at each Board meeting, receives reports from each Committee as to risk oversight within their areas of responsibility. The Board of Directors has delegated to its various committees the oversight of risk management practices for categories of risk relevant to their functions as follows:

- The Audit Committee oversees risks associated with the Company's systems of disclosure controls and internal controls over financial reporting, as well as the Company's compliance with legal and regulatory requirements.
- The Compensation Committee considers risks related to the attraction and retention of talent and risks related to the design of compensation programs and arrangements.
- The Corporate Governance and Nominating Committee oversees risks associated with sustainability.
- The Finance Committee oversees risks associated with foreign exchange, insurance, credit and debt.

The Company has appointed the Chief Financial Officer as its Chief Risk Officer and, in that role, the Chief Risk Officer periodically reports on risk management policies and practices to the relevant Board Committee or to the full Board so that any decisions can be made as to any required changes in the Company's risk management and mitigation strategies or in the Board's oversight of these.

Finally, as part of its oversight of the Company's executive compensation program, the Compensation Committee considers the impact of the Company's executive compensation program and the incentives created by the compensation awards that it administers on the Company's risk profile. In addition, the Company reviews all of its compensation policies and procedures, including the incentives that they create and factors that may reduce the likelihood of excessive risk taking, to determine whether they present a significant risk to the Company. Based on this review, the Company has concluded that its compensation policies and procedures are not reasonably likely to have a material adverse effect on the Company.

Director Compensation and Stock Ownership

It is the policy of the Board of Directors that directors' fees be the sole compensation received from the Company by any non-employee director. The Company has a share ownership requirement of 10,000 ordinary shares for all non-employee directors. Directors are required to spend at least $50,000 annually to purchase ordinary shares until they reach the 10,000 share ownership level.

Board Size and Composition

The Board of Directors consists of a substantial majority of independent, non-employee directors. In addition, our Corporate Governance Guidelines require that all members of the committees of the Board must be independent directors. The Board of Directors has the following four standing committees: Audit Committee, Compensation Committee, Corporate Governance and Nominating Committee, and Finance Committee. The Board of Directors has determined that each member of each of these committees is "independent" as defined in the NYSE listing standards and the Company's Guidelines for Determining Independence of Directors. Committee memberships and chairs are rotated periodically.

Board Diversity

The Company's policy on Board diversity relates to the selection of nominees for the Board of Directors. In selecting a nominee for the Board, the Corporate Governance and Nominating Committee considers the skills, expertise and background that would complement the existing Board and ensure that its members are of sufficiently diverse and independent backgrounds, recognizing that the Company's businesses and operations are diverse and global in nature. The Board of Directors has two female directors, one African-American director and one Hispanic director out of a total of 12 directors.

Board Advisors

The Board of Directors and its committees may, under their respective charters, retain their own advisors to carry out their responsibilities.

Executive Sessions

The Company's independent directors meet privately in regularly scheduled executive sessions, without management present, to consider such matters as the independent directors deem appropriate. These executive sessions are required to be held no less than twice each year.

Board Evaluation

The Corporate Governance and Nominating Committee assists the Board in evaluating its performance and the performance of the Board committees. Each committee also conducts an annual self-evaluation. The effectiveness of individual directors is considered each year when the directors stand for re-nomination.

Director Orientation and Education

The Company has developed an orientation program for new directors and provides continuing education for all directors. In addition, the directors are given full access to management and corporate staff as a means of providing additional information.

Director Nomination Process

The Corporate Governance and Nominating Committee reviews the composition of the full Board to identify the qualifications and areas of expertise needed to further enhance the composition of the Board, makes recommendations to the Board concerning the appropriate size and needs of the Board and, on its own or with the assistance of management, a search firm or others, identifies candidates with those qualifications. In considering candidates, the Corporate Governance and Nominating Committee will take into account all factors it considers appropriate, including breadth of experience, understanding of business and financial issues, ability to exercise sound judgment, diversity, leadership, and achievements and experience in matters affecting business and industry. The Corporate Governance and Nominating Committee considers the entirety of each candidate's credentials and believes that at a minimum each nominee should satisfy the following criteria: highest character and integrity, experience and understanding of strategy and policy-setting, sufficient time to devote to Board matters, and no conflict of interest that would interfere with performance as a director. Shareholders may recommend candidates for consideration for Board membership by sending the recommendation to the Corporate Governance and Nominating Committee, in care of the Secretary of the Company. Candidates recommended by shareholders are evaluated in the same manner as director candidates identified by any other means.

Director Independence

The Board of Directors has determined that all of our current directors, except M.W. Lamach, who is an employee of the Company, are independent under the standards set forth in Exhibit I to our Corporate Governance Guidelines, which are consistent with the NYSE listing standards. In determining the independence of directors, the Board evaluated transactions between the Company and entities with which directors were affiliated that occurred in the ordinary course of business and that were provided on the same terms and conditions available to other customers. A copy of Exhibit I to our Corporate Governance Guidelines is available on our website, *www.ingersollrand.com*, under the heading "Investor Relations—Corporate Governance."

Communications with Directors

Shareholders and other interested parties wishing to communicate with the Board of Directors, the non-employee directors or any individual director (including our Lead Director and Compensation Committee Chair) may do so either by sending a communication to the Board and/or a particular Board member, in care of the Secretary of the Company, or by e-mail at *irboard@irco.com*. Depending upon the nature of the communication and to whom it is directed, the Secretary will: (a) forward the communication to the appropriate director or directors; (b) forward the communication to the relevant department within the Company; or (c) attempt to handle the matter directly (for example, a communication dealing with a share ownership matter).

Code of Conduct

The Company has adopted a worldwide Code of Conduct, applicable to all employees, directors and officers, including our Chief Executive Officer, our Chief Financial Officer and our Controller. The Code of Conduct meets the requirements of a "code of ethics" as defined by Item 406 of Regulation S-K, as well as the requirements of a "code of business conduct and ethics" under the NYSE listing standards. The Code of Conduct covers topics including, but not limited to, conflicts of interest, confidentiality of information, and compliance with laws and regulations. A copy of the Code of Conduct is available on our website located at *www.ingersollrand.com* under the heading "Investor Relations—Corporate Governance." Amendments to, or waivers of the provisions of, the Code of Conduct, if any, made with respect to any of our directors and executive officers will be posted on our website.

Anti-Hedging Policy and Other Restrictions

The Company prohibits its directors and executive officers from (i) purchasing any financial instruments designed to hedge or offset any decrease in the market value of Company securities and (ii) engaging in any form of short-term speculative trading in Company securities. Directors and executive officers are also prohibited from holding Company securities in a margin account or pledging Company securities as collateral for a loan unless the Senior Vice President and General Counsel provides pre-clearance after the director or executive officer clearly demonstrates the financial capability to repay the loan without resort to the pledged securities.

Committees of the Board

Audit Committee

Members: Richard J. Swift (Chair)
Ann C. Berzin
Peter C. Godsoe
Edward E. Hagenlocker
Theodore E. Martin
John P. Surma

Key Functions:

- Review annual audited and quarterly financial statements, as well as the Company's disclosures under "Management's Discussion and Analysis of Financial Conditions and Results of Operations," with management and the independent auditors.
- Obtain and review periodic reports, at least annually, from management assessing the effectiveness of the Company's internal controls and procedures for financial reporting.
- Review the Company's processes to assure compliance with all applicable laws, regulations and corporate policy.
- Recommend the public accounting firm to be proposed for appointment by the shareholders as our independent auditors and review the performance of the independent auditors.
- Review the scope of the audit and the findings and approve the fees of the independent auditors.
- Approve in advance permitted audit and non-audit services to be performed by the independent auditors.
- Satisfy itself as to the independence of the independent auditors and ensure receipt of their annual independence statement.

The Board of Directors has determined that each member of the Audit Committee is "independent" for purposes of the applicable rules and regulations of the SEC, as defined in the NYSE listing standards and the Company's Corporate Governance Guidelines and has determined that each member of the Audit Committee meets the qualifications of an "audit committee financial expert," as that term is defined by rules of the SEC.

A copy of the charter of the Audit Committee is available on our website, *www.ingersollrand.com*, under the heading "Investor Relations—Corporate Governance."

Compensation Committee

Members: Tony L. White (Chair)
John Bruton
Jared L. Cohon
Gary D. Forsee
Constance J. Horner

Key Functions:

- Establish executive compensation policies.
- Review and approve the goals and objectives relevant to the compensation of the Chief Executive Officer, evaluate the Chief Executive Officer's performance against those goals and objectives and set the Chief Executive Officer's compensation level based on this evaluation.
- Approve compensation of officers and key employees.
- Review and approve executive compensation and benefit programs.
- Administer the Company's equity compensation plans.
- Review and recommend significant changes in principal employee benefit programs.
- Approve and oversee Compensation Committee consultants.

For a discussion concerning the processes and procedures for determining executive and director compensation and the role of executive officers and compensation consultants in determining or recommending the amount or form of compensation, see "Compensation Discussion and Analysis" and "Compensation of Directors," respectively.

The Board of Directors has determined that each member of the Compensation Committee is "independent" as defined in the NYSE listing standards and the Company's Corporate Governance Guidelines. In addition, the Board of Directors has determined that each member of the Compensation Committee qualifies as a "Non-Employee Director" within the meaning of Rule 16b-3 of the Securities Exchange Act of 1934 and an "outside director" within the meaning of Section 162(m) of the Code.

A copy of the charter of the Compensation Committee is available on our website, *www.ingersollrand.com*, under the heading "Investor Relations—Corporate Governance."

Corporate Governance and Nominating Committee

Members: Gary D. Forsee (Chair)
John Bruton
Jared L. Cohon
Constance J. Horner
Nelson Peltz
Tony L. White

Key Functions:

- Identify individuals qualified to become directors and recommend the candidates for all directorships.
- Recommend individuals for election as officers.
- Review the Company's Corporate Governance Guidelines and make recommendations for changes.
- Consider questions of independence and possible conflicts of interest of directors and executive officers.
- Take a leadership role in shaping the corporate governance of the Company.
- Oversee the Company's sustainability efforts.

The Board of Directors has determined that each member of the Corporate Governance and Nominating Committee is "independent" as defined in the NYSE listing standards and the Company's Corporate Governance Guidelines.

A copy of the charter of the Corporate Governance and Nominating Committee is available on our website, *www.ingersollrand.com*, under the heading "Investor Relations—Corporate Governance."

Finance Committee

Members:	Peter C. Godsoe (Chair) Ann C. Berzin Edward E. Hagenlocker Theodore E. Martin Nelson Peltz John P. Surma Richard J. Swift

Key Functions:

- Review proposed borrowings and issuances of securities.
- Recommend to the Board of Directors the dividends to be paid on our ordinary shares.
- Review cash management policies.
- Review periodic reports of the investment performance of the Company's employee benefit plans.

The Board of Directors has determined that each member of the Finance Committee is "independent" as defined in the NYSE listing standards and the Company's Corporate Governance Guidelines.

A copy of the charter of the Finance Committee is available on our website, *www.ingersollrand.com*, under the heading "Investor Relations—Corporate Governance."

Board, Committee and Annual Meeting Attendance

The Board of Directors and its committees held the following number of meetings during the fiscal year ended December 31, 2012:

Board	11
Audit Committee	9
Compensation Committee	7
Corporate Governance and Nominating Committee	5
Finance Committee	6

Each incumbent director attended 92% or more of the total number of meetings of the Board of Directors and the committees on which he or she served during the year. The Company's non-employee directors held six independent director meetings without management present during the fiscal year 2012. It is the Board's general practice to hold independent director meetings in connection with regularly scheduled Board meetings.

The Company expects all Board members to attend the annual general meeting, but from time to time other commitments prevent all directors from attending the meeting. All of the directors attended the most recent annual general meeting of shareholders, which was held on June 7, 2012, other than Mr. Hagenlocker, who was unable to attend due to a family matter, and Messrs. Peltz and Surma, who were not directors at that time.

Compensation of Directors

Director Compensation

Our director compensation program is designed to compensate non-employee directors fairly for work required for a company of our size and scope and align their interests with the long-term interests of our shareholders. The program reflects our desire to attract, retain and use the expertise of highly qualified people serving on the Company's Board of Directors. The Corporate Governance and Nominating Committee periodically reviews the compensation level of our non-employee directors in consultation with the Committee's independent compensation consultant and makes recommendations to the Board of Directors. Employee directors do not receive any additional compensation for serving as a director.

Our director compensation program for non-employee directors consists of the following elements:

Compensation Element	Compensation Value	
Annual Cash Retainer	$	240,000
Audit Committee Chair Cash Retainer	$	30,000
Compensation Committee Chair Cash Retainer	$	15,000
Corporate Governance and Nominating Committee Chair and Finance Committee Chair Cash Retainer	$	10,000
Audit Committee Member Cash Retainer (other than Chair)	$	7,500
Lead Director Cash Retainer	$	50,000
Additional Meetings or Unscheduled Planning Session Fees *	$	2,500 (per meeting or session)

* The Board and each Committee, other than Audit, has 6 regularly scheduled meetings each year. The Audit Committee has 9 regularly scheduled meetings each year.

In addition, non-employee directors are eligible to receive a tax equalization payment if the Irish income taxes owed on their director compensation exceed the income taxes owed on such compensation in their country of residence. Without these tax equalization payments, a director would be subject to double taxation since they are already paying taxes on their director income in their country of residence. We believe these tax equalization payments are appropriate to ensure our ability to continue to attract highly qualified persons who do not reside in Ireland. In 2012, seven non-employee directors received a tax equalization payment for the year 2011.

Share Ownership Requirement

To align the interests of directors with shareholders, the Board of Directors has adopted a requirement that each director invest $50,000 annually to acquire Company shares until they own 10,000 shares. In setting the share ownership requirement, the Board of Directors considered the input of the independent compensation consultant, the Company's current stock price and the period of time it would take a director to reach the required ownership level based on a $50,000 per year investment.

2012 Director Compensation

The compensation paid or credited to our non-employee directors for the year ended December 31, 2012, is summarized in the table below. Mr. Surma did not serve as a director in 2012.

Name	Fees earned or paid in cash ($)(a)	All Other Compensation ($)(b)	Total ($)
A. C. Berzin	250,000	175,752	425,752
J. Bruton	242,500	—	242,500
J. L. Cohon	242,500	7,485	249,985
G. D. Forsee	252,500	35,202	287,702
P. C. Godsoe	260,000	—	260,000
E. E. Hagenlocker	250,000	35,635	285,635
C. J. Horner	242,500	48,204	290,704
T. E. Martin	250,000	11,563	261,563
N. Peltz (c)	92,500	—	92,500
R. J. Swift	322,500	36,165	358,665
T. L. White	257,500	—	257,500

(a) The amounts in this column represent the following annual cash retainer, the Committee Chair retainers, the Audit Committee member retainer, the Lead Director retainer, and the Board, Committee and other meeting or session fees:

Name	Cash Retainer ($)	Committee Chair Retainer ($)	Audit Committee Member Retainer ($)	Lead Director Retainer Fees ($)	Board, Committee and Other Meeting or Session Fees ($)
A. C. Berzin	240,000	—	7,500	—	2,500
J. Bruton	240,000	—	—	—	2,500
J. L. Cohon	240,000	—	—	—	2,500
G. D. Forsee	240,000	10,000	—	—	2,500
P. C. Godsoe	240,000	10,000	7,500	—	2,500
E. E. Hagenlocker	240,000	—	7,500	—	2,500
C. J. Horner	240,000	—	—	—	2,500
T. E. Martin	240,000	—	7,500	—	2,500
N. Peltz	90,000	—	—	—	2,500
R. J. Swift	240,000	30,000	—	50,000	2,500
T. L. White	240,000	15,000	—	—	2,500

(b) Represents tax equalization payments made in 2012.

(c) Fees earned by Mr. Peltz are paid to Trian Fund Management, L.P. (“Trian”).

For each non-employee director at December 31, 2012, the following table reflects unexercised stock options, all of which are vested:

Name	Number of stock options
A. C. Berzin	—
J. Bruton	—
J. L. Cohon	40,608
G. D. Forsee	—
P. C. Godsoe	—
E. E. Hagenlocker	29,420
C. J. Horner	—
T. E. Martin	—
N. Peltz	—
R. J. Swift	—
T. L. White	4,500

COMPENSATION DISCUSSION AND ANALYSIS

The compensation discussion and analysis set forth below provides an overview of our compensation programs, including the philosophy and objectives of such programs, as well as a discussion of how awards are determined for our named executive officers ("NEOs"). The NEOs for the 2012 performance period are:

(i) Mr. Michael W. Lamach, our Chairman, President and Chief Executive Officer ("CEO");
(ii) Mr. Steven R. Shawley, our Senior Vice President and Chief Financial Officer ("CFO");
(iii) Ms. Marcia J. Avedon, our Senior Vice President, Human Resources and Communication;
(iv) Mr. Gary S. Michel, our Senior Vice President and President, Residential Solutions sector; and
(v) Mr. Didier P. M. Teirlinck, our Senior Vice President and President, Climate Solutions sector.

This discussion and analysis is divided into the following sections:

I. Executive Summary
II. Compensation Philosophy and Design Principles
III. Factors Considered in the Determination of Target Total Direct Compensation
IV. Role of the Compensation Committee, Independent Advisor and Committee Actions
V. Compensation Program Descriptions and Compensation Decisions
VI. Other Compensation and Tax Matters

I. Executive Summary

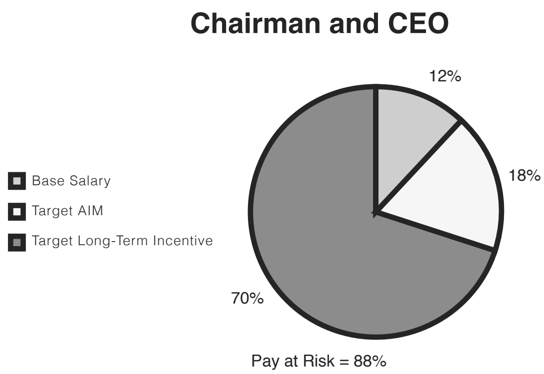
Our executive compensation programs are designed to enable us to attract, retain and focus the talents and energies of executives who are capable of meeting the Company's current and future goals, most notably, the creation of sustainable shareholder value. We have structured our executive compensation programs based on the principles of (i) program competitiveness, (ii) pay for performance, (iii) appropriate mix of short and long-term incentives, (iv) internal parity, (v) shareholder alignment and (vi) alignment with business strategies.

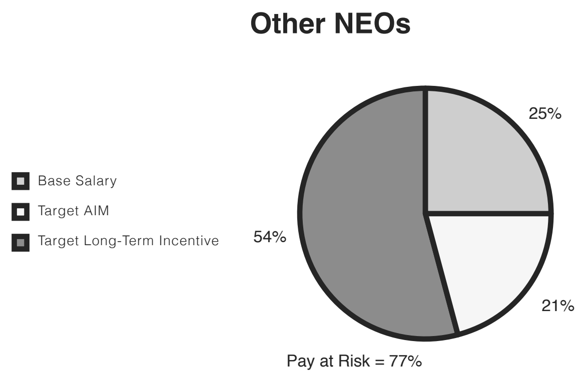
Consistent with these principles, the Compensation Committee has adopted executive compensation programs with a strong link between pay and achievement of short and long-term Company goals. The primary elements of the executive compensation programs are:

Total Direct Compensation

Element	*Objective of Element*
Base Salary	Fixed cash compensation.
Annual Incentive *(the Annual Incentive Matrix or "AIM")*	Cash incentive compensation where any award is based on performance against pre-defined annual Operating Income ("OI") margin percent, revenue ("Revenue") and cash flow ("Cash Flow") objectives as well as individual performance.
Long-Term Incentives	Performance-based long-term incentive compensation that is aligned with the Company's stock price and is awarded in the form of stock options, RSUs and PSUs. PSUs are only payable if the Company's earnings per share ("EPS") and total shareholder return ("TSR") relative to companies in the S&P 500 Industrials Index exceed threshold performance against pre-defined objectives.

As illustrated in the charts below, the Compensation Committee places significant emphasis on variable compensation so that a substantial percentage of each NEO's total direct compensation is contingent on the successful achievement of the Company's short and long-term goals.





2012 Results

In a year with a challenging business environment, we achieved solid financial performance in the key operating metrics that are aligned with our business strategy. In particular, we achieved the following results in 2012:

- Adjusted annual Revenue of $14.035 billion, an increase of 0.09% over 2011;
- Adjusted OI margin of 10.8%, an increase of 0.2 percentage points from 10.6% in 2011;
- Adjusted Available Cash Flow of 111.5% of after-tax income;
- Adjusted EPS of $3.29, an increase of 22.76% over 2011;
- Relative 3-year EPS growth (2010 - 2012) of 138.41%, which ranks at approximately the 75th percentile of the companies in the S&P 500 Industrials Index; and
- TSR of 59.5%.

Based on our 2012 results for Revenue, OI margin percent and Cash Flow, we acheived an AIM financial score of 77.94% of target for the enterprise. For Climate Solutions and Residential Solutions, two of our four sectors whose presidents were NEOs in 2012, we achieved an AIM financial score of 0.00% and 132.96% of target, respectively, based on achievement of sector and enterprise objectives. The AIM financial scores for our other two sectors, Industrial Technologies and Security Technologies, were 82.29% and 96.81%, respectively.

As a result of our achievement of an EPS growth rate which ranks at approximately the 75th percentile of the companies in the S&P 500 Industrials Index for the 2010 to 2012 performance period, PSUs under our Performance Share Program ("PSP") paid out at 199% of target. This relative EPS growth rate was an improvement from the 2009 to 2011 performance period when results produced a 0% payout.

2012 Compensation Committee Actions

The Compensation Committee took the following actions in 2012:

- Changed the peer group used for executive compensation benchmarking, focusing on a group of companies that align with our revenue size and/or industry fit as well as appropriately reflecting the market in which we compete for both business and talent.
- In connection with the announcement of our intention to spin-off our residential and commercial security businesses, approved amendments to new and outstanding equity awards and adopted a severance plan designed to retain executive leadership critical to the execution of the planned spin-off and ensure continued focus on running the business during the transition period following the announcement (for a description of these changes, please see Severance Arrangements under Section VI).
- Recommended a new qualified retirement plan design for salaried and non-union employees and approved corresponding changes to the nonqualified defined contribution and defined benefit retirement plans (for a description of these changes, please see Retirement Programs and Other Benefits under Section VI).

Consideration of 2012 Advisory Vote on Executive Compensation

The Compensation Committee annually reviews the philosophy, objectives and elements of our executive compensation programs in relation to our short and long-term business objectives. In undertaking this review, the Compensation Committee considers the views of shareholders as reflected in their annual advisory vote on our executive compensation proposal. At our 2012 annual general meeting, shareholders approved our executive compensation proposal by a substantial majority (84.2%). Based on the Compensation Committee's review and the support our executive compensation programs received from shareholders, the Compensation Committee maintained the core elements of our total direct compensation programs.

II. Compensation Philosophy and Design Principles

The objective of our executive compensation programs is to enable us to attract, retain and focus the talents and energies of executives who are capable of meeting the Company's current and future goals, most notably the creation of sustainable shareholder value. Our compensation programs and decisions are driven by these objectives. As we operate in an ever-changing environment that is impacted by economic, technological, regulatory and competitive factors, our Compensation Committee considers these and other factors in its process of determining the type of compensation and benefit programs to offer, as well as setting specific performance targets for incentive awards.

The design principles that govern our executive compensation programs are:

1. Program competitiveness

Total direct compensation opportunities must serve to attract and retain high performing executives. All of our executive compensation program targets are established using relevant market data to ensure their competitiveness. In aggregate, we structure our target total direct compensation at the 50th percentile of the markets in which we compete for talent. However, each NEO's target total direct compensation may be above or below the 50th percentile based on his or her experience and proficiency in performing the duties of his or her position.

2. Pay for performance

A substantial percentage of each NEO's total direct compensation opportunity is contingent on, and variable with, performance. Performance is measured against and contingent on:

(a) Multiple metrics that measure actual annual sector and/or enterprise financial performance against pre-established objectives (through our AIM program);

(b) EPS growth and TSR over a three-year period relative to companies in the S&P 500 Industrials Index (through our PSP program);

(c) Stock price appreciation through stock options, RSUs and PSUs awarded under our long-term incentive program; and

(d) Each NEO's demonstrated ability to achieve Company financial objectives, develop and carry out strategic initiatives, contribute to both the growth and operational excellence of the Company and lead in a way that is consistent with our 2012 core competencies: modeling our values, inspiring our people, focusing on our customers, creating long-term value for our shareholders and delivering premier performance.

Total direct compensation can exceed the target award level if performance exceeds the target. Conversely, if performance falls short of the target, total direct compensation can be below the target award level.

3. Appropriate mix of short and long-term incentives

We believe that an appropriate mix between short and long-term incentives is important to encourage our NEOs to engage in strategies and make decisions that balance the need to meet our Annual Operating Plan ("AOP") objectives with the long-term interests of the Company and its shareholders. The mix of pay, including short and long-term incentives, is determined by considering the Company's pay for performance compensation philosophy and strategic objectives in addition to competitive market practice.

4. Internal parity

Each NEO's total direct compensation opportunity is proportionate with the responsibility, scope and complexity of his or her role within the Company. Thus, similar jobs are assigned similar compensation opportunities.

5. Shareholder alignment

We have designed our executive compensation programs to align the interests of our NEOs with the interests of our shareholders by rewarding the achievement of Revenue, EPS, TSR, Cash Flow, OI margin and other financial targets, as well as operational excellence and sustained individual performance. The value of the variable compensation components (*i.e.*, AIM plus equity-based awards) is directly linked to our financial performance and to the value created for our shareholders. Thus, we believe these incentive compensation programs provide clear alignment between the interests of our shareholders and our NEOs.

6. Alignment with business strategies

Our executive compensation programs are structured to be flexible in recognizing that individuals within sectors must focus on specific financial measures to meet the short and long-term plans of the sector for which they are accountable. This principle, in conjunction with the design principles described above, directly influences the target award levels for sector leaders. Thus, it is not only possible but also desirable for certain sector leaders to earn substantial awards in years when their sector outperforms the Company as a whole. Conversely, if a sector fails to meet its performance goals, that sector's leader may earn a lesser award in that year than his or her peers in a sector that met or exceeded its goals.

III. Factors Considered in the Determination of Target Total Direct Compensation

Our Compensation Committee reviews and evaluates the executive compensation levels and practices against those companies with which we compete for executive talent. These reviews are conducted throughout the year using a variety of methods such as: (i) the direct analysis of the proxy statements of other diversified industrial companies (refer to peer group below), (ii) a review of compensation survey data of other industrial companies of similar size published by independent consulting firms, (iii) a review of customized compensation survey data provided by independent consulting firms, and (iv) feedback received from external constituencies. The Compensation Committee does not rely on a single source of information when making executive compensation decisions. Many of the companies included in these compensation surveys are also included in the S&P 500 Industrials Index referred to in our 2012 Form 10-K under the caption “Performance Graph.”

The Compensation Committee, with the assistance of its independent advisor, develops a peer group that it uses to evaluate executive compensation programs and levels. The peer group is comprised of global diversified companies that have comparable revenue and/or industry fit with our lines of business and are companies with which we compete for both business and talent. In 2012, the Compensation Committee requested that its independent compensation advisor undertake a review of the peer group to determine if any modifications should be made to ensure continued alignment with the Compensation Committee’s design principles. Based on this assessment the following peer group was adopted in August 2012:

3M	Eaton Corp	Johnson Controls Inc.	*Pentair*
Cummins, Inc.	Emerson Electric	Paccar Inc.	*Stanley Black & Decker*
Danaher Corp	Honeywell International	Parker Hannifin Corp	Textron
Dover	Illinois Tool Works	PPG Industries	Tyco International

The companies whose names are in italics were added in 2012. DuPont and United Technologies were removed from the peer group because their revenue size was significantly greater than ours and ITT Industries was removed because, following its spin-off, its revenue size was significantly less. Raytheon was removed due to insufficient industry alignment and the fact that a significant portion of its revenue, unlike ours, is derived from government contracts.

Our Compensation Committee will continue to review the appropriateness of our peer group and make changes if our size or lines of business change, or if the companies within our peer group change their businesses or operations.

In addition, the Compensation Committee annually reviews tally sheets on the NEOs in order to understand fully all elements of current and potential future compensation when making compensation decisions. These tally sheets contain the following items: base salary, current short and long-term incentive award opportunities, and benefits that would be payable under various types of separation from service, such as in the context of a change in control, termination without cause or retirement.

IV. Role of the Compensation Committee, Independent Advisor and Committee Actions

Our Compensation Committee, which is composed solely of independent directors, oversees our compensation plans and policies, administers our equity-based programs and reviews and approves all forms of compensation relating to our officers, including the NEOs.

The Compensation Committee exclusively decides which compensation elements and the amounts to be awarded to our CEO. Our CEO does not make any recommendations regarding his own compensation and is not informed of these awards until the decisions have been finalized. Our CEO makes compensation recommendations related to our other NEOs. The Compensation Committee considers these recommendations when approving the compensation elements and amounts to be awarded to our other NEOs.

Our Compensation Committee is responsible for reviewing and approving amendments to our executive compensation and benefit plans. In addition, our Compensation Committee is responsible for reviewing our broad-based employee benefit plans and making recommendations to our Board of Directors for significant amendments to, or termination of, such plans. The Compensation Committee’s duties are described in the Compensation Committee Charter, which is available on our website at *www.ingersollrand.com*.

Our Compensation Committee has the authority to retain an independent advisor for the purpose of reviewing and providing guidance related to our executive compensation and benefit programs. The Compensation Committee is directly responsible for the compensation and oversight of the independent advisor. For 2012, the Compensation Committee engaged Hay Group, Inc. (“Hay Group”) to serve as its independent advisor. Hay Group also provided the Corporate Governance and Nominating Committee advice on director compensation matters. The Compensation Committee has determined that Hay Group is independent and does not have a conflict of interest because (a) Hay Group did not perform any other services for the Company, (b) the fees received by Hay Group for its services for the Compensation and Corporate Governance and Nominating Committees were nominal as a percentage of Hay Group’s total revenues, (c) Hay Group has adopted policies and procedures that are designed to prevent conflicts of interest, (d) neither any member of the Compensation Committee nor any executive officer has a business or personal relationship with Hay Group, and (e) neither Hay Group nor its consultants that work with the Company directly own stock in the Company.

In addition to the actions taken in 2012, which are described in the Executive Summary, our Compensation Committee has adopted a number of changes over the past few years, including:

- Diversified and expanded the metrics associated with our AIM and PSP programs to better align with business strategies and shareholder interests;
- Adopted a claw-back/recoupment policy. Our current policy will be revised, if necessary, to comply with the requirements of the Dodd-Frank Act when the final regulations are issued;
- Amended the 2007 Plan to replace full payout at target of outstanding PSP awards in the event of a Change in Control of the Company with prorated PSP payout at target based on the point in the performance period when the Change in Control occurs;
- Closed the Elected Officer Supplemental Program ("EOSP") to new participants effective April 30, 2011; and
- Utilized tally sheets to have a clearer picture of the total compensation of the NEOs in the event of different termination scenarios, including a change in control.

V. Compensation Program Descriptions and Compensation Decisions

The following table is intended to be a helpful summary of the elements, objectives, risk mitigation factors and other key features of our total direct compensation program.

Element	***Objective of Element including Risk Mitigation Factors***	***Key Features Relative to NEOs***
Base Salary	To provide a sufficient and stable source of cash compensation. To avoid encouraging excessive risk-taking, it is important that an appropriate level of cash compensation is not variable.	Targeted, on average, at the 50th percentile of our peer group. Adjustments are determined by the Compensation Committee based on an evaluation of the NEO's proficiency in fulfilling his or her responsibilities, as well as performance against key objectives and behaviors. Only 12% of the CEO's target total direct compensation and only 25% on average for the other NEOs is comprised of base salary.
Annual Incentive Matrix Program	To serve as an annual cash award based on the achievement of pre-established performance objectives. Structured to take into consideration the unique needs of the various businesses. Amount of compensation earned cannot exceed a maximum payout of 200% of individual target levels and is also subject to a claw-back in the event of a financial restatement.	Each NEO has an AIM target expressed as a percentage of base salary. Targets are set based on the compensation levels of similar jobs in comparable companies, as well as on the NEO's experience and proficiency level in performing the duties of the role. Actual AIM payouts are dependent on business and/or enterprise financial performance and individual performance. The financial metrics used to determine the awards for 2012 were Revenue and OI margin percent, modified up or down based on Cash Flow performance. 18% of the CEO's target total direct compensation is comprised of AIM and 21%, on average, for the other NEOs.
Performance Share Program	To serve as a long-term incentive based on the achievement of pre-established performance objectives relative to companies in the S&P 500 Industrials Index. To promote long-term strategic planning and discourage an overemphasis on attaining short-term goals. Amount earned cannot exceed a maximum payout of 200% of individual target levels and is also subject to a claw-back in the event of a financial restatement.	Earned over a 3-year performance period. Equity earned is based on our EPS growth (from continuing operations) relative to the companies in the S&P 500 Industrials Index for awards granted through 2011. Beginning in 2012, equity earned is based on relative TSR and relative EPS growth compared to companies within the S&P 500 Industrials Index (with equal weight given to each metric). Actual value of the PSP shares earned depends on our share price at the time of payment. 35% of the CEO's target total direct compensation is comprised of PSP and 27%, on average, for the other NEOs.

Element	*Objective of Element including Risk Mitigation Factors*	*Key Features Relative to NEOs*
Stock Options/ Restricted Stock Units	Aligns the interests of the NEOs and shareholders. Awards provide a balanced approach between risk and retention. Awards are subject to a claw-back in the event of a financial restatement.	Stock options and RSUs are granted annually, with stock options having an exercise price equal to the fair market value of ordinary shares on the date of grant. Both stock options and RSUs typically vest ratably over three years, one third per year. Stock options expire on the 10th anniversary (less one day) of the grant date (unless employment terminates sooner). 35% of the CEO's target total direct compensation is comprised of a mix of stock options and RSUs and 27%, on average, for the other NEOs.

Base Salary

Our Compensation Committee generally targets base salaries for the NEOs around the median for executives in our peer group who have similar roles and responsibilities. However, the Committee will also consider each NEO's experience, proficiency, performance and potential to impact future business results, as well as behavior against competencies and key enterprise values when making base salary decisions.

The table below reflects the base salary adjustments for the NEOs for the 2012 performance period. When determining base salary adjustments, each NEO is evaluated on the results achieved and the behaviors used to generate these results, as well as on demonstrated leadership and the upholding of Company values. Based on the outcome of the evaluation, each NEO is assigned one of five ratings. The ratings, which range from "meets some" to "substantially exceeds expectations," each have a percent range that determines the actual merit increase. In addition to merit increases, in cases in which the NEO's salary is below the competitive market median, a market adjustment may also be applied. In 2012, Ms. Avedon received a performance-based market adjustment. Mr. Lamach also received a market adjustment in 2012 to continue to align his pay with his role and responsibilities as CEO.

Name	**2011**	**2012**	**% Increase**
M. W. Lamach	$ 1,100,000	$ 1,200,000	9.1
S. R. Shawley	$ 600,000	$ 618,000	3.0
M. J. Avedon	$ 483,600	$ 510,000	5.5
G. S. Michel	$ 430,000	$ 443,000	3.0
D. P. M. Teirlinck	$ 565,000	$ 585,000	3.5

Annual Incentive Matrix Program

The AIM program is an annual cash incentive program designed to reward NEOs for profitable Revenue growth, the delivery of strong Cash Flow and individual contributions to the Company. The Compensation Committee establishes a target award opportunity for each NEO that is expressed as a percentage of base salary. Individual AIM payouts are calculated as the product of a financial performance score and an individual performance score, both of which are based on achievement relative to pre-established performance objectives adopted by the Compensation Committee.

Financial performance: The financial component of AIM is primarily determined based on OI relative to pre-established performance levels, including threshold, target, and maximum levels. These performance levels at the enterprise and sector levels are established using a matrix consisting of Revenue and OI margin percent. Threshold performance for both Revenue and OI margin percent must be achieved for any incentive to be paid. The incentive level determined based on OI results is adjusted up or down based on Cash Flow as a percentage of net profit after tax for the enterprise or as a percentage of operating income for the applicable sector. As illustrated in the table below, AIM payouts may range from 0% to 200% of individual AIM targets depending on the level of achievement of the pre-established financial objectives.

The Compensation Committee retains the authority to adjust the Company's reported financial results for the impact of changes in accounting principles, extraordinary items and unusual or non-recurring gains or losses, including significant differences from the assumptions contained in the financial plan upon which the incentive targets were established. Adjustments to reported financial results are intended to better reflect executives' line of sight/ability to affect payouts, align award payments with decisions which support the AOP, avoid artificial inflation or deflation of awards due to unusual or non-recurring items in the applicable period and emphasize the Company's preference for long-term and sustainable growth.

Performance Level	Financial Goals* Enterprise	Residential Solutions	Climate Solutions	AIM Payout as a % of Target**
Threshold				
Revenue	$13.928B	$2.013B	$7.466B	30%
OI Margin Percent	10.30%	5.00%	10.26%	
Target				
Revenue	$14.226B	$2.065B	$7.634B	100%
OI Margin Percent	11.07%	6.10%	10.70%	
Maximum				
Revenue	$14.908B	$2.134B	$7.974B	200%
OI Margin Percent	12.60%	8.10%	12.30%	

* Reflects the financial goals of two of our four sectors (Climate Solutions and Residential Solutions) whose presidents were named executive officers in 2012.

** Assumes Cash Flow performance of 100%. Results are interpolated between performance levels.

The CEO, CFO and SVP of Human Resources and Communication are measured on the basis of the enterprise financial metrics. The sector Presidents are measured based on a combination of enterprise financial objectives (50% weighting) and sector financial objectives (50% weighting). We believe this weighting focuses sector Presidents on achieving the pre-established objectives for their sector as well as aligning their interests with enterprise goals to help create sustainable shareholder value.

Individual performance: Individual objectives are established annually and include strategic initiatives with both financial and non-financial metrics. Each NEO is evaluated based upon non-financial metrics including our core competencies. At the end of the fiscal year the CEO evaluates each NEO's performance against the pre-established individual objectives and submits a recommendation to the Compensation Committee. The Compensation Committee evaluates the CEO's performance against his pre-established individual objectives. Based on its evaluation of the CEO and the CEO's recommendation for other NEOs, the Compensation Committee determines the individual performance score for each NEO, which can range from 0% to 150%.

Determination of Payout: The actual AIM payout is determined by multiplying the NEO's target award by the financial performance score and multiplying that result by the individual performance score. AIM payouts cannot exceed 200% of the target award. If the overall AIM payout score is less than 30%, no award is payable. In that event, the CEO and the Compensation Committee may establish a discretionary pool (equal to 30% of the target payout levels) for top performers and/or other deserving employees in an amount determined to be appropriate based on their performance against objectives.

The tables below show the pre-established financial performance targets for the 2012 AIM program compared to actual performance. The pre-established financial targets and actual financial results are shown for enterprise and the Climate Solutions and Residential Solutions sectors. Detail on the weighting between enterprise and sector financials for these two NEOs is shown below, following the table outlining the actual AIM awards.

Enterprise	Pre-Established Financial Performance Targets	Financial Results
Adjusted Revenue	$14.226 Billion	$14.035 Billion
Adjusted OI margin percent	11.1 %	10.8 %
Adjusted Available Cash Flow	100 %	111.5 %
Overall Enterprise Financial Score		77.94 %

Climate Solutions (Teirlinck)	Pre-Established Financial Performance Targets	Financial Results
Sector Revenue	$7.634 Billion	$7.409 Billion
Sector Operating Margin	10.7 %	10.4 %
Operating Cash Flow	100 %	100.3 %
Overall Climate Solutions Financial Score		— %

Residential Solutions (Michel)	Pre-Established Financial Performance Targets	Financial Results
Sector Revenue	$2.065 Billion	$2.054 Billion
Sector Operating Margin	6.1 %	5.62 %
Operating Cash Flow	100 %	193.93 %
Overall Residential Solutions Financial Score		132.96 %

In determining the achievement of the 2012 AIM financial goals for the enterprise, the Compensation Committee (a) adjusted Revenue and OI margin percent to exclude (i) advisor costs related to evaluating the proposed spin-off of the commercial and residential security businesses, and (ii) costs associated with retirement plan design changes not incorporated in AIM financial performance objectives, and (b) adjusted Cash Flow (i) to exclude the costs of a legal settlement with former employees of one of our business units that was sold, and (ii) to include dividends related to the equity stake in Hussmann for purposes of determining Cash Flow. These adjustments were made to align 2012 AIM incentive awards and performance for the year taking into consideration the impact of certain events not contemplated when 2012 AIM performance objectives were established. Prior to making determinations, these adjustments were also reviewed with the Audit Committee.

In determining the individual factor for the NEO's AIM awards, the Committee considered pre-established individual performance objectives, including the following:

Mr. Lamach: New and organic product and service revenue growth; operating margin improvement; implementation of operational efficiency plans; capital allocation management; leadership development; and the redesign of the U.S. benefits strategy.

Mr. Shawley: Margin and cash flow improvement through operational efficiency initiatives and enhanced forecasting modeling and processes; quality investor communications; and leadership development.

Ms. Avedon: Redesign of the U.S. benefits strategy; implementation of an integrated human resources and communications organizational model; leadership development; and implementation of diversity initiatives.

Mr. Michel: Margin improvement through operational efficiency initiatives; customer satisfaction; innovation through new product development; organic revenue and market share growth; and implementation of diversity initiatives.

Mr. Teirlinck: Margin improvement through operational efficiency initiatives; cash flow improvements; customer satisfaction; revenue growth in emerging markets; and implementation of diversity initiatives.

The Compensation Committee approved the following AIM awards for all NEOs based on achieving both the 2012 financial and individual objectives:

Name	AIM Target	AIM Payout Percent for 2012	AIM Award for 2012	
M. W. Lamach	160% of $1,200,000	81.84%	$ 1,571,270	(1)
S. R. Shawley	100% of $618,000	85.73%	$ 529,836	(1)
M. J. Avedon	85% of $510,000	85.73%	$ 371,657	(1)
G. S. Michel	80% of $443,000	105.45%	$ 373,715	(2)
D. P. M. Teirlinck	90% of $585,000	42.87%	$ 225,695	(3)

(1) Reflects an individual performance score of 105% for Mr. Lamach; 110% for Mr. Shawley; and 110% for Ms. Avedon.

(2) Mr. Michel's financial score is 50% weighted on achievement of Residential Solutions metrics and 50% weighted on achievement of enterprise-wide metrics. Mr. Michel's individual performance score was 100%.

(3) Mr. Teirlinck's financial score is 50% weighted on achievement of Climate Solutions metrics and 50% weighted on achievement of enterprise-wide metrics. Mr. Teirlinck's individual performance score was 110%.

Long-Term Incentive Program

Our long-term incentive program is comprised of PSUs, stock options and RSUs. It is designed to further align the executives' interests with the interests of our shareholders. This approach enables us to develop and implement long-term strategies that we believe are in the best interest of shareholders.

Performance Share Program: Our PSP is an equity-based incentive compensation program that provides our NEOs with an opportunity to earn PSUs based on the Company's performance relative to other companies in the S&P 500 Industrials Index. For PSUs granted prior to 2012, PSUs are earned based on our relative EPS growth (from continuing operations) as compared to the companies within the S&P 500 Industrials Index over a 3-year performance period. For PSUs granted in 2012, PSUs are earned based equally on our relative EPS growth (from continuing operations) and TSR as compared to the companies within the S&P 500 Industrials Index over a 3-year performance period. The actual number of PSUs earned for grants made in 2012 (which can range from 0% to 200% of target) is based on the following criteria:

Ingersoll Rand's Performance Relative to the Companies within the S&P 500 Industrials Index	% of Target PSUs Earned*
< 25th Percentile	—%
25th Percentile	25%
50th Percentile	100%
≥ 75th Percentile	200%

* Results are interpolated between percentiles achieved.

The NEOs' PSP target awards are set by assessing competitive market values for executives in our peer group with similar roles and responsibilities and are expressed as a dollar amount. The dollar target is converted to share equivalents (PSUs) based on the fair market value of the Company's shares on the date that the award is granted. Our Compensation Committee retains the authority and discretion to make downward adjustments to the calculated PSP award payouts, either as a percentage or a dollar amount, or not to grant any award payout regardless of actual performance against pre-established goals.

EPS is calculated in accordance with U.S. Generally Accepted Accounting Principles ("U.S. GAAP"), subject to adjustments for extraordinary, unusual or infrequent items; the impact of any change in accounting principles; goodwill and other intangible asset impairments; and gains or charges associated with discontinued operations or with obtaining or losing control of a business. As a result, expense for outstanding PSP awards is recorded using fixed accounting.

Dividend equivalents are accrued on outstanding PSU awards at the same time and at the same rate as dividends are paid to shareholders. Dividend equivalents are not earned until the PSUs vest, and are payable in cash at the time of distribution unless the NEO elected to defer the PSUs into our executive deferred compensation plan, in which case the dividends are also deferred.

Stock Options/Restricted Stock Units: We grant our NEOs an equal mix of stock options and RSUs. Our Compensation Committee believes that this mix provides an effective balance between risk and retention for our NEOs and conserves share usage under our incentive stock plan. Stock options are considered "at risk" since there is no value unless the stock price appreciates during the term of the option period. RSUs, on the other hand, provide strong retentive value because they have value even if our stock price does not grow during the restricted period. Our Compensation Committee annually reviews our equity mix and grant policies to ensure they are aligned with our pay for performance philosophy, our executive compensation objectives and the interests of our shareholders.

Stock option and RSU targets are expressed in dollars. The dollar target is converted to a number of shares based on the fair market value of the Company's shares on the date that the award is granted. In order to determine the target stock option and RSU awards for our NEOs, the Compensation Committee considers factors such as market competitiveness with our peer group, demonstrated potential to drive future business results and sustained individual performance.

Both stock options and RSUs generally vest ratably, one third per year, over a three year period following the grant. Dividend equivalents are accrued on outstanding RSU awards at the same time and at the same rate as dividends are paid to shareholders. Dividend equivalents on RSUs are only payable if the underlying RSU award vests. At the time of vesting, one ordinary share is issued for each RSU and any accrued dividend equivalents are paid in cash.

2012 Equity Awards

In 2012, the Compensation Committee approved the PSU, stock option and RSU awards below based on its evaluation of market competitiveness and each NEO's demonstrated potential to drive future business results and sustained individual performance. The values in the table reflect equity-based award values approved by the Compensation Committee. These values differ from the corresponding values reported in the Summary Compensation Table and the Grants of Plan-Based Awards Table due to different methodologies used in assigning the economic value of equity-based awards required for accounting and proxy statement reporting purposes. The Compensation Committee makes its determination based on values as of January 1 while the accounting and proxy statement values are determined as of the grant date. The difference is most significant for the PSU awards which are earned, in part, based on TSR relative to the S&P 500 Industrials Index over a three-year performance period. The accounting and proxy report values are greater because the Company's stock price increased by a greater percentage relative to other companies in the S&P 500 Industrials Index for the period from January 1, 2012 through February 24, 2012, the grant date.

Name	Target 2012-14 PSU award ($)	Stock Option Award ($)	RSU Award ($)
M. W. Lamach	3,600,000	1,800,000	1,800,000
S. R. Shawley	1,000,000	500,000	500,000
M. J. Avedon	550,000	275,000	275,000
G. S. Michel	350,000	175,000	175,000
D. P. M. Teirlinck	675,000	337,500	337,500

In connection with his promotion to SVP and President of Residential Solutions, Mr. Michel was granted a special PSU award with a target value of $244,200, or 6,000 shares, in February 2012 (the "Special PSUs"). These Special PSUs were granted to motivate Mr. Michel to achieve significant profitable growth for the Residential Solutions sector in 2012. No payout of the Special PSUs was earned because Residential Solutions did not meet the pre-established Operating Income and Operating Margin objectives.

Performance Share Units Payout

As discussed above, PSUs for the 2010 - 2012 performance period are earned based on the Company's EPS growth (from continuing operations) performance relative to all of the companies in the S&P 500 Industrials Index. The Company achieved an adjusted EPS from continuing operations of $3.29 in 2012 and achieved an adjusted EPS from continuing operations of $1.38 in 2009. The EPS results were adjusted to remove the impact of the sale of the Hussmann business in 2011. On a relative basis, this represents an EPS growth rate of 138.4%, which ranks at approximately the 75th percentile of the companies in the S&P 500 Industrials Index. As a result of this level of performance, the payout was 199% of target.

2013 Compensation Decisions

The Compensation Committee annually reviews the total direct compensation for each NEO and, using its discretion based on its compensation philosophy and design principles, may revise such compensation. For 2013, the Compensation Committee has set the base salary and target AIM award for each NEO as follows:

Name	Base Salary ($)	Target AIM Award (%)
M. W. Lamach	1,250,000	160
S. R. Shawley	636,000	100
M. J. Avedon	528,000	85
G. S. Michel	456,500	80
D. P. M. Teirlinck	605,000	90

The Compensation Committee granted the following target PSU awards for the 2013 - 2015 performance period to each NEO:

Name	Target 2013-15 PSU award ($)	Target 2013-15 PSU shares (#)
M. W. Lamach	4,375,000	83,175
S. R. Shawley	1,000,000	19,012
M. J. Avedon	550,000	10,457
G. S. Michel	400,000	7,605
D. P. M. Teirlinck	725,000	13,784

The Compensation Committee granted the following stock option and RSU awards in 2013 to each NEO:

Name	Stock Option Awards: Stock Option Value ($)	Stock Option Awards: Shares Underlying Stock Option (#)	RSU Award: RSU Award Value ($)	RSU Award: RSU Shares (#)
M. W. Lamach	2,187,500	132,576	2,187,500	41,588
S. R. Shawley	500,000	30,304	500,000	9,506
M. J. Avedon	275,000	16,667	275,000	5,229
G. S. Michel	200,000	12,122	200,000	3,803
D. P. M. Teirlinck	362,500	21,970	362,500	6,892

The number of stock options was determined based on the Black-Scholes ratio on December 31, 2012 and the fair market value of our ordinary shares on the date of the grant. The number of RSUs was determined using the fair market value of our ordinary shares on the date of grant.

VI. Other Compensation and Tax Matters

Retirement Programs and Other Benefits

We maintain qualified and nonqualified defined benefit pension plans for our employees, including the NEOs, to provide for fixed benefits upon retirement based on the individual's age and number of years of service. Refer to the Pension Benefits table for additional details on these programs.

We offer a qualified, defined contribution (401(k)) plan called the Ingersoll-Rand Company Employee Savings Plan (the "ESP") to our salaried and hourly U.S. workforce, including the NEOs. The ESP is a plan that provides a dollar-for-dollar Company match on the first six percent of the employee's eligible contributions to the ESP. The ESP has a number of investment options and is an important component of our retirement program.

We also have a nonqualified, defined contribution plan. The Ingersoll-Rand Company Supplemental Employee Savings Plan (the "Supplemental ESP") is an unfunded plan that makes up matching contributions that cannot be made to the ESP due to Internal Revenue Service ("IRS") or plan limitations. The Supplemental ESP is deemed to be invested in the funds selected by the NEOs, which are the same funds available in the ESP except for a self-directed brokerage account, which is not available in the Supplemental ESP.

In June 2012, our Board of Directors approved significant changes to our broad-based, qualified retirement programs with the intent to move from a combined defined benefit/defined contribution approach to a fully defined contribution plan approach over time. Employees active prior to July 1, 2012 were given a choice between continuing to participate in the defined benefit plan until December 31, 2022 or moving to an enhanced version of the ESP effective January 1, 2013. Employees hired on or after July 1, 2012 were automatically covered under the enhanced version of the ESP. Under the enhanced version of the ESP, employees will receive a basic employer contribution equal to 2% of eligible compensation in addition to the Company's matching contribution while ceasing to accrue benefits under the defined benefit plan. Effective as of December 31, 2022, accruals in the defined benefit plan will cease for all employees. The Compensation Committee approved corresponding changes to the nonqualified defined benefit and contribution pension plans. Additional details on the changes can be found following the Pension Benefits table.

Our Ingersoll Rand Executive Deferred Compensation Plan (the "EDCP Plan I") and the Ingersoll Rand Executive Deferred Compensation Plan II (the "EDCP Plan II" and, together with the EDCP Plan I, the "EDCP Plans") allow eligible employees to defer receipt of a part of their annual salary, AIM award and/or PSP award in exchange for investments in ordinary shares or mutual fund investment equivalents. Refer to the Nonqualified Deferred Compensation table for additional details on the EDCP Plans.

We provide an enhanced, long-term disability plan to certain executives. The plan provides for a higher monthly maximum than the standard group plan and a more favorable definition of disability and has an underlying individual policy that is portable when the executive terminates.

In light of the American Jobs Creation Act of 2004 governing Section 409A of the Code, "mirror plans" for several of our nonqualified plans, including the Ingersoll-Rand Supplemental Pension Plan ("Supplemental Pension Plan I") and the EDCP I, were created. The mirror plans are the Ingersoll-Rand Supplemental Pension Plan II ("Supplemental Pension Plan II and, together with the Supplemental Pension Plan I, the "Supplemental Pension Plans") and the EDCP II. The purpose of these mirror plans is not to provide additional benefits to participants, but merely to preserve the tax treatment of the plans that were in place prior to December 31, 2004. In the case of the Supplemental Plans, the mirror plan benefits are calculated by subtracting the original benefit value to avoid double-counting the benefit. For the EDCP Plans, balances accrued through December 31, 2004 are maintained separately from balances accrued after that date.

We provide our NEOs with other benefits that we believe are consistent with prevailing market practice and those of our peer companies. These other benefits and their incremental cost to the Company are reported in "All Other Compensation" shown in the Summary Compensation Table.

Severance Arrangements

In connection with external recruiting of certain officers, we generally enter into employment arrangements that provide for severance payments upon certain termination events, other than in the event of a change in control (which is covered by separate agreements with the officers). Mr. Lamach and Ms. Avedon have such arrangements, which are described in the Post-Employment Benefits section of this proxy statement. We adopted a Severance Plan, amended outstanding award agreements and adopted new equity award agreements to provide certain employees, including our NEOs, with certain benefits in the event of a termination of employment without cause or for good reason between December 10, 2012 and the first anniversary of a Major Restructuring (as defined in the Post-Employment Section below). In addition, although we do not have a formal severance policy for our executives (other than in the event of a Major Restructuring), we do have guidelines that in most cases would provide for severance in the event of termination without cause. The benefits available in connection with a Major Restructuring and under these guidelines are also described in the Post-Employment Benefits section of the proxy statement.

Change-In-Control Provisions

We have entered into change-in-control agreements with our officers. Payments are subject to a double trigger, meaning that payments would only be received if an officer is terminated without cause or resigns for "good reason" within two years following a change in control. We provide change-in-control agreements to our officers to focus them on the best interests of shareholders and assure continuity of management in circumstances that reduce or eliminate job security and might otherwise lead to accelerated departures. Our incentive stock plans provide for the accelerated vesting of outstanding stock awards in the event of a change in control of the Company. Refer to the Post-Employment Benefits section of this proxy statement for a more detailed description of the change-in-control provisions.

Tax and Accounting Considerations

Section 162(m) of the Code imposes a limit of $1,000,000 on the amount that we may deduct for federal income tax purposes in any one year for compensation paid to our CEO and any of our three other highest-paid NEOs, other than our CFO, who are employed as of the end of the year. However, to the extent compensation is "performance-based" within the meaning of Section 162(m), the Section's limitations will not apply. We intend most of the variable compensation (*i.e.*, AIM, PSP and stock options) paid to NEOs to qualify as performance-based within the meaning of Section 162(m) so as to be tax deductible by us, which benefits our shareholders. In order to qualify as performance based, the compensation must, among other things, be paid pursuant to a shareholder approved plan upon the attainment of objective performance criteria. Our Compensation Committee believes that tax deductibility of compensation is an important factor, but not the sole factor, in setting executive compensation policies and in rewarding superior executive performance. Accordingly, although our Compensation Committee generally intends to avoid the loss of a tax deduction due to Section 162(m), it reserves the right, in appropriate circumstances, to pay amounts that are not deductible. In determining variable compensation programs, we consider other tax and accounting implications of particular forms of compensation, such as the implications of Section 409A of the Code governing deferred compensation arrangements and favorable accounting treatment afforded certain equity based plans that are settled in shares. However, the forms of variable compensation we utilize are determined primarily by their effectiveness in creating maximum alignment between our key strategic objectives and the interests of our shareholders.

Senior Executive Performance Plan (SEPP)

The SEPP is a shareholder approved plan that funds the annual cash incentive awards that may be granted to each of the NEOs under AIM. Under the SEPP, the maximum amount of cash incentive that can be paid to the CEO is 0.6% of Consolidated Operating Income from Continuing Operations (as defined in the SEPP) and the maximum amount of cash incentive that can be paid to any other covered executive is 0.3% of Consolidated Operating Income from Continuing Operations. Our Compensation Committee generally exercises its discretion to pay less than the maximum amount to the NEOs, after considering the factors described in the AIM Program.

Timing of Awards

Our regular annual equity grants are made by our Compensation Committee at a meeting held after the annual earnings release. The timing of this meeting allows management to review the prior year's performance and assemble all of the necessary information for our Compensation Committee's consideration. The date is never selected or changed to increase the value of equity awards for executives.

Claw-back / Recoupment Policy

To align further the interests of our employees and our shareholders, we have a claw-back / recoupment policy to ensure that any fraud or intentional misconduct leading to a restatement of our financial statements would be properly addressed. The policy provides that if it is found that an employee committed fraud or engaged in intentional misconduct that resulted, directly or indirectly, in a need to restate our financial statements, then our Compensation Committee has the discretion to direct the Company to recover all or a portion of any cash or equity incentive compensation paid or value realized, and/or to cancel any stock-based awards or AIM award granted to an employee on or after the effective date of the policy. Our Compensation Committee may also request that the Company seek to recover any gains realized on or after the effective date of the policy for equity or cash awards made prior to that date (including AIM, stock options, PSUs and RSUs). Application of the claw-back / recoupment policy is subject to a determination by our Compensation Committee that: (i) the cash incentive or equity compensation to be recouped was calculated on, or its realized value affected by, the financial results that were subsequently restated; (ii) the cash incentive or equity award would have been less valuable than what was actually awarded or paid based on the application of the correct financial results; and (iii) the employee to whom the policy applied engaged in fraud or intentional misconduct. This policy will be revised if required under the Dodd-Frank Act once the regulations implementing the claw-back policy requirements of that law have been issued.

Share-Ownership Guidelines

We impose share ownership requirements on each of our officers. These share ownership requirements are designed to emphasize share ownership by our officers and to further align their interests with our shareholders. Each officer must achieve and maintain ownership of ordinary shares or ordinary share equivalents at or above a prescribed level. The requirements are as follows:

Position	Number of Active Participants as of the Record Date	Individual Ownership Requirement (Shares and Equivalents)	Percent of Salary (Based on Stock Price as of the Record Date)
Chief Executive Officer	1	150,000	Approximately 7x multiple of salary
Senior Vice Presidents	9	40,000	Approximately 5x multiple of salary
Corporate Vice Presidents	5	15,000	Approximately 2x multiple of salary

Our share-ownership program requires the accumulation of ordinary shares (or ordinary share equivalents) over a five-year period following the date the person becomes subject to share-ownership requirements at the rate of 20% of the required level each year. Executives who are promoted, and who have their ownership requirement increased, have three years to achieve the new level from the date of promotion. However, given the significant increase in the ownership requirement for an individual who is promoted to CEO, that individual has five years from the date of the promotion to achieve the new level. Ownership credit is given for actual ordinary shares owned, deferred compensation that is invested in ordinary shares within our EDCP Plans, ordinary share equivalents accumulated in our qualified and nonqualified employee savings plans as well as RSUs. Stock options, SARs and unvested PSUs do not count toward meeting the share-ownership target. If executives fall behind their scheduled accumulation level during their applicable accumulation period, or if they fail to maintain their required level of ownership after their applicable accumulation period, their right to exercise stock options will be limited to “buy and hold” transactions and any shares received upon the vesting of RSU and PSU awards must be held until the required ownership level is achieved. As of the Record Date, all of our executives subject to the share-ownership guidelines were in compliance with these requirements.

COMPENSATION COMMITTEE REPORT

We have reviewed and discussed with management the Compensation Discussion and Analysis contained in this Proxy Statement.

Based on our review and discussion, we recommended to the Board of Directors that the Compensation Discussion and Analysis be included in this Proxy Statement as well as the Company’s Annual Report on Form 10-K for the year ended December 31, 2012.

COMPENSATION COMMITTEE
Tony L. White (Chair)
John Bruton
Jared L. Cohon
Gary D. Forsee
Constance J. Horner

SUMMARY OF REALIZED COMPENSATION

The table below is a summary of the compensation actually realized by our CEO for 2012, 2011 and 2010. This information is intended to supplement and not be a substitute for the information shown on the Summary Compensation Table. The information required to be shown on the Summary Compensation Table includes elements of compensation that may or may not actually be realized by the NEOs at a future date. We believe this table enhances our shareholders' understanding of our CEO's compensation.

Year (1)	Salary ($)	Performance-based Cash Compensation ($)(2)	Equity Compensation ($)(3)	Other Compensation ($)(4)	Total Realized Compensation ($)
2012 Chairman, President and Chief Executive Officer	1,175,000	1,522,950	171,246	311,363	3,180,559
2011 Chairman, President and Chief Executive Officer	1,075,000	1,552,350	2,223,605	310,833	5,161,788
2010 President and Chief Operating Officer; President and Chief Executive Officer; and Chairman, President and Chief Executive Officer	972,692	850,927	342,872	197,152	2,363,643

(1) Mr. Lamach received the following promotions during the 2010 to 2012 period: (a) from President and Chief Operating Officer to President and Chief Executive Officer on February 3, 2010 and (b) appointed Chairman of the Board on June 4, 2010.

(2) Represents the AIM award paid in the applicable year and earned in the immediately previous year.

(3) Represents amount realized upon the exercise of stock options and the vesting of RSUs and PSUs, before payment of any applicable withholding taxes and brokerage commissions, and includes the value of dividend equivalents paid on such awards.

(4) Represents the amounts imputed as income under applicable IRS rules and regulations.

EXECUTIVE COMPENSATION

The following table provides summary information concerning compensation paid by the Company or accrued on behalf of our NEOs for services rendered during the years ended December 31, 2012, 2011 and 2010.

Summary Compensation Table

Name and Principal Position	Year	Salary ($)(a)	Stock Awards ($)(b)	Option Awards ($)(c)	Non-Equity Incentive Plan Compensation ($)(d)	Change in Pension Value and Nonqualified Deferred Compensation Earnings ($)(e)	All Other Compensation ($)(f)	Total ($)
M. W. Lamach	2012	1,175,000	6,288,586	1,697,045	1,571,270	4,920,650	483,868	16,136,419
Chairman, President	2011	1,075,000	2,750,022	3,077,905	1,522,950	3,867,063	517,947	12,810,887
and Chief Executive Officer	2010	972,692	2,749,986	2,527,500	1,552,350	2,226,499	349,833	10,378,860
S. R. Shawley	2012	613,500	1,746,896	471,399	529,836	2,532,907	98,549	5,993,087
Senior Vice President	2011	593,750	1,387,531	474,521	553,800	2,723,841	110,520	5,843,963
and Chief Financial Officer	2010	568,750	1,387,503	418,615	624,795	2,298,593	103,681	5,401,937
M. J. Avedon	2012	503,400	960,778	259,277	371,657	603,324	99,207	2,797,643
Senior Vice President,	2011	478,950	697,529	238,540	368,249	689,393	83,584	2,556,245
Human Resources and Communications	2010	461,250	697,511	210,440	378,952	380,709	555,874	2,684,736
G. S. Michel	2012	439,750	855,617	164,994	373,715	610,208	205,456	2,649,740
Senior Vice President								
D. P. M. Teirlinck	2012	580,000	1,179,131	318,197	225,695	750,764	117,538	3,171,325
Senior Vice President	2011	561,250	900,028	307,795	547,705	513,189	120,299	2,950,266
	2010	550,000	900,013	271,534	448,025	292,608	713,271	3,175,451

(a) Pursuant to the EDCP Plans, a portion of a participant's annual salary may be deferred into a number of investment options. In 2012 there were no salary deferrals by any NEO into the EDCP Plans.

(b) The amounts shown in this column reflect the aggregate grant date fair value of PSU awards and any RSU awards granted for the year under Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 718 and do not reflect amounts paid to or realized by the NEOs. In determining the aggregate grant date fair value of the PSU awards, the awards are valued assuming target level performance achievement. If the maximum level performance achievement is assumed, the aggregate grant date fair value of the PSU awards would be as follows:

Name	Maximum Grant Date Value Of 2012-14 PSU Awards ($)	Maximum Grant Date Value Of Special PSU Awards ($)
M. W. Lamach	8,977,095	—
S. R. Shawley	2,493,711	—
M. J. Avedon	1,371,536	—
G. S. Michel	872,814	488,400
D. P. M. Teirlinck	1,683,212	—

For a discussion of the assumptions made in determining the ASC 718 values, see Note 14, "Share-Based Compensation," to the Company's consolidated financial statements contained in the 2012 Form 10-K. The ASC 718 grant date fair value of the PSU award is spread over the number of months of service required for the grant to become non-forfeitable, disregarding any adjustments for potential forfeitures.

Please see also the Grants of Plan-Based Awards table for additional details of the 2012 grants included in this column.

(c) The amounts in this column reflect the aggregate grant date fair value of stock option grants for financial reporting purposes for the year under ASC 718 and do not reflect amounts paid to or realized by the NEOs. For a discussion of the assumptions made in determining the ASC 718 values see Note 14, "Share-Based Compensation," to the Company's consolidated financial statements contained in its 2012 Form 10-K.

(d) This column reflects the amounts earned as annual awards under the AIM program. Unless deferred into the EDCP Plans, AIM program payments are made in cash. In 2012, there were no AIM deferrals by any NEO into the EDCP Plans. Amounts shown in this column are not reduced to reflect deferrals of AIM awards into the EDCP Plans.

(e) Amounts reported in this column reflect the aggregate increase in the actuarial present value of the benefits under the qualified Ingersoll Rand Pension Plan Number One (the "Pension Plan"), Supplemental Pension Plans, Key Management Supplemental Pension Plan (the "KMP") and EOSP, as applicable. The change in pension benefits value is attributable to the additional year of service and age, the annual AIM award and any annual salary increase. Amounts are higher for those NEOs who are older and closer to retirement than for those who are younger and further from retirement since the period over which the benefit is discounted to determine its present value is shorter and the impact of discounting is therefore reduced. The plans do not permit above-market or preferential earnings on any nonqualified deferred compensation.

The change in pension value for Mr. Lamach for all three years shown was attributable to these factors but the change was more significant due to his promotion to CEO and his adjusted salary and bonus target. For all the NEOs, amounts in this column were also impacted by the continuing trend of decreasing interest rates and increasing discount rates, which causes the value of the lump sum under the EOSP and the KMP to increase.

(f) The following table summarizes the components of this column for fiscal year 2012:

Name	Company Matching Contributions ($)(1)	Company Cost for Life Insurance ($)	Retiree Medical Plan ($)(2)	Tax Assistance ($)(3)	Other Benefits ($)(4)	Total ($)
M. W. Lamach	161,877	1,890	—	108,945	211,156	483,868
S. R. Shawley	70,038	2,838	1,100	—	24,573	98,549
M. J. Avedon	52,299	1,198	—	—	45,710	99,207
G. S. Michel	36,831	1,049	1,600	10,961	155,015	205,456
D. P. M. Teirlinck	67,662	2,657	—	2,540	44,679	117,538

(1) Represents Company matching contributions under the Company's ESP and Supplemental ESP plans.

(2) Represents the estimated year-over-year increase in the value of the retiree medical plan, calculated based on the methods used for financial statement reporting purposes.

(3) The amount for Mr. Lamach represents tax equalization payments related to Irish taxes owed on $270,000, which is the portion of his income that is allocated to his role as a director of the Company. Without these payments, Mr. Lamach would be subject to double taxation on this amount since he is already paying U.S. taxes on this income. The amount for (i) Mr. Michel represents payments made on his behalf for taxes related to relocation costs; and (ii) Mr. Teirlinck represents payment of taxes on his behalf related to Company contributions made to the Belgium social scheme.

(4) Represents: (i) the incremental cost to the Company of personal use of the Company aircraft by the CEO. For security and safety reasons and to maximize his availability for Company business, the Board of Directors requires the CEO to travel on Company-provided aircraft for business and personal purposes, unless commercial travel is deemed a minimal security risk by the Company. The incremental cost to the Company of personal use of the Company aircraft is calculated based on the hourly average variable operating costs to the Company. Variable operating costs include fuel, maintenance, on-board catering and landing fees. The hourly average variable cost is multiplied by the amount of time flown for personal use to derive the incremental cost. The methodology excludes fixed costs that do not change based on usage, such as pilots' and other employees' salaries, management fees and training, hangar and insurance expenses. We impose an annual limit of $150,000 on the CEO's non-business use of Company-provided aircraft. For 2012, the amount for Mr. Lamach includes $140,717 for personal use of Company-provided aircraft; (ii) the following cost for relocation costs, including costs related to the sale of a prior residence, for Mr. Michel, $131,391; (iii) the following incremental cost of the Company-leased cars, calculated based on the lease, insurance, fuel and maintenance costs to the Company: Mr. Lamach, $18,540; Mr. Shawley, $17,004; Ms. Avedon, $30,904 (which includes the difference between the resale value and the book value for the Company car she purchased under the program); Mr. Michel, $9,834; and Mr. Teirlinck, $18,838; (iv) additional incremental costs associated with the use of the Company aircraft. Under the Company's aircraft use policy, the Compensation Committee has determined that business use includes travel that is related to the Company's business or benefits the Company, such as travel to meetings of other boards on which the CEO sits. For 2012, the amount for Mr. Lamach includes $38,876 for such business-related travel; (v) the following costs for financial counseling services, which may include tax preparation and estate planning services: Mr. Lamach, $11,613; Mr. Shawley, $4,865; Ms. Avedon, $10,376; Mr. Michel, $9,442; and Mr. Teirlinck, $8,905; (vi) the following costs for medical services provided through an on-site physician under the Executive Health Program: Mr. Lamach, $1,410; Mr. Shawley, $2,704; Ms. Avedon, $4,430; Mr. Michel, $ 2,883; and Mr. Teirlinck, $2,090; (vii) the payment of $14,846 to permit Mr. Teirlinck to remain covered under the Belgium social scheme and have access to the country's health plan should he return to Europe; and (viii) $1,465 for Mr. Michel for Company product rebates available to U.S. employees.

2012 Grants of Plan-Based Awards

The following table shows all plan-based awards granted to the NEOs during fiscal 2012. This table is supplemental to the Summary Compensation Table and is intended to complement the disclosure of equity awards and grants made under non-equity incentive plans in the Summary Compensation Table.

		Estimated Future Payouts Under Non-Equity Plan Awards			Estimated Future Payouts Under Equity Incentive Plan Awards						
Name	Grant Date	Threshold ($)(a)	Target ($)(a)	Maximum ($)(a)	Threshold (#)(b)	Target (#)(b)	Maximum (#)(b)	All Other Stock Awards: Number of Shares of Stock or Units (#)(c)	All Other Option Awards: Number of Securities Underlying Options (#)(c)	Exercise or Base Price of Option Awards ($/Sh) (d)	Grant Date Fair Value of Stock and Option Awards ($)(e)
M. W. Lamach											
AIM	2/24/2012	576,000	1,920,000	3,840,000	—	—	—	—	—	—	—
PSUs (2012-14)	2/24/2012	—	—	—	44,227	88,453	176,906	—	—	—	4,488,547
Options	2/24/2012	—	—	—	—	—	—	—	124,053	40.70	1,697,045
RSUs	2/24/2012	—	—	—	—	—	—	44,227	—	—	1,800,039
S. R. Shawley											
AIM	2/24/2012	185,400	618,000	1,236,000	—	—	—	—	—	—	—
PSUs (2012-14)	2/24/2012	—	—	—	12,286	24,571	49,142	—	—	—	1,246,856
Options	2/24/2012	—	—	—	—	—	—	—	34,459	40.70	471,399
RSUs	2/24/2012	—	—	—	—	—	—	12,286	—	—	500,040
M. J. Avedon											
AIM	2/24/2012	130,050	433,500	867,000	—	—	—	—	—	—	—
PSUs (2012-14)	2/24/2012	—	—	—	6,757	13,514	27,028	—	—	—	685,768
Options	2/24/2012	—	—	—	—	—	—	—	18,953	40.70	259,277
RSUs	2/24/2012	—	—	—	—	—	—	6,757	—	—	275,010
G. S. Michel											
AIM	2/24/2012	106,320	354,400	708,800	—	—	—	—	—	—	—
PSUs (2012-14)	2/24/2012	—	—	—	4,300	8,600	17,200	—	—	—	436,407
Special PSUs	2/24/2012	—	—	—	—	6,000	12,000	—	—	—	244,200
Options	2/24/2012	—	—	—	—	—	—	—	12,061	40.70	164,994
RSUs	2/24/2012	—	—	—	—	—	—	4,300	—	—	175,010
D. P. M. Teirlinck											
AIM	2/24/2012	157,950	526,500	1,053,000	—	—	—	—	—	—	—
PSUs (2012-14)	2/24/2012	—	—	—	8,293	16,585	33,170	—	—	—	841,606
Options	2/24/2012	—	—	—	—	—	—	—	23,260	40.70	318,197
RSUs	2/24/2012	—	—	—	—	—	—	8,293	—	—	337,525

(a) The target award levels established for the AIM program are established annually in February and are expressed as a percentage of the NEO's base salary. Refer to Compensation Discussion and Analysis under the heading "Annual Incentive Matrix Program" for a description of the Compensation Committee's process for establishing AIM program target award levels. The amounts reflected in the "Estimated Future Payouts Under Non-Equity Incentive Plan Awards" columns represent the threshold, target and maximum amounts for awards under the AIM program that were paid in February 2013, based on performance in 2012. Thus, the amounts shown in the "threshold, target and maximum" columns reflect the range of potential payouts when the target award levels were established in February 2012. The AIM program pays $0 for performance below threshold. The actual amounts paid pursuant to those awards are reflected in the "Non-Equity Incentive Plan Compensation" column of the Summary Compensation Table.

(b) The amounts reflected in the "Estimated Future Payouts Under Equity Incentive Plan Awards" columns represent the threshold, target and maximum amounts for PSU awards for the 2012-2014 performance period. The PSP pays $0 for performance below threshold. For a description of the Compensation Committee's process for establishing PSP target award levels and the terms of PSU awards, please refer to Compensation Discussion and Analysis under the heading "Long-Term Incentive Program" and the "Post-Employment Benefits" section below.

(c) The amounts in these columns reflect the stock option and RSU awards granted in February 2012. For a description of the Compensation Committee's process for determining stock option and RSU awards and the terms of such awards, see Compensation Discussion and Analysis under the heading "Long-Term Incentive Program" and the "Post-Employment Benefits" section below.

(d) Stock options were granted under the Company's 2007 Plan, which requires options to be granted at an exercise price equal to the fair market value of the Company's ordinary shares on the date of grant. The fair market value is defined in the 2007 Plan as the average of the high and low composite price of the Company's ordinary shares listed on the NYSE on the grant date. The closing price on the NYSE of the Company's ordinary shares was $40.48 on the grant date.

(e) The grant date fair value of the equity awards granted in February 2012 was calculated in accordance with ASC 718. The Company cautions that the actual amount ultimately realized by each NEO from the stock option awards will likely vary based on a number of factors, including stock price fluctuations, differences from the valuation assumptions used and timing of exercise or applicable vesting. For a description of the assumptions made in valuing the equity awards see Note 14, "Share-Based Compensation" to the Company's consolidated financial statements contained in its 2012 Form 10-K. For PSUs, the grant date fair value has been determined based on achievement of target level performance, which is the performance threshold the Company believes is the most likely to be achieved under the grants.

Outstanding Equity Awards at December 31, 2012

		Option Awards				Stock Awards			
Name	Grant Date	Number of Securities Underlying Unexercised Options (#) Exercisable (a)	Number of Securities Underlying Unexercised Options (#) Unexercisable (a)	Option Exercise Price ($)	Option Expiration Date (c)	Number of Shares or Units of Stock that have Not Vested (#) (d)	Market Value of Shares or Units of Stock that have Not Vested ($) (e)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights that have Not Vested (#) (f)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights that have Not Vested ($) (e)
M.W. Lamach	2/17/2004	100,000	—	33.9200	2/16/2014	—	—	—	—
	2/2/2005	100,000	—	38.6850	2/1/2015	—	—	—	—
	2/1/2006	52,740	—	39.4250	1/31/2016	—	—	—	—
	2/7/2007	43,790	—	43.1250	2/6/2017	—	—	—	—
	2/15/2008	48,510	—	39.0000	2/14/2018	—	—	—	—
	6/6/2008 (b)	50,000	50,000	43.4550	6/5/2018	—	—	—	—
	2/12/2009 (b)	50,000	—	16.8450	2/11/2019	—	—	—	—
	2/12/2009	66,125	—	16.8450	2/11/2019	—	—	—	—
	2/16/2010	166,666	83,334	31.5916	2/15/2020	—	—	87,048	4,174,822
	2/14/2011	70,175	140,352	47.3350	2/13/2021	—	—	58,097	2,786,332
	2/24/2012	—	124,053	40.7000	2/23/2022	44,227	2,121,127	88,453	4,242,206
S.R. Shawley	2/2/2005	48,400	—	38.6850	2/1/2015	—	—	—	—
	2/1/2006	52,740	—	39.4250	1/31/2016	—	—	—	—
	2/7/2007	43,790	—	43.1250	2/6/2017	—	—	—	—
	2/15/2008	48,510	—	39.0000	2/14/2018	—	—	—	—
	6/4/2008 (b)	50,000	50,000	43.4050	6/3/2018	—	—	—	—
	2/12/2009	43,750	—	16.8450	2/11/2019	—	—	—	—
	2/16/2010	27,604	13,802	31.5916	2/15/2020	4,880	234,045	29,280	1,404,269
	2/14/2011	10,819	21,638	47.3350	2/13/2021	6,514	312,411	19,542	937,234
	2/24/2012	—	34,459	40.7000	2/23/2022	12,286	589,237	24,571	1,178,425
M. J. Avedon	2/7/2007	30,000	—	43.1250	2/6/2017	—	—	—	—
	2/15/2008	38,987	—	39.0000	2/14/2018	—	—	—	—
	2/12/2009	15,000	—	16.8450	2/11/2019	—	—	—	—
	2/16/2010	13,876	6,939	31.5916	2/15/2020	2,454	117,694	14,719	705,923
	2/14/2011	5,438	10,878	47.3350	2/13/2021	3,275	157,069	9,824	471,159
	2/24/2012	—	18,953	40.7000	2/23/2022	6,757	324,066	13,514	648,131
G. S. Michel	2/2/2005	17,280	—	38.6850	2/1/2015	—	—	—	—
	2/1/2006	14,070	—	39.4250	1/31/2016	—	—	—	—
	2/7/2007	16,450	—	43.1250	2/6/2017	—	—	—	—
	2/15/2008	20,264	—	39.0000	2/14/2018	—	—	—	—
	2/16/2010	3,190	3,190	31.5916	2/15/2020	1,128	54,099	3,957	189,778
	8/5/2010	—	—	—	—	10,000	479,600	—	—
	2/14/2011	3,289	6,580	47.3350	2/13/2021	1,981	95,009	2,641	126,662
	2/24/2012	—	12,061	40.7000	2/23/2022	4,300	206,228	8,600	412,456
	2/24/2012	—	—	—	—	—	—	6,000	287,760
D. Teirlinck	10/2/2005	2,667	—	38.4700	10/1/2015	—	—	—	—
	2/7/2007	23,170	—	43.1250	2/6/2017	—	—	—	—
	2/15/2008	25,276	—	39.0000	2/14/2018	—	—	—	—
	2/12/2009	35,000	—	16.8450	2/11/2019	—	—	—	—
	2/16/2010	17,905	8,953	31.5916	2/15/2020	3,166	151,841	18,992	910,856
	2/14/2011	7,017	14,036	47.3350	2/13/2021	4,226	202,679	12,676	607,941
	2/24/2012	—	23,260	40.7000	2/23/2022	8,293	397,732	16,585	795,417

(a) These columns represent stock option and SARs awards. Except as noted in (b) below, these awards generally become exercisable in three equal installments beginning on the first anniversary after the date of grant, subject to continued employment or retirement.

(b) Mr. Lamach's grant dated June 6, 2008 vests 50% on each of the third and fifth anniversaries of the grant date and his grant dated February 12, 2009 vested 100% on the third anniversary of the grant date. Mr. Shawley's grant dated June 4, 2008 vests 50% on each of the fourth and sixth anniversaries of February 15, 2008.

(c) All of the options granted to the NEOs expire on the tenth anniversary (less one day) of the grant date.

(d) This column represents unvested RSUs. Except as described in the following sentence, RSUs generally become exercisable in three equal installments beginning on the first anniversary after the date of grant, subject to continued employment or retirement. In the case of Mr. Michel's grant dated August 5, 2010, 100% of it vests on the third anniversary of the grant date.

(e) The market value was computed based on $47.96, the closing market price of the Company's ordinary shares on the NYSE at December 31, 2012.

(f) This column represents unvested and unearned PSUs. PSUs vest upon the completion of a three-year performance period. The actual number of shares an NEO will receive, if any, is subject to achievement of the performance goals as certified by the Compensation Committee, and continued employment. With respect to Mr. Michel's Special PSUs granted on February 24, 2012 with a target number of shares of 6,000, the actual number of shares he may receive is based on achievement of performance goals for 2012 but the shares do not actually vest until the second anniversary of the date on which the 2012 performance goals are certified.

2012 Option Exercises and Stock Vested

The following table provides information regarding the amounts received by each NEO upon exercise of stock options and SARs or the vesting of RSUs during the fiscal year ended December 31, 2012:

	Option Awards		Stock Awards		
Name	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise ($) (a)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting ($)	
M. W. Lamach	—	—	4,409	165,911	(b)
S. R. Shawley	76,875	1,595,228	12,512	485,893	(c)
M. J. Avedon	12,500	387,888	7,090	274,370	(c)
G. S. Michel	6,300	138,052	3,378	130,830	(c)
D. P. M. Teirlinck	17,580	120,889	8,612	333,843	(c)

(a) This column reflects the aggregate dollar amount realized by the NEO upon the exercise of the stock options and SARs by determining the difference between (i) for stock options, the market price of the Company's ordinary shares at exercise and the exercise price of the stock options or (ii) for SARs, the opening stock price of the Company's ordinary shares on the date of exercise and the exercise price of the SARs.

(b) Reflects the value of the RSUs that vested on February 12, 2012, based on the average of the high and low stock price of the Company's ordinary shares on the vesting date.

(c) Reflects the value of the RSUs that vested on February 12, 2012, February 14, 2012 and February 16, 2012, based on the average of the high and low stock price of the Company's ordinary shares on the vesting date.

2012 Pension Benefits

The NEOs participate in the following defined benefit plans:

- the Pension Plan;
- the Supplemental Pension Plans; and
- the EOSP or the KMP.

The Pension Plan is a funded, tax qualified, non-contributory defined benefit plan that covers the majority of the Company's salaried U.S. employees. The Pension Plan provides for normal retirement at age 65. The Pension Plan was amended in 2012 to provide that vesting occurs: (i) after five years of service, or (ii) while employed, the participant (a) attains age 65, (b) dies or (c) becomes disabled. The formula to determine the lump sum benefit under the Pension Plan is: 5% of final average pay (the five highest consecutive years out of the last ten years of eligible compensation) for each year of credited service. A choice for distribution between an annuity and a lump sum option is available. The Pension Plan was closed to new participants after June 30, 2012 and no further benefits will accrue to any Pension Plan participant for service performed after December 31, 2022. In addition, any employee who was a Pension Plan participant on June 30, 2012 was provided the option to waive participation in the Pension Plan effective January 1, 2013, and, in lieu of participation, receive a non-elective employer contribution equal to 2% of eligible compensation in the ESP.

The Supplemental Pension Plans are unfunded, nonqualified, non-contributory defined benefit restoration plans. Since the IRS limits the annual compensation recognized when calculating benefits under the qualified Pension Plan, the Supplemental Plans restore what is lost in the Pension Plan due to these limits. The Supplemental Pension Plans cover all employees of the Company who participate in the Pension Plan and who are impacted by the Code compensation limits. A participant must meet the vesting requirements of the qualified Pension Plan to vest for benefits under the Supplemental Pension Plans. Benefits under the Supplemental Pension Plans are available only as a lump sum distribution after termination and paid in accordance with Section 409A of the Code. As a result of the 2012 changes to the Pension Plan, the Supplemental Pension Plans were closed to employees hired on or after June 30, 2012, and no further benefits will accrue to any Supplemental Plan participant for service performed after December 31, 2022.

NEOs participate in either the EOSP or the KMP. The EOSP, which was closed to new participants effective April 2011, is an unfunded, nonqualified, non-contributory defined benefit plan, designed to replace a percentage of an officer's final average pay based on his or her age and years of service at the time of retirement. Final average pay is defined as the sum of the officer's current annual salary plus the average of his or her three highest AIM awards during the most recent six years. No other elements of compensation (other than salary and AIM awards) are included in final average pay. The EOSP provides a benefit pursuant to a formula in which 1.9% of an officer's final average pay is multiplied by the officer's years of service (up to a maximum of 35 years) and then reduced by the value of other retirement benefits the officer will receive that are provided by the Company under certain qualified and nonqualified retirement plans as well as Social Security. If additional years of service were granted to an officer as part of his or her employment agreement, those additional years of service are reflected in the Pension Benefits table below. Vesting occurs, while the officer is employed by the Company, at the earlier of the attainment of age 55 and the completion of 5 years of service or age 62. Unreduced benefits under the EOSP are available at age 62 and benefits are only available as a lump sum after termination and paid in accordance with Section 409A of the Code. Each NEO, other than Mr. Michel, participates in the EOSP.

The KMP is an unfunded, nonqualified, non-contributory defined benefit plan available to certain key employees. The KMP is designed to replace a percentage of a key employee's final average pay based on his or her age and years of service at the time of retirement. Final average pay is defined as the sum of the key employee's current annual salary plus the average of the employee's three highest AIM awards during the most recent six years. No other elements of compensation (other than salary and AIM awards) are included in final average pay. The KMP provides a benefit pursuant to a formula in which 1.7% of a key employee's final average pay is multiplied by years of service (up to a maximum of 30 years) and then reduced by the value of other retirement benefits the key employee will receive that are provided by the Company under certain qualified and nonqualified retirement plans as well as Social Security. Vesting occurs at the earlier of the attainment of age 55 and the completion of 5 years of service or age 65. Benefits are only available as a lump sum after termination and paid in accordance with Section 409A of the Code. Mr. Michel is the only NEO who participates in the KMP.

The table below represents the estimated present value of defined benefits for the plans in which each NEO participates.

Name	Plan Name	Number of Years Credited Service (#) (a)	Present Value of Accumulated Benefit ($) (b)	Payments During Last Fiscal Year ($)
M.W. Lamach	Pension Plan	8.917	83,400	—
	Supplemental Pension Plan II	8.917	538,889	—
	EOSP	26.00 (c)	13,482,030	—
S. R. Shawley	Pension Plan	38.50	711,146	—
	Supplemental Pension Plan I	6.00 (d)	168,929	—
	Supplemental Pension Plan II	14.00 (d)	426,213	—
	EOSP	35.00 (e)	13,838,260 (f)	—
M. J. Avedon	Pension Plan	5.92	59,530	—
	Supplemental Pension Plan II	5.92	131,414	—
	EOSP	6.00 (g)	2,082,978	—
G. S. Michel	Pension Plan	27.58	267,674	—
	Supplemental Pension Plan I	19.58	7,873	—
	Supplemental Pension Plan II	27.58	269,917	—
	KMP	28.00	2,432,879	—
D. Teirlinck	Pension Plan	4.33 (h)	52,982	—
	Supplemental Pension Plan II	4.33 (h)	146,819	—
	EOSP	8.00 (i)	2,042,797	—

(a) Under the EOSP or the KMP, for officers covered prior to May 19, 2009, a full year of service is credited for any year in which they work at least one day. In the Pension Plan, the Supplemental Pension Plans, the EOSP and the KMP for officers covered on or after May 19, 2009, the number of years of credited service is based on elapsed time (*i.e.*, credit is given for each month in which a participant works at least one day). The Supplemental Pension Plan II was established as a mirror plan, effective January 1, 2005. The years of credited service used for calculating benefits under (i) the Supplemental Pension Plan I are the years of credited service through December 31, 2004, and (ii) the Pension Plan, EOSP, KMP and Supplemental Pension Plan II are the years of credited service through December 31, 2012. The benefits earned under the Supplemental Pension Plan I serve as offsets to the benefits earned under the Supplemental Pension Plan II.

(b) The amounts in this column reflect the estimated present value of each NEO's accumulated benefit under the plans indicated. The calculations reflect the value of the benefits assuming that each NEO was fully vested under each plan. The benefits were computed as of December 31, 2012, consistent with the assumptions described in Note 11, "Pensions and Postretirement Benefits Other than Pensions," to the consolidated financial statements in the 2012 Form 10-K.

A present value of benefits for the Supplemental Pension Plan I is reported for those NEOs who were vested in that plan at December 31, 2004, the date on which that plan was frozen. If an NEO was not vested in the Supplemental Pension Plan I at December 31, 2004, that NEO is not entitled to any benefit under that plan.

(c) Mr. Lamach's credited years of service exceed his actual years of service by 17 years pursuant to the provisions of his employment arrangement. The increase in present value of benefits due to those additional years of credited service is $9,089,411. Mr. Lamach's benefit will be reduced by the pension benefit he receives from his former employer.

(d) Mr. Shawley's service in the Supplemental Plans began in January 1999 when he transferred from Thermo King.

(e) Under the provisions of the EOSP, Mr. Shawley's service is capped at 35 years.

(f) On June 4, 2008, the Compensation Committee of the Board of Directors agreed that if Mr. Shawley remains with the Company until age 60, any reduction for early retirement will be waived. The increase in present value of benefits resulting from this provision is $1,807,678.

(g) Ms. Avedon, pursuant to the provisions of her employment arrangement, receives double credit for the first five years of employment (3.8% versus 1.9%) in determining her benefit. The increase in present value of benefits due to this provision is $1,055,606.

(h) Service in the Pension Plan and the Supplemental Pension Plan II for Mr. Teirlinck began in September 2008 when he transferred to the United States.

(i) Benefits for Mr. Teirlinck under the EOSP use all his service with the Company, not just the service in the United States. The benefit will be reduced by any and all benefits accrued or accumulated while covered under any non-U.S. plan in respect to any period of service that is counted as a year of service in this plan. The value of these non-U.S. benefits is not readily accessible until retirement, and therefore the amount shown for EOSP reflects the value of this benefit prior to these reductions.

2012 Nonqualified Deferred Compensation

The Company's EDCP Plans are unfunded, nonqualified plans that permit certain employees, including the NEOs, to defer receipt of up to 50% of their annual salary and up to 100% of their AIM awards, PSP awards and RSUs received upon commencement of employment. Elections to defer must be made prior to the beginning of the performance period. The Company has established a nonqualified grantor trust with a bank as the trustee to hold certain assets deferred under the EDCP Plans. These assets are considered general assets of the Company and are available to its creditors in the event of the Company's insolvency. Amounts held in the trust are invested by the trustee using various investment vehicles.

Participants are offered certain investment options (approximately 60 mutual fund investments and ordinary share equivalents), and can choose how they wish to allocate their cash deferrals among those investment options. Participants are 100% vested in all amounts deferred, and bear the risk of any earnings and losses on such deferred amounts.

Generally, deferred amounts may be distributed following termination of employment or at the time of a scheduled in-service distribution date chosen by the participant. If a participant has completed 5 or more years of service at the time of termination, or is terminated due to long-term disability, death or retirement, the distribution is paid in accordance with the participant's election. If a participant terminates without meeting these requirements, the account balance for all plan years will be paid in a lump sum in the year following the year of termination. A participant can elect to receive distributions at termination over a period of 5, 10, or 15 annual installments, or in a single lump sum. A participant can elect to receive scheduled in-service distributions in future years that are at least 2 years after the end of the plan year for which they are deferring. In-service distributions can be received in 2 to 5 annual installments, or if no election is made, in a lump sum. For those participants who have investments in ordinary shares, the distribution of these assets will be in the form of ordinary shares, not cash.

The stock grant plan is a frozen long-term incentive plan pursuant to which participants received performance-based stock awards. Stock awards pursuant to this plan have not been awarded since fiscal year 2001. Participants had the option of deferring those awards until retirement. Mr. Shawley deferred receipt of substantially all his stock awards. Until the time of distribution, the stock awards accrue dividends equivalents in the form of notional ordinary shares. These dividend equivalents are also deferred and are paid out in ordinary shares following retirement. Please refer to Compensation Discussion and Analysis for a description of the Supplemental ESP.

The following table provides information regarding contributions, distributions, earnings and balances for each NEO under our nonqualified deferred compensation plans:

Name	Executive Contributions in Last Fiscal Year ($) (a)	Registrant Contributions in Last Fiscal Year ($) (b)	Aggregate Earnings in Last Fiscal Year ($) (c)	Aggregate Withdrawals/ Distributions ($)	Aggregate Balance at Last Fiscal Year End ($) (d)
M. W. Lamach					
EDCP II	—	—	817,849	—	2,187,353
Supplemental ESP	—	146,877	271,232	—	864,654
S. R. Shawley					
EDCP I	—	—	562,189	—	1,503,587
EDCP II	—	—	682,031	—	1,824,106
Supplemental ESP	—	55,038	204,301	—	642,793
Stock Grant Plan	—	—	303,348	—	830,637
M. J. Avedon					
EDCP II	—	—	372,673	—	996,721
Supplemental ESP	—	37,299	82,281	—	259,419
G. S. Michel					
ECDP I	—	—	14,225	—	99,229
Supplemental ESP	—	21,958	53,937	—	170,478
D. P. M. Teirlinck					
EDCP II	—	—	477,429	—	1,276,894
Supplemental ESP	—	52,662	72,639	—	242,145

(a) The annual deferrals (salary, AIM & PSP) are all reflected in the Salary column, the Non-Equity Incentive Plan column and the Stock Awards column, respectively of the Summary Compensation Table.

(b) All of the amounts reflected in this column are included in the All Other Compensation column of the Summary Compensation Table.

(c) Amounts in this column include gains and losses on investments, as well as dividends on ordinary shares or ordinary share equivalents. None of the earnings or losses reported in this column are included in the Summary Compensation Table.

(d) The following table reflects the amounts reported in this column previously reported as compensation to the NEOs in the Company's Summary Compensation Table in proxy statements for prior years. Each of Messrs. Lamach, Shawley, Michel and Teirlinck and Ms. Avedon first became NEOs and therefore had their compensation reported in the Company's proxy statements for fiscal years 2005 (Lamach), 2007 (Shawley), 2010 (Avedon and Teirlinck) and 2013 (Michel).

Name	EDCP Plans ($)	Supplemental ESP ($)
M. W. Lamach	1,529,086	470,630
S. R. Shawley	1,768,794	221,437
M. J. Avedon	376,016	73,246
G. S. Michel	—	—
D. P. M. Teirlinck	1,174,107	83,703

Post-Employment Benefits

The following discussion describes the compensation to which each NEO would be entitled in the event of termination of such executive's employment, including termination following a change in control.

Employment Arrangements and Severance. All of the NEOs are entitled to benefits upon termination of their employment following a change in control. Mr. Lamach and Ms. Avedon are also entitled to severance in the event of their involuntary termination without cause due to the terms of their employment agreements. Under the terms of their employment agreements, Mr. Lamach is eligible for 24 months of base annual salary plus a prorated AIM award earned for the year of termination as determined and paid at the conclusion of the full performance year in accordance with the terms of the plan. Ms. Avedon is eligible for 12 months of base salary plus an AIM award equal to the target amount. In addition, any unvested PSP awards from completed performance periods would vest and Mr. Lamach and Ms. Avedon would also receive prorated PSP awards (not to exceed target) for the open performance periods at the end of the respective performance periods. These awards would be based on actual performance in accordance with the terms of the plan. Mr. Lamach would also fully vest in the remaining 50,000 option grant that was part of his special retention grant of 100,000 options awarded to him on June 6, 2008.

Although the Company does not have a formal severance policy for officers, NEOs who are terminated by the Company other than for cause will generally be entitled to received up to 12 months' base salary as severance and, depending on the circumstances and timing of the termination, a pro-rated portion of their AIM award, not to exceed target. In addition, the Company's equity award agreements provide that upon termination for:

- death, disability or retirement, RSUs, stock options and SARs continue to vest on the same basis as active employees and the stock options and SARs remain exercisable for a period of three years (or five years in the case of retirement for awards granted in 2007 and after) following termination;
- group termination, RSUs, stock options and SARs immediately vest in the portion of the awards that would have vested within twelve months of termination and all vested stock options and SARs remain exercisable for a period of three years following termination;
- death or disability, PSUs vest pro-rata based on the time worked during the performance period and the achievement of performance goals from the beginning of the performance period through the end of the calendar quarter in which employment terminated; and
- retirement, group termination or job elimination, PSUs vest pro-rata based on the time worked during the performance period and the achievement of performance goals through the end of the performance period.

Change in Control. The Company has entered into a change-in-control agreement with each NEO. The change-in-control agreement provides for certain payments if the employment is terminated by the Company without "cause" (as defined in the change-in-control agreements) or by the NEO for "good reason" (as defined in the change-in-control agreements), in each case, within two years following a change in control of the Company. For officers who first became eligible for a change-in-control agreement on or after May 19, 2009, including Mr. Michel, the Company eliminated a severance payment based on outstanding PSP awards and eliminated a payment to cover the impact to the executive of certain incremental taxes incurred in connection with the payments made following a change in control.

Following a change in control, each NEO is entitled to continue receiving his or her current base salary and is entitled to an annual bonus in an amount not less than the highest annual bonus paid during the prior three years.

If an NEO's employment is terminated "without cause" or by the NEO for "good reason" following a change in control, the NEO is entitled to the following:

- any base salary and annual bonus for a completed fiscal year that had not been paid;
- an amount equal to the NEO's annual bonus for the last completed fiscal year pro-rated for the number of full months employed in the current fiscal year;
- an amount equal to the NEO's base salary pro-rated for any unused vacation days;
- a lump sum severance payment from the Company equal to the three times (for CEO and CFO) or two and one-half times (for other NEOs) the sum of:
  - the NEO's annual salary in effect on the termination date, or, if higher, the annual salary in effect immediately prior to the reduction of the NEO's annual salary after the change in control; and
  - the NEO's target AIM award for the year of termination or, if higher, the average of the AIM award amounts beginning three years immediately preceding the change in control and ending on the termination date; and
- for the NEOs other than Mr. Michel, a lump sum payment equal to three times (for CEO and CFO) or two and one-half times (for other NEOs) of: (a) the cash value of the target amount of the most recent PSU award; or (b) if higher, the average amounts of the last three PSU awards granted and paid to the NEO immediately preceding termination. This payment is in lieu of any rights the individual might have with respect to unvested PSU awards.

In addition to the foregoing, the NEOs would also be eligible to participate in the Company's welfare employee benefit programs for the severance period (three years for the CEO and CFO and two and one-half years for the other NEOs). The Company would also provide each NEO up to $100,000 of outplacement services. For purposes of calculating the NEO's nonqualified pension benefits, three years would be added to both the officer's age and service with the Company under the EOSP or KMP. In addition, the "final average pay" under the EOSP or KMP would be calculated as 50% of the lump sum severance payment. For purposes of determining eligibility for post-retirement welfare benefits, the NEO would be credited with any combination of additional years of service and age, not exceeding 10 years, to the extent necessary to qualify for such benefits.

Under the Company's incentive plans, outstanding unvested stock options, SARs and RSUs immediately vest and become exercisable or payable, as applicable, following a change in control. PSUs granted before December 1, 2010 will be deemed to have earned an award based on achievement of target level performance. PSUs granted after December 1, 2010 will be deemed to have earned a pro-rata award based on the target award opportunity and total number of months worked in the applicable performance period.

A "change in control" is defined as the occurrence of any of the following events: (i) any person unrelated to the Company becomes the beneficial owner of 30% or more of the combined voting power of the Company's voting stock; (ii) the directors serving at the time the change-in-control agreements were executed (or the directors subsequently elected by the shareholders of the Company whose election or nomination was duly approved by at least two-thirds of the then serving directors) fail to constitute a majority of the Board of Directors; (iii) the consummation of a merger or consolidation of the Company with any other corporation in which the Company's voting securities outstanding immediately prior to such merger or consolidation represent 50% or less of the combined voting securities of the Company immediately after such merger or consolidation; (iv) any sale or transfer of all or substantially all of the Company's assets, other than a sale or transfer with a corporation where the Company owns at least 80% of the combined voting power of such corporation or its parent after such transfer; or (v) any other event that the continuing directors determine to be a change in control; provided however, with respect to (i), (iii) and (iv) above, there shall be no change in control if shareholders of the Company own more than 50% of the combined voting power of the voting securities of the Company or the surviving entity or any parent immediately following such transaction in substantially the same proportion to each other as prior to such transaction.

Major Restructuring. The Company has adopted a Severance Plan that provides a cash severance payment in the event a participant's employment is terminated due to an involuntary loss of job without Cause (as defined in the Severance Plan) or a Good Reason (as defined in the Severance Plan) between December 10, 2012 and the first anniversary of the completion of a Major Restructuring (as defined below), unless the termination is substantially unrelated to the Major Restructuring. The cash severance payment would be equal to two and one-half times (for the CEO) or two times (for other NEOs) (a) current base salary, and (b) current target AIM award. In addition, the participants will receive a pro-rated portion of their target AIM award, based on actual Company and individual performance during the fiscal year in which termination of employment occurred. Participants in the EOSP or KMP who are not vested in such plans will also receive a cash payment equal to the amount of the benefit to which they would have been entitled if they were vested. As of December 31, 2012, the value of cash severance was: Mr. Lamach, $7,800,000; Mr. Shawley, $2,472,000; Ms. Avedon, $1,887,000; Mr. Michel, $1,594,800; and Mr. Teirlinck, $2,223,000.

In addition, employees who terminate employment due to an involuntary loss of job without Cause (as defined in the award agreement) or for Good Reason (as defined in the award agreement) between December 10, 2012 and the first anniversary of the completion of a Major Restructuring will, unless the termination is substantially unrelated to the Major Restructuring, (i) immediately vest in all unvested stock options and may exercise all vested stock options at any time within the following three-year period or the remaining term of the stock option, if shorter, (ii) immediately vest in all RSUs, except that retirement eligible participants would continue their existing vesting schedule, (iii) receive a prorated payout of outstanding PSUs based on actual performance at the end of performance period following termination of employment, and (iv) have the right to exercise all vested SARs at any time within the following three-year period or the remaining term of the SAR, if shorter. As of December 31, 2012, the value of unvested equity awards was: Mr. Lamach, $12,148,728; Mr. Shawley, $4,275,995; Ms. Avedon, $2,093,455; Mr. Michel, $1,678,611; and Mr. Teirlinck, $2,658,448.

A "Major Restructuring" is defined as a reorganization, recapitalization, extraordinary stock dividend, merger, sale, spin-off or other similar transaction or series of transactions, which individually or in the aggregate, has the effect of resulting in the elimination of all, or the majority of, any one or more of the Company's four business sectors (*i.e.*, Climate Solutions, Residential Solutions, Industrial Technologies and Security Technologies), so long as such transaction or transactions do not constitute a Change in Control (as defined in the applicable plan).

Enhanced Retirement Benefits. An officer is vested in EOSP or KMP upon the earlier of: (i) the attainment of age 55 and the completion of 5 years of service; (ii) attainment of age 62 for the EOSP and age 65 for the KMP; (iii) death; or (iv) change in control. A termination within two years following a change in control also triggers the payment of an enhanced benefit (as described above). Benefits under the EOSP are forfeited in the event of termination for cause. In order to be eligible for an EOSP or KMP benefit in the event of disability, a participant must remain disabled until age 65. An officer becomes vested in both the Pension Plan and the Supplemental Pension Plans upon the completion of 5 years of service. As of December 31, 2012, Mr. Lamach and Ms. Avedon were not vested in the EOSP and Mr. Michel was not vested in the KMP.

Health Benefits. In the event of a change in control, health benefits are provided, which include the Company cost of both active health and welfare benefits for the severance period (three years for Messrs. Lamach and Shawley and two and one-half years for Ms. Avedon and Messrs. Michel and Teirlinck), as well as retiree medical, if applicable. Messrs. Shawley and Michel are the only NEOs eligible for retiree medical benefits due to their age and service as of January 1, 2003, when eligibility for the retiree medical benefit was frozen. Mr. Shawley has reached the retirement threshold of age 55 with at at least 15 years of service and would receive benefits in each scenario outlined in the following table. Mr. Michel has not reached the retirement threshold but would receive retiree medical health benefits in the event of a change in control. In the event of death, Mr. Shawley's eligible dependents would be eligible to receive retiree medical health benefits.

Post-Employment Benefits Table

The following table describes the compensation to which each of the NEOs would be entitled in the event of termination of such executive's employment on December 31, 2012, including termination following a change in control. The potential payments were determined under the terms of our plans and arrangements in effect on December 31, 2012. The table does not include the pension benefits or nonqualified deferred compensation amounts that would be paid to an NEO, which are set forth in the Pension Benefits table and the Nonqualified Deferred Compensation table above, except to the extent that the NEO is entitled to an additional benefit as a result of the termination.

	Retirement ($)	Involuntary without Cause ($)	Involuntary with Cause ($)	Change in Control ($)	Disability ($)	Death ($)
M. W. Lamach						
Severance (a)	—	2,400,000	—	9,360,000	—	—
2012 Earned but Unpaid AIM Award(s) (b)	—	1,571,270	—	1,571,270	—	—
PSP Award Payout (c)	—	7,449,963	—	10,800,000	7,449,963	7,449,963
Value of Unvested Equity Awards (d)	—	225,250	—	4,997,504	4,698,766	4,698,766
Enhanced Retirement Benefits (e)	—	—	—	8,926,050	—	—
Outplacement (f)	—	14,100	—	100,000	—	—
Tax Assistance (g)	—	—	—	22,079,939	—	—
Health Benefits (h)	—	—	—	31,306	—	—
Total	—	11,660,583	—	57,866,069	12,148,729	12,148,729
S. R. Shawley						
Severance (a)	—	618,000	—	3,708,000	—	—
2012 Earned but Unpaid AIM Award(s) (b)	—	529,836	—	529,836	—	—
PSP Award Payout (c)	2,422,939	2,422,939	—	3,000,000	2,422,939	2,422,939
Value of Unvested Equity Awards (d)	1,853,056	1,853,056	—	1,989,290	1,853,056	1,853,056
Enhanced Retirement Benefits (e)	—	—	—	325,229	—	—
Outplacement (f)	—	14,100	—	100,000	—	—
Tax Assistance (g)	—	—	—	4,141,394	—	—
Health Benefits (h)	39,000	92,000	92,000	70,306	92,000	54,000
Total	4,314,995	5,529,931	92,000	13,864,055	4,367,995	4,329,995
M. J. Avedon						
Severance (a)	—	510,000	—	2,358,750	—	—
2012 Earned but Unpaid AIM Award(s) (b)	—	433,500	—	371,657	—	—
PSP Award Payout (c)	—	1,236,649	—	1,375,000	1,236,649	1,236,649
Value of Unvested Equity Awards (d)	—	—	—	885,006	856,806	856,806
Enhanced Retirement Benefits (e)	—	—	—	1,345,516	—	—
Outplacement (f)	—	14,100	—	100,000	—	—
Tax Assistance (g)	—	—	—	3,202,408	—	—
Health Benefits (h)	—	—	—	26,111	—	—
Total	—	2,194,249	—	9,664,448	2,093,455	2,093,455

	Retirement ($)	Involuntary without Cause ($)	Involuntary with Cause ($)	Change in Control ($)	Disability ($)	Death ($)
G. S. Michel						
Severance (a)	—	443,000	—	1,993,500	—	—
2012 Earned but Unpaid AIM Award(s) (b)	—	373,715	—	373,715	—	—
PSP Award Payout (c)	—	—	—	699,497	699,784	699,784
Value of Unvested Equity Awards (d)	—	—	—	1,023,758	978,826	978,826
Enhanced Retirement Benefits (e)	—	—	—	2,620,859	—	—
Outplacement (f)	—	14,100	—	100,000	—	—
Tax Assistance (g)	—	—	—	—	—	—
Health Benefits (h)	—	—	—	148,111	—	—
Total	—	830,815	—	6,959,440	1,678,610	1,678,610
D. P. M. Teirlinck						
Severance (a)	—	585,000	—	2,778,750	—	—
2012 Earned but Unpaid AIM Award(s) (b)	—	225,695	—	225,695	—	—
PSP Award Payout (c)	1,582,009	1,582,009	—	1,687,500	1,582,009	1,582,009
Value of Unvested Equity Awards (d)	1,076,439	1,076,439	—	1,100,726	1,076,439	1,076,439
Enhanced Retirement Benefits (e)	—	—	—	1,946,337	—	—
Outplacement (f)	—	14,100	—	100,000	—	—
Tax Assistance (g)	—	—	—	3,344,427	—	—
Health Benefits (h)	—	—	—	26,111	—	—
Total	2,658,448	3,483,243	—	11,209,546	2,658,448	2,658,448

(a) For the "Involuntary without Cause" column, for those NEOs who do not have a formal separation agreement, the current severance guidelines permit payment of up to one year's base salary. For the amounts shown under the "Change in Control" columns, refer to the description of how severance is calculated in the section above, entitled Post-Employment Benefits.

(b) For the "Involuntary without Cause" column, these amounts represent the (i) AIM award earned by Mr. Lamach and Ms. Avedon in 2012 and paid pursuant to the terms of their employment agreements and (ii) prorated AIM award (up to target) that may be paid to the other NEOs depending on the circumstances and timing of the termination. For the amounts under "Change in Control", these amounts represent the actual award earned for the 2012 performance period, which may be more or less than the target award.

(c) For the "Involuntary without Cause" column, these amounts represent the cash value of the prorated PSU award payout to (i) Mr. Lamach and Ms. Avedon pursuant to the terms of their employment agreements and (ii) Messrs. Shawley and Teirlinck because they are retirement eligible. For the "Change in Control" column for Messrs. Lamach, Shawley and Teirlinck and Ms. Avedon, these amounts represent the cash value of the PSU award payout, based on the appropriate multiple. For Mr. Michel, these values represent what would be provided under the terms of the 2007 Plan, which provides a pro-rated payment for all outstanding awards. For the "Retirement", "Disability" and "Death" columns, amounts represent the cash value of the prorated portion of their PSUs that vest upon such events. Amounts for each column are based on the closing stock price of the ordinary shares on December 31, 2012 ($47.96).

(d) The amounts shown for "Retirement", "Involuntary without Cause", "Change in Control", "Death" and "Disability" represent (i) the value of the unvested RSUs, which is calculated based on the number of unvested RSUs multiplied by the closing stock price of the ordinary shares on December 31, 2012 ($47.96), and (ii) the intrinsic value of the unvested stock options and SARs, which is calculated based on the difference between the closing stock price of the ordinary shares on December 31, 2012 ($47.96) and the relevant exercise price. However, only in the event of termination following a "Change in Control" is there accelerated vesting of unvested awards. In addition, in the event of a "Change in Control," holders of outstanding stock options and SARs under the Stock Incentive Plan of 1998 may elect to receive a cash payment based on the difference between the highest fair market value of the shares during the 60 days prior to the event ($48.90) and the exercise price. For "Retirement", "Involuntary without Cause", "Disability" and "Death", the awards do not accelerate but continue to vest on the same basis as active employees. Because Messrs. Shawley and Teirlinck are retirement eligible, they would continue to vest in stock options and RSUs after termination of employment for any reason other than cause.

(e) In the event of a change in control of the Company and a termination of the NEOs, the present value of the pension benefits under the EOSP, KMP and Supplemental Pension Plans would be paid out as lump sums. While there is no additional benefit to the NEOs as a result of either voluntary retirement/resignation and/or involuntary resignation without cause, there are differences (based on the methodology mandated by the SEC) between the numbers that are shown in the Pension Benefits Table and those that would actually be payable to the NEO under these termination scenarios.

(f) For the “Involuntary without Cause” column, each NEO is eligible for outplacement services for a twelve month period, not to exceed $14,100. For the “Change in Control” column, the amount represents the maximum expenses the Company would reimburse the NEO for professional outplacement services.

(g) Pursuant to the change-in-control agreements for Messrs. Lamach, Shawley and Teirlinck and Ms. Avedon, if any payment or distribution by the Company to these NEOs creates certain incremental taxes, they would be entitled to receive from the Company a payment in an amount sufficient to place them in the same after-tax financial position as if such taxes had not been imposed.

(h) Represents the Company cost of health and welfare coverage. The cost for “Change in Control” is a combination of continued active coverage for three years followed by retiree coverage, while the cost shown under the other scenarios is retiree coverage only.

INFORMATION CONCERNING VOTING AND SOLICITATION

Why Did I Receive This Proxy Statement?

We sent you this Proxy Statement or a Notice of Internet Availability of Proxy Materials (”Notice”) because our Board of Directors is soliciting your proxy to vote at the Annual General Meeting. This Proxy Statement summarizes the information you need to know to vote on an informed basis.

Why Are There Two Sets Of Financial Statements Covering The Same Fiscal Period?

U.S. securities laws require us to send you our 2012 Form 10-K, which includes our financial statements prepared in accordance with U.S. GAAP. These financial statements are included in the mailing of this Proxy Statement. Irish law also requires us to provide you with our Irish Statutory Accounts for our 2012 fiscal year, including the reports of our Directors and auditors thereon, which accounts have been prepared in accordance with Irish law. The Irish Statutory Accounts are available on the Company’s website at *www.ingersollrand.com/irishstatutoryaccounts* and will be laid before the Annual General Meeting.

How Do I Attend The Annual General Meeting?

All shareholders are invited to attend the Annual General Meeting. **In order to be admitted, you must present a form of personal identification and evidence of share ownership.**

If you are a shareholder of record, evidence of share ownership will be either (1) an admission ticket, which is attached to the proxy card and must be separated from the proxy card and kept for presentation at the meeting if you vote your proxy by mail, or (2) a Notice.

If you own your shares through a bank, broker or other holder of record (“street name holders”), evidence of share ownership will be either (1) your most recent bank or brokerage account statement, or (2) a Notice. If you would rather have an admission ticket, you can obtain one in advance by mailing a written request, **along with proof of your ownership of the Company’s ordinary shares,** to:

Secretary
Ingersoll-Rand plc
170/175 Lakeview Dr.
Airside Business Park
Swords, Co. Dublin
Ireland

No cameras, recording equipment, electronic devices, large bags, briefcases or packages will be permitted at the Annual General Meeting.

Who May Vote?

You are entitled to vote if you beneficially owned the Company’s ordinary shares at the close of business on April 8, 2013, the Record Date. At that time, there were 299,338,262 of the Company’s ordinary shares outstanding and entitled to vote. Each ordinary share that you own entitles you to one vote on all matters to be voted on a poll at the Annual General Meeting.

How Do I Vote?

Shareholders of record can cast their votes by proxy by:

- using the Internet and voting at www.proxyvote.com;
- calling 1-800-690-6903 and following the telephone prompts; or
- completing, signing and returning a proxy card by mail. If you received a Notice and did not receive a proxy card, you may request one at sendmaterial@proxyvote.com.

The Notice is not a proxy card and it cannot be used to vote your shares.

Shareholders of record may also vote their shares directly by attending the Annual General Meeting and casting their vote in person or appointing a proxy (who does not have to be a shareholder) to attend the Annual General Meeting and casting votes on their behalf in accordance with their instructions.

Street name holders must vote their shares in the manner prescribed by their bank, brokerage firm or nominee. Street name holders who wish to vote in person at the Annual General Meeting must obtain a legal proxy from their bank, brokerage firm or nominee. Street name holders will need to bring the legal proxy with them to the Annual General Meeting and hand it in with a signed ballot that is available upon request at the meeting. Street name holders will not be able to vote their shares at the Annual General Meeting without a legal proxy and a signed ballot.

Even if you plan to attend the Annual General Meeting, we recommend that you vote by proxy as described above so that your vote will be counted if you later decide not to attend the meeting.

In order to be timely processed, your vote must be received by 5:00 p.m. Eastern Time on June 5, 2013 (or, if you are a street name holder, such earlier time as your bank, brokerage firm or nominee may require).

How May Employees Vote Under Our Employee Plans?

If you participate in the ESP, the Ingersoll-Rand Company Employee Savings Plan for Bargained Employees, the Ingersoll-Rand Retirement Savings Plan for Participating Affiliates in Puerto Rico or the Trane 401(k) and Thrift Plan, then you may be receiving these materials because of shares held for you in those plans. In that case, you may use the enclosed proxy card to instruct the plan trustees of those plans how to vote your shares, or give those instructions by telephone or over the Internet. They will vote these shares in accordance with your instructions and the terms of the plan.

To allow plan administrators to properly process your vote, your voting instructions must be received by 11:59 p.m. on June 3, 2013. If you do not provide voting instructions for shares held for you in any of these plans, the plan trustees will vote these shares in the same ratio as the shares for which voting instructions are provided.

May I Revoke My Proxy?

You may revoke your proxy at any time ***before it is voted at the Annual General Meeting*** in any of the following ways:

- by notifying the Company's Secretary in writing: c/o Ingersoll-Rand plc, 170/175 Lakeview Dr., Airside Business Park, Swords, Co. Dublin, Ireland;
- by submitting another properly signed proxy card with a later date or another Internet or telephone proxy at a later date but prior to the close of voting described above; or
- by voting in person at the Annual General Meeting.

Merely attending the Annual General Meeting does not revoke your proxy. To revoke a proxy, you must take one of the actions described above.

How Will My Proxy Get Voted?

If your proxy is properly submitted, your proxy holder (one of the individuals named on the proxy card) will vote your shares as you have directed. If you are a street name holder, the rules of the NYSE permit your bank, brokerage firm or nominee to vote your shares on Items 3, 5, 6, 7 and 8 (routine matter) if it does not receive instructions from you. However, your bank, brokerage firm or nominee may not vote your shares on Items 1, 2 or 4 (non-routine matters) if it does not receive instructions from you ("broker non-votes"). Broker non-votes will not be counted as votes for or against the non-routine matters, but rather will be regarded as votes withheld and will not be counted in the calculation of votes for or against the resolution.

If you are a shareholder of record and you do not specify on the proxy card you send to the Company (or when giving your proxy over the Internet or telephone) how you want to vote your shares, then the Company-designated proxy holders will vote your shares in the manner recommended by our Board of Directors on all matters presented in this Proxy Statement and as the proxy holders may determine in their discretion regarding any other matters properly presented for a vote at the meeting.

What Constitutes A Quorum?

The presence (in person or by proxy) of shareholders entitled to exercise a majority of the voting power of the Company on the Record Date is necessary to constitute a quorum for the conduct of business. Abstentions and broker non-votes are treated as "shares present" for the purposes of determining whether a quorum exists.

What Vote Is Required To Approve Each Proposal?

A majority of the votes cast at the Annual General Meeting is required to approve each of Items 1, 2, 3 and 4. A majority of the votes cast means that the number of votes cast “for” an Item must exceed the number of votes cast “against” that Item. Items 5, 6, 7 and 8 are considered special resolutions under Irish law and require 75% of the votes cast for approval.

Although abstentions and broker non-votes are counted as “shares present” at the Annual General Meeting for the purpose of determining whether a quorum exists, they are not counted as votes cast either “for” or “against” the resolution and, accordingly, will not affect the outcome of the vote.

Who Pays The Expenses Of This Proxy Statement?

We have hired Georgeson Inc. to assist in the distribution of proxy materials and the solicitation of proxies for a fee estimated at $16,500, plus out-of-pocket expenses. Proxies will be solicited on behalf of our Board of Directors by mail, in person, by telephone and through the Internet. We will bear the cost of soliciting proxies. We will also reimburse brokers and other custodians, nominees and fiduciaries for their reasonable out-of-pocket expenses for forwarding proxy materials to the persons for whom they hold shares.

How Will Voting On Any Other Matter Be Conducted?

Although we do not know of any matters to be presented or acted upon at the Annual General Meeting other than the items described in this Proxy Statement, if any other matter is proposed and properly presented at the Annual General Meeting, the proxy holders will vote on such matters in accordance with their best judgment.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth as of the Record Date, the beneficial ownership of our ordinary shares by (i) each director and director nominee of the Company, (ii) each executive officer of the Company named in the Summary Compensation Table below, and (iii) all directors and executive officers of the Company as a group:

Name	Ordinary Shares(a)	Notional Shares(b)	Options Exercisable Within 60 Days (c)
A. C. Berzin	20,049	24,807	—
J. Bruton	3,632	—	—
J. L. Cohon	22,436	—	40,608
G. D. Forsee	20,304	—	—
P. C. Godsoe	6,000	37,877	—
E. E. Hagenlocker	10,022	—	10,080
C. J. Horner	1,863	33,447	—
T. E. Martin	27,195	59,416	—
N. Peltz (d)	13,470,668	—	7,601,637
J. P. Surma	2,100	—	—
R. J. Swift	11,610	46,241	—
T. L. White	21,760	35,032	21,760
M. W. Lamach	126,020	45,782	917,867
S. R. Shawley	82,323	147,283	361,720
M. J. Avedon	22,781	51,019	96,996
G. S. Michel	15,410	—	78,663
D. P. M. Teirlinck	1,373	65,639	134,759
All directors and executive officers as a group (23 persons)(e)	13,947,935	596,478	9,604,184

(a) Represents (i) ordinary shares held directly; (ii) ordinary shares held indirectly through a trust; (iii) unvested shares, including any RSUs or PSUs, and ordinary shares and ordinary share equivalents notionally held under the Trane Deferred Compensation Plan (the "TDCP") that vest or are distributable within 60 days of the Record Date; and (iv) ordinary shares held by the trustee under the ESP for the benefit of executive officers. Other than Mr. Peltz, no director or executive officer of the Company beneficially owns 1% or more of the Company's ordinary shares. Mr. Peltz beneficially owns 7.04% of the Company's ordinary shares.

(b) Represents ordinary shares and ordinary share equivalents notionally held under the Ingersoll Rand Directors Deferred Compensation Plan (the "DDCP I") and the Ingersoll Rand Directors Deferred Compensation and Stock Award Plan II (the "DDCP II" and, together with the DDCP I, referred to as the "DDCP Plans"), the EDCP Plans, the TDCP and the Company's stock grant plan that are not distributable within 60 days of the Record Date.

(c) Represents ordinary shares as to which directors and executive officers had stock options or SARs exercisable within 60 days of the Record Date, under the Company's Incentive Stock Plans. For Mr. Peltz, represents ordinary shares that may be acquired pursuant to put-call options.

(d) Represents shares beneficially owned by both Trian, 280 Park Avenue, 41st Floor, New York, NY 10017, in its capacity as the management company for certain funds and investment vehicles managed by it and Nelson Peltz. Trian Fund Management GP, LLC ("Trian GP"), which is controlled by Nelson Peltz, Peter W. May and Edward P. Garden, is the general partner of Trian. All of the shares are held with shared dispositive power and voting power by Trian, Trian GP, Mr. Peltz, Mr. May and Mr. Garden.

(e) The Company's ordinary shares beneficially owned by all directors and executive officers as a group (including shares issuable under exercisable options) aggregated approximately 7.82% of the total outstanding ordinary shares. Ordinary shares and ordinary share equivalents notionally held under the DDCP Plans, the EDCP Plans and the TDCP and ordinary share equivalents resulting from dividends on deferred stock awards are not counted as outstanding shares in calculating these percentages because they are not beneficially owned; the directors and executive officers have no voting or investment power with respect to these shares or share equivalents.

The following table sets forth each shareholder which is known by us to be the beneficial owner of more than 5% of the outstanding ordinary shares of the Company based solely on the information filed by such shareholder on Schedule 13D or filed by such shareholder in 2013 for the year ended December 31, 2012 on Schedule 13G under the Securities Exchange Act of 1934:

Name and Address of Beneficial Owner	Amount and Nature of Beneficial Ownership	Percent of Class(a)
BlackRock, Inc.40 East 52nd Street New York, New York 10022	21,628,469 (b)	7.23%
Trian Fund Management, L.P. 280 Park Avenue, 41st Floor New York, New York 10017	21,072,305 (c)	7.04%
Fidelity Management and Research (FMR) LLC 82 Devonshire Street Boston, Massachusetts 02109	16,984,883 (d)	5.67%

(a) The ownership percentages set forth in this column are based on the Company's outstanding ordinary shares on the Record Date and assumes that each of the beneficial owners continued to own the number of shares reflected in the table above on such date.

(b) Information regarding BlackRock, Inc. and its stockholdings was obtained from a Schedule 13G filed with the SEC on January 30, 2013. The filing indicated that, as of December 31, 2012, BlackRock, Inc. had sole voting power and sole dispositive power as to all of such shares.

(c) Information regarding Trian and its stockholdings was obtained from the Schedule 13D (Amendment No. 3) filed with the SEC on August 13, 2012. According to the Schedule 13D (Amendment No. 3), Trian Fund Management, L.P. shares voting and dispositive power over all or some of the shares with Trian Partners, L.P., Trian Partners Master Fund, L.P., Trian Partners Parallel Fund I, L.P., Trian Partners Strategic Investment Fund, L.P., Trian Partners Strategic Investment Fund-A, L.P., Trian Partners Strategic Co-Investment Fund-A, L.P., Trian Partners Master Fund (ERISA), L.P., Trian Fund Management GP, LLC, Trian SPV (SUB) VI, L.P., Trian SPV (SUB) VI-A, L.P., Trian IR Holdco Ltd., Nelson Peltz, Peter W. May and Edward P. Garden.

(d) Information regarding the FMR LLC and its stockholdings was obtained from a Schedule 13G (Amendment No. 4) filed with the SEC on February 14, 2013. The filing indicated that, as of December 31, 2012, FMR LLC had sole voting power as to 2,931,576 of such shares and sole dispositive power as to 16,984,883 of such shares.

Equity Compensation Plan Information

The following table provides information as of December 31, 2012, with respect to the Company's ordinary shares that may be issued under equity compensation plans:

Plan Category	Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in First Column)
Equity compensation plans approved by security holders (1)	17,535,449	$ 36.49	5,288,441
Equity compensation plans not approved by security holders (2)	1,032,681	—	—
Total	18,568,130	$ 36.49	5,288,441

(1) Consists of the Incentive Stock Plan of 1998, the 2007 Plan and the Trane 2002 Omnibus Incentive Plan.

(2) Consists of EDCP Plans, DDCP Plans and the TDCP. Plan participants acquire Company shares under these plans as a result of the deferral of salary, AIM awards and PSUs.

The table above shows our outstanding equity awards as of December 31, 2012. After that date, the Company issued equity awards consisting of 1,324,344 stock options, 530,326 RSUs and 540,674 PSUs under the 2007 Plan. A significant majority of the stock options and RSUs had a three-year pro-rata vesting schedule. Some of the stock options and RSUs had a three-year cliff vesting schedule. As of the Record Date, the number of outstanding equity awards and shares currently available were:

- 12,279,921 stock options outstanding with a weighted-average exercise price of $38.88 and weighted-average remaining term of 5.6 years;
- 1,294,647 RSUs outstanding;
- 1,649,522 PSUs outstanding; and
- 2,716,261 shares available for issuance under the 2007 Plan.

At the June 6, 2013 Compensation Committee meeting, we expect to grant equity awards under the 2007 Plan not to exceed 35,000 shares. No additional grants will be made under the 2007 Plan after such grants if the proposed 2013 Plan is approved. As of the Record Date, we had 299,338,262 issued and outstanding shares.

CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS

The Company does not generally engage in transactions in which its executive officers, directors or nominees for directors, any of their immediate family members or any of its 5% shareholders have a material interest. Pursuant to the Company's written related person transaction policy, any such transaction must be reported to management, which will prepare a summary of the transaction and refer it to the Corporate Governance and Nominating Committee for consideration and approval by the disinterested directors. The Corporate Governance and Nominating Committee reviews the material terms of the related person transaction, including the dollar values involved, the relationships and interests of the parties to the transaction and the impact, if any, to a director's independence. The Corporate Governance and Nominating Committee only approves those transactions that are in the best interest of the Company. In addition, the Company's Code of Conduct, which sets forth standards applicable to all employees, officers and directors of the Company, generally proscribes transactions that could result in a conflict of interest for the Company. Any waiver of the Code of Conduct for any executive officer or director requires the approval of the Company's Board of Directors. Any such waiver will, to the extent required by law or the NYSE, be disclosed on the Company's website at *www.ingersollrand.com* or on a current report on Form 8-K. No such waivers were requested or granted in 2012.

We have not made payments to directors other than the fees to which they are entitled as directors (described under the heading "Compensation of Directors") and the reimbursement of expenses related to their services as directors. We have made no loans to any director or officer nor have we purchased any shares of the Company from any director or officer.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires our directors and officers, and persons who beneficially own more than ten percent of the Company's ordinary shares, to file reports of ownership and reports of changes in ownership with the SEC and the NYSE. To the Company's knowledge, based solely on its review of such forms received by the Company and written representations that no other reports were required, (i) each officer made one late filing in 2012 related to a Company matching contribution to the Supplemental Executive Savings Plan due to an administrative error and (ii) all Section 16(a) filing requirements were complied with for each director for 2012.

SHAREHOLDER PROPOSALS AND NOMINATIONS

Any proposal by a shareholder intended to be presented at the 2014 Annual General Meeting of shareholders of the Company must be received by the Company at its registered office at 170/175 Lakeview Drive, Airside Business Park, Swords, Co. Dublin, Ireland, Attn: Secretary, no later than December 26, 2013, for inclusion in the proxy materials relating to that meeting. Any such proposal must meet the requirements set forth in the rules and regulations of the SEC, including Rule 14a-8, in order for such proposals to be eligible for inclusion in our 2014 proxy statement.

The Company's Articles of Association set forth procedures to be followed by shareholders who wish to nominate candidates for election to the Board of Directors in connection with annual general meetings of shareholders or pursuant to written shareholder consents or who wish to bring other business before a shareholders' general meeting. All such nominations must be accompanied by certain background and other information specified in the Articles of Association. In connection with the 2013 annual general meeting, written notice of a shareholder's intention to make such nominations or bring business before the annual general meeting must be given to the Secretary of the Company not later than March 7, 2014. If the date of the 2014 annual general meeting occurs more than 30 days before, or 60 days after, the anniversary of the 2013 annual general meeting, then the written notice must be provided to the Secretary of the Company not later than the seventh day after the date on which notice of such annual general meeting is given.

The Corporate Governance and Nominating Committee will consider all shareholder recommendations for candidates for Board membership, which should be sent to the Committee, care of the Secretary of the Company, at the address set forth above. In addition to considering candidates recommended by shareholders, the Committee considers potential candidates recommended by current directors, Company officers, employees and others. As stated in the Company's Corporate Governance Guidelines, all candidates for Board membership are selected based upon their judgment, character, achievements and experience in matters affecting business and industry. Candidates recommended by shareholders are evaluated in the same manner as director candidates identified by any other means.

In order for you to bring other business before a shareholder general meeting, timely notice must be received by the Secretary of the Company within the time limits described above. The notice must include a description of the proposed item, the reasons you believe support your position concerning the item, and other specified matters. These requirements are separate from and in addition to the requirements you must meet to have a proposal included in our Proxy Statement. The foregoing time limits also apply in determining whether notice is timely for purposes of rules adopted by the SEC relating to the exercise of discretionary voting authority.

If a shareholder wishes to communicate with the Board of Directors for any other reason, all such communications should be sent in writing, care of the Secretary of the Company, or by email at *irboard@irco.com*.

HOUSEHOLDING

SEC rules permit a single set of annual reports and proxy statements to be sent to any household at which two or more shareholders reside if they appear to be members of the same family. Each shareholder continues to receive a separate proxy card. This procedure is referred to as householding. While the Company does not household in mailings to its shareholders of record, a number of brokerage firms with account holders who are Company shareholders have instituted householding. In these cases, a single proxy statement and annual report will be delivered to multiple shareholders sharing an address unless contrary instructions have been received from the affected shareholders. Once a shareholder has received notice from his or her broker that the broker will be householding communications to the shareholder's address, householding will continue until the shareholder is notified otherwise or until the shareholder revokes his or her consent. If at any time a shareholder no longer wishes to participate in householding and would prefer to receive a separate proxy statement and annual report, he or she should notify his or her broker. Any shareholder can receive a copy of the Company's proxy statement and annual report by contacting the Company at its registered office at 170/175 Lakeview Drive, Airside Business Park, Swords, Co. Dublin, Ireland, Attention: Secretary or by accessing it on the Company's website at *www.ingersollrand.com*.

Shareholders who hold their shares through a broker or other nominee who currently receive multiple copies of the proxy statement and annual report at their address and would like to request householding of their communications should contact their broker.

Dated: April 25, 2013

Appendix A

Directions to the Annual General Meeting

Directions from Dublin to Adare Manor Hotel & Golf Resort (3 Hours)

- Take the N7 from Dublin to Nenagh (in Co. Tipperary).
- From Nenagh, continue along the N7 until you reach Limerick City.
- Once you reach Limerick City, look for the signs for the N21 (South Side of Limerick City), follow this road which runs through the village of Adare.
- Adare Manor Hotel & Golf Resort is on the left-hand side as you approach the village.

Directions from Shannon Airport to Adare Manor Hotel & Golf Resort (25 mins)

- Follow the N18 from Shannon Airport to Limerick City.
- Continue through the Limerick Tunnel, this is a Toll road, there is a charge of €1.80 for all cars.
- Leave the N18 at Junction 1 (signposted Cork)
- Continue on the N21(signposted Tralee) to the Village of Adare.
- Adare Manor Hotel & Golf Resort is on the left-hand side as you approach the village.

INGERSOLL-RAND PLC
INCENTIVE STOCK PLAN OF 2013

1. **Purpose of the Plan**

The purpose of the Plan is to aid the Company and its Affiliates in recruiting and retaining key employees and directors and to motivate such employees and directors to exert their best efforts on behalf of the Company and its Affiliates by providing incentives through the granting of Awards. The Company expects that it will benefit from the added interest which such key employees and directors will have in the welfare of the Company as a result of their proprietary interest in the Company's success.

2. **Definitions**

The following capitalized terms used in the Plan have the respective meanings set forth in this Section:

(a) Act: The Securities Exchange Act of 1934, as amended, or any successor thereto.

(b) Affiliate: With respect to the Company, any Person or entity directly or indirectly controlling, controlled by, or under common control with, the Company or any other Person or entity designated by the Board in which the Company or an Affiliate has an interest.

(c) Associate: With respect to a specified Person, means (i) any corporation, partnership, or other organization of which such specified Person is an officer or partner; (ii) any trust or other estate in which such specified Person has a substantial beneficial interest or as to which such specified Person serves as trustee or in a similar fiduciary capacity; (iii) any relative or spouse of such specified Person, or any relative of such spouse who has the same home as such specified Person, or who is a director or officer of the Company or any of its Subsidiaries; and (iv) any Person who is a director, officer, or partner of such specified Person or of any corporation (other than the Company or any wholly-owned Subsidiary), partnership or other entity which is an Affiliate of such specified person.

(d) Award: An Option, Stock Appreciation Right or Other Stock-Based Award granted pursuant to the Plan.

(e) Beneficial Owner: A “beneficial owner”, as such term is defined in Rule 13d-3 under the Act (or any successor rule thereto) provided, however, that any individual, corporation, partnership, group, association or other Person or entity which has the right to acquire any of the Company's outstanding securities entitled to vote generally in election of directors at any time in the future, whether such right is contingent or absolute, pursuant to any agreement, arrangement or understanding or upon exercise of conversion rights, warrants or options, or otherwise, shall be deemed the Beneficial Owner of such securities.

(f) Board: The Board of Directors of the Company.

(g) Change in Control: The date (i) any individual, corporation, partnership, group, association or other person or entity, together with its Affiliates and Associates (other than a trustee or other fiduciary holding securities under an employee benefit plan of the Company or Ingersoll-Rand Company, a New Jersey corporation), is or becomes the Beneficial Owner of securities of the Company representing 30% or more of the combined voting power of the Company's Voting Securities; (ii) the Continuing Directors fail to constitute a majority of the members of the Board; (iii) of consummation of any transaction or series of transactions under which the Company is merged or consolidated with any other company which is not an Affiliate; (iv) of any sale, lease, exchange or other transfer, in one transaction or a series of related transactions, of all, or substantially all, of the assets of the Company, other than any sale, lease, exchange or other transfer to any Person or entity where the Company owns, directly or indirectly, at least 80% of the combined voting power of the Voting Securities of such Person or entity or its parent corporation after any such transfer; or (v) any other event that the Continuing Directors determine to be a Change in Control; provided, however, that in the case of a transaction described in (i), (iii) or (v), above, there shall not be a Change in Control if the shareholders of the Company immediately prior to any such transaction own (or continue to own by remaining outstanding or by being converted into Voting Securities of the surviving entity or parent entity) more than 50% of the combined voting power of the Voting Securities of the Company, the surviving entity or any parent of either immediately following such transaction, in substantially the same proportion to each other as prior to such transaction.

(h) Code: The Internal Revenue Code of 1986, as amended, or any successor thereto.

Proxy Statement

(i) Committee: The Compensation Committee of the Board (or a subcommittee thereof), or such other committee of the Board (including, without limitation, the full Board) to which the Board has delegated power to act under or pursuant to the provisions of the Plan.

(j) Company: Ingersoll-Rand plc, an Irish company and any successor thereto.

(k) Continuing Directors: A director who either was a member of the Board on the Effective Date or who became a member of the Board subsequent to such date and whose election, or nomination for election by the Company's shareholders, was Duly Approved by the Continuing Directors on the Board at the time of such nomination or election, either by a specific vote or by approval of the proxy statement issued by the Company on behalf of the Board in which such person is named as nominee for director, without due objection to such nomination, but excluding, for this purpose, any such individual whose initial assumption of office occurs as a result of an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies or consents by or on behalf of a person or entity other than the Board.

(l) Duly Approved by the Continuing Directors: An action approved by the vote of at least two-thirds of the Continuing Directors then on the Board.

(m) Effective Date: June 6, 2013.

(n) Fair Market Value: On a given date, (i) if there should be a public market for the Shares on such date, the average between the high and low price of the Shares as reported on such date on the principal national securities exchange on which such Shares are listed or admitted to trading, or, if the Shares are not listed or admitted on any national securities exchange, the arithmetic mean of the per Share closing bid price and per Share closing asked price on such date as quoted on the National Association of Securities Dealers Automated Quotation System (or such market in which such prices are regularly quoted) (the “NASDAQ”), or, if no sale of Shares shall have been reported on any national securities exchange or quoted on the NASDAQ on such date, then the immediately preceding date on which sales of the Shares have been so reported or quoted shall be used, and (ii) if there should not be a public market for the Shares on such date, the Fair Market Value shall be the value established by the Committee in good faith.

(o) Full Value Awards: Awards of Shares under the Plan (including any future grants of restricted stock or phantom stock) that are not awards of Options or Stock Appreciation Rights.

(p) ISO: An Option that is also an incentive stock option granted pursuant to Section 6(d) of the Plan.

(q) Option: A stock option granted pursuant to Section 6 of the Plan.

(r) Option Price: The purchase price per Share of an Option, as determined pursuant to Section 6(a) of the Plan.

(s) Other Stock-Based Awards: Awards granted pursuant to Section 8 of the Plan.

(t) Participant: An employee or director who is selected by the Committee to participate in the Plan.

(u) Performance-Based Awards: Certain Other Stock-Based Awards granted pursuant to Section 8(b) of the Plan.

(v) Person: A “person”, as such term is used for purposes of Section 13(d) or 14(d) of the Act (or any successor section thereto), including any Affiliate or Associate of the Company.

(w) Plan: The Ingersoll-Rand plc Incentive Stock Plan of 2013, as from time to time amended and then in effect.

(x) Shares: Ordinary shares of the Company.

(y) Stock Appreciation Right: A stock appreciation right granted pursuant to Section 7 of the Plan.

(z) Subsidiary: A subsidiary corporation, as defined in Section 424(f) of the Code (or any successor section thereto).

(aa) Substitute Award: an Award granted under the Plan in assumption of, or in substitution for, outstanding awards previously granted by an entity directly or indirectly acquired by the Company or with which the Company combines.

(ab) Voting Securities: The outstanding securities entitled to vote generally in election of directors.

3. **Shares Subject to the Plan**

Subject to Section 9, the total number of Shares which may be issued under the Plan is 20,000,000 and the maximum number of Shares for which ISOs may be granted is 20% of the total number of Shares which may be issued under the Plan. To the extent any Shares are granted as Full Value Awards, each such Share shall count as 2.54 Shares for purposes of the overall limit on Shares available for further grants under the Plan. The Shares may consist, in whole or in part, of unissued Shares or treasury Shares. The actual issuance of Shares upon the exercise of an Award or in consideration of the cancellation or termination of an Award shall reduce the number of Shares available for grant under the Plan with a reduction of 2.54 Shares for every Share previously granted as a Full Value Award and a reduction of one Share for every Share previously granted as an Award of Options or Stock Appreciation Rights. In the event all or any portion of an Award is terminated or lapses without the payment of consideration, the number of Shares not issued that were originally deducted for such Award pursuant to this Section 3 shall be restored and may again be used for Awards under the Plan. In the event that Shares are retained or are otherwise not issued by the Company in order to satisfy tax withholding obligations in connection with Full Value Awards, the number of Shares so retained or not issued that were originally deducted for such Award pursuant to this Section 3 shall be restored and may again be used for Awards under the Plan. Shares subject to an Award under the Plan may not be available again for issuance under the Plan if such Shares are retained or otherwise not issued by the Company in order to satisfy tax withholding obligations in connection with Options or Stock Appreciation Rights.

Notwithstanding anything contained in this Section 3 to the contrary, (a) Substitute Awards shall not reduce the overall limit on Shares available for grant under the Plan; provided, that Substitute Awards issued in connection with the assumption of, or in substitution for, outstanding options intended to qualify as "incentive stock options" within the meaning of Section 422 of the Code shall reduce the aggregate number of Shares available for Awards of Incentive Stock Options under the Plan; and (b) subject to applicable stock exchange requirements, available shares under a shareholder approved plan of an entity directly or indirectly acquired by the Company or with which the Company combines (as appropriately adjusted to reflect the acquisition or combination transaction) may be used for Awards under the Plan and shall not reduce the number of Shares available for delivery under the Plan.

4. **Administration**

The Plan shall be administered by the Committee, which may delegate its duties and powers in whole or in part to any subcommittee thereof consisting solely of at least two individuals who are intended to qualify as "Non-Employee Directors" within the meaning of Rule 16b-3 under the Act (or any successor rule thereto), "independent directors" within the meaning of The New York Stock Exchange's listed company rules and "outside directors" within the meaning of Section 162 (m) of the Code (or any successor section thereto). Additionally, the Committee may delegate the authority to grant Awards under the Plan to any employee or group of employees of the Company or an Affiliate; provided, however, that such delegation and grants are consistent with applicable law and guidelines established by the Committee from time to time. The Committee may appoint such agents as it deems necessary or advisable for the proper administration of the Plan; provided, however, that such appointment is consistent with applicable law and guidelines established by the Committee from time to time. The Committee is authorized to interpret the Plan, to establish, amend and rescind any rules and regulations relating to the Plan, and to make any other determinations that it deems necessary or desirable for the administration of the Plan. The Committee may correct any defect or supply any omission or reconcile any inconsistency in the Plan in the manner and to the extent the Committee deems necessary or desirable. Any decision of the Committee in the interpretation and administration of the Plan, as described herein, shall lie within its sole and absolute discretion and shall be final, conclusive and binding on all parties concerned (including, but not limited to, Participants and their beneficiaries or successors). The Committee shall have the full power and authority to establish the terms and conditions of any Award consistent with the provisions of the Plan and to waive any such terms and conditions at any time (including, without limitation, accelerating or waiving any vesting conditions). The Committee shall require payment of any amount it may determine to be necessary for federal, state, local or other taxes as a result of the exercise, grant or vesting of an Award. The Committee shall not be required to issue any Award under the Plan until such obligations described in the previous sentence have been satisfied in full.

5. **Limitations**

No Award may be granted under the Plan after the tenth anniversary of the Effective Date, but Awards theretofore granted may extend beyond that date.

6. **Terms and Conditions of Options**

Options granted under the Plan shall be, as determined by the Committee, non-qualified or incentive stock options for United States federal income tax purposes, as evidenced by the related Award letters, and shall be subject to the foregoing and the following terms and conditions and to such other terms and conditions, not inconsistent therewith, as the Committee shall determine:

(a) Option Price. The Option Price per Share shall be determined by the Committee, but shall not be less than 100% of the Fair Market Value of a Share on the date an Option is granted (other than as described in Section 3).

(b) Exercisability. Options granted under the Plan shall be exercisable at such time and upon such terms and conditions as may be determined by the Committee, but in no event shall an Option be exercisable more than ten years after the date it is granted.

(c) Exercise of Options. Except as otherwise provided in the Plan or in an Award letter, an Option may be exercised for all, or from time to time any part, of the Shares for which it is then exercisable. For purposes of Section 6 of the Plan, the exercise date of an Option shall be the later of the date a notice of exercise is received by the Company or its designee or administrative agent in the form and manner satisfactory to the Company and, if applicable, the date payment is received by the Company or its designee or administrative agent in accordance with the following sentence. The purchase price for the Shares as to which an Option is exercised shall be paid to the Company as designated by the Committee, pursuant to one or more of the following methods: (i) in cash or its equivalent (e.g., by personal check) or (ii) if there is a public market for the Shares underlying the Options at such time, through the delivery of irrevocable instructions to a broker to sell Shares obtained upon the exercise of the Option and to deliver promptly to the Company an amount out of the proceeds of such sale equal to the aggregate Option Price for the Shares being purchased.

(d) ISOs. The Committee may grant Options under the Plan that are intended to be ISOs. Such ISOs shall comply with the requirements of Section 422 of the Code (or any successor section thereto). ISOs shall be granted only to Participants who are employees of the Company and its Affiliates. No ISO may be granted to any Participant who at the time of such grant, owns more than ten percent of the total combined voting power of all classes of stock of the Company or of any Subsidiary, unless (i) the Option Price for such ISO is at least 110% of the Fair Market Value of a Share on the date the ISO is granted and (ii) the date on which such ISO terminates is a date not later than the day preceding the fifth anniversary of the date on which the ISO is granted. Any Participant who disposes of Shares acquired upon the exercise of an ISO either (A) within two years after the date of grant of such ISO or (B) within one year after the transfer of such Shares to the Participant, shall notify the Company of such disposition and of the amount realized upon such disposition. All Options granted under the Plan are intended to be nonqualified stock options, unless the applicable Award letter expressly states that the Option is intended to be an ISO. If an Option is intended to be an ISO, and if for any reason such Option (or portion thereof) shall not qualify as an ISO, then, to the extent of such nonqualification, such Option (or portion thereof) shall be regarded as a nonqualified stock option granted under the Plan; provided that such Option (or portion thereof) otherwise complies with the Plan's requirements relating to nonqualified stock options. In no event shall any member of the Committee, the Company or any of its Affiliates (or their respective employees, officers or directors) have any liability to any Participant (or any other Person) due to the failure of an Option to qualify for any reason as an ISO.

(e) Rights with Respect to Shares. No Participant shall have any rights to dividends or other rights of a shareholder with respect to Shares subject to an Option until the Participant has given written notice of exercise of the Option, paid in full for such Shares and, if applicable, has satisfied any other conditions imposed by the Committee pursuant to the Plan.

7. **Terms and Conditions of Stock Appreciation Rights**

(a) Grants. The Committee may grant (i) a Stock Appreciation Right independent of an Option or (ii) a Stock Appreciation Right in connection with an Option, or a portion thereof. A Stock Appreciation Right granted pursuant to clause (ii) of the preceding sentence (A) may only be granted at the time the related Option is granted, (B) shall cover the same number of Shares covered by an Option (or such lesser number of Shares as the Committee may determine) and (C) shall be subject to the same terms and conditions as such Option except for such additional limitations as are contemplated by this Section 7 (or such additional limitations as may be included in an Award letter).

(b) Terms. The exercise price per Share of a Stock Appreciation Right shall be an amount determined by the Committee but in no event shall such amount be less than the Fair Market Value of a Share on the date the Stock Appreciation Right is granted (other than as described in Section 4); provided, however, that in the case of a Stock Appreciation Right granted in conjunction with an Option, or a portion thereof, the exercise price may not be less than the Option Price of the related Option. Each Stock Appreciation Right granted independent of an Option shall entitle a Participant upon exercise to a number of Shares equal to (1) an amount that is (i) the excess of (A) the opening price of the Shares on the exercise date of one Share (the “Opening Price”) over (B) the exercise price per Share, multiplied by (ii) the number of Shares covered by the Stock Appreciation Right, divided by (2) the Opening Price. Each Stock Appreciation Right granted in conjunction with an Option, or a portion thereof, shall entitle a Participant to surrender to the Company the unexercised Option, or any portion thereof, and to receive from the Company in exchange therefore a number of Shares equal to (1) an amount that is (i) the excess of (A) the Opening Price over (B) the Option Price per Share, multiplied by (ii) the number of Shares covered by the Option, or portion thereof, which is surrendered, divided by (2) the Opening Price. Payment shall be made in Shares. Stock Appreciation Rights may be exercised from time to time upon actual receipt by the Company or its designee or administrative agent of written notice of exercise in the form and manner satisfactory to the Company stating the number of Shares with respect to which the Stock Appreciation Right is being exercised. The date a notice of exercise is received by the Company shall be the exercise date. No fractional Shares will be issued in payment for Stock Appreciation Rights, but instead the number of Shares will be rounded downward to the next whole Share.

(c) Limitations. The Committee may impose, in its discretion, such conditions regarding the exercisability of Stock Appreciation Rights as it may deem fit, but in no event shall a Stock Appreciation Right be exercisable more than ten years after the date it is granted.

8. **Other Stock-Based Awards**

(a) Generally. The Committee, in its sole discretion, may grant or sell Awards of Shares (including (i) Awards of Shares in lieu of any incentive or variable compensation to which a Participant is entitled to from the Company or its Subsidiaries and (ii) Awards of Shares granted to non-employee directors as all or a part of their retainer or other fees for services), Awards of restricted Shares and Awards that are valued in whole or in part by reference to, or are otherwise based on the Fair Market Value of, Shares ("Other Stock-Based Awards"). Such Other Stock-Based Awards shall be in such form, and dependent on such conditions, as the Committee shall determine, including, without limitation, the right to receive, or vest with respect to, one or more Shares (or the equivalent cash value of such Shares) upon the completion of a specified period of service, the occurrence of an event and/or the attainment of performance objectives. Other Stock-Based Awards may be granted alone or in addition to any other Awards granted under the Plan. Subject to the provisions of the Plan, the Committee shall determine to whom and when Other Stock-Based Awards will be made, the number of Shares to be awarded under (or otherwise related to) such Other Stock-Based Awards, and all other terms and conditions of such Awards (including, without limitation, the vesting provisions thereof and provisions ensuring that all Shares so awarded and issued shall be fully paid and non-assessable).

(b) Performance-Based Awards. Notwithstanding anything to the contrary herein, certain Other Stock-Based Awards, Options and Stock Appreciation Rights granted under this Section 8 may be granted in a manner which is intended to be deductible by the Company under Section 162(m) of the Code (or any successor section thereto) ("Performance-Based Awards"). Except in the case of Options and Stock Appreciation Rights that are not subject to achievement of performance goals, a Participant's Performance-Based Award shall be determined based on the attainment of written performance goals approved by the Committee for a performance period established by the Committee (i) while the outcome for that performance period is substantially uncertain and (ii) no more than 90 days after the commencement of the performance period to which the performance goal relates or, if less, the number of days which is equal to 25 percent of the relevant performance period. The performance goals, which must be objective, shall be based upon one or more of the following criteria: (i) consolidated earnings before or after taxes (including earnings before interest, taxes, depreciation and amortization); (ii) net income; (iii) operating income; (iv) operating income margin; (v) gross margin; (vi) earnings per Share; (vii) book value per Share; (viii) return on shareholders' equity; (ix) expense management; (x) return on invested capital; (xi) improvements in capital structure; (xii) profitability of an identifiable business unit or product; (xiii) maintenance or improvement of profit margins or revenue; (xiv) stock price; (xv) market share; (xvi) revenues or sales; (xvii) costs; (xviii) available cash flow; (xix) working capital; (xx) return on assets; (xxi) total shareholder return, (xxii) productivity ratios, and (xxiii) economic value added. In addition, to the degree consistent with Section 162(m) of the Code (or any successor section thereto), the performance goals may be calculated without regard to extraordinary items. The maximum amount of a Performance-Based Award during a calendar year to any Participant shall be: (x) with respect to Performance-Based Awards that are Options or Stock Appreciation Rights, 750,000 Shares and (y) with respect to Performance-Based Awards that are not Options or Stock Appreciation Rights, $15,000,000 on the date of the award. Except in the case of Options and Stock Appreciation Rights that are not subject to achievement of performance goals, no Performance-Based Awards will be paid for a performance period until certification is made by the Committee that the criteria described in this Section 8(b) has been attained. The amount of the Performance-Based Award actually paid to a given Participant may be less than (but not greater than) the amount determined by the applicable performance goal formula, at the discretion of the Committee. The amount of the Performance-Based Award determined by the Committee for a performance period shall be paid to the Participant at such time as determined by the Committee in its sole discretion after the end of such performance period; provided, however, that a Participant may, if and to the extent permitted by the Committee and consistent with the provisions of Sections 162(m) and 409A of the Code, elect to defer payment of a Performance-Based Award.

9. **Adjustments Upon Certain Events**

Notwithstanding any other provisions in the Plan to the contrary (except for Section 17), the following provisions shall apply to all Awards granted under the Plan:

(a) Generally. In the event of any change in the outstanding Shares after the Effective Date by reason of any reorganization, recapitalization, merger, consolidation, spin-off, combination, combination or transaction or exchange of Shares or other corporate exchange, or any distribution to shareholders of Shares other than regular cash dividends or any transaction similar to the foregoing, the Committee shall make such substitution or adjustment, as it deems, in its sole discretion and without liability to any person, to be equitable (subject to Section 17), as to (i) the number or kind of Shares or other securities issued or reserved for issuance pursuant to the Plan or pursuant to outstanding Awards, (ii) the maximum number of Shares for which Options or Stock Appreciation Rights may be granted during a calendar year to any Participant (iii) the maximum amount of a Performance-Based Award that may be granted during a calendar year to any Participant, (iv) the Option Price or exercise price of any Stock Appreciation Right and/or (v) any other affected terms of such Awards, including, without limitation, any affected performance measures or goals applicable to Performance-Based Awards. In the event of any change in the outstanding Shares after the Effective Date by reason of any stock split (forward or reverse) or any stock dividend, all adjustments described in the preceding sentence shall occur automatically in accordance with the ratio of the stock split or stock dividend, unless otherwise determined by the Committee.

(b) Change in Control. The provisions of this Section 9(b) shall apply in the event of a Change in Control, unless otherwise determined by the Committee in connection with the grant of an Award as reflected in the applicable Award letter.

(i) All outstanding Options and Stock Appreciation Rights (including any Options and Stock Appreciation Rights that are Performance-Based Award but are not subject to achievement of any performance goals set forth in Section 8(b) hereof but excluding any other Performance-Based Awards) shall become immediately vested and exercisable;

(ii) All Other Stock-Based Awards (other than Performance-Based Awards) shall become immediately vested and payable; and

(iii) With respect to Performance-Based Awards (other than Options and Stock Appreciation Rights that are not subject to achievement of any performance goals set forth in Section 8(b) hereof), the performance periods applicable to such Performance-Based Awards shall lapse and Participants shall be deemed to have earned a pro rata award equal to the product of (A) such Participants' target award opportunity for the performance period in question and (B) a fraction, the numerator of which is the number of full plus partial months that have elapsed since the beginning of the performance period to the date on which the Change in Control occurs, and the denominator of which is the total number of months in such performance period.

Notwithstanding the foregoing, the Committee may (subject to Section 17), in its sole discretion, but shall not be obligated to, (A) cancel such Awards for fair value (as determined in the sole discretion of the Committee) which, in the case of Options and Stock Appreciation Rights, shall equal the excess, if any, of value of the consideration to be paid in the Change in Control transaction to holders of the same number of Shares subject to such Options or Stock Appreciation Rights (or, if no consideration is paid in any such transaction, the Fair Market Value of the Shares subject to such Options or Stock Appreciation Rights) over the aggregate exercise price of such Options or Stock Appreciation Rights, (B) provide for the issuance of substitute awards that will substantially preserve the otherwise applicable terms of any affected Awards previously granted hereunder as determined by the Committee in its sole discretion or (C) provide that for a period of at least 15 days prior to the Change in Control, such Options and Stock Appreciation Rights shall be exercisable as to all shares subject thereto and that upon the occurrence of the Change in Control, such Options and Stock Appreciation Rights shall terminate and be of no further force and effect.

10. **No Right to Employment or Awards**

The granting of an Award under the Plan shall impose no obligation on the Company or any Affiliate to continue the employment or service of a Participant and shall not lessen or affect the Company's or Affiliate's right to terminate the employment or service of such Participant. No Participant or other Person shall have any claim to be granted any Award, and there is no obligation for uniformity of treatment of Participants, or holders or beneficiaries of Awards. The terms and conditions of Awards and the Committee's determinations and interpretations with respect thereto need not be the same with respect to each Participant (whether or not such Participants are similarly situated).

11. **Successors and Assigns**

The Plan shall be binding on all successors and assigns of the Company and a Participant, including without limitation, the estate of such Participant and the executor, administrator or trustee of such estate, or any receiver or trustee in bankruptcy or representative of the Participant's creditors.

12. **Nontransferability of Awards**

(a) Each Award shall be exercisable only by a Participant during the Participant's lifetime, or, if permissible under applicable law, by the Participant's legal guardian or representative. No Award may be assigned, alienated, pledged, attached, sold or otherwise transferred or encumbered by a Participant other than by will or by the laws of descent and distribution and any such purported assignment, alienation, pledge, attachment, sale, transfer or encumbrance shall be void and unenforceable against the Company or an Affiliate.

(b) Notwithstanding the foregoing, the Committee may, in its sole discretion, permit Awards (other than ISOs) to be transferred by a Participant, without consideration, in connection with estate planning or charitable transfers, subject to such rules as the Committee may adopt consistent with any applicable Award agreement to preserve the purposes of the Plan; provided that the Participant gives the Committee advance written notice describing the terms and conditions of the proposed transfer and the Committee notifies the Participant in writing that such a transfer would comply with the requirements of the Plan.

13. **Amendments or Termination**

(a) Amendment and Termination of the Plan. The Board may amend, alter, suspend, discontinue, or terminate the Plan or any portion thereof at any time; provided, that no such amendment, alteration, suspension, discontinuation or termination shall be made without shareholder approval if (i) it would materially increase the number of securities which may be issued under the Plan or granted to any Participant (except for increases pursuant to Section 9), (ii) it extends the term of the Plan, (iii) it materially expands the types of Awards available under the Plan or materially expands the class of persons eligible to receive Awards under the Plan, or (iv) such approval is necessary to comply with any regulatory requirement applicable to the Plan (including, without limitation, as necessary to comply with any rules or regulations of any securities exchange or inter-dealer quotation system on which the securities of the Company may be listed or quoted); *provided, however*, that, subject to Section 17, any such amendment, alteration, suspension, discontinuance or termination that would materially and adversely affect the rights of any Participant or any holder of any Award theretofore granted shall not to that extent be effective without the consent of the affected Participant or holder. Notwithstanding the foregoing, no amendment shall be made to this Section 13 without shareholder approval.

(b) Amendment of Award Agreements. The Committee may, to the extent consistent with the terms of any applicable Award agreement, waive any conditions or rights under, amend any terms of, or alter, suspend, discontinue, cancel or terminate, any Award theretofore granted or the associated Award agreement, prospectively or retroactively (including after a Participant's termination of employment or service with the Company); *provided* that, subject to Section 17, any such waiver, amendment, alteration, suspension, discontinuance, cancellation or termination that would materially and adversely affect the rights of any Participant with respect to any Award theretofore granted shall not to that extent be effective without the consent of the affected Participant.

(c) Repricing of Awards. Subject to Section 9, in no event shall the Committee or the Board take any action without approval of the shareholders of the Company that would (i) reduce the exercise price of any Option or Stock Appreciation Right, (ii) result in the cancellation of any outstanding Option or Stock Appreciation Right and replacement with a new Option or Stock Appreciation Right with a lower exercise price or with, a cash payment that is greater than the Fair Market Value of the Option or Stock Appreciation Right or (iii) result in any other action that would be considered a “repricing” for purposes of the shareholder approval rules of any securities exchange or inter-dealer quotation system on which the securities of the Company are listed or quoted.

14. **International Participants**

With respect to Participants who reside or work outside the United States of America and who are not (and who are not expected to be) “covered employees” within the meaning of Section 162(m) of the Code, the Committee may, in its sole discretion, amend the terms of the Plan or Awards with respect to such Participants in order to conform such terms with the requirements of local law or to obtain more favorable tax or other treatment for a Participant, the Company or an Affiliate.

15. **Choice of Law**

The Plan shall be governed by and construed in accordance with the laws of the State of North Carolina without regard to conflicts of laws.

16. **Effectiveness of the Plan**

The Plan shall be effective as of the Effective Date, subject to the approval of the shareholders of the Company.

17. **Section 409A**

Notwithstanding other provisions of the Plan or any Award letter thereunder, no Award shall be granted, deferred, accelerated, extended, paid out or modified under this Plan in a manner that would result in the imposition of an additional tax under Section 409A of the Code upon a Participant. In the event that it is reasonably determined by the Committee that, as a result of Section 409A of the Code, payments in respect of any Award under the Plan may not be made at the time contemplated by the terms of the Plan or the relevant Award letter, as the case may be, without causing the Participant holding such Award to be subject to taxation under Section 409A of the Code, the Company will make such payment on the first day that would not result in the Participant incurring any tax liability under Section 409A of the Code.

Without limiting the generality of the foregoing, to the extent applicable, notwithstanding anything herein to the contrary, this Plan and Awards issued hereunder shall be interpreted in accordance with Section 409A of the Code and Department of Treasury regulations and other interpretative guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Effective Date. Notwithstanding any provision of the Plan to the contrary, in the event that the Committee determines that any amounts payable hereunder will be taxable to a Participant under Section 409A of the Code and related Department of Treasury guidance prior to payment to such Participant of such amount, the Company may (a) adopt such amendments to the Plan and Awards and appropriate policies and procedures, including amendments and policies with retroactive effect, that the Committee determines necessary or appropriate to preserve the intended tax treatment of the benefits provided by the Plan and Awards hereunder and/or (b) take such other actions as the Committee determines necessary or appropriate to avoid the imposition of an additional tax under Section 409A of the Code.

18. **Clawback/Recoupment Policy**

Notwithstanding anything contained herein to the contrary, all Awards granted under the Plan shall be and remain subject to any incentive compensation clawback or recoupment policy currently in effect or as may be adopted by the Board and, in each case, as may be amended from time to time. No such policy adoption or amendment shall in any event require the prior consent of any Participant.

19. **Dividends and Dividend Equivalents**

The Committee in its sole discretion may provide a Participant as part of an Award with dividends or dividend equivalents, payable in cash, Shares, other securities, other Awards or other property, on a current or deferred basis, on such terms and conditions as may be determined by the Committee in its sole discretion, including without limitation, payment directly to the Participant, withholding of such amounts by the Company subject to vesting of the Award or reinvestment in additional shares of Shares or other Awards; provided, that no dividends or dividend equivalents shall be payable in respect of outstanding (i) Options or Stock Appreciation Rights or (ii) unearned Performance-Based Awards or other unearned Awards subject to vesting conditions (although dividends and dividend equivalents may be accumulated in respect of unearned Awards and paid within 15 days after such Awards are earned and become payable or distributable).

* * *

As adopted by the Board of Directors of the Company on April 3, 2013, subject to shareholder approval.

2012 Financials

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K

(Mark One)

X ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2012
or

— TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from ____ to ____
Commission File No. 001-34400
INGERSOLL-RAND PUBLIC LIMITED COMPANY
(Exact name of registrant as specified in its charter)

Ireland	**98-0626632**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*

170/175 Lakeview Dr.
Airside Business Park
Swords, Co. Dublin
Ireland
(Address of principal executive offices)
Registrant's telephone number, including area code: +(353) (0) 18707400
Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Name of each exchange on which registered**
Ordinary Shares, Par Value $1.00 per Share	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES_X_ NO____

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. YES____ NO_X_

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES_X_ NO____

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES_X_ NO____

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. [ ]

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.:

Large accelerated filer X	Accelerated filer _____
Non-accelerated filer ____ (Do not check if a smaller reporting company)	Smaller reporting company ______

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). YES____ NO_X_

The aggregate market value of ordinary shares held by nonaffiliates on June 30, 2012 was approximately $13.0 billion based on the closing price of such stock on the New York Stock Exchange.

The number of ordinary shares outstanding as of February 1, 2013 was 296,317,386.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's proxy statement to be filed within 120 days of the close of the registrant's fiscal year in connection with the registrant's Annual General Meeting of Shareholders to be held June 6, 2013 are incorporated by reference into Part II and Part III of this Form 10-K.

INGERSOLL-RAND PLC

Form 10-K
For the Fiscal Year Ended December 31, 2012

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CAUTIONARY STATEMENT FOR FORWARD LOOKING STATEMENTS

Certain statements in this report, other than purely historical information, are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These forward-looking statements generally are identified by the words "believe," "project," "expect," "anticipate," "estimate," "forecast," "outlook," "intend," "strategy," "plan," "may," "should," "will," "would," "will be," "will continue," "will likely result," or the negative thereof or variations thereon or similar terminology generally intended to identify forward-looking statements.

Forward-looking statements may relate to such matters as projections of revenue, margins, expenses, tax provisions, earnings, cash flows, benefit obligations, share or debt repurchases or other financial items; any statements of the plans, strategies and objectives of management for future operations, including those relating to any statements concerning expected development, performance or market share relating to our products and services; any statements regarding future economic conditions or our performance; any statements regarding pending investigations, claims or disputes, including those relating to the Internal Revenue Service audit of our consolidated subsidiaries' tax filings; any statements of expectation or belief; and any statements of assumptions underlying any of the foregoing. These statements are based on currently available information and our current assumptions, expectations and projections about future events. While we believe that our assumptions, expectations and projections are reasonable in view of the currently available information, you are cautioned not to place undue reliance on our forward-looking statements. You are advised to review any further disclosures we make on related subjects in materials we file with or furnish to the SEC. Forward-looking statements speak only as of the date they are made and are not guarantees of future performance. They are subject to future events, risks and uncertainties - many of which are beyond our control - as well as potentially inaccurate assumptions, that could cause actual results to differ materially from our expectations and projections. We do not undertake to update any forward-looking statements.

Factors that might affect our forward-looking statements include, among other things:

- overall economic, political and business conditions in the markets in which we operate;
- the demand for our products and services;
- competitive factors in the industries in which we compete;
- changes in tax requirements (including tax rate changes, new tax laws and revised tax law interpretations);
- the outcome of any litigation, governmental investigations or proceedings;
- the outcome of any income tax audits or settlements;
- interest rate fluctuations and other changes in borrowing costs;
- other capital market conditions, including availability of funding sources and currency exchange rate fluctuations;
- availability of and fluctuations in the prices of key commodities and the impact of higher energy prices;
- the ability to achieve cost savings in connection with our productivity programs;
- potential further impairment of our goodwill, indefinite-lived intangible assets and/or our long-lived assets;
- the possible effects on us of future legislation in the U.S. that may limit or eliminate potential U.S. tax benefits resulting from our incorporation in a non-U.S. jurisdiction, such as Ireland, or deny U.S. government contracts to us based upon our incorporation in such non-U.S. jurisdiction; and
- our ability to complete the proposed spin-off of our commercial and residential security businesses and fully realize the expected benefits of such transaction.

Some of the significant risks and uncertainties that could cause actual results to differ materially from our expectations and projections are described more fully in Item 1A "Risk Factors." You should read that information in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Item 7 of this report and our Consolidated Financial Statements and related notes in Item 8 of this report. We note such information for investors as permitted by the Private Securities Litigation Reform Act of 1995.

PART I

Item 1. **BUSINESS**

Overview

Ingersoll-Rand plc (IR-Ireland), an Irish public limited company, and its consolidated subsidiaries (collectively, we, our, the Company) is a diversified, global company that provides products, services and solutions to enhance the quality and comfort of air in homes and buildings, transport and protect food and perishables, secure homes and commercial properties, and increase industrial productivity and efficiency. Our business segments consist of Climate Solutions, Residential Solutions, Industrial Technologies and Security Technologies, each with strong brands and leading positions within their respective markets. We generate revenue and cash primarily through the design, manufacture, sale and service of a diverse portfolio of industrial and commercial products that include well-recognized, premium brand names such as Club Car®, Ingersoll-Rand®, Schlage®, Thermo King® and Trane®.

To achieve our mission of being a world leader in creating safe, comfortable and efficient environments, we continue to focus on increasing our recurring revenue stream from parts, service, used equipment and rentals; and to continuously improve the efficiencies and capabilities of the products and services of our businesses. We also continue to focus on operational excellence strategies as a central theme to improving our earnings and cash flows.

Proposed Spin-Off Transaction

In December 2012, our Board of Directors announced a plan to spin off our commercial and residential security businesses (the New Security Company). The separation will result in two standalone companies: Ingersoll Rand; and the New Security Company, a leading global provider of electronic and mechanical security products and services, delivering comprehensive solutions to commercial and residential customers. This new company's portfolio of brands will include Schlage, LCN®, Von Duprin®, Interflex®, CISA®, Briton®, Bricard®, BOCOM® Systems, Dexter®, Kryptonite®, Falcon® and Fusion® Hardware Group.

We expect the spin-off, which is intended to be tax free to shareholders, to be completed prior to year-end 2013. However, the completion of the spin-off is subject to certain customary conditions, including receipt of regulatory approvals, receipt of a ruling from the U.S. Internal Revenue Service as to the tax-free nature of the spin-off, as well as certain other matters relating to the spin-off, receipt of legal opinions, execution of intercompany agreements, effectiveness of appropriate filings with the U.S. Securities and Exchange Commission, and final approval of the transactions contemplated by the spin-off, as may be required under Irish law. There can be no assurance that any separation transaction will ultimately occur, or, if one does occur, its terms or timing.

Upon completion of the spin-off, IR-Ireland will cease to have any ownership interest in the New Security Company, and the New Security Company will become an independent publicly traded company. The New Security Company is anticipated to be an Irish public limited company (plc).

Recent Divestitures

Divested Operations

On September 30, 2011 and November 30, 2011, we completed transactions to sell our Hussmann refrigerated display case business to a newly-formed affiliate (Hussmann Parent) of private equity firm Clayton Dubilier & Rice, LLC (CD&R). These transactions included the equipment business and certain of the service branches in the U.S. and Canada, and the equipment, service and installation businesses in Mexico, Chile, Australia, New Zealand, and Japan (Hussmann Business) and the remaining North American Hussmann service and installation branches (Hussmann Branches). We negotiated the final terms of the transaction to include our ownership of a portion of the common stock of Hussmann Parent, which represents significant continuing involvement. Therefore, the results of Hussmann are included in continuing operations for all periods presented, with our ownership interest reported using the equity method of accounting subsequent to September 30, 2011. See "Divestitures and Discontinued Operations" within Management's Discussion and Analysis of Financial Condition and Results of Operations and also Note 18 to the Consolidated Financial Statements for a further discussion of our divested operations.

Discontinued Operations

On December 30, 2011, we completed the divestiture of our security installation and service business, which was sold under the Integrated Systems and Services brand in the United States and Canada, to Kratos Public Safety & Security Solutions, Inc. As a result of the sale, we have reported this business as a discontinued operation for all periods presented.

On December 30, 2010, we completed the divestiture of our gas microturbine generator business, which was sold under the Energy Systems brand, to Flex Energy, Inc. As a result of the sale, we have reported this business as a discontinued operation for all periods presented.

On October 4, 2010, we completed the divestiture of our European refrigerated display case business, which was sold under the KOXKA brand, to an affiliate of American Industrial Acquisition Corporation (AIAC Group). As a result of the sale, we have reported this business as a discontinued operation for all periods presented.

See "Divestitures and Discontinued Operations" within Management's Discussion and Analysis of Financial Condition and Results of Operations and also Note 18 to the Consolidated Financial Statements for a further discussion of our discontinued operations.

Business Segments

Our business segments provide products, services and solutions used to increase the efficiency and productivity of both industrial and commercial operations and homes, as well as improve the security, safety, health and comfort of people around the world.

Our business segments are as follows:

Climate Solutions
Our Climate Solutions segment delivers energy-efficient refrigeration and HVAC throughout the world. Encompassing the transport refrigeration markets as well as the commercial HVAC markets, this segment offers customers a broad range of products, services and solutions to manage controlled temperature environments. This segment, which had 2012 net revenues of $7.4 billion, includes the market-leading brands of Thermo King and Trane.

Residential Solutions
Our Residential Solutions segment provides safety, comfort and efficiency to homeowners throughout North America and parts of South America. It offers customers a broad range of products, services and solutions including mechanical and electronic locks, energy-efficient HVAC systems, indoor air quality solutions, advanced controls, portable security systems and remote home management. This segment, which had 2012 net revenues of $2.1 billion, is comprised of well-known brands like American Standard®, Schlage and Trane.

Industrial Technologies
Our Industrial Technologies segment provides products, services and solutions that improve productivity, energy efficiency, safety, and operations. It offers global customers a diverse and innovative range of products including compressed air systems, power tools, pumps, material handling equipment, and golf, utility, and rough terrain vehicles. It also provides a range of service offerings including preventative maintenance and comprehensive care multi-year contracts, service parts, installation, remanufactured compressors and tools, and solutions to optimize customers' energy and total production costs. This segment, which had 2012 net revenues of $2.9 billion, includes the Ingersoll-Rand, Club Car, and ARO® market-leading brands.

Security Technologies
Our Security Technologies segment is a leading global provider of products and services that make environments safe, secure and productive. The segment's market-leading products include electronic and biometric access control systems and software, locks and locksets, door closers, exit devices, steel doors and frames, as well as time, attendance and personnel scheduling systems. These products serve a wide range of markets including the commercial construction market, healthcare, retail, and transport industries as well as educational and governmental facilities. This segment, which had 2012 net revenues of $1.6 billion, includes the CISA, LCN, Schlage and Von Duprin market-leading brands.

Products and Services

Our principal products and services by business segment include the following:

Climate Solutions	
Aftermarket parts and service	Energy management services
Air cleaners	Facility management services
Air conditioners	Furnaces
Air exchangers	Gensets
Air handlers	Heat pumps
Airside and terminal devices	Humidifiers
Auxiliary idle reduction	Installation contracting
Auxiliary temperature management	Package heating and cooling systems
Building management systems	Performance contracting
Bus and rail HVAC systems	Repair Services
Chillers	Service Agreements
Coils and condensers	Temporary heating and cooling systems
Container refrigeration equipment	Thermostats/controls
Control systems	Trailer refrigeration equipment
Cryogenic refrigeration systems	Unitary systems
Diesel-powered refrigeration systems	Vehicle-powered truck refrigeration systems

Residential Solutions	
Air cleaners	Furnaces
Air conditioners	Heat pumps
Air exchangers	Humidifiers
Air handlers	Package heating and cooling systems
Door locks, latches and locksets	Portable security products
Electrical security products	Thermostats/controls
Electronic access-control systems	Unitary systems

Industrial Technologies	
Air compressors (centrifugal, reciprocating, and rotary)	Hoists (air, electric, and manual)
Aftermarket parts and accessories	Motion control components
Airends	Power tools (air, cordless, and electric)
Blowers	Precision fastening systems
Dryers	Pumps (diaphragm and piston)
Engine starting systems	Rough terrain (AWD) vehicles
Ergonomic material handling systems	Service contracts and programs
Filters	Utility and low-speed vehicles
Fluid handling systems	Visage® mobile golf information systems
Golf vehicles	Winches (air, electric, and hydraulic)

Security Technologies	
Biometric access control systems	Electrical security products
Door closers and controls	Electronic access-control systems
Door locks, latches and locksets	Exit devices
Doors and door frames (steel)	Time, attendance, and personnel scheduling systems

These products are sold primarily under our name and under other names including American Standard, ARO, CISA, Club Car, LCN, Schlage, Thermo King, Von Duprin and Trane.

Competitive Conditions

Our products and services are sold in highly competitive markets throughout the world. Due to the diversity of these products and services and the variety of markets served, we encounter a wide variety of competitors that vary by product line and services. They include well-established regional or specialized competitors, as well as larger U.S. and non-U.S. corporations or divisions of larger companies.

The principal methods of competition in these markets relate to price, quality, delivery, service and support, technology and innovation. We believe that we are one of the leading manufacturers in the world of HVAC systems and services, air compression systems, transport temperature control products, air tools, and golf and utility vehicles. In addition, we believe we are a leading supplier in U.S. markets for architectural hardware products, mechanical locks and electronic and biometric access-control technologies.

Distribution

Our products are distributed by a number of methods, which we believe are appropriate to the type of product. U.S. sales are made through branch sales offices and through distributors, dealers and large retailers across the country. Non-U.S. sales are made through numerous subsidiary sales and service companies with a supporting chain of distributors throughout the world.

Customers

We have no customer that accounted for more than 10% of our consolidated net revenues in 2012, 2011 or 2010. No material part of our business is dependent upon a single customer or a small group of customers; therefore, the loss of any one customer would not have a material adverse effect on our results of operations or cash flows.

Raw Materials

We manufacture many of the components included in our products, which requires us to employ a wide variety of commodities. Principal commodities, such as steel, copper and aluminum, are purchased from a large number of independent sources around the world. In the past, higher prices for some commodities, particularly steel and non-ferrous metals, have caused pricing pressures in some of our businesses; we have historically been able to pass certain of these cost increases on to customers in the form of price increases.

We believe that available sources of supply will generally be sufficient for the foreseeable future. There have been no commodity shortages which have had a material adverse effect on our businesses. However, significant changes in certain material costs may have an adverse impact on our costs and operating margins. To mitigate this potential impact, we enter into long-term supply contracts in order to manage our exposure to potential supply disruptions.

Working Capital

We manufacture products that usually must be readily available to meet our customers' rapid delivery requirements. Therefore, we maintain an adequate level of working capital to support our business needs and our customers' requirements. Such working capital requirements are not, however, in the opinion of management, materially different from those experienced by our major competitors. We believe our sales and payment terms are competitive in and appropriate for the markets in which we compete.

Seasonality

Demand for certain segments of our products and services is influenced by weather conditions. For instance, Trane's sales have historically tended to be seasonally higher in the second and third quarters of the year because, in the U.S. and other northern hemisphere markets, summer is the peak season for sales of air conditioning systems and services. Therefore, results of any quarterly period may not be indicative of expected results for a full year and unexpected cool trends or unseasonably warm trends during the summer season could negatively or positively affect certain segments of our business and impact overall results of operations.

Research and Development

We engage in research and development activities in an effort to introduce new products, enhance existing product effectiveness, increase safety, improve ease of use and reliability as well as expand the various applications for which our products may be appropriate. In addition, we continually evaluate developing technologies in areas that we believe will enhance our business for possible investment or acquisition. We anticipate that we will continue to make significant expenditures for research and development activities as we look to maintain and improve our competitive position. Research and development expenditures were approximately $273.6 million in 2012, $257.3 million in 2011 and $244.0 million in 2010.

Patents and Licenses

We own numerous patents and patent applications, and are licensed under others. Although in aggregate we consider our patents and licenses to be valuable to our operations, we do not believe that our business is materially dependent on a single patent or license or any group of them. In our opinion, engineering, production skills and experience are more responsible for our market position than our patents and/or licenses.

Operations by Geographic Area

More than 40% of our 2012 net revenues were derived outside the U.S. and we sold products in more than 100 countries. Therefore, the attendant risks of manufacturing or selling in a particular country, such as nationalization and establishment of common markets, may have an adverse impact on our non-U.S. operations. For a discussion of risks associated with our non-U.S. operations, see "Risk Factors – Our global operations subject us to economic risks," and "Risk Factors – Currency exchange rate fluctuations may adversely affect our results," in Item 1A and "Quantitative and Qualitative Disclosure about Market Risk" in Item 7A.

Backlog

Our approximate backlog of orders, believed to be firm, at December 31, was as follows:

In millions		2012		2011
Climate Solutions	$	1,444.6	$	1,395.8
Residential Solutions		49.1		42.8
Industrial Technologies		481.1		489.5
Security Technologies		159.6		135.1
Total	$	2,134.4	$	2,063.2

These backlog figures are based on orders received. While the major portion of our products are built in advance of order and either shipped or assembled from stock, orders for specialized machinery or specific customer application are submitted with extensive lead times and are often subject to revision, deferral, cancellation or termination. We expect to ship substantially all the December 31, 2012 backlog during 2013.

Environmental Matters

We continue to be dedicated to an environmental program intended to reduce the utilization and generation of hazardous materials during the manufacturing process as well as to remediate identified environmental concerns. As to the latter, we are currently engaged in site investigations and remediation activities to address environmental cleanup from past operations at current and former manufacturing facilities.

We are sometimes a party to environmental lawsuits and claims and have received notices of potential violations of environmental laws and regulations from the Environmental Protection Agency and similar state authorities. We have been also identified as a potentially responsible party (PRP) for cleanup costs associated with off-site waste disposal at federal Superfund and state remediation sites. For all such sites, there are other PRPs and, in most instances, our involvement is minimal.

In estimating our liability, we have assumed that we will not bear the entire cost of remediation of any site to the exclusion of other PRPs who may be jointly and severally liable. The ability of other PRPs to participate has been taken into account, based on our understanding of the parties' financial condition and probable contributions on a per site basis. Additional lawsuits and claims involving environmental matters are likely to arise from time to time in the future.

We incurred $4.5 million, $3.1 million, and $1.0 million of expenses during the years ended December 31, 2012, 2011, and 2010, respectively, for environmental remediation at sites presently or formerly owned or leased by us. As of December 31, 2012 and 2011, we have recorded reserves for environmental matters of $65.9 million and $70.9 million, respectively. Of these amounts $47.3 million and $51.3 million, respectively, relate to remediation of sites previously disposed by us. Our total current environmental reserve at December 31, 2012 and 2011 was $22.2 million and $26.1 million, respectively. Given the evolving nature of environmental laws, regulations and technology, the ultimate cost of future compliance is uncertain.

For a further discussion of our potential environmental liabilities, see also Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, Environmental and Asbestos Matters as well as Note 20 to the Consolidated Financial Statements.

Asbestos Matters

Certain of our wholly-owned subsidiaries are named as defendants in asbestos-related lawsuits in U.S. state and federal courts. In virtually all of the suits, a large number of other companies have also been named as defendants. The vast majority of those claims have been filed against either Ingersoll-Rand Company (IR-New Jersey) or Trane U.S. Inc. (Trane) and generally allege injury caused by exposure to asbestos contained in certain historical products sold by IR-New Jersey or Trane, primarily pumps, boilers and railroad brake shoes. Neither IR-New Jersey nor Trane was a producer or manufacturer of asbestos, however, some formerly manufactured products utilized asbestos-containing components such as gaskets and packings purchased from third-party suppliers.

We incurred net costs after insurance recoveries of $4.4 million, $10.1 million, and $18.8 million during the years ended December 31, 2012, 2011, and 2010, respectively, related to the settlement and defense of asbestos-related claims. Our total liability for asbestos-related matters and our total asset for probable asbestos-related insurance recoveries were $879.5 million and $320.3 million, respectively, as of December 31, 2012 and $938.3 million and $322.4 million, respectively, as of December 31, 2011. Our total current liability for asbestos-related matters and our total current asset for probable asbestos-related insurance recoveries was $69.1 million and $22.5 million, respectively, as of December 31, 2012 and $69.7 million and $23.5 million, respectively, as of December 31, 2011.

See also the discussion under Part I, Item 3, Legal Proceedings, and Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, Environmental and Asbestos Matters as well as further detail in Note 20 to the Consolidated Financial Statements.

Employees

As of December 31, 2012, we employed approximately 49,000 people throughout the world.

Available Information

We file annual, quarterly, and current reports, proxy statements, and other documents with the SEC under the Securities Exchange Act of 1934. The public may read and copy any materials filed with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Also, the SEC maintains an Internet website that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The public can obtain any documents that are filed by us at http://www.sec.gov.

In addition, this Annual Report on Form 10-K, as well as our quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to all of the foregoing reports, are made available free of charge on our Internet website (http://www.ingersollrand.com) as soon as reasonably practicable after such reports are electronically filed with or furnished to the SEC. The Board of Directors of the Company has also adopted and posted in the Investor Relations section of the Company's website our Corporate Governance Guidelines and charters for each of the Board's standing committees. The contents of the Company's website are not incorporated by reference in this report.

Certifications

New York Stock Exchange Annual Chief Executive Officer Certification

The Company's Chief Executive Officer submitted to the New York Stock Exchange the Annual CEO Certification as the Company's compliance with the New York Stock Exchange's corporate governance listing standards required by Section 303A.12 of the New York Stock Exchange's listing standards.

Sarbanes-Oxley Act Section 302 Certification

The certifications of the Chief Executive Officer and Chief Financial Officer of the Company pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 are filed as exhibits to this Annual Report on Form 10-K.

Item 1A. **RISK FACTORS**

Our business, financial condition, results of operations, and cash flows are subject to a number of risks that could cause the actual results and conditions to differ materially from those projected in forward-looking statements contained in this Annual Report on Form 10-K. The risks set forth below are those we consider most significant. We face other risks, however, that we do not currently perceive to be material but could cause actual results and conditions to differ materially from our expectations. You should evaluate all risks before you invest in our securities. If any of the risks actually occur, our business, financial condition, results of operations or cash flows could be adversely impacted. In that case, the trading price of our ordinary shares could decline, and you may lose all or part of your investment.

Our global operations subject us to economic risks.

Our global operations are dependent upon products manufactured, purchased and sold in the U.S. and internationally, including Europe, China, Brazil, Venezuela, Africa, India and Turkey. These activities are subject to risks that are inherent in operating globally, including:

- changes in local laws and regulations or imposition of currency restrictions and other restraints;
- limitation of ownership rights, including expropriation of assets by a local government, and limitation on the ability to repatriate earnings;
- sovereign debt crisis and currency instability in developed and developing countries;
- imposition of burdensome tariffs and quotas;
- difficulty in staffing and managing global operations;
- difficulty of enforcing agreements, collecting receivables and protecting assets through non-U.S. legal systems;
- national and international conflict, including war, civil disturbances and terrorist acts; and
- economic downturns and social and political instability.

These risks could increase our cost of doing business internationally, increase our counterparty risk, disrupt our operations, disrupt the ability of suppliers and customers to fulfill their obligations, limit our ability to sell products in certain markets and have a material adverse impact on our results of operations, financial condition, and cash flows.

Our growth is dependent, in part, on the development, commercialization and acceptance of new products and services.

We must develop and commercialize new products and services in order to remain competitive in our current and future markets and in order to continue to grow our business. The development and commercialization of new products and services require a significant investment of resources. We cannot provide any assurance that any new product or service will be successfully commercialized in a timely manner, if ever, or, if commercialized, will result in returns greater than our investment. Investment in a product or service could divert our attention and resources from other projects that become more commercially viable in the market. We also cannot provide any assurance that any new product or service will be accepted by the market. Failure to develop new products and services that are accepted by the market could have a material adverse impact on our competitive position, results of operations, financial condition, and cash flows.

The capital and credit markets are important to our business.

Instability in U.S. and global capital and credit markets, including market disruptions, limited liquidity and interest rate volatility, or reductions in the credit ratings assigned to us by independent rating agencies could reduce our access to capital markets or increase the cost of funding our short and long term credit requirements. In particular, if we are unable to access capital and credit markets on terms that are acceptable to us, we may not be able to make certain investments or fully execute our business plans and strategy, including our new $2 billion share repurchase program and our commitment to refinance our short-term debt maturities and raise additional borrowings.

Our suppliers and customers are also dependent upon the capital and credit markets. Limitations on the ability of customers, suppliers or financial counterparties to access credit could lead to insolvencies of key suppliers and customers, limit or prevent customers from obtaining credit to finance purchases of our products and services and cause delays in the delivery of key products from suppliers.

Currency exchange rate fluctuations may adversely affect our results.

We are exposed to a variety of market risks, including the effects of changes in currency exchange rates. See Part II Item 7A, Quantitative and Qualitative Disclosure About Market Risk.

More than 40% of our 2012 net revenues were derived outside the U.S., and we expect sales to non-U.S. customers to continue to represent a significant portion of our consolidated net revenues. Although we enter into currency exchange contracts to reduce our risk related to currency exchange fluctuations, changes in the relative values of currencies occur from time to time may, in some instances, have a material impact on our results of operations. Because we do not hedge against all of our currency exposure, our business will continue to be susceptible to currency fluctuations.

We also translate assets, liabilities, revenues and expenses denominated in non-U.S. dollar currencies into U.S. dollars for our consolidated financial statements based on the applicable exchange rates. Consequently, fluctuations in the value of the U.S. dollar versus other currencies could have a material impact on the value of these items in our consolidated financial statements, even if their value has not changed in their original currency.

Material adverse legal judgments, fines, penalties or settlements could adversely affect our results of operations or financial condition.

We are currently and may in the future become involved in legal proceedings and disputes incidental to the operation of our business. Our business may be adversely affected by the outcome of these proceedings and other contingencies (including, without limitation, asbestos-related matters) that cannot be predicted with certainty. As required by generally accepted accounting principles in the United States, we establish reserves based on our assessment of contingencies. Subsequent developments in legal proceedings and other contingencies may affect our assessment and estimates of the loss contingency recorded as a reserve and we may be required to make additional material payments, which could have a material adverse impact on our liquidity, results of operations, financial condition, and cash flows.

Our reputation, ability to do business and results of operations could be impaired by improper conduct by any of our employees, agents or business partners.

We are subject to regulation under a wide variety of U.S. federal and state and non-U.S. laws, regulations and policies, including laws related to anti-corruption, export and import compliance, anti-trust and money laundering, due to our global operations. We cannot provide assurance our internal controls will always protect us from the improper conduct of our employees, agents and business partners. Any improper conduct could damage our reputation and subject us to, among other things, civil and criminal penalties, material fines, equitable remedies (including profit disgorgement and injunctions on future conduct), securities litigation and a general loss of investor confidence, any one of which could have a material adverse impact on our business prospects, financial condition, results of operations, cash flows, and the market value of our stock.

We may be subject to risks relating to our information technology systems.

We rely extensively on information technology systems to manage and operate our business. We are also investing in new information technology systems that are designed to continue improving our operations. If these systems cease to function properly or if these systems do not provide the anticipated benefits, our ability to manage our operations could be impaired which could have a material adverse impact on our results of operations, financial condition, and cash flows.

We currently rely on a single vendor for substantially all of our global information technology infrastructure and its failure to provide effective support for such infrastructure could negatively impact our business and financial results.

We have outsourced substantially all of our global information technology infrastructure to a third-party service provider in order to achieve cost savings and efficiencies. The service provider has initiated arbitration proceedings against us regarding the terms, nature and performance of the information technology services agreement. If the service provider does not perform or does not perform effectively, we may not be able to achieve the expected efficiencies and may have to incur additional costs to address failures in providing service by the service provider. Depending on the function involved, such non-performance, failure to perform effectively or failures of service may lead to business disruptions, processing inefficiencies or security breaches. Such disruptions, inefficiencies or breaches could negatively impact our business operations, results of operations, financial condition and cash flows.

Our information technology infrastructure is important to our business and data security breaches or disruptions of such infrastructure could negatively impact our business and financial results.

Our information technology infrastructure is subject to cyber attacks and unauthorized security intrusions. Despite instituting security policies and business continuity plans, our systems and networks may be vulnerable to system damage, malicious attacks from hackers, employee errors or misconduct, viruses, power and utility outages, and other catastrophic events that could cause significant harm to our business by negatively impacting our business operations, compromising the security of our proprietary information and exposing us to litigation that could adversely affect our reputation. Such events could have a material adverse impact on our results of operations, financial condition and cash flows.

Commodity shortages and price increases and higher energy prices could adversely affect our financial results.

We rely on suppliers to secure commodities, particularly steel and non-ferrous metals, required for the manufacture of our products. A disruption in deliveries from our suppliers or decreased availability of commodities could have an adverse effect on our ability to meet our commitments to customers or increase our operating costs. We believe that available sources of supply will generally be sufficient for our needs for the foreseeable future. Nonetheless, the unavailability of some commodities could have a material adverse impact on our results of operations and cash flows.

Volatility in the prices of these commodities could increase the costs of our products and services. We may not be able to pass on these costs to our customers and this could have a material adverse impact on our results of operations and cash flows. We do not currently use financial derivatives to hedge against this volatility. While we use fixed price contracts to mitigate this exposure, we expect any future hedging activity to seek to minimize near-term volatility of the commodity prices which would not protect us from long-term commodity price increases.

Additionally, we are exposed to large fluctuations in the price of petroleum-based fuel due to the instability of current market prices. Higher energy costs increase our operating costs and the cost of shipping our products, and supplying services, to customers around the world. Consequently, sharp price increases, the imposition of taxes or an interruption of supply, could cause us to lose the ability to effectively manage the risk of rising fuel prices and may have a material adverse impact on our results of operations and cash flows.

Our operational excellence efforts may not achieve the improvements we expect.

We utilize a number of tools, such as Lean Six Sigma, to improve operational efficiency and productivity. Implementation of new processes to our operations could cause disruptions and there is no assurance that all of our planned operational excellence projects will be fully implemented or, if implemented, will realize the expected improvements.

We may be required to recognize impairment charges for our goodwill and other indefinite-lived intangible assets.

At December 31, 2012, the net carrying value of our goodwill and other indefinite-lived intangible assets totaled $6.1 billion and $2.6 billion, respectively. In accordance with generally accepted accounting principles, we periodically assess these assets to determine if they are impaired. Significant negative industry or economic trends, disruptions to our business, unexpected significant changes or planned changes in use of the assets, divestitures and market capitalization declines may result in recognition of impairments to goodwill or other indefinite-lived assets. Any charges relating to such impairments could have a material adverse impact on our results of operations in the periods recognized.

Changes in weather patterns and seasonal fluctuations may adversely affect certain segments of the Company's business and impact overall results of operations.

Demand for certain segments of the Company's products and services is influenced by weather conditions. For instance, Trane's sales have historically tended to be seasonally higher in the second and third quarters of the year because, in the U.S. and other northern hemisphere markets, summer is the peak season for sales of air conditioning systems and services. Therefore, results of any quarterly period may not be indicative of expected results for a full year and unexpected cool trends or unseasonably warm trends during the summer season could negatively or positively affect certain segments of the Company's business and impact overall results of operations.

Continued weakness in the commercial and residential construction markets may adversely impact our results of operations and cash flow.

Our commercial and residential HVAC and security businesses, which collectively represent 66% of our net revenues, provide products and services to a wide range of markets, including significant sales to the commercial and residential construction markets. Weakness in either or both of these construction markets may negatively impact the demand for our products and services. Decrease in the demand for our products and services could have a material adverse impact on our results of operations and cash flow.

Our operations are subject to regulatory risks.

Our U.S. and non-U.S. operations are subject to a number of laws and regulations, including environmental and health and safety. We have made, and will be required to continue to make, significant expenditures to comply with these laws and regulations. Changes in current laws and regulations could require us to increase our compliance expenditures, cause us to significantly alter or discontinue offering existing products and services or cause us to develop new products and services. Altering current products and services or developing new products and services to comply with changes in the applicable laws and regulations could require significant research and development investments, increase the cost of providing the products and services and adversely affect the demand for our products and services. In addition, our failure to comply with applicable laws and regulations could lead to significant penalties, fines or other sanctions. If we are unable to effectively respond to changes to applicable laws and regulations or comply with existing and future laws and regulations, our competitive position, results of operations, financial condition and cash flows could be materially adversely impacted.

If the distribution of WABCO's shares by Trane on July 31, 2007 were to fail to qualify as tax-free for U.S. federal income tax purposes under Section 355 of the Internal Revenue Code (the "Code"), then Trane may be required to pay U.S. federal income taxes.

Trane received a private letter ruling from the Internal Revenue Service (IRS) substantially to the effect that the distribution of WABCO shares to its shareholders qualified as tax-free for U.S. federal income tax purposes under Section 355 of the Code. Trane also received an opinion of Skadden, Arps, Slate, Meagher & Flom, LLP, at the time of the distribution, as to the tax-free nature of the transaction. Moreover, in connection with our subsequent acquisition of Trane, we received an opinion of Simpson, Thacher & Bartlett LLP, substantially to the effect that the distribution should continue to qualify as tax-free to Trane, WABCO and Trane shareholders under Section 355 and related provisions of the Code. The ruling and opinions were based on, among other things, certain assumptions as well as on the accuracy of certain factual representations and statements made by the Company, WABCO and Trane. In rendering its ruling, the IRS also relied on certain covenants that Trane and WABCO entered into, including the adherence to certain restrictions on WABCO's and Trane's future actions.

Notwithstanding the private letter ruling or the opinions of counsel, there can be no assurance that the IRS will not later assert that the distribution should be treated as a taxable transaction. If the WABCO distribution is determined to be taxable, we would recognize a gain in an amount equal to the excess of (i) the fair market value of WABCO's common stock distributed to the Trane shareholders over (ii) Trane's tax basis in such common stock. We have a Tax Sharing Agreement with WABCO under which WABCO would be responsible for all taxes imposed on Trane as a result of the distribution except where taxes are imposed as a result of actions taken after the distribution by Trane or any of its subsidiaries or shareholders. If WABCO was unable to satisfy its obligations under the Tax Sharing Agreement or if Trane was unable to rely on the Tax Sharing Agreement for any reason, any potential liability arising from the distribution of WABCO's shares by Trane could have a material adverse impact on our financial condition, results of operations, and cash flows.

Risks Relating to Our Proposed Spin-off

The proposed spin-off of our commercial and residential security businesses is contingent upon the satisfaction of a number of conditions, may require significant time and attention of our management and may have an adverse effect on us even if not completed.

On December 10, 2012, we announced our plan to spin off our commercial and residential security businesses. The proposed spin-off is subject to various conditions, is complex in nature and may be affected by unanticipated developments or changes in market conditions. Completion of the spin-off will be contingent upon customary conditions, including receipt of regulatory approvals, receipt of a ruling from the IRS as to the tax-free nature of the spin-off, as well as certain other matters relating to the spin-off, receipt of legal opinions, execution of intercompany agreements, effectiveness of appropriate filings with the SEC, and final approval of the transactions contemplated by the spin-off, as may be required under Irish law. For these and other reasons, the spin-off transaction may not be completed as expected by the fourth calendar quarter of 2013, if at all.

Even if the spin-off is not completed, our ongoing businesses may be adversely affected and we will be subject to certain risks and consequences, including the following:

- Execution of the proposed spin-off will require significant time and attention from management, which may distract management from the operation of our businesses and the execution of other initiatives that may have been beneficial to us.
- Our employees may also be distracted due to uncertainty about their future roles with each of the separate companies pending the completion of the spin-off.
- Some of our suppliers or customers may delay or defer decisions or may end their relationships with us or our commercial and residential security businesses, which could negatively affect revenues, earnings and cash flows of the Company and our commercial and residential security businesses.
- We will be required to pay certain costs and expenses relating to the spin-off, such as legal, accounting and other professional fees, whether or not it is completed.
- We may experience negative reactions from the financial markets if we fail to complete the spin-off.

Any of these factors could have a material adverse effect on our financial condition, results of operations, cash flows and trading price.

We may be unable to achieve some or all of the benefits that we expect to achieve from the spin-off.

Although we believe that separating our commercial and residential security businesses by means of the spin-off will provide financial, operational, managerial and other benefits to us and our shareholders, the spin-off may not provide the results on the scope or on the scale we anticipate, and the assumed benefits of the spin-off may not be fully realized. Accordingly, the spin-off might not provide us and our shareholders benefits or value in excess of the benefits and value that might have been created or realized had we retained the commercial and residential security businesses or undertaken another strategic alternative involving such businesses.

If the proposed spin-off of our commercial and residential security businesses is completed, the trading price of our ordinary shares will decline and may experience greater volatility.

We expect the trading price of our ordinary shares immediately following the spin-off to be significantly lower than immediately prior to the spin-off because the trading price for our shares will no longer reflect the value of our commercial and residential security businesses. In addition, until the market has fully analyzed the Company's value without our commercial and residential security businesses, the price of our shares may experience greater volatility.

If the proposed spin-off is completed, our shares may not match some holders' investment strategies or meet minimum criteria for inclusion in stock market indices or portfolios, which could cause investors to sell their shares. Excessive selling pressure could cause the market price of our shares to decrease further following the completion of the proposed spin-off.

Following the spin-off, the value of your ordinary shares in the Company and the commercial and residential security businesses may collectively trade at an aggregate price less than that at which the Company's ordinary shares might trade had the spin-off not occurred.

For a number of reasons, the ordinary shares of the Company and the commercial and residential security businesses that you may hold following the spin-off may collectively trade at a value significantly less than the price at which the Company's ordinary shares might have traded had the spin-off not occurred and we continued to own the commercial and residential security businesses. These reasons include the future performance of the Company and the commercial and residential security businesses as separate, independent companies, and the future shareholder base and market for the Company's ordinary shares and the shares of our commercial and residential security businesses and the prices at which these shares individually trade.

The proposed spin-off transaction could result in substantial tax liability

We will request a private letter ruling from the IRS substantially to the effect that, for U.S. federal income tax purposes, the spin-off and certain related transactions will qualify under Sections 355 and/or 368 of the Code. Our receipt of the private letter ruling will be a condition to the completion of the spin-off. If the factual assumptions or representations made in the private letter ruling request are inaccurate or incomplete in any material respect, then we will not be able to rely on the ruling. Furthermore, the IRS will not rule on whether a distribution such as the spin-off satisfies certain requirements necessary to obtain tax-free treatment under Section 355 of the Code. Rather, the private letter ruling will be based on representations by us that those requirements have been satisfied, and any inaccuracy in those representations could invalidate the ruling. The spin-off will also be conditioned on our receipt of one or more opinions of outside advisors, in form and substance satisfactory to us, substantially to the effect that, certain requirements, including requirements that the IRS will not rule on, necessary to obtain tax free treatment have been satisfied such that the spin-off and certain related transactions should qualify under Sections 355, 368 and other provisions of the Code. The opinion(s) will rely on, among other things, the continuing validity of the private letter ruling and various assumptions and representations as to factual matters made by each of the commercial and residential security businesses and us which, if inaccurate or incomplete in any material respect, would jeopardize the conclusions reached by such advisors in their opinion(s). The opinion (s) will not be binding on the IRS or the courts, and there can be no assurance that the IRS or the courts will not challenge the conclusions stated in the opinion(s) or that any such challenge would not prevail.

If, notwithstanding receipt of the private letter ruling and opinion(s), the spin-off were determined to be a taxable transaction, each U.S. holder of our ordinary shares who receives shares of the commercial and residential security businesses in the spin-off would generally be treated as receiving a taxable distribution of property in an amount equal to the fair market value of the shares of the new security company received. That distribution would be taxable as a dividend to the extent of our current and accumulated earnings and profits. Any amount that exceeded our earnings and profits would be treated first as a non-taxable return of capital to the extent of the applicable shareholder's tax basis in our ordinary shares with any remaining amount being taxed as a capital gain. In addition, notwithstanding receipt of the private letter ruling and opinion(s), if the spin-off were determined to be a taxable transaction and/or certain related internal transactions were to fail to qualify for tax-free treatment, we could incur a substantial tax liability, which could have a material adverse impact on our financial condition, results of operations and cash flows.

Risks Relating to Our Past Reorganizations

We effected a corporate reorganization in December 2001 to become a Bermuda company (the Bermuda Reorganization) and a subsequent corporate reorganization in July 2009 to become an Irish public limited company. These reorganizations exposed us and our shareholders to the risks described below. In addition, we cannot be assured that all of the anticipated benefits of the reorganizations will be realized.

Changes in tax laws, regulations or treaties, changes in our status under U.S. or non-U.S. tax laws or adverse determinations by taxing authorities could increase our tax burden or otherwise affect our financial condition or operating results, as well as subject our shareholders to additional taxes.

The realization of any tax benefit related to our reorganizations could be impacted by changes in tax laws, tax treaties or tax regulations or the interpretation or enforcement thereof by the U.S. tax authorities or non-U.S. tax authorities. From time to time, proposals have been made and/or legislation has been introduced to change the tax laws of various jurisdictions or limit tax treaty benefits that if enacted could materially increase our tax burden and/or effective tax rate and could have a material adverse impact on our financial condition and results of operations. For instance, recent U.S. legislative proposals would broaden the circumstances under which we would be considered a U.S. resident for U.S. tax purposes, which would significantly diminish the realization of any tax benefit related to our reorganizations. There are other recent U.S. legislative proposals that could modify or eliminate the tax deductibility of various currently deductible payments, which could materially and adversely affect our effective tax rate and cash tax position. Moreover, other U.S. legislative proposals could have a material adverse impact on us by overriding certain tax treaties and limiting the treaty benefits on certain payments by our U.S. subsidiaries to our non-U.S. affiliates, which could increase our tax liability. We cannot predict the outcome of any specific legislation in any jurisdiction.

While we monitor proposals that would materially impact our tax burden and/or effective tax rate and investigate our options, we could still be subject to increased taxation on a going forward basis no matter what action we undertake if certain legislative proposals are enacted, certain tax treaties are amended and/or our interpretation of applicable tax law is challenged and determined to be incorrect. In particular, any changes and/or differing interpretations of applicable tax law that have the effect of disregarding the Ireland Reorganization, limiting our ability to take advantage of tax treaties between jurisdictions, modifying or eliminating the deductibility of various currently deductible payments, or increasing the tax burden of operating or being resident in a particular country, could subject us to increased taxation.

While our U.S. operations are subject to U.S. tax, we believe that a significant portion of our non-U.S. operations are generally not subject to U.S. tax other than withholding taxes. The IRS or a court, however, may not concur with our conclusions including our determination that we, and a significant number of our foreign subsidiaries, are not currently controlled foreign corporations (CFC) within the meaning of the U.S. tax laws. A contrary determination, which could also arise through significant future acquisitions of our stock by U.S. persons, could also potentially cause U.S. holders (direct, indirect or constructive owners) of 10% or more of our stock (or the voting stock of our non-U.S. subsidiaries) to include in their gross income their pro rata share of certain of our and our non-U.S. subsidiary income for the period during which we (and our non-U.S. subsidiaries) were a CFC. In addition, gain (or a portion of such gain) realized on CFC shares sold by such shareholders may be treated as ordinary income depending on certain facts. Treatment of us or any of our non-U.S. subsidiaries as a CFC could have a material adverse impact on our results of operations, financial condition, and cash flows.

As described further in “Legal Proceedings”, we have received several notices from the IRS containing proposed adjustments to our tax filings in connection with an audit of the 2001-2002 tax years. The IRS has not contested the validity of our reincorporation in Bermuda in any of these notices. We have and intend to continue to vigorously contest these proposed adjustments.

Although the outcome of this matter cannot be predicted with certainty, based upon an analysis of the merits of our position, we believe that we are adequately reserved for this matter and do not expect that the ultimate resolution will have a material adverse impact on our future results of operations, financial condition, or cash flows. As we move forward to resolve this matter with the IRS, the reserves established may be adjusted. Although we continue to contest the IRS's position, there can be no assurance that we will be successful. If the IRS's position with respect to 2002 is ultimately sustained it will have a material adverse impact on our future results of operations, financial condition and cash flows.

Although we expect them to do so, at this time the IRS has not yet proposed any similar adjustments for years subsequent to 2002 as the federal income tax audits for those years are still in process or have not yet begun. It is unclear how the IRS will apply their position to subsequent years or whether the IRS will take a similar position with respect to other intercompany debt instruments.

The inability to realize any anticipated tax benefits related to our reorganizations could have a material adverse impact on our results of operations, financial condition, and cash flows.

Legislative and regulatory action could materially and adversely affect us.

The U.S. federal government and various states and municipalities have enacted or may enact legislation intended to deny government contracts to U.S. companies that reincorporate outside of the U.S. or have reincorporated outside of the U.S.

For instance, the Homeland Security Act of 2002, as amended, includes a provision that prohibits “inverted domestic corporations” and their subsidiaries from entering into contracts with the Department of Homeland Security. In addition, the State of California adopted legislation intended to limit the eligibility of certain non-U.S. chartered companies to participate in certain state contracts. More recently, the 2008, 2009 and 2010 Consolidated Appropriations Acts prohibit any federal government agency from using funds appropriated by Congress for fiscal years 2008, 2009 and 2010 to pay an inverted domestic corporation or any of its subsidiaries for work performed or products provided under certain federal contracts (“Affected Contracts”). Although the amount of monies already paid to us or to be paid to us under the Affected Contracts is not material to the Company, we cannot provide any assurance that the impact of future actions taken by the government in this area will not be materially adverse to our operations.

In addition, there continues to be negative publicity regarding, and criticism of, companies that conduct business in the United States and in other countries but have changed their place of incorporation to another country.

Irish law differs from the laws in effect in the United States and may afford less protection to holders of our securities.

The United States currently does not have a treaty with Ireland providing for the reciprocal recognition and enforcement of judgments in civil and commercial matters. As such, there is some uncertainty as to whether the courts of Ireland would recognize or enforce judgments of U.S. courts obtained against us or our directors or officers based on U.S. federal or state civil liability laws, including the civil liability provisions of the U.S. federal or state securities laws, or hear actions against us or those persons based on those laws.

As an Irish company, we are governed by the Irish Companies Act, which differs in some material respects from laws generally applicable to U.S. corporations and shareholders, including, among others, differences relating to interested director and officer transactions and shareholder lawsuits. Likewise, the duties of directors and officers of an Irish company generally are owed to the company only. Shareholders of Irish companies generally do not have a personal right of action against directors or officers of the company and may exercise such rights of action on behalf of the company only in limited circumstances. Accordingly, holders of our securities may have more difficulty protecting their interests than would holders of securities of a corporation incorporated in a jurisdiction of the United States.

In addition, Irish law allows shareholders to authorize share capital which then can be issued by a board of directors without shareholder approval. Also, subject to specified exceptions, Irish law grants statutory pre-emptive rights to existing shareholders to subscribe for new issuances of shares for cash, but allows shareholders to authorize the waiver of the statutory pre-emptive rights with respect to any particular allotment of shares. These authorizations must be renewed by the shareholders every five years and we cannot guarantee that these authorizations will always be approved.

Dividends received by our shareholders may be subject to Irish dividend withholding tax.

In certain circumstances, we are required to deduct Irish dividend withholding tax (currently at the rate of 20%) from dividends paid to our shareholders. In the majority of cases, shareholders resident in the United States will not be subject to Irish withholding tax, and shareholders resident in a number of other countries will not be subject to Irish withholding tax provided that they complete certain Irish dividend withholding tax forms. However, some shareholders may be subject to withholding tax, which could have an adverse impact on the price of our shares.

Dividends received by our shareholders could be subject to Irish income tax.

Dividends paid in respect of our shares will generally not be subject to Irish income tax where the beneficial owner of these dividends is exempt from dividend withholding tax, unless the beneficial owner of the dividend has some connection with Ireland other than his or her shareholding in IR-Ireland.

Our shareholders who receive their dividends subject to Irish dividend withholding tax will generally have no further liability to Irish income tax on the dividends unless the beneficial owner of the dividend has some connection with Ireland other than his or her shareholding in IR-Ireland.

Item 1B. **UNRESOLVED STAFF COMMENTS**

None.

Item 2. **PROPERTIES**

As of December 31, 2012, we owned or leased a total of approximately 17 million square feet of space worldwide. Manufacturing and assembly operations are conducted in 63 plants across the world. We also maintain various warehouses, offices and repair centers throughout the world.

The majority of our plant facilities are owned by us with the remainder under long-term lease arrangements. We believe that our plants have been well maintained, are generally in good condition and are suitable for the conduct of our business.

The locations by segment of our principal plant facilities at December 31, 2012 were as follows:

Climate Solutions		
Americas	Europe, Middle East, Africa	Asia Pacific
Curitiba, Brazil	Kolin, Czech Republic	Zhong Shan, China
Arecibo, Puerto Rico	Charmes, France	Taicang, China
Fort Smith, Arkansas	Golbey, France	Penang, Malaysia
Pueblo, Colorado	Galway, Ireland	Samuthprakarn, Thailand
Lynn Haven, Florida	Barcelona, Spain	
Macon, Georgia		
Rushville, Indiana		
Lexington, Kentucky		
Minneapolis, Minnesota		
Hastings, Nebraska		
Columbia, South Carolina		
Clarksville, Tennessee		
Waco, Texas		
La Crosse, Wisconsin		

Residential Solutions		
Americas	Europe, Middle East, Africa	Asia Pacific
Ensenada, Mexico		
Monterrey, Mexico		
Tecate, Mexico		
Tijuana, Mexico		
Fort Smith, Arkansas		
Vidalia, Georgia		
Trenton, New Jersey		
Tyler, Texas		

Industrial Technologies		
Americas	Europe, Middle East, Africa	Asia Pacific
Dorval, Canada	Unicov, Czech Republic	Changzhou, China
Augusta, Georgia	Douai, France	Guilin, China
Campbellsville, Kentucky	Wasquehal, France	Nanjing, China
Mocksville, North Carolina	Oberhausen, Germany	Wujiang, China
Southern Pines, North Carolina	Fogliano Redipuglia, Italy	Ahmedabad, India
West Chester, Pennsylvania	Vignate, Italy	Ghaziabad, India
Seattle, Washington	Logatec, Slovenia	

Security Technologies		
Americas	Europe, Middle East, Africa	Asia Pacific
Security, Colorado	Sittingbourne, England	Shanghai, China
Princeton, Illinois	Feuquieres, France	
Indianapolis, Indiana	Durchausen, Germany	
Cincinnati, Ohio	Renchen, Germany	
	Faenza, Italy	
	Monsampolo, Italy	
	Duzce, Turkey	

Item 3. **LEGAL PROCEEDINGS**

In the normal course of business, we are involved in a variety of lawsuits, claims and legal proceedings, including commercial and contract disputes, employment matters, product liability claims, asbestos-related claims, environmental liabilities, intellectual property disputes, and tax-related matters. In our opinion, pending legal matters are not expected to have a material adverse impact on our results of operations, financial condition, liquidity or cash flows.

Tax Related Matters

In 2007, we received a notice from the IRS containing proposed adjustments to our tax filings in connection with an audit of the 2001 and 2002 tax years. The IRS did not contest the validity of our reincorporation in Bermuda. The most significant adjustments proposed by the IRS involve treating the entire intercompany debt incurred in connection with our reincorporation in Bermuda as equity. As a result of this recharacterization, the IRS disallowed the deduction of interest paid on the debt and imposed dividend withholding taxes on the payments denominated as interest. The IRS also asserted an alternative argument to be applied if the intercompany debt is respected as debt. In that circumstance, the IRS proposed to ignore the entities that hold the debt and to which the interest was paid, and impose 30% withholding tax on a portion of the interest payments as if they were made directly to a company that was not eligible for reduced U.S. withholding tax under a U.S. income tax treaty. The IRS asserted under this alternative theory that we owe additional taxes with respect to 2002 of approximately $84 million plus interest. We strongly disagreed with the view of the IRS and filed a protest with the IRS.

In 2010, we received an amended notice from the IRS eliminating its assertion that the intercompany debt incurred in connection with our reincorporation in Bermuda should be treated as equity. However, the IRS continues to assert the alternative position described above and proposes adjustments to our 2002 tax filings. If this alternative position is upheld, the Company would be required to record additional charges. In addition, the IRS also provided notice that it is assessing penalties of 30% on the asserted underpayment of tax described above.

We have and intend to continue to vigorously contest these proposed adjustments. We, in consultation with our outside advisors, carefully considered the form and substance of our intercompany financing arrangements, including the actions necessary to qualify for the benefits of the applicable U.S. income tax treaties. We believe that these financing arrangements are in accordance with the laws of the relevant jurisdictions including the U.S., that the entities involved should be respected and that the interest payments qualify for the U.S. income tax treaty benefits claimed.

Although the outcome of this matter cannot be predicted with certainty, based upon an analysis of the merits of our position, we believe that we have adequately reserved for this matter and do not expect that the ultimate resolution will have a material adverse impact on our future results of operations, financial condition, or cash flows. As we move forward to resolve this matter with the IRS, the reserves established may be adjusted. Although we continue to contest the IRS's position, there can be no assurance that we will be successful. If the IRS's position with respect to 2002 is ultimately sustained it will have a material adverse impact on our future results of operations, financial condition and cash flows.

Although we expect them to do so, at this time the IRS has not yet proposed any similar adjustments for years subsequent to 2002 as the federal income tax audits for those years are still in process or have not yet begun. It is unclear how the IRS will apply their position to subsequent years or whether the IRS will take a similar position with respect to other intercompany debt instruments.

For a further discussion of tax matters, see Note 17 to the Consolidated Financial Statements.

Asbestos-Related Matters

Certain wholly-owned subsidiaries of the Company are named as defendants in asbestos-related lawsuits in state and federal courts. In virtually all of the suits, a large number of other companies have also been named as defendants. The vast majority of those claims have been filed against either IR-New Jersey or Trane U.S. Inc. (Trane) and generally allege injury caused by exposure to asbestos contained in certain historical products sold by IR-New Jersey or Trane, primarily pumps, boilers and railroad brake shoes. Neither IR-New Jersey nor Trane was a producer or manufacturer of asbestos, however, some formerly manufactured products utilized asbestos-containing components such as gaskets and packings purchased from third-party suppliers.

See also the discussion under Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, Environmental and Asbestos Matters and also Note 20 to the Consolidated Financial Statements.

Executive Officers of the Registrant

The following is a list of executive officers of the Company as of February 14, 2013.

Name and Age	Date of Service as an Executive Officer	Principal Occupation and Other Information for Past Five Years
Michael W. Lamach (49)	2/16/2004	Chairman of the Board (since June 2010) and Chief Executive Officer and President (since February 2010); President and Chief Operating Officer (2009-2010); Senior Vice President and President, Trane Commercial Systems (2008-2009); Senior Vice President and President, Security Technologies (2004-2008)
Steven R. Shawley (60)	8/1/2005	Senior Vice President and Chief Financial Officer (since June 2008); Senior Vice President and President, Climate Control Technologies (2005-2008)
Marcia J. Avedon (51)	2/7/2007	Senior Vice President, Human Resources and Communications (since February 2007)
Paul A. Camuti (51)	8/1/2011	Senior Vice President, Innovation and Chief Technology Officer (since August 2011); President, Smart Grid Applications, Siemens Energy, Inc. (an energy technology subsidiary of Siemens Corporation) (2010 -2011); President, Research Division, Siemens Corporation (a diversified global technology company) (2009 - 2010); President and Chief Executive Officer, Siemens Corporate Research, Inc. (the research subsidiary of Siemens Corporation) (2005 - 2009)
John W. Conover IV (58)	7/1/2009	Senior Vice President and President, Security Technologies (since July 2009); President, Trane Commercial Systems, Americas (2005-2009)
Robert L. Katz (50)	11/1/2010	Senior Vice President and General Counsel (since November 2010); Federal- Mogul Corporation (a global automotive supplier), Senior Vice President, General Counsel and Corporate Secretary (2007-2010)
Gary S. Michel (50)	8/1/2011	Senior Vice President and President, Residential Solutions (since August 2011); President and Chief Executive Officer, Club Car (2007 - 2011)
Didier Teirlinck (56)	6/4/2008	Senior Vice President and President, Climate Solutions (since October 2009); President, Climate Control Technologies (since June 2008); President, Climate Control Europe (2005-2008)
Todd D. Wyman (45)	11/16/2009	Senior Vice President, Global Operations and Integrated Supply Chain (since November 2009); GE Transportation (a unit of General Electric Company), Vice President, Global Supply Chain (2007-2009)
Robert G. Zafari (54)	7/1/2010	Senior Vice President and President, Industrial Technologies (since July 2010); President, TCS and Climate Solutions EMEIA (2009-2010); President, Security Technologies ESA (2007-2008)
Richard J. Weller (56)	9/8/2008	Vice President and Controller (since September 2008); Vice President, Finance (2008); Vice President, Finance, Security Technologies Sector (2005-2008)

No family relationship exists between any of the above-listed executive officers of the Company. All officers are elected to hold office for one year or until their successors are elected and qualified.

Item 4. **MINE SAFETY DISCLOSURES**

Not applicable.

PART II

Item 5. **MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES**

Information regarding the principal market for our ordinary shares and related shareholder matters is as follows:

Our ordinary shares are traded on the New York Stock Exchange under the symbol IR. As of February 1, 2013, the approximate number of record holders of ordinary shares was 4,359. The high and low sales price per share and the dividend declared per share for the following periods were as follows:

	Ordinary shares		
2012	High	Low	Dividend
First quarter	$ 41.98	$ 31.24	$ —
Second quarter	45.62	38.24	0.16
Third quarter	47.71	39.21	0.16
Fourth quarter *	50.03	43.85	0.37
2011	High	Low	Dividend
First quarter	$ 49.07	$ 43.97	$ 0.07
Second quarter	52.33	42.75	0.12
Third quarter	47.22	26.13	0.12
Fourth quarter **	34.18	26.48	0.28

* In December 2012, we declared a dividend of $0.21 per ordinary share payable on March 28, 2013 to shareholders of record on March 12, 2013.

** In December 2011, we declared a dividend of $0.16 per ordinary share payable on March 30, 2012 to shareholders of record on March 12, 2012.

Future dividends on our ordinary shares, if any, will be at the discretion of our Board of Directors and will depend on, among other things, our results of operations, cash requirements and surplus, financial condition, contractual restrictions and other factors that the Board of Directors may deem relevant, as well as our ability to pay dividends in compliance with the Irish Companies Act. Under the Irish Companies Act, dividends and distributions may only be made from distributable reserves. Distributable reserves, broadly, means the accumulated realized profits of Ingersoll-Rand plc (IR-Ireland). In addition, no distribution or dividend may be made unless the net assets of IR-Ireland are equal to, or in excess of, the aggregate of IR-Ireland's called up share capital plus undistributable reserves and the distribution does not reduce IR-Ireland's net assets below such aggregate.

Information regarding equity compensation plans required to be disclosed pursuant to this Item is incorporated by reference from our definitive proxy statement for the Annual General Meeting of Shareholders.

Issuer Purchases of Equity Securities

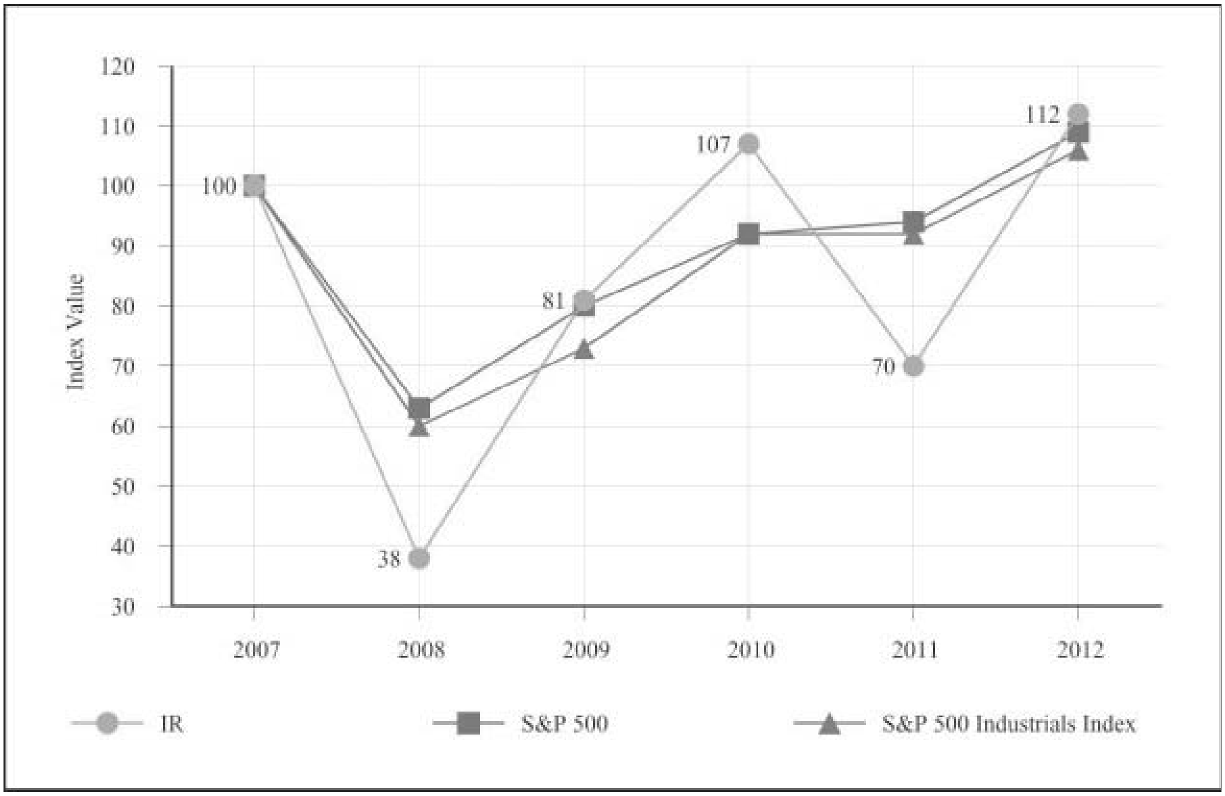
The following table provides information with respect to purchases by the Company of its ordinary shares during the quarter ended December 31, 2012:

Period	Total number of shares purchased (000's) (a) (b)	Average price paid per share (a) (b)	Total number of shares purchased as part of program (000's) (a)	Approximate dollar value of shares still available to be purchased under the program ($000's) (a) (c)
October 1 - October 31	3,802.5	$ 45.33	3,802.1	$ 296,251
November 1 - November 30	3,362.6	46.82	3,362.6	138,808
December 1 - December 31	2,804.4	48.15	2,802.6	3,875
Total	9,969.5	$ 46.63	9,967.3	

(a) On April 7, 2011, we announced that our Board of Directors authorized the repurchase of up to $2.0 billion of our ordinary shares under a share repurchase program. Based on market conditions, share repurchases will be made from time to time in the open market and in privately negotiated transactions at the discretion of management. The repurchase program does not have a prescribed expiration date.
(b) We may also reacquire shares outside of the repurchase program from time to time in connection with the surrender of shares to cover taxes on vesting of share based awards. In October and December, 369 and 1,910 shares, respectively, were reacquired in transactions outside the repurchase program.
(c) On December 10, 2012, our Board of Directors authorized the repurchase of up to $2.0 billion of our ordinary shares under a new share repurchase program upon completion of the current share repurchase program. Based on market conditions, share repurchases will be made from time to time in the open market and in privately negotiated transactions at the discretion of management. The repurchase program does not have a prescribed expiration date.

Performance Graph

The following graph compares the cumulative total shareholder return on our ordinary shares with the cumulative total return on (i) the Standard & Poor's 500 Stock Index and (ii) the Standard & Poor's 500 Industrial Index for the five years ended December 31, 2012. The graph assumes an investment of $100 in our ordinary shares, the Standard & Poor's 500 Stock Index and the Standard & Poor's 500 Industrial Index on December 31, 2007 and assumes the reinvestment of dividends.



Company/Index	2007	2008	2009	2010	2011	2012
Ingersoll Rand	100	38	81	107	70	112
S&P 500	100	63	80	92	94	109
S&P 500 Industrials Index	100	60	73	92	92	106

Item 6. SELECTED FINANCIAL DATA

In millions, except per share amounts:

At and for the years ended December 31,	2012	2011	2010	2009	2008
Net revenues	$ 14,034.9	$ 14,782.0	$ 14,001.1	$ 13,009.1	$ 12,927.9
Net earnings (loss) attributable to Ingersoll-Rand plc ordinary shareholders:					
Continuing operations	1,024.3	400.0	759.7	488.1	(2,527.6)
Discontinued operations	(5.7)	(56.8)	(117.5)	(36.8)	(97.2)
Total assets	18,492.9	18,844.1	19,990.9	19,991.0	20,924.5
Total debt	3,233.0	3,642.6	3,683.9	4,096.6	5,124.1
Total Ingersoll-Rand plc shareholders' equity	7,147.8	6,924.3	7,964.3	7,071.8	6,661.4
Earnings (loss) per share attributable to Ingersoll-Rand plc ordinary shareholders:					
Basic:					
Continuing operations	$ 3.37	$ 1.23	$ 2.34	$ 1.52	$ (8.41)
Discontinued operations	(0.02)	(0.17)	(0.36)	(0.11)	(0.32)
Diluted:					
Continuing operations	$ 3.30	$ 1.18	$ 2.24	$ 1.48	$ (8.41)
Discontinued operations	(0.02)	(0.17)	(0.35)	(0.11)	(0.32)
Dividends declared per ordinary share	$ 0.69	$ 0.59	$ 0.28	$ 0.50	$ 0.72

1. 2008 amounts include the results of Trane subsequent to the acquisition date (June 5, 2008 through December 31, 2008).
2. 2008 Earnings (loss) from continuing operations include an after-tax, non-cash asset impairment charge of $3.4 billion that was recognized in the fourth quarter.
3. 2011 amounts represent the operating results of the Hussmann Business and Branches through their respective divestiture and transaction dates of September 30, 2011 and November 30, 2011.
4. 2011 Earnings (loss) from continuing operations include an after-tax loss on sale and impairment charges related to the Hussmann divestiture of $546 million.
5. 2011 Dividends declared per ordinary share includes a dividend of $0.16 per ordinary share, declared in December 2011, and payable on March 30, 2012 to shareholders of record on March 12, 2012.
6. 2012 Dividends declared per ordinary share includes a dividend of $0.21 per ordinary share, declared in December 2012, and payable on March 28, 2013 to shareholders of record on March 12, 2013.

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following Management's Discussion and Analysis of Financial Condition and Results of Operations contains forward-looking statements that involve risks and uncertainties. Our actual results may differ materially from the results discussed in the forward-looking statements. Factors that might cause a difference include, but are not limited to, those discussed under Item 1A. Risk Factors in this Annual Report on Form 10-K. The following section is qualified in its entirety by the more detailed information, including our financial statements and the notes thereto, which appears elsewhere in this Annual Report.

Overview

Organization

We are a diversified, global company that provides products, services and solutions to enhance the quality and comfort of air in homes and buildings, transport and protect food and perishables, secure homes and commercial properties, and increase industrial productivity and efficiency. Our business segments consist of Climate Solutions, Residential Solutions, Industrial Technologies and Security Technologies, each with strong brands and leading positions within their respective markets. We generate revenue and cash primarily through the design, manufacture, sale and service of a diverse portfolio of industrial and commercial products that include well-recognized, premium brand names such as Club Car®, Ingersoll-Rand®, Schlage®, Thermo King® and Trane®.

To achieve our mission of being a world leader in creating safe, comfortable and efficient environments, we continue to focus on increasing our recurring revenue stream from parts, service, used equipment and rentals; and to continuously improve the efficiencies and capabilities of the products and services of our businesses. We also continue to focus on operational excellence strategies as a central theme to improving our earnings and cash flows.

Trends and Economic Events

We are a global corporation with worldwide operations. As a global business, our operations are affected by worldwide, regional and industry-specific economic factors, as well as political factors, wherever we operate or do business. Our geographic and industry diversity, as well as the diversity of our product sales and services, has helped mitigate the impact of any one industry or the economy of any single country on our consolidated operating results.

Given the broad range of products manufactured and geographic markets served, management uses a variety of factors to predict the outlook for the Company. We monitor key competitors and customers in order to gauge relative performance and the outlook for the future. In addition, our order rates are indicative of future revenue and thus a key measure of anticipated performance. In those industry segments where we are a capital equipment provider, revenues depend on the capital expenditure budgets and spending patterns of our customers, who may delay or accelerate purchases in reaction to changes in their businesses and in the economy.

Current market conditions, including challenges in international markets, continue to impact our financial results. The uneven commercial new construction activity in the United States and Europe is negatively impacting the results of our Security Technologies segment and commercial Heating, Ventilation and Air Conditioning (HVAC) business. However, we believe the commercial HVAC equipment replacement and aftermarket is slowly recovering. We have seen moderate growth in the American and Asian industrial markets, and the North American refrigerated transport market. While U.S. residential and consumer markets continue to be a challenge as new single-family housing construction and consumer confidence remain at low levels, we are beginning to see moderate improvements in the U.S. new builder and replacement markets. The residential HVAC business also continues to be impacted by a mix shift to units with a lower Seasonal Energy Efficiency Rating (SEER). As economic conditions stabilize, we expect slight revenue growth along with benefits from restructuring and productivity programs.

Despite the current market environment, we believe we have a solid foundation of global brands and leading market shares in all of our major product lines. Our growing geographic and industry diversity coupled with our large installed product base provides growth opportunities within our service, parts and replacement revenue streams. In addition, we are investing substantial resources to innovate and develop new products and services which we expect will drive our future growth.

Venezuela Devaluation

In February 2013, the government of Venezuela announced a devaluation of the Bolivar, from the preexisting exchange rate of 4.29 Bolivars to the U.S. dollar to 6.3 Bolivars to the U.S. dollar. We have two subsidiaries with significant operations in Venezuela. As a result of the devaluation, we are estimating a foreign currency loss of approximately $10 million in the first quarter of 2013. The February devaluation did not impact our 2012 results of operations, financial condition, or cash flows. Further devaluation of the Bolivar could negatively impact our results of operations, financial condition, or cash flows. For additional information, see Part I, Item 1(a), "Risk Factors" in this Form 10-K.

Significant events in 2012

Proposed Spin-Off Transaction

In December 2012, our Board of Directors announced a plan to spin off our commercial and residential security businesses (the New Security Company). The separation will result in two standalone companies: Ingersoll Rand, a world leader in creating comfortable, sustainable and efficient environments through its industrial, transport refrigeration, and HVAC businesses; and the New Security Company, a leading global provider of electronic and mechanical security products and services, delivering comprehensive solutions to commercial and residential customers. This new company's portfolio of brands will include Schlage, LCN®, Von Duprin®, Interflex®, CISA®, Briton®, Bricard®, BOCOM® Systems, Dexter®, Kryptonite®, Falcon® and Fusion® Hardware Group.

We expect the spin-off, which is intended to be tax free to shareholders, to be completed prior to year-end 2013. However, the completion of the spin-off is subject to certain customary conditions, including receipt of regulatory approvals, receipt of a ruling from the U.S. Internal Revenue Service as to the tax-free nature of the spin-off, as well as certain other matters relating to the spin-off, receipt of legal opinions, execution of intercompany agreements, effectiveness of appropriate filings with the U.S. Securities and Exchange Commission, and final approval of the transactions contemplated by the spin-off, as may be required under Irish law. There can be no assurance that any separation transaction will ultimately occur, or, if one does occur, its terms or timing.

Upon completion of the spin-off, Ingersoll-Rand plc (IR-Ireland) will cease to have any ownership interest in the New Security Company, and the New Security Company will become an independent publicly traded company. The New Security Company is anticipated to be an Irish public limited company (plc).

The disclosures within this Management's Discussion and Analysis of Financial Condition and Results of Operations do not take into account the proposed spin-off of the commercial and residential security businesses.

2012 Dividend Increase and 2013 Share Repurchase Program

In December 2012, we announced an increase in our quarterly stock dividend from $0.16 to $0.21 per share beginning with our March 2013 payment. The dividend is payable March 28, 2013, to shareholders of record on March 12, 2013.

In December 2012, our Board of Directors authorized the repurchase of up to $2.0 billion of our ordinary shares under a new share repurchase program upon completion of the current share repurchase program. The new share repurchase program is expected to begin in 2013. These repurchases will be accounted for as a reduction of Ordinary shares and Capital in excess of par value as they will be canceled upon repurchase.

2011 Share Repurchase Program

In April 2011, our Board of Directors authorized the repurchase of up to $2.0 billion of our ordinary shares under a new share repurchase program. On June 8, 2011, we commenced share repurchases under this program. During the year ended December 31, 2012, we repurchased 18.4 million shares for approximately $0.8 billion, excluding commissions. During the year ended December 31, 2011, we repurchased 36.3 million shares for approximately $1.2 billion, excluding commissions. These repurchases were accounted for as a reduction of Ordinary shares and Capital in excess of par value as they were canceled upon repurchase.

Pension and Other Postretirement Plan Amendments

On June 8, 2012, our Board of Directors approved amendments to our retirement plans for certain U.S. and Puerto Rico non-bargained employees. Eligible non-bargained employees hired prior to July 1, 2012 were given a choice of remaining in their respective defined benefit plan until the plan freezes on December 31, 2022 or freezing their accrued benefits in their respective defined benefit plan as of December 31, 2012 and receiving an additional 2% non-matching Company contribution into the Company's applicable defined contribution plan. Eligible employees hired or rehired on or after July 1, 2012 will automatically receive the 2% non-matching Company contribution into the applicable defined contribution plan in lieu of participating in the defined benefit plan. Beginning January 1, 2023, all eligible employees will receive the 2% non-matching contribution into the applicable defined contribution plan.

On February 1, 2012, our Board of Directors approved amendments to our postretirement medical plan with respect to post-65 retiree medical coverage. Effective January 1, 2013, we discontinued offering company-sponsored retiree medical coverage for certain individuals age 65 and older. We transitioned affected individuals to coverage through the individual Medicare market and will provide a tax-advantaged subsidy to those retirees eligible for subsidized company coverage that can be used toward reimbursing premiums and other qualified medical expenses for individual Medicare supplemental coverage that is purchased through our third-party Medicare coordinator.

See Note 11 to the Consolidated Financial Statements for a further discussion of these amendments.

Significant events in 2011

Dividend Increase

In April 2011, we increased our quarterly stock dividend from $0.07 to $0.12 per share beginning with our June 2011 payment. In December 2011, we announced an increase in our quarterly stock dividend from $0.12 per share to $0.16 per share beginning with our March 2012 payment.

Discontinued Operations

On December 30, 2011, we completed the divestiture of our security installation and service business, which was sold under the Integrated Systems and Services brand in the United States and Canada, to Kratos Public Safety & Security Solutions, Inc. As a result of the sale, we have reported this business as a discontinued operation for all periods presented. See "Divestitures and Discontinued Operations" within Management's Discussion and Analysis of Financial Condition and Results of Operations and also Note 18 to the Consolidated Financial Statements for a further discussion of our discontinued operations.

Divested Operations

On September 30, 2011 and November 30, 2011, we completed transactions to sell our Hussmann refrigerated display case business to a newly-formed affiliate (Hussmann Parent) of private equity firm Clayton Dubilier & Rice, LLC (CD&R). These transactions included the equipment business and certain of the service branches in the U.S. and Canada, and the equipment, service and installation businesses in Mexico, Chile, Australia, New Zealand, and Japan (Hussmann Business) and the remaining North American Hussmann service and installation branches (Hussmann Branches). We negotiated the final terms of the transaction to include our ownership of a portion of the common stock of Hussmann Parent, which represents significant continuing involvement. Therefore, the results of Hussmann are included in continuing operations for all periods presented, with our ownership interest reported using the equity method of accounting subsequent to September 30, 2011. See "Divestitures and Discontinued Operations" within Management's Discussion and Analysis of Financial Condition and Results of Operations and also Note 18 to the Consolidated Financial Statements for a further discussion of our divested operations.

Significant events in 2010

Discontinued Operations

On December 30, 2010, we completed the divestiture of our gas microturbine generator business, which was sold under the Energy Systems brand, to Flex Energy, Inc. As a result of the sale, we have reported this business as a discontinued operation for all periods presented.

On October 4, 2010, we completed the divestiture of our European refrigerated display case business, which was sold under the KOXKA brand, to an affiliate of American Industrial Acquisition Corporation (AIAC Group). As a result of the sale, we have reported this business as a discontinued operation for all periods presented.

See "Divestitures and Discontinued Operations" within Management's Discussion and Analysis of Financial Condition and Results of Operations and also Note 18 to the Consolidated Financial Statements for a further discussion of our discontinued operations.

Healthcare Reform

In March 2010, the Patient Protection and Affordable Care Act and the Healthcare and Education Reconciliation Bill of 2010 (collectively, the Healthcare Reform Legislation) were signed into law. As a result, effective 2013, the tax benefits available to us are reduced to the extent our prescription drug expenses are reimbursed under the Medicare Part D retiree drug subsidy program. Although the provisions of the Healthcare Reform Legislation relating to the retiree drug subsidy program did not take effect until 2013, we were required to recognize the full accounting impact in our financial statements in the reporting period in which the Healthcare Reform Legislation was enacted. As retiree healthcare liabilities and related tax impacts were already reflected in our financial statements, the Healthcare Reform Legislation resulted in a non-cash charge to income tax expense in the first quarter of 2010 of $40.5 million.

Currently, our retiree medical plans receive the retiree drug subsidy under Medicare Part D. No later than 2014, a significant portion of the drug coverage will be moved to a Medicare-approved Employer Group Waiver Plan while retaining the same benefit provisions. This change resulted in an actuarial gain which decreased our December 31, 2010 retiree medical plan liability, as well as the net actuarial losses in other comprehensive income by $41.1 million.

Results of Operations - For the years ended December 31

Dollar amounts in millions, except per share data		2012	% of Revenues		2011	% of Revenues		2010	% of Revenues
Net revenues	$	14,034.9		$	14,782.0		$	14,001.1	
Cost of goods sold		(9,758.2)	69.5%		(10,493.6)	71.0%		(10,059.9)	71.9%
Selling and administrative expenses		(2,776.0)	19.8%		(2,781.2)	18.8%		(2,679.8)	19.1%
Gain (loss) on sale/asset impairment		4.5	—%		(646.9)	4.4%		—	—%
Operating income		1,505.2	10.7%		860.3	5.8%		1,261.4	9.0%
Interest expense		(253.5)			(280.0)			(283.2)	
Other, net		25.0			33.0			32.5	
Earnings before income taxes		1,276.7			613.3			1,010.7	
Provision for income taxes		(227.0)			(187.2)			(228.1)	
Earnings from continuing operations		1,049.7			426.1			782.6	
Discontinued operations, net of tax		(5.7)			(56.8)			(117.5)	
Net earnings		1,044.0			369.3			665.1	
Less: Net earnings attributable to noncontrolling interests		(25.4)			(26.1)			(22.9)	
Net earnings attributable to Ingersoll-Rand plc	$	1,018.6		$	343.2		$	642.2	
Diluted net earnings (loss) per ordinary share attributable to Ingersoll-Rand plc ordinary shareholders:									
Continuing operations	$	3.30		$	1.18		$	2.24	
Discontinued operations		(0.02)			(0.17)			(0.35)	
Net earnings	$	3.28		$	1.01		$	1.89	

Net Revenues

Net revenues for the year ended December 31, 2012 decreased by 5.1%, or $747.1 million, compared with the same period of 2011, which primarily resulted from the following:

Pricing	1.6 %
Volume/product mix	0.3 %
Currency exchange rates	(1.5)%
Hussmann	(5.5)%
Total	(5.1)%

The decrease in revenues was primarily driven by the absence of Hussmann for the year ended December 31, 2012, which contributed $818.5 million of revenue in the same period in 2011. This decrease was partially offset by improved pricing across all segments and higher volumes within the Residential Solutions and Industrial Technologies business segments.

Net revenues for the year ended December 31, 2011 increased by 5.6%, or $780.9 million, compared with the same period of 2010, which primarily resulted from the following:

Volume/product mix	2.7 %
Pricing	2.7 %
Currency exchange rates	1.6 %
Acquisitions/divestitures	0.1 %
Hussmann *	(1.5)%
Total	5.6 %

* Represents the impact of a partial year of operations for the Hussmann Business and Branches in 2011.

The increase in revenues was primarily driven by higher volumes and product mix experienced within the Climate Solutions and Industrial Technologies business segments, as well as improved pricing and favorable foreign currency impacts across all segments.

Operating Income/Margin

Operating margin for the year ended December 31, 2012 increased to 10.7% from 5.8% for the same period in 2011. Included in Operating income for 2011 is a $646.9 million loss on sale/asset impairment charge related to the divestiture of Hussmann, which had a 4.4 point impact on 2011 operating margin. Excluding the loss on sale/asset impairment, operating margin increased by 0.5 points. The increase was primarily due to improved pricing in excess of material inflation and realization of productivity benefits in excess of other inflation across all sectors. These increases were partially offset by increased investment spending, lower volumes in our Climate Solutions and Security Technologies business segments, and unfavorable foreign currency impacts. Also included in Operating income for 2011 is a $23 million gain associated with the sale of assets from a restructured business in China. This gain had a 0.2 point impact on operating margin for 2011.

Operating margin for the year ended December 31, 2011 decreased to 5.8% from 9.0% for the same period in 2010. Included in Operating income for 2011 is a $646.9 million loss on sale/asset impairment charge related to the divestiture of Hussmann, which had a 4.4 point impact on 2011 operating margin. Excluding the loss on sale/asset impairment, operating margin increased by 1.2 points. The increase was primarily due to improved pricing in excess of material inflation across all sectors, the realization of productivity benefits in excess of other inflation, and higher volumes in our Climate Solutions and Industrial Technologies business segments. These improvements were partially offset by unfavorable volume/product mix within our Residential Solutions and Security Technologies segments as well as increased investment spending. Also included in Operating income for 2011 is a $23 million gain associated with the sale of assets from a restructured business in China. This gain had a 0.2 point impact on operating margin for 2011.

Interest Expense

Interest expense for the year ended December 31, 2012 decreased by $26.5 million compared with the same period of 2011 as a result of lower average debt balances in 2012.

Interest expense for the year ended December 31, 2011 decreased $3.2 million compared with the same period of 2010 as a result of lower average debt balances in 2011.

Other, Net

The components of Other, net, for the year ended December 31 are as follows:

In millions	2012	2011	2010
Interest income	$ 16.3	$ 25.9	$ 15.2
Exchange gain (loss)	(2.8)	2.8	0.9
Earnings (loss) from equity investments	(5.9)	(3.5)	—
Other	17.4	7.8	16.4
Other, net	$ 25.0	$ 33.0	$ 32.5

For the year ended December 31, 2012, Other, net decreased by $8.0 million compared with the same period of 2011. The decrease in Other, net resulted primarily from decreased interest income due to lower average cash balances in 2012, foreign currency losses, and an equity loss on the Hussmann equity investment of $5.9 million in 2012 compared to $3.5 million in 2011. These decreases were partially offset by other activity primarily related to adjustments to actual and expected insurance recoveries as a result of a settlement.

For the year ended December 31, 2011, Other, net increased by $0.5 million compared with the same period of 2010. The increase in Other, net resulted from favorable currency impacts and increased interest income as a result of higher average cash balances during 2011. Included within Earnings (loss) from equity investments is a $3.5 million equity loss on the Hussmann equity investment for 2011 incurred subsequent to the Hussmann divestiture transaction dates.

Provision for Income Taxes

The 2012 tax provision of $227.0 million included a $2.6 million Hussmann-related tax charge. For the year ended December 31, 2012, the effective tax rate, excluding the Hussmann Loss on sale/asset impairment and the Hussmann-related tax charge, was 17.6% compared to 21.9% in 2011, when excluding the Hussmann-related tax benefit discussed below. The 2012 tax rate was below the U.S. Statutory rate of 35.0% primarily due to earnings in non-U.S. jurisdictions, which, in aggregate, have a lower effective rate and a net reduction in non-U.S. valuation allowances, partially offset by net increases in our liability for unrecognized tax benefits and a non-cash charge to income tax expense related to the required tax accounting between the enactment date of March 30, 2010 and the effective date of January 1, 2013 of the Healthcare Reform Legislation.

The 2011 tax provision of $187.2 million included an $88.9 million Hussmann-related tax benefit. For the year ended December 31, 2011, the effective tax rate, excluding the Hussmann Loss on sale/asset impairment and the Hussmann-related tax benefit, was 21.9% compared to 22.6% in 2010. The 2011 tax rate was below the U.S. Statutory rate of 35.0% primarily due to earnings in non-U.S. jurisdictions, which, in aggregate, have a lower effective rate and net changes in our valuation allowances, partially offset by the accrual of a previously unrecorded future withholding tax liability and net increases in our liability for unrecognized tax benefits. Included in the 2010 effective rate was a $40.5 million non-cash charge to income tax expense related to the Healthcare Reform Legislation, partially offset by net changes in our valuation allowance.

Review of Business Segments

The segment discussions that follow describe the significant factors contributing to the changes in results for each segment included in continuing operations.

Segment operating income is the measure of profit and loss that our chief operating decision maker uses to evaluate the financial performance of the business and as the basis for performance reviews, compensation and resource allocation. For these reasons, we believe that Segment operating income represents the most relevant measure of segment profit and loss. We may exclude certain charges or gains from Operating income to arrive at a Segment operating income that is a more meaningful measure of profit and loss upon which to base our operating decisions. We define Segment operating margin as Segment operating income as a percentage of Net revenues.

Climate Solutions

Our Climate Solutions segment delivers energy-efficient refrigeration and HVAC throughout the world. Encompassing the transport refrigeration markets as well as the commercial HVAC markets, this segment offers customers a broad range of products, services and solutions to manage controlled temperature environments. This segment includes the market-leading brands of Thermo King and Trane.

On September 30, 2011 and November 30, 2011, we completed transactions to sell Hussmann to a newly-formed affiliate (Hussmann Parent) of private equity firm Clayton Dubilier & Rice, LLC (CD&R). As part of the deal terms we have an ongoing equity interest in Hussmann Parent, therefore operating results continue to be recorded within continuing operations. However, subsequent to the respective transaction dates our earnings from this equity interest are not reported in Segment operating income. During the year ended December 31, 2011, we recorded a pre-tax loss on sale and asset impairment charges related to the Hussmann divestiture totaling $646.9 million. These charges, as well as related adjustments recorded in 2012, have been excluded from Segment operating income within the Climate Solutions segment as management excludes these charges from Operating income when making operating decisions about the business. See "Divestitures and Discontinued Operations" within Management's Discussion and Analysis of Financial Condition and Results of Operations and also Note 18 to the Consolidated Financial Statements for a further discussion of our divested operations.

2011 Net revenues and Segment operating income for the Climate Solutions segment includes the operating results of the Hussmann Business and Branches prior to the sale. The operating results for the Hussmann Business and Branches are included in Net revenues and Segment operating income for the Climate Solutions segment for the years ended December 31 as follows:

In millions		2011		2010
Net revenues	$	818.5	$	1,106.1
Segment operating income	$	58.6	$	84.4

On October 4, 2010, we completed the divestiture of our European refrigerated display case business, which was sold under the KOXKA brand, to an affiliate of American Industrial Acquisition Corporation (AIAC Group). As a result of the sale, we have reported this business as a discontinued operation for all periods presented. Segment information has been revised to exclude the results of this business for all periods presented.

Segment results for the years ended December 31 were as follows:

Dollar amounts in millions		2012	% change		2011	% change		2010
Net revenues	$	7,409.1	(10.6)%	$	8,284.6	6.2%	$	7,800.8
Segment operating income		768.1	(6.9)%		824.6	37.8%		598.3
Segment operating margin		10.4%			10.0%			7.7%

2012 vs 2011

Net revenues for the year ended December 31, 2012 decreased by 10.6% or $875.5 million, compared with the same period of 2011, which primarily resulted from the following:

Pricing	1.4 %
Volume/product mix	(0.6)%
Currency exchange rates	(1.5)%
Hussmann	(9.9)%
Total	(10.6)%

Our Trane commercial HVAC business continues to be impacted by weakness in the worldwide commercial building markets. Trane commercial HVAC revenues increased as growth within our parts, services and solutions markets offset declines in equipment and systems in Europe and Asia. Net revenues in our transport businesses decreased driven by declines in sea-going container revenues. Growth in the Americas was more than offset by declines in Europe.

Segment operating income for the year ended December 31, 2012 decreased by 6.9%, or $56.5 million, compared with the same period of 2011. Included in 2011 Segment operating income is $58.6 million of income related to Hussmann and a $23 million gain associated with the sale of assets from a restructured business in China. Segment operating margin improved to 10.4% due to pricing improvements in excess of material inflation ($127 million) and productivity benefits in excess of other inflation ($22 million), partially offset by unfavorable volume/product mix ($45 million), increased investment spending ($52 million), and unfavorable currency impacts ($28 million).

2011 vs 2010

Net revenues for the year ended December 31, 2011 increased by 6.2% or $483.8 million, compared with the same period of 2010, which primarily resulted from the following:

Volume/product mix	4.6 %
Pricing	2.3 %
Currency exchange rates	1.8 %
Acquisitions/divestitures	0.1 %
Hussmann *	(2.6)%
Total	6.2 %

* Represents the impact of a partial year of operations for the Hussmann Business and Branches in 2011.

Trane commercial HVAC revenues reflect market recovery within our equipment, systems, parts, services and solutions markets. Trane commercial HVAC revenues increased in all major geographic regions, with strong year-over-year improvements in the Americas, Asia, and Europe. Net revenues in our transport businesses experienced growth in most geographic areas due to improved activity within the refrigerated trailer and truck markets. In addition, sea-going container revenues and worldwide bus revenues improved due to an increase in end-market activity.

Segment operating income for the year ended December 31, 2011 increased by 37.8%, or $226.3 million, compared with the same period of 2010. The increase, which improved Segment operating margin to 10.0% from 7.7%, was primarily related to pricing improvements in excess of material inflation ($36 million), productivity benefits in excess of other inflation ($115 million), and favorable volumes/product mix ($90 million). However, the benefits resulting from these improvements were partially offset by increased investment spending ($28 million) and the impacts of only a partial year of operations for the Hussmann Business and Branches in 2011 ($10 million). Included in Segment operating income for 2011 was a $23 million gain associated with the sale of assets from a restructured business in China. This gain had a 0.3 point impact on Segment operating margin.

Residential Solutions

Our Residential Solutions segment provides safety, comfort and efficiency to homeowners throughout North America and parts of South America. It offers customers a broad range of products, services and solutions including mechanical and electronic locks, energy-efficient HVAC systems, indoor air quality solutions, advanced controls, portable security systems and remote home management. This segment is comprised of well-known brands like American Standard®, Schlage and Trane.

Segment results for the years ended December 31 were as follows:

Dollar amounts in millions	**2012**	**% change**	**2011**	**% change**	**2010**
Net revenues	$ 2,054.4	2.1%	$ 2,012.7	(5.1)%	$ 2,121.7
Segment operating income	115.4	85.8%	62.1	(67.5)%	191.3
Segment operating margin	5.6%		3.1%		9.0%

2012 vs 2011

Net revenues for the year ended December 31, 2012 increased by 2.1% or $41.7 million, compared with the same period of 2011, which primarily resulted from the following:

Pricing	1.4%
Volume/product mix	0.7%
Total	2.1%

Trane residential HVAC revenues increased due to improved activity levels in both the new residential construction and replacement markets. These improvements were slightly offset by a continued mix shift to lower SEER units. Residential security revenues increased as a result of improved sales to new builder markets and South American customers.

Segment operating income for the year ended December 31, 2012 increased by 85.8%, or $53.3 million, compared with the same period of 2011. The increase, which improved Segment operating margin to 5.6% from 3.1%, was primarily driven by productivity benefits in excess of other inflation ($63 million) and pricing improvements in excess of material inflation ($28 million). These improvements were partially offset by unfavorable volume/product mix ($46 million).

2011 vs 2010

Net revenues for the year ended December 31, 2011 decreased by 5.1% or $109.0 million, compared with the same period of 2010, which primarily resulted from the following:

Volume/product mix	(10.5)%
Pricing	5.1 %
Currency exchange rates	0.3 %
Total	(5.1)%

Trane residential HVAC revenues were impacted by continued weakness in the U.S. new residential construction and replacement markets as well as a mix shift to lower SEER units. Residential security revenues increased as a result of improved sales to new builder markets and "big box" customers primarily during the fourth quarter.

Segment operating income for the year ended December 31, 2011 decreased by 67.5%, or $129.2 million, compared with the same period of 2010. The decrease, which lowered Segment operating margins to 3.1% from 9.0%, was primarily related to unfavorable volumes/product mix ($155 million), partially offset by pricing improvements in excess of material inflation ($41 million).

Industrial Technologies

Our Industrial Technologies segment provides products, services and solutions that improve productivity, energy efficiency, safety, and operations. It offers global customers a diverse and innovative range of products including compressed air systems, power tools, pumps, material handling equipment, and golf, utility, and rough terrain vehicles. It also provides a range of service offerings including preventative maintenance and comprehensive care multi-year contracts, service parts, installation, remanufactured compressors and tools, and solutions to optimize customers' energy and total production costs. This segment includes the Ingersoll-Rand, Club Car, and ARO® market-leading brands.

On December 30, 2010, we completed the divestiture of our gas microturbine generator business, which was sold under the Energy Systems brand, to Flex Energy, Inc. As a result of the sale, we have reported this business as a discontinued operation for all periods presented. Segment information has been revised to exclude the results of this business for all periods presented.

Segment results for the years ended December 31 were as follows:

Dollar amounts in millions	2012	% change	2011	% change	2010
Net revenues	$ 2,945.8	3.3%	$ 2,852.9	14.8%	$ 2,485.2
Segment operating income	455.8	9.7%	415.5	33.9%	310.4
Segment operating margin	15.5%		14.6%		12.5%

2012 vs 2011

Net revenues for the year ended December 31, 2012 increased by 3.3% or $92.9 million, compared with the same period of 2011, which primarily resulted from the following:

Volume/product mix	3.9 %
Pricing	1.7 %
Currency exchange rates	(2.3)%
Total	3.3 %

We experienced growth within our Air and Productivity business related to increased volume in the Americas, which was offset by declines in Europe. The growth in the Americas was primarily driven by improved air compressor sales. Club Car revenues increased due to improved pricing and growth in the golf car and utility vehicle markets.

Segment operating income increased by 9.7%, or $40.3 million, during 2012. The increase, which improved Segment operating margin to 15.5% from 14.6%, was primarily driven by productivity benefits in excess of other inflation ($59 million), pricing improvements in excess of material inflation ($29 million), and favorable volume/product mix ($19 million). These improvements were partially offset by increased investment spending ($52 million) and unfavorable currency impacts ($14 million).

2011 vs 2010

Net revenues for the year ended December 31, 2011 increased by 14.8%, or $367.7 million, compared with the same period of 2010, which primarily resulted from the following:

Volume/product mix	10.3%
Pricing	2.7%
Currency exchange rates	1.8%
Total	14.8%

We experienced strong growth within our Air and Productivity business primarily due to increased volume in all major geographic regions. The revenue increase in the Americas was driven by improvements in our industrial and commercial markets for air compressors, tools, and fluid handling products. Club Car revenues also improved relative to the prior year primarily due to improved pricing.

Segment operating income increased by 33.9%, or $105.1 million, during 2011. The increase, which improved Segment operating margin to 14.6% from 12.5%, was primarily related to pricing improvements in excess of material inflation ($20 million), productivity benefits in excess of other inflation ($61 million), and higher volumes and product mix ($60 million). These improvements were partially offset by increased investment spending ($15 million).

Security Technologies

Our Security Technologies segment is a leading global provider of products and services that make environments safe, secure and productive. The segment's market-leading products include electronic and biometric access control systems and software, locks and locksets, door closers, exit devices, steel doors and frames, as well as time, attendance and personnel scheduling systems. These products serve a wide range of markets including the commercial construction market, healthcare, retail, and transport industries as well as educational and governmental facilities. This segment includes the CISA, LCN, Schlage and Von Duprin market-leading brands.

On December 30, 2011, we completed the divestiture of our security installation and service business, which was sold under the Integrated Systems and Services brand in the United States and Canada, to Kratos Public Safety & Security Solutions, Inc. As a result of the sale, we have reported this business as a discontinued operation for all periods presented. Segment information has been revised to exclude the results of this business for all periods presented.

Segment results for the years ended December 31 were as follows:

Dollar amounts in millions	2012	% change	2011	% change	2010
Net revenues	$ 1,625.6	(0.4)%	$ 1,631.8	2.4%	$ 1,593.4
Segment operating income	327.7	(1.2)%	331.6	1.0%	328.3
Segment operating margin	20.2%		20.3%		20.6%

2012 vs 2011

Net revenues for the year ended December 31, 2012 decreased by 0.4%, or $6.2 million, compared with the same period of 2011, which primarily resulted from the following:

Pricing	2.1 %
Currency exchange rates	(1.7)%
Volume/product mix	(0.8)%
Total	(0.4)%

The impact of the continued weakness in worldwide commercial building markets were partially offset by pricing improvements for our mechanical products. Our results reflect declines in Europe, partially offset by improvements in the Americas and Asia.

Segment operating income for the year ended December 31, 2012 decreased by 1.2%, or $3.9 million, compared with the same period of 2011. The decrease, which lowered Segment operating margin to 20.2% from 20.3%, was primarily related to unfavorable volume/product mix ($27 million), increased investment spending ($17 million), and unfavorable currency impacts ($5 million), partially offset by pricing improvements in excess of material inflation ($35 million) and productivity benefits in excess of other inflation ($11 million).

2011 vs 2010

Net revenues for the year ended December 31, 2011 increased by 2.4%, or $38.4 million, compared with the same period of 2010, which primarily resulted from the following:

Currency exchange rates	1.9 %
Pricing	1.7 %
Volume/product mix	(1.2)%
Total	2.4 %

The weakness in worldwide commercial building markets continues to impact segment revenues. However, our results reflect strong improvements in Asia, with slight improvements in North America and Europe.

Segment operating income for the year ended December 31, 2011 increased by 1.0%, or $3.3 million, compared with the same period of 2010. Segment operating margin declined to 20.3% from 20.6%. The increase in Segment operating income was primarily related to productivity benefits in excess of other inflation ($27 million) and pricing improvements in excess of material inflation ($2 million), partially offset by unfavorable volumes/product mix ($20 million).

Divestitures and Discontinued Operations

Divested Operations

Hussmann Divestiture

On September 30, 2011, we completed a transaction to sell our Hussmann refrigerated display case business to a newly-formed affiliate (Hussmann Parent) of private equity firm Clayton Dubilier & Rice, LLC (CD&R). This transaction included the equipment business and certain of the service branches in the U.S. and Canada, and the equipment, service and installation businesses in Mexico, Chile, Australia, New Zealand, and Japan (Hussmann Business). The final transaction allowed Hussmann Parent the option to acquire the remaining North American Hussmann service and installation branches (Hussmann Branches). Hussmann Parent completed the acquisition of the Hussmann Branches on November 30, 2011. The Hussmann Business and Branches, which are reported as part of the Climate Solutions segment, manufacture, market, distribute, install, and service refrigerated display merchandising equipment, refrigeration systems, over the counter parts, and other commercial and industrial refrigeration applications.

The Hussmann Business divestiture was originally announced on April 21, 2011 and met the criteria for classification as held for sale treatment in accordance with GAAP during the first quarter of 2011. During the third quarter of 2011, we negotiated the final transaction to sell the Hussmann Business and Branches to CD&R in exchange for $370 million in cash, subject to purchase price adjustments, and common stock of Hussmann Parent, such that following the sale, CD&R would own cumulative convertible participating preferred stock of Hussmann Parent, initially representing 60% of the outstanding capital stock (on an as-converted basis) of Hussmann Parent, and we would own all of the common stock, initially representing the remaining 40% of the outstanding capital stock (on an as-converted basis) of Hussmann Parent. Our ownership of common stock of Hussmann Parent represents significant continuing involvement. Therefore, the results of the Hussmann Business and Branches are included in continuing operations for all periods presented. Based on these terms, we recorded a total pre-tax loss on sale/asset impairment charge of $646.9 million during the full year of 2011.

Results for the Hussmann Business and Branches for the years ended December 31 are as follows:

In millions	2011*	2010
Net revenues	$ 818.5	$ 1,106.1
Gain (loss) on sale/asset impairment	(646.9) **	—
Net earnings (loss) attributable to Ingersoll-Rand plc	(513.1)	55.7
Diluted earnings (loss) per share attributable to Ingersoll-Rand plc ordinary shareholders:	(1.51)	0.16

* Results represent the operating results of Hussmann Business and Branches through their respective divestiture transaction dates.

** Included in Gain (loss) on sale/asset impairment for the year ended December 31, 2011 are transaction costs of $12.2 million.

Hussmann Parent is required to pay a quarterly preferred dividend payment to CD&R in the form of cash or additional preferred shares. Our ownership percentage as of December 31, 2012 was 37.2%. Our ownership interest in Hussmann Parent is reported using the equity method of accounting subsequent to September 30, 2011. Our equity investment in the Hussmann Parent is reported within Other noncurrent assets and the related equity earnings reported in Other, net within Net earnings.

Discontinued Operations

The components of discontinued operations for the years ended December 31 are as follows:

In millions	2012	2011	2010
Net revenues	$ —	$ 72.2	$ 143.6
Pre-tax earnings (loss) from operations	(49.2)	(69.0)	(173.4)
Pre-tax gain (loss) on sale	2.3	(57.7)	(5.4)
Tax benefit (expense)	41.2	69.9	61.3
Discontinued operations, net of tax	$ (5.7)	$ (56.8)	$ (117.5)

Discontinued operations by business for the years ended December 31 are as follows:

In millions	2012	2011	2010
Integrated Systems and Services, net of tax	$ (2.8)	$ (6.3)	$ (0.8)
Energy Systems, net of tax	(0.2)	0.2	(17.6)
KOXKA, net of tax	0.5	(3.3)	(54.0)
Other discontinued operations, net of tax	(3.2)	(47.4)	(45.1)
Discontinued operations, net of tax	$ (5.7)	$ (56.8)	$ (117.5)

Integrated Systems and Services Divestiture

On December 30, 2011, we completed the divestiture of our security installation and service business, which was sold under the Integrated Systems and Services brand in the United States and Canada, to Kratos Public Safety & Security Solutions, Inc. This business, which was previously reported as part of the Security Technologies segment, designs, installs and services security systems. We reported this business as a discontinued operation for all periods presented. During 2011, we recorded a pre-tax loss on sale of $6.7 million ($5.0 million after-tax) within discontinued operations.

Net revenues and after-tax earnings of the Integrated Systems and Services business for the year ended December 31 were as follows:

In millions	2012	2011	2010
Net revenues	$ —	$ 72.2	$ 78.0
After-tax earnings (loss) from operations	$ (1.2)	$ (1.3)	$ (0.8)
Gain (loss) on sale, net of tax	(1.6)	(5.0)	—
Discontinued operations, net of tax	$ (2.8)	$ (6.3)	$ (0.8)

Energy Systems Divestiture

On December 30, 2010, we completed the divestiture of our gas microturbine generator business, which was sold under the Energy Systems brand, to Flex Energy, Inc. The business, which was previously reported as part of the Industrial Technologies segment, designs, manufactures, markets, distributes, and services gas powered microturbine generators which feature energy efficient design and low emissions technology. During 2010, we recognized an $8.3 million after-tax impairment loss within discontinued operations related to the write-down of the net assets to their estimated fair value.

Net revenues and after-tax earnings of the Energy Systems business for the years ended December 31 were as follows:

In millions	2012	2011	2010
Net revenues	$ —	$ —	$ 8.9
After-tax earnings (loss) from operations	$ (0.2)	$ (0.4)	$ (14.4) *
Gain (loss) on sale, net of tax	—	0.6	(3.2)
Discontinued operations, net of tax	$ (0.2)	$ 0.2	$ (17.6)

* Included in discontinued operations for Energy Systems in 2010 is an after-tax impairment loss of $8.3 million related to the initial write-down of the net assets to their estimated fair value.

KOXKA Divestiture

On October 4, 2010, we completed the divestiture of our European refrigerated display case business, which was sold under the KOXKA brand, to an affiliate of American Industrial Acquisition Corporation (AIAC Group). The business, which was previously reported as part of the Climate Solutions segment, designs, manufactures and markets commercial refrigeration equipment through sales branches and a network of distributors throughout Europe, Africa and the Middle East. During 2010, we recognized a $53.9 million after-tax impairment loss within discontinued operations related to the write-down of the net assets to their estimated fair value.

Net revenues and after-tax earnings of the KOXKA business for years ended December 31 were as follows:

In millions	2012	2011	2010
Net revenues	$ —	$ —	$ 56.7
After-tax earnings (loss) from operations	$ 0.5	$ (3.3)	$ (53.1) *
Gain (loss) on sale, net of tax	—	—	(0.9)
Discontinued operations, net of tax	$ 0.5	$ (3.3)	$ (54.0)

* Included in discontinued operations for KOXKA for 2010 is an after-tax impairment loss of $53.9 million related to the write-down of the net assets to their estimated fair value. Also included in 2010 is a $12.2 million tax benefit resulting from a reduction in the Company's deferred tax asset valuation allowance for net operating losses.

Other Discontinued Operations

The components of other discontinued operations for the years ended December 31 were as follows:

In millions	2012	2011	2010
Retained costs, net of tax	$ (17.2)	$ (31.8)	$ (45.0)
Net gain (loss) on disposals, net of tax	14.0	(15.6)	(0.1)
Discontinued operations, net of tax	$ (3.2)	$ (47.4)	$ (45.1)

On November 30, 2007, we completed the sale of our Bobcat, Utility Equipment and Attachments businesses (collectively, Compact Equipment) to Doosan Infracore for gross proceeds of approximately $4.9 billion, subject to post-closing purchase price adjustments. Compact Equipment manufactured and sold compact equipment, including skid-steer loaders, compact track loaders, mini-excavators and telescopic tool handlers; portable air compressors, generators and light towers; general-purpose light construction equipment; and attachments. We were in dispute regarding post-closing matters with Doosan Infracore. During the second quarter of 2011, we collected approximately $48.3 million of our outstanding receivable from Doosan Infracore related to certain purchase price adjustments. During the second quarter of 2012, Doosan Infracore paid the Company a total of $46.5 million to settle the outstanding receivable and remaining disputed post-closing matters.

Other discontinued operations, net of tax from previously sold businesses is mainly related to postretirement benefits, product liability, worker's compensation, and legal costs (mostly asbestos-related) and tax effects of post-closing purchase price adjustments.

Liquidity and Capital Resources

We earn a significant amount of our operating income in jurisdictions where it is deemed to be permanently reinvested. Our most prominent jurisdiction of operation is the U.S. We currently do not intend nor foresee a need to repatriate funds to the U.S., and no provision for U.S. income taxes has been made with respect to such earnings. We expect existing cash and cash equivalents available to the U.S., the cash generated by our U.S. operations, our committed credit lines as well as our expected ability to access the capital markets will be sufficient to fund our U.S. operating and capital needs for at least the next twelve months and thereafter for the foreseeable future. In addition, we expect existing non-U.S. cash and cash equivalents and the cash generated by our non-U.S. operations will be sufficient to fund our non-U.S. operating and capital needs for at least the next twelve months and thereafter for the foreseeable future. Should we require more capital in the U.S. than is generated by our U.S. operations, and we determine that repatriation of non-U.S. cash is necessary, such amounts would be subject to U.S. federal income taxes.

During the year ended December 31, 2012, we repurchased 18.4 million shares for approximately $0.8 billion, excluding commissions, under our current share repurchase program. These repurchases were accounted for as a reduction of Ordinary shares and Capital in excess of par value as they were canceled upon repurchase.

In December 2012, we announced an increase in our quarterly ordinary share dividend from $0.16 to $0.21 per share beginning with our March 2013 payment. In addition, our Board of Directors authorized the repurchase of up to $2.0 billion of our ordinary shares under a new share repurchase program upon completion of the current share repurchase program. These repurchases will be accounted for as a reduction of Ordinary shares and Capital in excess of par value as they will be canceled upon repurchase. We expect to commence purchases under this new repurchase program in 2013. We expect our available cash flow, committed credit lines and access to the capital markets will be sufficient to fund the increased dividend and share repurchases.

In addition to the capital needs discussed above, we have debt maturities of $600 million of 6.0% senior notes in August 2013 and $655 million of 9.5% senior notes in April 2014, which we expect to refinance prior to maturity.

Liquidity

The following table contains several key measures to gauge our financial condition and liquidity at the periods ended December 31:

In millions	2012	2011	2010
Cash and cash equivalents	$ 882.1	$ 1,160.7	$ 1,014.3
Short-term borrowings and current maturities of long-term debt	963.7	763.3	761.6
Long-term debt	2,269.3	2,879.3	2,922.3
Total debt	3,233.0	3,642.6	3,683.9
Total Ingersoll-Rand plc shareholders’ equity	7,147.8	6,924.3	7,964.3
Total equity	7,229.3	7,012.4	8,059.1
Debt-to-total capital ratio	30.9%	34.2%	31.3%

Short-term borrowings and current maturities of long-term debt at December 31 consisted of the following:

In millions	2012	2011
Debentures with put feature	$ 343.0	$ 343.6
Exchangeable Senior Notes	—	341.2
6.000% Senior notes due 2013	600.0	—
Other current maturities of long-term debt	10.8	12.5
Other short-term borrowings	9.9	66.0
Total	$ 963.7	$ 763.3

Commercial Paper Program

The maximum aggregate amount of unsecured commercial paper notes available to be issued, on a private placement basis, under the commercial paper program is $2 billion as of December 31, 2012. Under the commercial paper program, Ingersoll-Rand Global Holding Company Limited (IR-Global), may issue notes from time to time, and the proceeds of the financing will be used for general corporate purposes. Each of IR-Ireland, Ingersoll-Rand Company Limited (IR-Limited), and Ingersoll-Rand International Holding Limited (IR-International) has provided an irrevocable and unconditional guarantee for the notes issued under the commercial paper program. We had no commercial paper outstanding at December 31, 2012 and December 31, 2011.

Debentures with Put Feature
At December 31, 2012 and December 31, 2011, we had outstanding $343.0 million and $343.6 million, respectively, of fixed rate debentures which only require early repayment at the option of the holder. These debentures contain a put feature that the holders may exercise on each anniversary of the issuance date. If exercised, we are obligated to repay in whole or in part, at the holder's option, the outstanding principal amount (plus accrued and unpaid interest) of the debentures held by the holder. If these options are not exercised, the final maturity dates would range between 2027 and 2028.

On February 15, 2012, holders of these debentures had the option to exercise the put feature on $37.2 million of the outstanding debentures. No holder chose to exercise the put feature at that date. On October 15, 2012, holders of these debentures had the option to exercise the put feature on $306.4 million of the outstanding debentures. Holders chose to exercise the put feature on $0.6 million of the outstanding debentures at that date, and were paid in November 2012. Based on our cash flow forecast and access to the capital markets, we believe we will have sufficient liquidity to repay any amounts exercised as a result of the put features.

Exchangeable Senior Notes Due 2012
In April 2009, we issued $345 million of 4.5% Exchangeable Senior Notes (the Notes) through our wholly-owned subsidiary, IR-Global. We settled all remaining outstanding Notes during 2012. As a result, we paid $357.0 million in cash and issued 10.8 million ordinary shares to settle the principal, interest and equity portion of the Notes.

Other
On May 26, 2010, we entered into a 3-year, $1.0 billion revolving credit facility through our wholly-owned subsidiary, IR-Global. On March 15, 2012, this credit facility was refinanced with a 5-year, $1.0 billion revolving credit facility maturing on March 15, 2017. We also have a 4-year, $1.0 billion revolving credit facility maturing on May 20, 2015, through our wholly-owned subsidiary, IR-Global. Each of IR-Ireland, IR-Limited and IR-International has provided an irrevocable and unconditional guarantee for these credit facilities. The total committed revolving credit facilities of $2.0 billion are unused and provide support for our commercial paper program as well as for other general corporate purposes.

In addition, other available non-U.S. lines of credit were $933.3 million, of which $705.4 million was unused at December 31, 2012. These lines provide support for bank guarantees, letters of credit and other general corporate purposes.

Pension Plans
Our investment objective in managing defined benefit plan assets is to ensure that all present and future benefit obligations are met as they come due. We seek to achieve this goal while trying to mitigate volatility in plan funded status, contribution and expense by better matching the characteristics of the plan assets to that of the plan liabilities. Prior to 2011, we utilized asset/liability modeling studies as the basis for global asset allocation decisions. In 2011, we adopted a dynamic approach to asset allocation whereby a plan's allocation to fixed income assets increases progressively over time towards an ultimate target of 90% as a plan moves toward full funding. We monitor plan funded status and asset allocation regularly in addition to investment manager performance.

We monitor the impact of market conditions on our defined benefit plans on a regular basis. During 2012, none of our defined benefit pension plans have experienced a significant impact on their liquidity due to the volatility in the markets. For further details on pension plan activity, see Note 11 to the Consolidated Financial Statements.

Cash Flows
The following table reflects the major categories of cash flows for the years ended December 31, respectively. For additional details, please see the Consolidated Statements of Cash Flows in the Consolidated Financial Statements.

In millions	**2012**	**2011**	**2010**
Operating cash flow provided by (used in) continuing operations	$ 1,277.7	$ 1,230.2	$ 756.4
Investing cash flow provided by (used in) continuing operations	(146.4)	207.5	(179.0)
Financing cash flow provided by (used in) continuing operations	(1,303.9)	(1,246.4)	(403.7)

Operating Activities
Net cash provided by operating activities from continuing operations was $1,277.7 million for the year ended December 31, 2012 compared with $1,230.2 million in 2011. Operating cash flows for 2012 and 2011 reflect consistent working capital levels and consistent earnings from continuing operations after taking into account the non-cash loss on sale/asset impairment charges related to the Hussmann divestiture.

Net cash provided by operating activities from continuing operations was $1,230.2 million for the year ended December 31, 2011 compared with $756.4 million in 2010. Operating cash flows for 2011 reflect improved earnings from continuing operations after taking into account the non-cash loss on sale/asset impairment charge related to the Hussmann divestiture. Operating cash flows for 2010 reflect discretionary cash contributions to our pension funds of $444 million ($359 million after tax benefit received).

Investing Activities

Net cash used in investing activities from continuing operations was $146.4 million for the year ended December 31, 2012 compared with net cash provided by investing activities from continuing operations of $207.5 million in 2011. The change in investing activities is primarily attributable to decreased net proceeds from business dispositions and sale of property, plant, and equipment in 2012 compared to 2011, partially offset by a $44.3 million dividend from the Company's equity investment in Hussmann Parent in 2012. During 2011, the Company received net proceeds from business dispositions of $400.3 million related to the sale of the Hussmann Business and Branches and the collection of proceeds for purchase price adjustments on the sale of Doosan Infracore. During 2011, we also received proceeds from the sale of assets from a restructured business in China.

Net cash provided by investing activities from continuing operations was $207.5 million for the year ended December 31, 2011 compared with net cash used in investing activities from continuing operations of $179.0 million in 2010. The change in investing activities is primarily attributable to net proceeds from business dispositions of $400.3 million related to the sale of the Hussmann Business and Branches and the collection of proceeds for purchase price adjustments on the sale of Doosan Infracore. We also received proceeds from the sale of assets from a restructured business in China. These proceeds were partially offset by an increase in capital expenditures during 2011.

Financing Activities

Net cash used in financing activities from continuing operations during the year ended December 31, 2012 was $1,303.9 million, compared with $1,246.4 million during 2011. The change in financing activities is primarily related to the settlement of the Exchangeable Senior Notes and increased dividend payments during 2012, partially offset by decreased share repurchases and increased proceeds from shares issued under incentive plans in 2012.

Net cash used in financing activities from continuing operations during the year ended December 31, 2011 was $1,246.4 million, compared with $403.7 million during 2010. The change in financing activities is primarily related to approximately $1.2 billion of share repurchases as well as increased dividend payments, partially offset by lower repayments of long term debt in 2011.

Capital Resources

Based on historical performance and current expectations, we believe our cash and cash equivalents balance, the cash generated from our operations, our committed credit lines and our expected ability to access capital markets will satisfy our working capital needs, capital expenditures, share repurchase programs, upcoming debt maturities, and other liquidity requirements associated with our operations for the foreseeable future.

Capital expenditures were $262.6 million, $242.9 million and $179.5 million for 2012, 2011 and 2010, respectively. Our investments continue to improve manufacturing productivity, reduce costs and provide environmental enhancements and advanced technologies for existing facilities. The capital expenditure program for 2013 is estimated to be approximately $250 million, including amounts approved in prior periods. Many of these projects are subject to review and cancellation at our option without incurring substantial charges.

For financial market risk impacting the Company, see Item 7A. Quantitative and Qualitative Disclosure About Market Risk.

Capitalization

In addition to cash on hand and operating cash flow, we maintain significant credit availability under our Commercial Paper Program. Our ability to borrow at a cost-effective rate under the Commercial Paper Program is contingent upon maintaining an investment-grade credit rating. As of December 31, 2012, our credit ratings were as follows:

	Short-term	Long-term
Moody’s	P-2	Baa1
Standard and Poor’s	A-2	BBB+

The credit ratings set forth above are not a recommendation to buy, sell or hold securities and may be subject to revision or withdrawal by the assigning rating organization. Each rating should be evaluated independently of any other rating.

Our public debt does not contain financial covenants and our revolving credit lines have a debt-to-total capital covenant of 65%. As of December 31, 2012, our debt-to-total capital ratio was significantly beneath this limit.

Guarantees

Subsequent to the Ireland Reorganization, IR-Ireland and IR-Limited guarantee fully and unconditionally the outstanding public debt of IR-International, IR-Global and IR-New Jersey. See Note 22 to the Consolidated Financial Statements for additional information.

Contractual Obligations

The following table summarizes our contractual cash obligations by required payment periods, in millions:

	Less than 1 year	1 - 3 years	3 - 5 years	More than 5 years	Total
Short-term debt	$ 9.9	$ —	$ —	$ —	$ 9.9
Long-term debt	953.9 *	1,168.8	16.5	1,085.0	3,224.2
Interest payments on long-term debt	214.2	259.3	198.3	385.2	1,057.0
Purchase obligations	1,001.4	—	—	—	1,001.4
Operating leases	132.4	187.3	103.4	49.3	472.4
Total contractual cash obligations	$ 2,311.8	$ 1,615.4	$ 318.2	$ 1,519.5	$ 5,764.9

* Includes $343 million of debt redeemable at the option of the holder. The scheduled maturities of these bonds range between 2027 and 2028. See Note 9 to the Consolidated Financial Statements for additional information.

Future expected obligations under our pension and postretirement benefit plans, income taxes, environmental, asbestos-related, and product liability matters have not been included in the contractual cash obligations table above.

Pensions

At December 31, 2012, we had net obligations of $918.4 million, which consist of noncurrent pension assets of $5.1 million and current and non-current pension benefit liabilities of $923.5 million. It is our objective to contribute to the pension plans to ensure adequate funds are available in the plans to make benefit payments to plan participants and beneficiaries when required. We currently project that we will contribute approximately $102.5 million to our plans worldwide in 2013. Because the timing and amounts of long-term funding requirements for pension obligations are uncertain, they have been excluded from the preceding table. See Note 11 to the Consolidated Financial Statements for additional information.

Postretirement Benefits Other than Pensions

At December 31, 2012, we had postretirement benefit obligations of $851.4 million. We fund postretirement benefit costs principally on a pay-as-you-go basis as medical costs are incurred by covered retiree populations. Benefit payments, which are net of expected plan participant contributions and Medicare Part D subsidy, are expected to be approximately $69.3 million in 2013. Because the timing and amounts of long-term funding requirements for postretirement obligations are uncertain, they have been excluded from the preceding table. See Note 11 to the Consolidated Financial Statements for additional information.

Income Taxes

At December 31, 2012, we have total unrecognized tax benefits for uncertain tax positions of $533.7 million and $84.1 million of related accrued interest and penalties, net of tax. The liability has been excluded from the preceding table as we are unable to reasonably estimate the amount and period in which these liabilities might be paid. See Note 17 to the Consolidated Financial Statements for additional information regarding matters relating to income taxes, including unrecognized tax benefits and Internal Revenue Service (IRS) tax disputes.

Contingent Liabilities

We are involved in various litigations, claims and administrative proceedings, including those related to environmental, asbestos-related, and product liability matters. We believe that these liabilities are subject to the uncertainties inherent in estimating future costs for contingent liabilities, and will likely be resolved over an extended period of time. Because the timing and amounts of potential future cash flows are uncertain, they have been excluded from the preceding table. See Note 20 to the Consolidated Financial Statements for additional information.

See Note 9 and Note 20 to the Consolidated Financial Statements for additional information on matters affecting our liquidity.

Critical Accounting Policies

Management's Discussion and Analysis of Financial Condition and Results of Operations are based upon our Consolidated Financial Statements, which have been prepared in accordance with accounting principles generally accepted in the United States (GAAP). The preparation of financial statements in conformity with those accounting principles requires management to use judgment in making estimates and assumptions based on the relevant information available at the end of each period. These estimates and assumptions have a significant effect on reported amounts of assets and liabilities, revenue and expenses as well as the disclosure of contingent assets and liabilities because they result primarily from the need to make estimates and assumptions on matters that are inherently uncertain. Actual results may differ from estimates. If updated information or actual amounts are different from previous estimates, the revisions are included in our results for the period in which they become known.

The following is a summary of certain accounting estimates and assumptions made by management that we consider critical.

- Allowance for doubtful accounts – We have provided an allowance for doubtful accounts receivable which represents our best estimate of probable loss inherent in our accounts receivable portfolio. This estimate is based upon our policy, derived from our knowledge of our end markets, customer base and products.

- Goodwill and indefinite-lived intangible assets – We have significant goodwill and indefinite-lived intangible assets on our balance sheet related to acquisitions. Our goodwill and other indefinite-lived intangible assets are tested and reviewed annually during the fourth quarter for impairment or when there is a significant change in events or circumstances that indicate that the fair value of an asset is more likely than not less than the carrying amount of the asset.

  Recoverability of goodwill is measured at the reporting unit level and begins with a qualitative assessment to determine if it is more likely than not that the fair value of each reporting unit is less than its carrying amount as a basis for determining whether it is necessary to perform the two-step goodwill impairment test included in U.S. GAAP. For those reporting units where it is required, the first step compares the carrying amount of the reporting unit to its estimated fair value. If the estimated fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is not impaired and the second step of the impairment test is not necessary. To the extent that the carrying value of the reporting unit exceeds its estimated fair value, a second step is performed, wherein the reporting unit's carrying value of goodwill is compared to the implied fair value of goodwill. To the extent that the carrying value exceeds the implied fair value, impairment exists and must be recognized.

  As quoted market prices are not available for our reporting units, the calculation of their estimated fair value in step one is based on two valuation techniques, a discounted cash flow model (income approach) and a market adjusted multiple of earnings and revenues (market approach), with each method being equally weighted in the calculation. We believe an equal weighting of both approaches is appropriate. The income approach relies on the Company's estimates of future cash flows and explicitly addresses factors such as timing, growth and margins, with due consideration given to forecasting risk. The market approach reflects the market's expectations for future growth and risk, with adjustments to account for differences between the guideline publicly traded companies and the subject reporting units.

  In step 2, the implied fair value of goodwill is determined in the same manner as the amount of goodwill recognized in a business combination. The estimated fair value of the reporting unit is allocated to all of the assets and liabilities of the reporting unit (including any unrecognized intangible assets) as if the reporting unit had been acquired in a business combination and the fair value of the reporting unit, as determined in the first step of the goodwill impairment test, was the price paid to acquire that reporting unit.

  Recoverability of other intangible assets with indefinite useful lives is first assessed using a qualitative assessment to determine whether it is more likely than not that an indefinite-lived intangible asset is impaired. This assessment is used as a basis for determining whether it is necessary to calculate the fair value of an indefinite-lived intangible asset. For those indefinite-lived assets where it is required, a fair value is determined on a relief from royalty methodology (income approach) which is based on the implied royalty paid, at an appropriate discount rate, to license the use of an asset rather than owning the asset. The present value of the after-tax cost savings (i.e. royalty relief) indicates the estimated fair value of the asset. Any excess of the carrying value over the estimated fair value is recognized as an impairment loss equal to that excess.

  The determination of the estimated fair value and the implied fair value of goodwill and other indefinite-lived intangible assets requires us to make assumptions about estimated cash flows, including profit margins, long-term forecasts, discount rates and terminal growth rates. We developed these assumptions based on the market and geographic risks unique to each reporting unit.

  2012 Impairment Test
  For our annual impairment testing performed during the fourth quarter of 2012, we concluded it was necessary to calculate the fair value for each of the reporting units and indefinite-lived intangibles. Based on the results of these calculations, we determined that the fair value of the reporting units and indefinite-lived intangible assets exceeded their respective carrying values. The estimates of fair value are based on the best information available as of the date of the assessment, which primarily incorporates management assumptions about expected future cash flows.

Goodwill - Under the income approach, we assumed a forecasted cash flow period of five years with discount rates ranging from 10.0% to 15.5%, near term growth rates ranging from (3.5)% to 14.8% and terminal growth rates ranging from 2.5% to 4.0%. Under the market approach, we used an adjusted multiple ranging from 6.6 to 9.2 of projected earnings before interest, taxes, depreciation and amortization (EBITDA) and 0.8 to 1.8 of projected revenues based on the market information of comparable companies. Additionally, we compared the estimated aggregate fair value of our reporting units to our overall market capitalization.

For all reporting units except two, the excess of the estimated fair value over carrying value (expressed as a percentage of carrying value) was a minimum of 15%. The two reporting units with a percentage of carrying value less than 15%, reported within the Residential Solutions and Security Technologies segments, exceeded their carrying value by 14.4% and 2.5%, respectively. These reporting units have goodwill of approximately $599 million and $190 million, respectively.

For the specific Security Technologies reporting unit that exceeded its carrying value by less than 5%, we have provided below additional assumptions and a sensitivity analysis. Under the income approach we assumed a discount rate of 10%, near term growth rates ranging from (1.1)% to 5% and a terminal growth rate of 2.5%. Under the market approach, we assumed a weighted average multiple of 7.8 and 7.1 times projected 2012 and 2013 EBITDA, respectively, and a multiple of 0.8 times projected 2012 and 2013 revenue, based on industry market data. Holding other assumptions constant, a 1.0% increase in the discount rate would result in a $20 million decrease in the estimated fair value of the reporting unit, a 1.0% decrease in the long-term growth rate would result in a $15 million decrease in the estimated fair value of the reporting unit and a 5.0% decrease in the selected market multiples would result in a $15 million decrease in the estimated fair value of the reporting unit. Each of these scenarios individually would result in the reporting unit failing step 1.

Assessing the fair value of goodwill includes, among other things, making key assumptions for estimating future cash flows and appropriate market multiples. These assumptions are subject to a high degree of judgment and complexity. We make every effort to estimate future cash flows as accurately as possible with the information available at the time the forecast is developed. However, changes in assumptions and estimates may affect the estimated fair value of the reporting unit, and could result in impairment charges in future periods. Factors that have the potential to create variances in the estimated fair value of the reporting unit include but are not limited to the following:

- Decreases in estimated market sizes or market growth rates due to greater-than-expected declines in volumes, pricing pressures or disruptive technology;
- Declines in our market share and penetration assumptions due to increased competition or an inability to develop or launch new products;
- The impacts of the European sovereign debt crisis, including greater-than-expected declines in pricing, reductions in volumes, or fluctuations in foreign exchange rates;
- The level of success of on-going and future research and development efforts, including those related to recent acquisitions, and increases in the research and development costs necessary to obtain regulatory approvals and launch new products;
- Increase in the price or decrease in the availability of key commodities and the impact of higher energy prices;
- Increases in our market-participant risk-adjusted weighted-average cost of capital; and
- Changes in the structure of our business as a result of future reorganizations or divestitures of assets or businesses.

Other Indefinite-lived intangible assets - In testing our other indefinite-lived intangible assets for impairment, we assumed forecasted revenues for a period of five years with discount rates ranging from 12.0% to 12.5%, terminal growth rates ranging from 2.5% to 3.0%, and royalty rates ranging from 3.0% to 5.0%. The fair values of our Trane and American Standard tradenames exceeded their respective carrying amounts by less than 15%. The two tradenames exceeded their carrying value by 10.5% and 13.0%, respectively. The carrying values of these tradenames are approximately $2,497 million and $105 million, respectively, at December 31, 2012.

A significant increase in the discount rate, decrease in the long-term growth rate, decrease in the royalty rate or substantial reductions in our end markets and volume assumptions could have a negative impact on their estimated fair values of any of our tradenames.

2011 Impairment Test

As a result of the planned divestiture of Hussmann, we were required to test Goodwill remaining within the Climate Solutions segment for impairment in the first quarter of 2011. No impairment charge was required for the remaining Climate Solutions segment. Based on year to date operational results, and management turnover within the Residential HVAC reporting unit, we updated our fair value assessment of the reporting unit in the third quarter of 2011 and noted that the fair value of the reporting unit continued to exceed its carrying amount.

For our annual impairment testing performed during the fourth quarter of 2011, we determined that the fair value of the reporting units and indefinite-lived intangible assets exceeded their respective carrying values. The estimates of fair value are based on the best information available as of the date of the assessment, which primarily incorporates management assumptions about expected future cash flows.

Goodwill - Under the income approach, we assumed a forecasted cash flow period of five years with discount rates ranging from 12.0% to 17.0% and terminal growth rates ranging from 2.5% to 4.0%. Under the market approach, we used an adjusted multiple of earnings and revenues based on the market information of comparable companies. Additionally, we compared the estimated aggregate fair value of our reporting units to our overall market capitalization.

For all reporting units except two, the excess of the estimated fair value over carrying value (expressed as a percentage of carrying value) was a minimum of 15%. The two reporting units with a percentage of carrying value less than 15%, reported within the Residential Solutions and Security Technologies segments, exceeded their carrying value by 5.8% and 10.9%, respectively. These reporting units have goodwill of approximately $599 million and $198 million, respectively. A significant increase in the discount rate, decrease in the long-term growth rate, or substantial reductions in our end markets and volume assumptions could have a negative impact on the estimated fair value of these reporting units.

Other Indefinite-lived intangible assets - In testing our other indefinite-lived intangible assets for impairment, we assumed forecasted revenues for a period of five years with discount rates ranging from 12.5% to 14.5%, terminal growth rates ranging from 2.5% to 3.0%, and royalty rates ranging from 3.0% to 5.0%. The fair values of two of our tradenames exceeded their respective carrying amounts by less than 15%. The two tradenames, reported within the Climate Solutions and Residential Solutions segments, exceeded their carrying value by 7.3% and 11.6%. The carrying values of these tradenames are approximately $2,497 million and $105 million. A significant increase in the discount rate, decrease in the long-term growth rate, decrease in the royalty rate or substantial reductions in our end markets and volume assumptions could have a negative impact on their estimated fair values.

- Long-lived assets and finite-lived intangibles – Long-lived assets and finite-lived intangibles are reviewed for impairment whenever events or changes in business circumstances indicate that the carrying amount of an asset may not be fully recoverable. Assets are grouped with other assets and liabilities at the lowest level for which identifiable cash flows can be generated. Impairment in the carrying value of an asset would be recognized whenever anticipated future undiscounted cash flows from an asset are less than its carrying value. The impairment is measured as the amount by which the carrying value exceeds the fair value of the asset as determined by an estimate of discounted cash flows. We believe that our use of estimates and assumptions are reasonable and comply with generally accepted accounting principles. Changes in business conditions could potentially require future adjustments to these valuations.
- Loss contingencies – Liabilities are recorded for various contingencies arising in the normal course of business, including litigation and administrative proceedings, environmental and asbestos matters and product liability, product warranty, worker's compensation and other claims. We have recorded reserves in the financial statements related to these matters, which are developed using input derived from actuarial estimates and historical and anticipated experience data depending on the nature of the reserve, and in certain instances with consultation of legal counsel, internal and external consultants and engineers. Subject to the uncertainties inherent in estimating future costs for these types of liabilities, we believe our estimated reserves are reasonable and do not believe the final determination of the liabilities with respect to these matters would have a material effect on our financial condition, results of operations, liquidity or cash flows for any year.
- Asbestos matters – Certain of our wholly-owned subsidiaries are named as defendants in asbestos-related lawsuits in state and federal courts. We record a liability for our actual and anticipated future claims as well as an asset for anticipated insurance settlements. Although we were neither a manufacturer nor producer of asbestos, some of our formerly manufactured components from third party suppliers utilized asbestos-related components. As a result, we record certain income and expenses associated with our asbestos liabilities and corresponding insurance recoveries within discontinued operations, net of tax, as they relate to previously divested businesses, except for amounts associated with Trane U.S. Inc.'s asbestos liabilities and corresponding insurance recoveries which are recorded within continuing operations. Refer to Note 20 to the Consolidated Financial Statements for further details of asbestos-related matters.
- Revenue recognition – Revenue is recognized and earned when all of the following criteria are satisfied: (a) persuasive evidence of a sales arrangement exists; (b) price is fixed or determinable; (c) collectability is reasonably assured; and (d) delivery has occurred or service has been rendered. Delivery generally occurs when the title and the risks and rewards of ownership have substantially transferred to the customer. Revenue from maintenance contracts or extended warranties is recognized on a straight-line basis over the life of the contract, unless another method is more representative of the costs

incurred. We enter into agreements that contain multiple elements, such as equipment, installation and service revenue. For multiple-element arrangements, the revenue relating to undelivered elements is deferred until delivery of the deferred elements. We recognize revenue for delivered elements when the delivered item has stand-alone value to the customer, customer acceptance has occurred, and there are only customary refund or return rights related to the delivered elements. Revenues from certain of our equipment and the related installation sold under construction-type contracts are recorded using the percentage-of-completion method in accordance with GAAP.

- Income taxes – Deferred tax assets and liabilities are determined based on temporary differences between financial reporting and tax bases of assets and liabilities, applying enacted tax rates expected to be in effect for the year in which the differences are expected to reverse. We recognize future tax benefits, such as net operating losses and non-U.S. tax credits, to the extent that realizing these benefits is considered in our judgment to be more likely than not. We regularly review the recoverability of our deferred tax assets considering our historic profitability, projected future taxable income, timing of the reversals of existing temporary differences and the feasibility of our tax planning strategies. Where appropriate, we record a valuation allowance with respect to a future tax benefit.

  The provision for income taxes involves a significant amount of management judgment regarding interpretation of relevant facts and laws in the jurisdictions in which we operate. Future changes in applicable laws, projected levels of taxable income, and tax planning could change the effective tax rate and tax balances recorded by us. In addition, tax authorities periodically review income tax returns filed by us and can raise issues regarding our filing positions, timing and amount of income or deductions, and the allocation of income among the jurisdictions in which we operate. A significant period of time may elapse between the filing of an income tax return and the ultimate resolution of an issue raised by a revenue authority with respect to that return. We believe that we have adequately provided for any reasonably foreseeable resolution of these matters. We will adjust our estimate if significant events so dictate. To the extent that the ultimate results differ from our original or adjusted estimates, the effect will be recorded in the provision for income taxes in the period that the matter is finally resolved.

- Employee benefit plans – We provide a range of benefits to eligible employees and retirees, including pensions, postretirement and postemployment benefits. Determining the cost associated with such benefits is dependent on various actuarial assumptions including discount rates, expected return on plan assets, compensation increases, employee mortality, turnover rates and healthcare cost trend rates. Actuarial valuations are performed to determine expense in accordance with GAAP. Actual results may differ from the actuarial assumptions and are generally accumulated and amortized into earnings over future periods. We review our actuarial assumptions at each measurement date and make modifications to the assumptions based on current rates and trends, if appropriate. The discount rate, the rate of compensation increase and the expected long-term rates of return on plan assets are determined as of each measurement date. A discount rate reflects a rate at which pension benefits could be effectively settled. Discount rates for all plans are established using hypothetical yield curves based on the yields of corporate bonds rated AA quality. Spot rates are developed from the yield curve and used to discount future benefit payments. The rate of compensation increase is dependent on expected future compensation levels. The expected long-term rate of return on plan assets reflects the average rate of returns expected on the funds invested or to be invested to provide for the benefits included in the projected benefit obligation. The expected long-term rate of return on plan assets is based on what is achievable given the plan's investment policy, the types of assets held and the target asset allocation. The expected long-term rate of return is determined as of each measurement date. We believe that the assumptions utilized in recording our obligations under our plans are reasonable based on input from our actuaries, outside investment advisors and information as to assumptions used by plan sponsors.

  Changes in any of the assumptions can have an impact on the net periodic pension cost or postretirement benefit cost. Estimated sensitivities to the expected 2013 net periodic pension cost of a 0.25% rate decline in the two basic assumptions are as follows: the decline in the discount rate would increase expense by approximately $8.6 million and the decline in the estimated return on assets would increase expense by approximately $7.9 million. A 0.25% rate decrease in the discount rate for postretirement benefits would increase expected 2013 net periodic postretirement benefit cost by $0.7 million and a 1.0% increase in the healthcare cost trend rate would increase the cost by approximately $1.4 million.

Recent Accounting Pronouncements

Recently Adopted Accounting Pronouncements:

In May 2011, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2011-04, "Fair Value Measurement (Topic 820): Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and International Financial Reporting Standards (IFRS)." ASU 2011-04 represents converged guidance between GAAP and IFRS resulting in common requirements for measuring fair value and for disclosing information about fair value measurements. This new guidance is effective for fiscal years beginning after December 15, 2011 and subsequent interim periods. The requirements of ASU 2011-04 did not have a material impact on our Consolidated Financial Statements. The revised disclosure requirements are reflected in Note 12.

In June 2011, the FASB issued ASU 2011-05, "Presentation of Comprehensive Income." ASU 2011-05 requires us to present components of other comprehensive income and of net income in one continuous statement of comprehensive income, or in two separate, but consecutive statements. The option to report other comprehensive income within the statement of equity has been removed. This new presentation of comprehensive income is effective for fiscal years beginning after December 15, 2011 and subsequent interim periods. The revised presentation requirements are reflected in the Consolidated Statements of Comprehensive Income.

In December 2011, the FASB issued ASU 2011-12, "Deferral of the Effective Date for Amendments to the Presentation of Reclassification of Items Out of Accumulated Other Comprehensive Income in Accounting Standards Update No. 2011-05." The revised amendments defer the presentation in the financial statements of reclassifications out of accumulated other comprehensive income for annual and interim financial statements. The deferral is effective for fiscal years beginning after December 15, 2011 and subsequent interim periods. The revised presentation requirements are reflected in the Consolidated Statements of Comprehensive Income.

In September 2011, the FASB issued ASU 2011-08, "Testing Goodwill for Impairment." This revised standard provides entities with the option to first use an assessment of qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If a conclusion is reached that reporting unit fair value is not more likely than not below carrying value, no further impairment testing is necessary. This revised guidance applies to fiscal years beginning after December 15, 2011, and the related interim and annual goodwill impairment tests. The requirements of ASU 2011-08 did not have an impact on our Consolidated Financial Statements.

In July 2012, the FASB issued ASU 2012-02, "Intangibles - Goodwill and Other (Topic 350): Testing Indefinite-Lived Intangible Assets for Impairment." This revised standard provides entities with the option to first use an assessment of qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of an indefinite-lived intangible asset is less than its carrying amount. If a conclusion is reached that the indefinite-lived intangible asset fair value is not more likely than not below carrying value, no further impairment testing is necessary. We elected to early adopt. The requirements of ASU 2012-02 did not have an impact on our Consolidated Financial Statements.

In December 2011, the FASB issued ASU 2011-11, "Disclosures about Offsetting Assets and Liabilities." ASU 2011-11 requires enhanced disclosures including both gross and net information about financial and derivative instruments eligible for offset or subject to an enforceable master netting arrangement or similar agreement. This new guidance is effective for annual reporting periods beginning on or after January 1, 2013 and subsequent interim periods. The requirements of ASU 2011-11 will not have an impact on our Consolidated Financial Statements.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK

We are exposed to fluctuations in currency exchange rates, interest rates and commodity prices which could impact our results of operations and financial condition.

Foreign Currency Exposures

We have operations throughout the world that manufacture and sell products in various international markets. As a result, we are exposed to movements in exchange rates of various currencies against the U.S. dollar as well as against other currencies throughout the world. We actively manage material currency exposures that are associated with purchases and sales and other assets and liabilities at the operating unit level. Those exposures that cannot be naturally offset to an insignificant amount are hedged with foreign currency derivatives. Derivative instruments utilized by us in our hedging activities are viewed as risk management tools, involve little complexity and are not used for trading or speculative purposes. To minimize the risk of counter party non-performance, derivative instrument agreements are made only through major financial institutions with significant experience in such derivative instruments.

We evaluate our exposure to changes in currency exchange rates on our foreign currency derivatives using a sensitivity analysis. The sensitivity analysis is a measurement of the potential loss in fair value based on a percentage change in exchange rates. Based on the firmly committed currency derivative instruments in place at December 31, 2012, a hypothetical change in fair value of those derivative instruments assuming a 10% adverse change in exchange rates would result in an unrealized loss of approximately $118.9 million, as compared with $110.9 million at December 31, 2011. These amounts, when realized, would be offset by changes in the fair value of the underlying transactions.

Commodity Price Exposures

We are exposed to volatility in the prices of commodities used in some of our products and we use fixed price contracts to manage this exposure. We do not have committed commodity derivative instruments in place at December 31, 2012.

Interest Rate Exposure

Our debt portfolio mainly consists of fixed-rate instruments, and therefore any fluctuation in market interest rates would not have a material effect on our results of operations.

Item 8. **FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

(a) The following Consolidated Financial Statements and Financial Statement Schedules and the report thereon of PricewaterhouseCoopers LLP dated February 14, 2013, are presented following Item 15 of this Annual Report on Form 10-K.

Consolidated Financial Statements:
- Report of independent registered public accounting firm
- Consolidated Statements of comprehensive income for the years ended December 31, 2012, 2011 and 2010
- Consolidated balance sheets at December 31, 2012 and 2011
- For the years ended December 31, 2012, 2011 and 2010:
  - Consolidated statements of equity
  - Consolidated statements of cash flows
- Notes to Consolidated Financial Statements

Financial Statement Schedule:
- Schedule II – Valuation and Qualifying Accounts for the years ended December 31, 2012, 2011 and 2010:

(b) The unaudited selected quarterly financial data for the two years ended December 31, is as follows:

In millions, except per share amounts	2012			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Net revenues	$ 3,150.7	$ 3,821.3	$ 3,592.8	$ 3,470.2
Cost of goods sold	(2,249.4)	(2,644.0)	(2,454.4)	(2,410.5)
Operating income	212.0	477.9	447.8	367.5
Net earnings	102.2	372.9	327.0	241.8
Net earnings attributable to Ingersoll-Rand plc	95.6	365.8	321.6	235.6
Earnings per share attributable to Ingersoll-Rand plc ordinary shareholders:				
Basic	$ 0.32	$ 1.18	$ 1.05	$ 0.79
Diluted	$ 0.31	$ 1.16	$ 1.03	$ 0.78
	2011			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Net revenues	$ 3,273.8	$ 4,091.4	$ 3,910.1	$ 3,506.7
Cost of goods sold	(2,368.6)	(2,863.0)	(2,756.2)	(2,505.9)
Operating income	41.8	298.7	180.5	339.2
Net earnings	(71.5)	99.3	93.5	248.0
Net earnings attributable to Ingersoll-Rand plc	(77.6)	92.3	86.2	242.2
Earnings per share attributable to Ingersoll-Rand plc ordinary shareholders:				
Basic	$ (0.23)	$ 0.28	$ 0.26	$ 0.79
Diluted	$ (0.23)	$ 0.26	$ 0.25	$ 0.76

1. In the first, second, third and fourth quarters of 2011, Operating income includes a $186 million, $201 million, $265 million and ($5) million pre-tax charge (benefit), respectively, for Loss on sale/asset impairment related to the divestiture of the Hussmann Business and Branches.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

Item 9A. CONTROLS AND PROCEDURES

(a) Evaluation of Disclosure Controls and Procedures

The Company's management, including its Chief Executive Officer and Chief Financial Officer, have conducted an evaluation of the effectiveness of the Company's disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act)), as of the end of the period covered by this Annual Report on Form 10-K. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded as of December 31, 2012, that the Company's disclosure controls and procedures were effective in ensuring that information required to be disclosed by the Company in reports that it files or submits under the Exchange Act has been recorded, processed, summarized and reported, within the time periods specified in the Commission's rules and forms, and that such information has been accumulated and communicated to the Company's management including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

(b) Management's Report on Internal Control Over Financial Reporting

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting as such term is defined under Exchange Act Rules 13a-15(f) and 15d-15(f). Internal control over financial reporting is a process designed by, or under the supervision of, the Chief Executive Officer and Chief Financial Officer and effected by the Company's Board of Directors to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies and procedures may deteriorate.

Management has assessed the effectiveness of internal control over financial reporting as of December 31, 2012. In making its assessment, management has utilized the criteria set forth by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission in Internal Control - Integrated Framework. Management concluded that based on its assessment, the Company's internal control over financial reporting was effective as of December 31, 2012.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2012 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.

(c) Changes in Internal Control Over Financial Reporting

There were no changes in internal control over financial reporting (as defined by Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the quarter ended December 31, 2012 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

(d) Remediation of Material Weakness

In the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2012, management identified a material weakness in our internal control over financial reporting with respect to internal controls over the accounting for deferred tax balances and related valuation allowances. Specifically, the Company's interim controls related to timely identification of and accounting for the impact of enacted tax law changes did not operate as designed. This resulted in a misstatement of a deferred tax asset related valuation allowance in the March 31, 2012 balance sheet and the provision for income taxes for the period ended March 31, 2012. An out-of-period adjustment was recorded in the three month period ended June 30, 2012 as described in Note 17 to the Consolidated Financial Statements.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis.

To remediate the material weakness described above, management implemented additional processes and controls during the quarter ended September 30, 2012, including expanded procedures to identify and assess tax law changes along with notifications and certifications, as part of the interim and annual close process and through the respective SEC filing date, to verify management's conclusions regarding the timing of enacted tax law changes.

Management has determined that the remediation actions discussed above were effectively designed and demonstrated effective operation for a sufficient period of time to enable the Company to conclude that the material weakness regarding its internal controls associated with the accounting for deferred tax balances and related valuation allowances has been remediated as of December 31, 2012.

Item 9B. **OTHER INFORMATION**

None.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information regarding our executive officers is included in Part I under the caption "Executive Officers of Registrant."

The other information required by this item is incorporated herein by reference to the information contained under the headings "Item 1. Election of Directors", "Section 16(a) Beneficial Ownership Reporting Compliance" and "Corporate Governance" in our definitive proxy statement for the 2013 annual general meeting of shareholders ("2013 Proxy Statement").

Item 11. EXECUTIVE COMPENSATION

The other information required by this item is incorporated herein by reference to the information contained under the headings "Compensation Discussion and Analysis", "Executive Compensation" and "Compensation Committee Report" in our 2013 Proxy Statement.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The other information required by this item is incorporated herein by reference to the information contained under the headings "Security Ownership of Certain Beneficial Owners and Management" and "Equity Compensation Plan Information" of our 2013 Proxy Statement.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The other information required by this item is incorporated herein by reference to the information contained under the headings "Corporate Governance" and "Certain Relationships and Related Person Transactions" of our 2013 Proxy Statement.

Item 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this item is incorporated herein by reference to the information contained under the caption "Fees of the Independent Auditors" in our 2013 Proxy Statement.

PART IV

Item 15. **EXHIBITS AND FINANCIAL STATEMENT SCHEDULES**

(a) 1. and 2.	Financial statements and financial statement schedule See Item 8.
3.	Exhibits The exhibits listed on the accompanying index to exhibits are filed as part of this Annual Report on Form 10-K.

INGERSOLL-RAND PLC
INDEX TO EXHIBITS
(Item 15(a))

Description

Pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC"), Ingersoll-Rand plc (the "Company") has filed certain agreements as exhibits to this Annual Report on Form 10-K. These agreements may contain representations and warranties by the parties. These representations and warranties have been made solely for the benefit of the other party or parties to such agreements and (i) may have been qualified by disclosures made to such other party or parties, (ii) were made only as of the date of such agreements or such other date(s) as may be specified in such agreements and are subject to more recent developments, which may not be fully reflected in our public disclosure, (iii) may reflect the allocation of risk among the parties to such agreements and (iv) may apply materiality standards different from what may be viewed as material to investors. Accordingly, these representations and warranties may not describe our actual state of affairs at the date hereof and should not be relied upon.

On July 1, 2009, Ingersoll-Rand Company Limited, a Bermuda company, completed a reorganization to change the jurisdiction of incorporation of the parent company from Bermuda to Ireland. As a result, Ingersoll-Rand plc replaced Ingersoll-Rand Company Limited as the ultimate parent company effective July 1, 2009. All references related to the Company prior to July 1, 2009 relate to Ingersoll-Rand Company Limited.

(a) Exhibits

Exhibit No.	Description	Method of Filing
2.1	Asset and Stock Purchase Agreement, dated as of July 29, 2007, among Ingersoll-Rand Company Limited, on behalf of itself and certain of its subsidiaries, and Doosan Infracore Co., Ltd. and Doosan Engine Co., Ltd., on behalf of themselves and certain of their subsidiaries	Incorporated by reference to Exhibit 2.1 to the Company's Form 8-K (File No. 001-16831) filed with the SEC on July 31, 2007.
2.2	Separation and Distribution Agreement, dated as of July 16, 2007, by and between Trane Inc. (formerly American Standard Companies Inc.) and WABCO Holdings Inc.	Incorporated by reference to Exhibit 2.1 to Trane Inc.'s Form 8-K (File No. 001-11415) filed with the SEC on July 20, 2007.
3.1	Memorandum of Association of Ingersoll-Rand plc	Incorporated by reference to Exhibit 3.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
3.2	Articles of Association of Ingersoll-Rand plc	Incorporated by reference to Exhibit 3.2 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
3.3	Certificate of Incorporation of Ingersoll-Rand plc	Incorporated by reference to Exhibit 3.3 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
	The Company and its subsidiaries are parties to several long-term debt instruments under which, in each case, the total amount of securities authorized does not exceed 10% of the total assets of the Company and its subsidiaries on a consolidated basis.	Pursuant to paragraph 4 (iii)(A) of Item 601 (b) of Regulation S-K, the Company agrees to furnish a copy of such instruments to the Securities and Exchange Commission upon request.

Exhibit No.	Description	Method of Filing
4.1	Indenture, dated as of August 12, 2008, among the Company, Ingersoll-Rand Global Holding Company Limited and Wells Fargo Bank, N.A., as Trustee (replacing the Indenture originally filed as Exhibit 4.1 to the Company's Form 10-Q (File No. 001-16831) for the period ended September 30, 2008 as filed with the SEC on 11/07/2008)	Incorporated by reference to Exhibit 4.4 to the Company's Form 10-K for the fiscal year ended 2008 (File No. 001-16831) filed with the SEC on March 2, 2009.
4.2	First Supplemental Indenture, dated as of August 15, 2008, among the Company, Ingersoll-Rand Global Holding Company Limited and Wells Fargo Bank, N.A., as trustee, to that certain Indenture, dated as of August 12, 2008, among the Company, Ingersoll-Rand Global Holding Company Limited and Wells Fargo Bank, N.A., as trustee	Incorporated by reference to Exhibit 1.1 to the Company's Form 8-K (File No. 001-16831) filed with the SEC on August 18, 2008.
4.3	Second Supplemental Indenture, dated as of April 3, 2009, among the Company, Ingersoll-Rand Global Holding Company Limited and Wells Fargo Bank, N.A., as trustee, to that certain Indenture, dated as of August 12, 2008, among the Company, Ingersoll-Rand Global Holding Company Limited and Wells Fargo Bank, N.A., as trustee	Incorporated by reference to Exhibit 4.1 to the Company's Form 8-K (File No. 001-16831) filed with the SEC on April 6, 2009.
4.4	Third Supplemental Indenture, dated as of April 6, 2009, among the Company, Ingersoll-Rand Global Holding Company Limited and Wells Fargo Bank, N.A., as trustee, to that certain Indenture, dated as of August 12, 2008, among the Company, Ingersoll-Rand Global Holding Company Limited and Wells Fargo Bank, N.A., as trustee	Incorporated by reference to Exhibit 4.2 to the Company's Form 8-K (File No. 001-16831) filed with the SEC on April 6, 2009.
4.5	Fourth Supplemental Indenture, dated as of June 29, 2009, among Ingersoll-Rand Global Holding Company Limited, a Bermuda exempted company, Ingersoll-Rand Company Limited, a Bermuda exempted company, Ingersoll-Rand International Holding Limited, a Bermuda exempted company, Ingersoll-Rand plc, an Irish public limited company, and Wells Fargo Bank, N.A., as Trustee, to the Indenture dated as of August 12, 2008	Incorporated by reference to Exhibit 4.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.

Exhibit No.	Description	Method of Filing
4.6	Fifth Supplemental Indenture, dated as of June 29, 2009, among Ingersoll-Rand Company, a New Jersey corporation, Ingersoll-Rand plc, an Irish public limited company, Ingersoll-Rand International Holding Limited, a Bermuda exempted company, and The Bank of New York Mellon, as Trustee, to the Indenture dated as of August 1, 1986	Incorporated by reference to Exhibit 4.3 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
4.7	Indenture, dated as of May 24. 2005, among Ingersoll-Rand Company Limited, Ingersoll-Rand Company and Wells Fargo Bank, N.A., as trustee	Incorporated by reference to Exhibit 10.2 to the Company's 8-K (File No. 001-16831) filed with the SEC on May 27, 2005.
4.8	First Supplemental Indenture, dated as of June 29, 2009, among Ingersoll-Rand Company Limited, a Bermuda exempted company, Ingersoll-Rand Company, a New Jersey corporation, Ingersoll-Rand International Holding Limited, a Bermuda exempted company, Ingersoll-Rand plc, an Irish public limited company, and Wells Fargo Bank, N.A., as Trustee, to the Indenture dated as of May 24, 2005	Incorporated by reference to Exhibit 4.2 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
4.9	Indenture, dated as of April 1, 2005, among the American Standard Inc., Trane Inc. (formerly American Standard Companies Inc.), American Standard International Inc. and The Bank of New York Trust Company, N.A., as trustee	Incorporated by reference to Exhibit 4.1 to Trane, Inc.'s 8-K (File No. 001-11415) filed with the SEC on April 1, 2005.
4.10	Form of Ordinary Share Certificate of Ingersoll-Rand plc	Incorporated by reference to Exhibit 4.6 to the Company's Form S-3 (File No. 333-161334) filed with the SEC on August 13, 2009.
10.1	Form of IR Stock Option Grant Agreement (December 2012)	Filed herewith.
10.2	Form of IR Restricted Stock Unit Grant Agreement (December 2012)	Filed herewith.
10.3	Form of IR Performance Stock Unit Grant Agreement (December 2012)	Filed herewith.

Exhibit No.	Description	Method of Filing
10.4	Credit Agreement dated as of May 26, 2010 among the Company, Ingersoll-Rand Global Holding Company Limited, Ingersoll-Rand Company Limited, Ingersoll-Rand International Holding Limited, J.P. Morgan Chase Bank, N.A., as Administrative Agent, Citibank, N.A., as Syndication Agent, Bank of America, N.A., BNP Paribas, Deutsche Bank Securities Inc., Goldman Sachs Bank US and Morgan Stanley MUFG Loan Partners, LLC, as Documentation Agents, and J.P. Morgan Securities Inc. and Citigroup Global Markets Inc., as joint lead arrangers and joint bookrunners; and certain lending institutions from time to time parties thereto	Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on June 2, 2010.
10.5	Credit Agreement dated as of May 20, 2011 among the Company; Ingersoll-Rand Global Holding Company Limited; J.P. Morgan Chase Bank, N.A., as Administrative Agent, Citibank, N.A., as Syndication Agent, Bank of America, N.A., BNP Paribas, Deutsche Bank Securities Inc., Goldman Sachs Bank USA and Morgan Stanley MUFG Loan Parties, LLC , as Documentation Agents, and J.P. Morgan Securities Inc. and Citigroup Global Markets Inc., as joint lead arrangers and joint bookrunners; and certain lending institutions from time to time parties thereto	Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on May 24, 2011.
10.6	Issuing and Paying Agency Agreement by and among Ingersoll-Rand Global Holding Company Limited, Ingersoll-Rand plc, Ingersoll-Rand Company Limited, Ingersoll-Rand International Holding Limited and JPMorgan Chase Bank, National Association, dated as of July 1, 2009	Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 6, 2009.
10.7	Amended and Restated Commercial Paper Dealer Agreement among Ingersoll-Rand Global Holding Company Limited, Ingersoll-Rand Company Limited, Ingersoll-Rand plc, Ingersoll-Rand International Holding Limited and J.P. Morgan Securities Inc., dated as of July 1, 2009	Incorporated by reference to Exhibit 10.2 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 6, 2009.

Exhibit No.	Description	Method of Filing
10.8	Amended and Restated Commercial Paper Dealer Agreement among Ingersoll-Rand Global Holding Company Limited, Ingersoll-Rand Company Limited, Ingersoll-Rand plc, Ingersoll-Rand International Holding Limited and Banc of America Securities LLC, dated as of July 1, 2009	Incorporated by reference to Exhibit 10.3 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 6, 2009.
10.9	Amended and Restated Commercial Paper Dealer Agreement among Ingersoll-Rand Global Holding Company Limited, Ingersoll-Rand Company Limited, Ingersoll-Rand plc, Ingersoll-Rand International Holding Limited and Citigroup Global Markets Inc., dated as of July 1, 2009	Incorporated by reference to Exhibit 10.4 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 6, 2009.
10.10	Amended and Restated Commercial Paper Dealer Agreement among Ingersoll-Rand Global Holding Company Limited, Ingersoll-Rand Company Limited, Ingersoll-Rand plc, Ingersoll-Rand International Holding Limited and Deutsche Bank Securities Inc., dated as of July 1, 2009	Incorporated by reference to Exhibit 10.5 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 6, 2009.
10.11	Deed Poll Indemnity of Ingersoll-Rand plc, an Irish public limited company, as to the directors, secretary and officers and senior executives of Ingersoll-Rand plc and the directors and officers of Ingersoll-Rand plc's subsidiaries	Incorporated by reference to Exhibit 10.5 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.12	Deed Poll Indemnity of Ingersoll-Rand Company Limited, a Bermuda company, as to the directors, secretary and officers and senior executives of Ingersoll-Rand plc and the directors and officers of Ingersoll-Rand plc's subsidiaries	Incorporated by reference to Exhibit 10.6 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.13	Tax Sharing Agreement, dated as of July 16, 2007, by and among American Standard Companies Inc. and certain of its subsidiaries and WABCO Holdings Inc. and certain of its subsidiaries	Incorporated by reference to Exhibit 10.1 to Trane Inc.'s Form 8-K (File No. 001-11415) filed with the SEC on July 20, 2007.
10.14	Ingersoll-Rand plc Incentive Stock Plan of 2007 (amended and restated as of December 1, 2010)	Incorporated by reference to Exhibit 10.18 to the Company's Form 10-K for the fiscal year ended 2010 (File No. 001-34400) filed with the SEC on February 22, 2011.
10.15	Ingersoll-Rand plc Incentive Stock Plan of 1998 (amended and restated as of July 1, 2009)	Incorporated by reference to Exhibit 10.8 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.

Exhibit No.	Description	Method of Filing
10.16	Ingersoll-Rand Company Incentive Stock Plan of 1995 (amended and restated effective July 1, 2009)	Incorporated by reference to Exhibit 10.7 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.17	IR Executive Deferred Compensation Plan (as amended and restated effective July 1, 2009)	Incorporated by reference to Exhibit 10.9 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.18	IR Executive Deferred Compensation Plan II (as amended and restated effective July 1, 2009)	Incorporated by reference to Exhibit 10.10 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.19	First Amendment to IR Executive Deferred Compensation Plan II (dated December 22, 2009)	Incorporated by reference to Exhibit 10.19 to the Company's Form 10-K for the fiscal year ended 2011 (File No. 001-16831) filed with the SEC on February 21, 2012.
10.20	Second Amendment to IR Executive Deferred Compensation Plan II (dated December 23, 2010)	Incorporated by reference to Exhibit 10.20 to the Company's Form 10-K for the fiscal year ended 2011 (File No. 001-16831) filed with the SEC on February 21, 2012.
10.21	IR-plc Director Deferred Compensation and Stock Award Plan (as amended and restated effective July 1, 2009)	Incorporated by reference to Exhibit 10.11 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.22	IR-plc Director Deferred Compensation and Stock Award Plan II (as amended and restated effective July 1, 2009)	Incorporated by reference to Exhibit 10.12 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.23	Ingersoll-Rand Company Supplemental Employee Savings Plan (amended and restated effective October 1, 2012)	Filed herewith.
10.24	Ingersoll-Rand Company Supplemental Employee Savings Plan II (effective January 1, 2005 and amended and restated through October 1, 2012)	Filed herewith.
10.25	Trane Inc. 2002 Omnibus Incentive Plan (restated to include all amendments through July 1, 2009)	Incorporated by reference to Exhibit 10.17 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.26	Trane Inc. Deferred Compensation Plan (as amended and restated as of July 1, 2009, except where otherwise stated)	Incorporated by reference to Exhibit 10.19 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.27	Trane Inc. Supplemental Savings Plan (restated to include all amendments through July 1, 2009)	Incorporated by reference to Exhibit 10.20 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.

Exhibit No.	Description	Method of Filing
10.28	First Amendment to Trane Inc. Supplemental Savings Plan (January 1, 2010)	Incorporated by reference to Exhibit 10.31 to the Company's Form 10-K for the fiscal year ended 2011 (File No. 001-16831) filed with the SEC on February 21, 2012.
10.29	Ingersoll-Rand Company Supplemental Pension Plan (Amended and Restated Effective January 1, 2005)	Incorporated by reference to Exhibit 10.28 to the Company's Form 10-K for the fiscal year ended 2008 (File No. 001-16831) filed with the SEC on March 2, 2009.
10.30	First Amendment to the Ingersoll-Rand Company Supplemental Pension Plan, dated as of July 1, 2009	Incorporated by reference to Exhibit 10.21 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.31	Ingersoll-Rand Company Supplemental Pension Plan II (Effective January 1, 2005 and Amended and Restated effective October 1, 2012)	Filed herewith.
10.32	Ingersoll-Rand Company Elected Officers Supplemental Plan II (Effective January 1, 2005 and Amended and Restated effective October 1, 2012)	Filed herewith.
10.33	Senior Executive Performance Plan	Incorporated by reference to Exhibit 10.39 to the Company's Form 10-K for the fiscal year ended 2011 (File No. 001-16831) filed with the SEC on February 21, 2012.
10.34	Description of Annual Incentive Matrix Program	Incorporated by reference to Exhibit 10.40 to the Company's Form 10-K for the fiscal year ended 2011 (File No. 001-16831) filed with the SEC on February 21, 2012.
10.35	Form of Tier 1 Change in Control Agreement (Officers before May 19, 2009)	Incorporated by reference to Exhibit 99.1 to the Company's Form 8-K (File No. 001-16831) filed with the SEC on December 4, 2006.
10.36	Form of Tier 2 Change in Control Agreement (Officers before May 19, 2009)	Incorporated by reference to Exhibit 99.2 to the Company's Form 8-K (File No. 001-16831) filed with the SEC on December 4, 2006.
10.37	Form of Tier 1 Change in Control Agreement (New Officers on or after May 19, 2009)	Incorporated by reference to Exhibit 10.32 to the Company's Form 10-Q for the period ended June 30, 2009 (File No. 001-34400) filed with the SEC on August 6, 2009.

Exhibit No.	Description	Method of Filing
10.38	Form of Tier 2 Change in Control Agreement (New Officers on or after May 19, 2009)	Incorporated by reference to Exhibit 10.33 to the Company's Form 10-Q for the period ended June 30, 2009 (File No. 001-34400) filed with the SEC on August 6, 2009.
10.39	Severance Plan	Filed herewith.
10.40	Steven R. Shawley Offer Letter, dated June 5, 2008	Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K (File No. 001-16831) filed with the SEC on June 10, 2008.
10.41	Addendum to Steven R. Shawley Offer Letter, dated August 7, 2008	Incorporated by reference to Exhibit 10.9 to the Company's Form 10-Q for the period ended June 30, 2008 (File No. 001-16831) filed with the SEC on August 8, 2008.
10.42	Didier Teirlinck Offer Letter, dated June 5, 2008	Incorporated by reference to Exhibit 10.4 to the Company's Form 8-K (File No. 001-16831) filed with the SEC on June 10, 2008.
10.43	Addendum to Didier Teirlinck Offer Letter, dated July 17, 2008	Incorporated by reference to Exhibit 10.13 to the Company's Form 10-Q for the period ended June 30, 2008 (File No. 001-16831) filed with the SEC on August 8, 2008.
10.44	Michael W. Lamach Letter, dated December 24, 2003	Incorporated by reference to Exhibit 10.35 to the Company's Form 10-K for the fiscal year ended 2003 (File No. 001-16831) filed with the SEC on February 27, 2004.
10.45	Michael W. Lamach Letter, dated June 4, 2008	Incorporated by reference to Exhibit 10.2 to the Company's Form 8-K (File No. 001-16831) filed with the SEC on June 10, 2008.
10.46	Michael W. Lamach Letter, dated February 4, 2009	Incorporated by reference to Exhibit 10.43 to the Company's Form 10-K for the fiscal year ended 2008 (File No. 001-16831) filed with the SEC on March 2, 2009.
10.47	Michael W. Lamach Letter, dated February 3, 2010	Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on February 5, 2010.
10.48	Michael W. Lamach Letter, dated December 23, 2012	Filed herewith.

Exhibit No.	Description	Method of Filing
10.49	Robert Zafari Letter and Addendum, dated August 25, 2010	Incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q for the period ended September 30, 2010 (File No. 001-34400) filed with the SEC on November 1, 2010.
10.50	Robert L. Katz Letter, dated September 28, 2010	Incorporated by reference to Exhibit 10.65 to the Company's Form 10-K for the fiscal year ended 2010 (File No. 001-34400) filed with the SEC on February 22, 2011.
10.51	Robert L. Katz Letter, dated December 20, 2012	Filed herewith.
10.52	Employment Agreement with Marcia J. Avedon, Senior Vice President, dated January 8, 2007	Incorporated by reference to Exhibit 10.45 to the Company's Form 10-K for the fiscal year ended December 31, 2006 (File No. 001-16831) filed with the SEC on March 1, 2007.
10.53	Marcia J. Avedon Letter, dated December 20, 2012	Filed herewith.
12	Computations of Ratios of Earnings to Fixed Charges	Filed herewith.
21	List of Subsidiaries of Ingersoll-Rand plc	Filed herewith.
23.1	Consent of Independent Registered Public Accounting Firm	Filed herewith.
31.1	Certification of Chief Executive Officer Pursuant to Rule 13a-14(a) or Rule 15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith.
31.2	Certification of Chief Financial Officer Pursuant to Rule 13a-14(a) or Rule 15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith.
32	Certifications of Chief Executive Officer and Chief Financial Officer Pursuant to Rule 13a-14(b) or Rule 15d-14(b) and 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	Furnished herewith.

Exhibit No.	Description	Method of Filing
101	The following materials from the Company's Annual Report on Form 10-K for the year ended December 31, 2012, formatted in XBRL (Extensible Business Reporting Language): (i) the Consolidated Statement of Comprehensive Income, (ii) the Consolidated Balance Sheet, (iii) the Consolidated Statement of Equity, (iv) the Consolidated Statement of Cash Flows, and (v) Notes to Consolidated Financial Statements.	Furnished herewith.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

INGERSOLL-RAND PLC
(Registrant)

By:	/s/ Michael W. Lamach
	Michael W. Lamach
	Chief Executive Officer
Date:	February 14, 2013

Pursuant to the requirement of the Securities Exchange Act of 1934, this report has been signed by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Michael W. Lamach (Michael W. Lamach)	Chairman of the Board, Chief Executive Officer and President (Principal Executive Officer)	February 14, 2013
/s/ Steven R. Shawley (Steven R. Shawley)	Senior Vice President and Chief Financial Officer (Principal Financial Officer)	February 14, 2013
/s/ Richard J. Weller (Richard J. Weller)	Vice President and Controller (Principal Accounting Officer)	February 14, 2013
/s/ Ann C. Berzin (Ann C. Berzin)	Director	February 14, 2013
/s/ John Bruton (John Bruton)	Director	February 14, 2013
/s/ Jared L. Cohon (Jared L. Cohon)	Director	February 14, 2013
/s/ Gary D. Forsee (Gary D. Forsee)	Director	February 14, 2013
/s/ Peter C. Godsoe (Peter C. Godsoe)	Director	February 14, 2013
/s/ Edward E. Hagenlocker (Edward E. Hagenlocker)	Director	February 14, 2013
/s/ Constance J. Horner (Constance J. Horner)	Director	February 14, 2013
/s/ Theodore E. Martin (Theodore E. Martin)	Director	February 14, 2013
/s/ Nelson Peltz (Nelson Peltz)	Director	February 14, 2013
/s/ John P. Surma (John P. Surma)	Director	February 14, 2013
/s/ Richard J. Swift (Richard J. Swift)	Director	February 14, 2013
/s/ Tony L. White (Tony L. White)	Director	February 14, 2013

INGERSOLL-RAND PLC
Index to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors of Ingersoll-Rand plc:

In our opinion, the Consolidated Financial Statements listed in the accompanying index present fairly, in all material respects, the financial position of Ingersoll-Rand plc and its subsidiaries (the “Company”) at December 31, 2012 and 2011, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2012 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the accompanying index presents fairly, in all material respects, the information set forth therein when read in conjunction with the related Consolidated Financial Statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2012, based on criteria established in *Internal Control-Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements and financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying “Management's Report on Internal Control over Financial Reporting.” Our responsibility is to express opinions on these financial statements, on the financial statement schedule, and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP
Charlotte, North Carolina
February 14, 2013

Ingersoll-Rand plc

Consolidated Statements of Comprehensive Income

In millions, except per share amounts

For the years ended December 31,	**2012**	**2011**	**2010**
Net revenues	$ 14,034.9	$ 14,782.0	$ 14,001.1
Cost of goods sold	(9,758.2)	(10,493.6)	(10,059.9)
Selling and administrative expenses	(2,776.0)	(2,781.2)	(2,679.8)
Gain (loss) on sale/asset impairment	4.5	(646.9)	—
Operating income	1,505.2	860.3	1,261.4
Interest expense	(253.5)	(280.0)	(283.2)
Other, net	25.0	33.0	32.5
Earnings before income taxes	1,276.7	613.3	1,010.7
Provision for income taxes	(227.0)	(187.2)	(228.1)
Earnings from continuing operations	1,049.7	426.1	782.6
Discontinued operations, net of tax	(5.7)	(56.8)	(117.5)
Net earnings	1,044.0	369.3	665.1
Less: Net earnings attributable to noncontrolling interests	(25.4)	(26.1)	(22.9)
Net earnings attributable to Ingersoll-Rand plc	$ 1,018.6	$ 343.2	$ 642.2
Amounts attributable to Ingersoll-Rand plc ordinary shareholders:			
Continuing operations	$ 1,024.3	$ 400.0	$ 759.7
Discontinued operations	(5.7)	(56.8)	(117.5)
Net earnings	$ 1,018.6	$ 343.2	$ 642.2
Earnings (loss) per share attributable to Ingersoll-Rand plc ordinary shareholders:			
Basic:			
Continuing operations	$ 3.37	$ 1.23	$ 2.34
Discontinued operations	(0.02)	(0.17)	(0.36)
Net earnings	$ 3.35	$ 1.06	$ 1.98
Diluted:			
Continuing operations	$ 3.30	$ 1.18	$ 2.24
Discontinued operations	(0.02)	(0.17)	(0.35)
Net earnings	$ 3.28	$ 1.01	$ 1.89

Ingersoll-Rand plc
Consolidated Statements of Comprehensive Income (continued)
In millions, except per share amounts

For the years ended December 31,	2012	2011	2010
Net earnings	$ 1,044.0	$ 369.3	$ 665.1
Other comprehensive income (loss)			
Currency translation	85.5	(158.1)	1.8
Cash flow hedges and marketable securities			
Unrealized net gains (losses) arising during period	(0.7)	(1.4)	5.6
Net (gains) losses reclassified into earnings	2.8	2.8	3.2
Tax (expense) benefit	1.0	(0.5)	(0.9)
Total cash flow hedges and marketable securities, net of tax	3.1	0.9	7.9
Pension and OPEB adjustments:			
Prior service gains (costs) for the period	58.8	1.3	0.8
Net actuarial gains (losses) for the period	(185.0)	(283.0)	22.1
Amortization reclassified into earnings	62.7	54.8	71.4
Settlements/curtailments reclassified to earnings	4.9	95.9	4.0
Currency translation and other	(9.6)	(0.7)	12.0
Tax (expense) benefit	(0.2)	59.7	(11.5)
Total pension and OPEB adjustments, net of tax	(68.4)	(72.0)	98.8
Other comprehensive income (loss), net of tax	20.2	(229.2)	108.5
Total comprehensive income (loss), net of tax	$ 1,064.2	$ 140.1	$ 773.6
Less: Total comprehensive (income) loss attributable to noncontrolling interests	(13.0)	(25.5)	(22.1)
Total comprehensive income (loss) attributable to Ingersoll-Rand plc	$ 1,051.2	$ 114.6	$ 751.5

See accompanying notes to consolidated financial statements.

Ingersoll-Rand plc
Consolidated Balance Sheets
In millions, except share amounts

December 31,	2012	2011
ASSETS		
Current assets:		
Cash and cash equivalents	$ 882.1	$ 1,160.7
Accounts and notes receivable, net	2,157.5	2,135.6
Inventories	1,308.8	1,278.3
Deferred taxes and current tax receivable	309.6	349.9
Other current assets	284.7	354.7
Total current assets	4,942.7	5,279.2
Property, plant and equipment, net	1,652.6	1,639.4
Goodwill	6,138.9	6,104.0
Intangible assets, net	4,200.9	4,333.6
Other noncurrent assets	1,557.8	1,487.9
Total assets	$ 18,492.9	$ 18,844.1
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	$ 1,230.2	$ 1,224.2
Accrued compensation and benefits	506.8	527.7
Accrued expenses and other current liabilities	1,460.6	1,610.4
Short-term borrowings and current maturities of long-term debt	963.7	763.3
Total current liabilities	4,161.3	4,125.6
Long-term debt	2,269.3	2,879.3
Postemployment and other benefit liabilities	1,823.2	1,709.9
Deferred and noncurrent income taxes	1,592.8	1,619.1
Other noncurrent liabilities	1,417.0	1,494.5
Total liabilities	11,263.6	11,828.4
Temporary Equity	—	3.3
Equity:		
Ingersoll-Rand plc shareholders' equity		
Ordinary shares, $1 par value (295,605,736 and 297,140,982 shares issued at December 31, 2012 and 2011, respectively, and net of 22,562 and 23,985 shares owned by subsidiary at December 31, 2012 and 2011, respectively)	295.6	297.1
Capital in excess of par value	1,014.5	1,633.0
Retained earnings	6,358.7	5,547.8
Accumulated other comprehensive income (loss)	(521.0)	(553.6)
Total Ingersoll-Rand plc shareholders' equity	7,147.8	6,924.3
Noncontrolling interest	81.5	88.1
Total equity	7,229.3	7,012.4
Total liabilities and equity	$ 18,492.9	$ 18,844.1

See accompanying notes to consolidated financial statements.

Ingersoll-Rand plc
Consolidated Statements of Equity

In millions, except per share amounts	Total equity	Ingersoll-Rand plc shareholders' equity: Ordinary Shares Amount	Ordinary Shares Shares	Capital in excess of par value	Retained earnings	Accumulated other comprehensive income (loss)	Noncontrolling Interest
Balance at December 31, 2009	7,175.7	320.6	320.6	2,347.6	4,837.9	(434.3)	103.9
Net earnings	665.1	—	—	—	642.2	—	22.9
Other comprehensive income (loss)	108.5	—	—	—	—	109.3	(0.8)
Shares issued under incentive stock plans	149.4	7.6	7.6	141.8	—	—	—
Accretion of Exchangeable Senior Notes from Temporary Equity	13.3	—	—	13.3	—	—	—
Share-based compensation	73.5	—	—	73.5	—	—	—
Acquisition/divestiture of noncontrolling interest	(8.4)	—	—	(4.5)	—	—	(3.9)
Dividends declared to noncontrolling interest	(20.2)	—	—	—	—	—	(20.2)
Cash dividends, declared and paid ($0.28 per share)	(90.7)	—	—	—	(90.7)	—	—
Other	(7.1)	—	—	—	—	—	(7.1)
Balance at December 31, 2010	8,059.1	328.2	328.2	2,571.7	5,389.4	(325.0)	94.8
Net earnings	369.3	—	—	—	343.2	—	26.1
Other comprehensive income (loss)	(229.2)	—	—	—	—	(228.6)	(0.6)
Shares issued under incentive stock plans	133.6	5.2	5.2	128.4	—	—	—
Repurchase of ordinary shares	(1,157.5)	(36.3)	(36.3)	(1,121.2)	—	—	—
Accretion of Exchangeable Senior Notes from Temporary Equity	13.3	—	—	13.3	—	—	—
Share-based compensation	42.6	—	—	42.6	—	—	—
Acquisition/divestiture of noncontrolling interest	(2.4)	—	—	(1.3)	—	—	(1.1)
Dividends declared to noncontrolling interest	(30.1)	—	—	—	—	—	(30.1)
Cash dividends declared ($0.59 per share)	(184.7)	—	—	—	(184.7)	—	—
Other	(1.6)	—	—	(0.5)	(0.1)	—	(1.0)
Balance at December 31, 2011	$ 7,012.4	$ 297.1	297.1	$ 1,633.0	$ 5,547.8	$ (553.6)	$ 88.1
Net earnings	1,044.0	—	—	—	1,018.6	—	25.4
Other comprehensive income (loss)	20.2	—	—	—	—	32.6	(12.4)
Shares issued under incentive stock plans	172.5	6.1	6.1	166.4	—	—	—
Settlement of Exchangeable Senior Notes	(4.7)	10.8	10.8	(15.5)	—	—	—
Repurchase of ordinary shares	(839.8)	(18.4)	(18.4)	(821.4)	—	—	—
Accretion of Exchangeable Senior Notes from Temporary Equity	3.3	—	—	3.3	—	—	—
Share-based compensation	49.8	—	—	49.8	—	—	—
Acquisition/divestiture of noncontrolling interest	(1.5)	—	—	(1.1)	—	—	(0.4)
Dividends declared to noncontrolling interest	(19.2)	—	—	—	—	—	(19.2)
Cash dividends declared ($0.69 per share)	(207.7)	—	—	—	(207.7)	—	—
Balance at December 31, 2012	$ 7,229.3	$ 295.6	295.6	$ 1,014.5	$ 6,358.7	$ (521.0)	$ 81.5

See accompanying notes to consolidated financial statements.

Ingersoll-Rand plc
Consolidated Statements of Cash Flows
In millions

For the years ended December 31,	2012	2011	2010
Cash flows from operating activities:			
Net earnings	$ 1,044.0	$ 369.3	$ 665.1
(Income) loss from discontinued operations, net of tax	5.7	56.8	117.5
Adjustments to arrive at net cash provided by (used in) operating activities:			
(Gain) loss on sale/asset impairment	(4.5)	646.9	—
Depreciation and amortization	375.5	402.7	436.8
Stock settled share-based compensation	49.8	42.6	73.5
(Gain) loss on sale of property, plant and equipment	(1.2)	(22.6)	4.6
Equity earnings, net of dividends	7.6	5.4	0.8
Deferred income taxes	73.9	(74.6)	82.6
Other items	122.7	15.6	101.2
Changes in other assets and liabilities			
(Increase) decrease in:			
Accounts and notes receivable	(35.2)	8.1	(238.9)
Inventories	(29.5)	(14.3)	(213.0)
Other current and noncurrent assets	(61.6)	(55.0)	159.8
Increase (decrease) in:			
Accounts payable	(2.5)	(29.0)	246.9
Other current and noncurrent liabilities	(267.0)	(121.7)	(680.5)
Net cash (used in) provided by continuing operating activities	1,277.7	1,230.2	756.4
Net cash (used in) provided by discontinued operating activities	(96.8)	(43.4)	(61.0)
Net cash provided by (used in) operating activities	1,180.9	1,186.8	695.4
Cash flows from investing activities:			
Capital expenditures	(262.6)	(242.9)	(179.5)
Acquisition of businesses, net of cash acquired	—	(1.9)	(14.0)
Proceeds from sale of property, plant and equipment	19.2	52.0	14.5
Proceeds from business dispositions, net of cash sold	52.7	400.3	—
Dividends received from equity investments	44.3	—	—
Net cash (used in) provided by continuing investing activities	(146.4)	207.5	(179.0)
Net cash (used in) provided by discontinued investing activities	—	—	0.4
Net cash provided by (used in) investing activities	(146.4)	207.5	(178.6)

Ingersoll-Rand plc
Consolidated Statements of Cash Flows - (Continued)
In millions

For the years ended December 31,	2012	2011	2010
Cash flows from financing activities:			
Commercial paper program, net	—	—	—
Other short-term borrowings, net	5.5	35.5	33.1
Proceeds from long-term debt	—	3.6	62.9
Payments of long-term debt	(420.3)	(93.1)	(524.8)
Net proceeds (repayments) in debt	(414.8)	(54.0)	(428.8)
Debt issuance costs	(2.5)	(2.3)	(5.5)
Excess tax benefit from share-based compensation	19.6	24.6	4.2
Dividends paid to ordinary shareholders	(192.4)	(137.3)	(90.7)
Dividends paid to noncontrolling interests	(20.7)	(26.2)	(20.2)
Acquisition/divestiture of noncontrolling interest	(1.5)	(1.3)	(8.0)
Proceeds from shares issued under incentive plans	152.9	109.0	145.3
Repurchase of ordinary shares	(839.8)	(1,157.5)	—
Other, net	(4.7)	(1.4)	—
Net cash (used in) provided by continuing financing activities	(1,303.9)	(1,246.4)	(403.7)
Effect of exchange rate changes on cash and cash equivalents	(9.2)	(1.5)	24.5
Net increase (decrease) in cash and cash equivalents	(278.6)	146.4	137.6
Cash and cash equivalents – beginning of period	1,160.7	1,014.3	876.7
Cash and cash equivalents – end of period	$ 882.1	$ 1,160.7	$ 1,014.3
Cash paid during the year for:			
Interest, net of amounts capitalized	$ 224.9	$ 232.5	$ 225.7
Income taxes, net of refunds	$ 251.3	$ 189.7	$ 117.4

See accompanying notes to consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1 – DESCRIPTION OF COMPANY

Ingersoll-Rand plc (IR-Ireland), an Irish public limited company, and its consolidated subsidiaries (collectively, we, our, the Company) is a diversified, global company that provides products, services and solutions to enhance the quality and comfort of air in homes and buildings, transport and protect food and perishables, secure homes and commercial properties, and increase industrial productivity and efficiency. Our business segments consist of Climate Solutions, Residential Solutions, Industrial Technologies and Security Technologies, each with strong brands and leading positions within their respective markets. We generate revenue and cash primarily through the design, manufacture, sale and service of a diverse portfolio of industrial and commercial products that include well-recognized, premium brand names such as Club Car®, Ingersoll-Rand®, Schlage®, Thermo King® and Trane®.

NOTE 2 – PROPOSED SPIN-OFF TRANSACTION

In December 2012, the Company's Board of Directors announced a plan to spin off the commercial and residential security businesses (the New Security Company). The separation will result in two standalone companies: Ingersoll Rand; and the New Security Company, a leading global provider of electronic and mechanical security products and services, delivering comprehensive solutions to commercial and residential customers. This new company's portfolio of brands will include Schlage, LCN®, Von Duprin®, Interflex®, CISA®, Briton®, Bricard®, BOCOM® Systems, Dexter®, Kryptonite®, Falcon® and Fusion® Hardware Group.

The completion of the spin-off is subject to certain customary conditions, including receipt of regulatory approvals, receipt of a ruling from the U.S. Internal Revenue Service as to the tax-free nature of the spin-off, as well as certain other matters relating to the spin-off, receipt of legal opinions, execution of intercompany agreements, effectiveness of appropriate filings with the U.S. Securities and Exchange Commission, and final approval of the transactions contemplated by the spin-off, as may be required under Irish law. There can be no assurance that any separation transaction will ultimately occur, or, if one does occur, its terms or timing.

Upon completion of the spin-off, IR-Ireland will cease to have any ownership interest in the New Security Company, and the New Security Company will become an independent publicly traded company. The New Security Company is anticipated to be an Irish public limited company (plc).

The disclosures within these Consolidated Financial Statements do not take into account the proposed spin-off of the commercial and residential security businesses.

NOTE 3 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A summary of significant accounting policies used in the preparation of the accompanying consolidated financial statements follows:

Basis of Presentation: The accompanying Consolidated Financial Statements reflect the consolidated operations of the Company and have been prepared in accordance with U.S. Generally Accepted Accounting Principles (GAAP) as defined by the Financial Accounting Standards Board (FASB) within the FASB Accounting Standards Codification (ASC).

The Consolidated Financial Statements include all majority-owned subsidiaries of the Company. A noncontrolling interest in a subsidiary is considered an ownership interest in a majority-owned subsidiary that is not attributable to the parent. The Company includes Noncontrolling interest as a component of Total equity in the Consolidated Balance Sheet and the Net earnings attributable to noncontrolling interests are presented as an adjustment from Net earnings used to arrive at Net earnings attributable to Ingersoll-Rand plc in the Consolidated Statement of Comprehensive Income.

Partially-owned equity affiliates represent 20-50% ownership interests in investments where we demonstrate significant influence, but do not have a controlling financial interest. Partially-owned equity affiliates are accounted for under the equity method. The Company is also required to consolidate variable interest entities in which it bears a majority of the risk to the entities' potential losses or stands to gain from a majority of the entities' expected returns. Intercompany accounts and transactions have been eliminated. The assets, liabilities, results of operations and cash flows of all discontinued operations have been separately reported as discontinued operations and held for sale for all periods presented.

During 2012, the company received a $44.3 million dividend from the equity investment in Hussmann Parent. The receipt of this dividend is classified in investing activities within the Consolidated Statement of Cash Flows due to the cumulative negative equity earnings to date from Hussmann Parent.

Certain changes in classification of amounts reported in prior years have been made to conform to the 2012 classification. The Company reclassified 2011 deferred tax balances to conform to the 2012 classification. This reclassification resulted in an $89.8 million increase to current and non-current deferred tax assets and an $89.8 million increase to current and non-current deferred tax liabilities for the year ended December 31, 2011. For the year ended December 31, 2011, the Company also reclassified $44.4 million of cash provided by investing activities from discontinued to continuing investing activities as it reflects the final settlement of proceeds related to a previously divested business.

Use of Estimates: The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosures of contingent assets and liabilities at the date of the financial statements as well as the reported amounts of revenues and expenses during the reporting period. Estimates are based on several factors including the facts and circumstances available at the time the estimates are made, historical experience, risk of loss, general economic conditions and trends, and the assessment of the probable future outcome. Some of the more significant estimates include accounting for doubtful accounts, useful lives of property, plant and equipment and intangible assets, purchase price allocations of acquired businesses, valuation of assets including goodwill and other intangible assets, product warranties, sales allowances, pension plans, postretirement benefits other than pensions, taxes, environmental costs, product liability, asbestos matters and other contingencies. Actual results could differ from those estimates. Estimates and assumptions are reviewed periodically, and the effects of changes, if any, are reflected in the statement of operations in the period that they are determined.

Currency Translation: Assets and liabilities of non-U.S. subsidiaries, where the functional currency is not the U.S. dollar, have been translated at year-end exchange rates, and income and expense accounts have been translated using average exchange rates throughout the year. Adjustments resulting from the process of translating an entity's financial statements into the U.S. dollar have been recorded in the Equity section of the Consolidated Balance Sheet within Accumulated other comprehensive income (loss). Transactions that are denominated in a currency other than an entity's functional currency are subject to changes in exchange rates with the resulting gains and losses recorded within Net earnings.

Cash and Cash Equivalents: Cash and cash equivalents include cash on hand, demand deposits and all highly liquid investments with original maturities at the time of purchase of three months or less.

Marketable Securities: The Company has classified its marketable securities as available-for-sale in accordance with GAAP. Available-for-sale marketable securities are accounted for at fair value, with the unrealized gain or loss, less applicable deferred income taxes, recorded within Accumulated other comprehensive income (loss). If any of the Company's marketable securities experience other than temporary declines in value as defined by GAAP, a loss is recorded in the Consolidated Statement of Comprehensive Income.

Inventories: Depending on the business, U.S. inventories are stated at the lower of cost or market using the last-in, first-out (LIFO) method or the lower of cost or market using the first-in, first-out (FIFO) method. Non-U.S. inventories are primarily stated at the lower of cost or market using the FIFO method. At December 31, 2012 and 2011, approximately 54% and 53%, respectively, of all inventory utilized the LIFO method.

Allowance for Doubtful Accounts: The Company has provided an allowance for doubtful accounts reserve which represents the best estimate of probable loss inherent in the Company's account receivables portfolio. This estimate is based upon Company policy, derived from knowledge of its end markets, customer base and products. The Company reserved $29.2 million and $27.1 million for doubtful accounts as of December 31, 2012 and 2011, respectively.

Property, Plant and Equipment: Property, plant and equipment are stated at cost, less accumulated depreciation. Assets placed in service are recorded at cost and depreciated using the straight-line method over the estimated useful life of the asset except for leasehold improvements, which are depreciated over the shorter of their economic useful life or their lease term. The range of useful lives used to depreciate property, plant and equipment is as follows:

Buildings	10	to	50	years
Machinery and equipment	2	to	12	years
Software	2	to	7	years

Repair and maintenance costs that do not extend the useful life of the asset are charged against earnings as incurred. Major replacements and significant improvements that increase asset values and extend useful lives are capitalized.

The Company assesses the recoverability of the carrying value of its property, plant and equipment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. Recoverability is measured by a comparison of the carrying amount of an asset to the future net undiscounted cash flows expected to be generated by the asset. If the undiscounted cash flows are less than the carrying amount of the asset, an impairment loss is recognized for the amount by which the carrying value of the asset exceeds the fair value of the assets.

Goodwill and Intangible Assets: The Company records as goodwill the excess of the purchase price over the fair value of the net assets acquired. Once the final valuation has been performed for each acquisition, adjustments may be recorded.

In accordance with GAAP, goodwill and other indefinite-lived intangible assets are tested and reviewed annually for impairment during the fourth quarter or whenever there is a significant change in events or circumstances that indicate that the fair value of the asset is more likely than not less than the carrying amount of the asset.

Recoverability of goodwill is measured at the reporting unit level and begins with a qualitative assessment to determine if it is more likely than not that the fair value of each reporting unit is less than its carrying amount as a basis for determining whether it is necessary to perform the two-step goodwill impairment test included in U.S. GAAP. For those reporting units where it is required, the first step compares the carrying amount of the reporting unit to its estimated fair value. If the estimated fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is not impaired and the second step of the impairment test is not necessary. To the extent that the carrying value of the reporting unit exceeds its estimated fair value, a second step is performed, wherein the reporting unit's carrying value of goodwill is compared to the implied fair value of goodwill. To the extent that the carrying value exceeds the implied fair value, impairment exists and must be recognized.

The calculation of estimated fair value is based on two valuation techniques, a discounted cash flow model (income approach) and a market adjusted multiple of earnings and revenues (market approach), with each method being equally weighted in the calculation. The implied fair value of goodwill is determined in the same manner as the amount of goodwill recognized in a business combination. The estimated fair value of the reporting unit is allocated to all of the assets and liabilities of the reporting unit (including any unrecognized intangible assets) as if the reporting unit had been acquired in a business combination and the fair value of the reporting unit, as determined in the first step of the goodwill impairment test, was the price paid to acquire that reporting unit.

Recoverability of other intangible assets with indefinite useful lives (i.e. Tradenames) is first assessed using a qualitative assessment to determine whether it is more likely than not that an indefinite-lived intangible asset is impaired. This assessment is used as a basis for determining whether it is necessary to calculate the fair value of an indefinite-lived intangible asset. For those indefinite-lived assets where it is required, a fair value is determined on a relief from royalty methodology (income approach) which is based on the implied royalty paid, at an appropriate discount rate, to license the use of an asset rather than owning the asset. The present value of the after-tax cost savings (i.e. royalty relief) indicates the estimated fair value of the asset. Any excess of the carrying value over the estimated fair value is recognized as an impairment loss equal to that excess.

Intangible assets such as patents, customer-related intangible assets and other intangible assets with finite useful lives are amortized on a straight-line basis over their estimated economic lives. The weighted-average useful lives approximate the following:

Customer relationships	20	years
Trademarks	25	years
Completed technology/patents	10	years
Other	20	years

Recoverability of intangible assets with finite useful lives is assessed in the same manner as property, plant and equipment as described above.

Income Taxes: Deferred tax assets and liabilities are determined based on temporary differences between financial reporting and tax bases of assets and liabilities, applying enacted tax rates expected to be in effect for the year in which the differences are expected to reverse. The Company recognizes future tax benefits, such as net operating losses and non-U.S. tax credits, to the extent that realizing these benefits is considered in its judgment to be more likely than not. The Company regularly reviews the recoverability of its deferred tax assets considering its historic profitability, projected future taxable income, timing of the reversals of existing temporary differences and the feasibility of its tax planning strategies. Where appropriate, the Company records a valuation allowance with respect to a future tax benefit.

Product Warranties: Standard product warranty accruals are recorded at the time of sale and are estimated based upon product warranty terms and historical experience. The Company assesses the adequacy of its liabilities and will make adjustments as necessary based on known or anticipated warranty claims, or as new information becomes available.

The Company's extended warranty liability represents the deferred revenue associated with its extended warranty contracts and is amortized into Revenue on a straight-line basis over the life of the contract, unless another method is more representative of the costs incurred. The Company assesses the adequacy of its liability by evaluating the expected costs under its existing contracts to ensure these expected costs do not exceed the extended warranty liability.

Treasury Stock: The Company, through one of its consolidated subsidiaries, has repurchased its common shares from time to time in the open market and in privately negotiated transactions as authorized by the Board of Directors. These repurchases are based upon current market conditions and the discretion of management. Amounts are recorded at cost and included within the Equity section of the Consolidated Balance Sheet.

Revenue Recognition: Revenue is recognized and earned when all of the following criteria are satisfied: (a) persuasive evidence of a sales arrangement exists; (b) price is fixed or determinable; (c) collectability is reasonably assured; and (d) delivery has occurred or service has been rendered. Delivery generally occurs when the title and the risks and rewards of ownership have substantially transferred to the customer. Revenue from maintenance contracts or extended warranties is recognized on a straight-line basis over the life of the contract, unless another method is more representative of the costs incurred. The Company enters into agreements that contain multiple elements, such as equipment, installation and service revenue. For multiple-element arrangements, the revenue relating to undelivered elements is deferred until delivery of the deferred elements. The Company recognizes revenue for delivered elements when the delivered item has stand-alone value to the customer, customer acceptance has occurred, and only customary refund or return rights exist related to the delivered elements. Revenues from certain of our equipment and the related installation sold under construction-type contracts are recorded using the percentage-of-completion method in accordance with GAAP.

Environmental Costs: The Company is subject to laws and regulations relating to protecting the environment. Environmental expenditures relating to current operations are expensed or capitalized as appropriate. Expenditures relating to existing conditions caused by past operations, which do not contribute to current or future revenues, are expensed. Liabilities for remediation costs are recorded when they are probable and can be reasonably estimated, generally no later than the completion of feasibility studies or the Company's commitment to a plan of action. The assessment of this liability, which is calculated based on existing technology, does not reflect any offset for possible recoveries from insurance companies, and is not discounted. Refer to Note 20 for further details of environmental matters.

Asbestos Matters: Certain wholly-owned subsidiaries of the Company are named as defendants in asbestos-related lawsuits in state and federal courts. The Company records a liability for its actual and anticipated future claims as well as an asset for anticipated insurance settlements. Although the Company was neither a manufacturer nor producer of asbestos, some of its formerly manufactured components from third party suppliers utilized asbestos-related components. As a result, amounts related to asbestos are recorded within Discontinued operations, net of tax, except for amounts related to Trane U.S. Inc. asbestos liabilities, which are recorded in Earnings from continuing operations. Refer to Note 20 for further details of asbestos-related matters.

Research and Development Costs: The Company conducts research and development activities for the purpose of developing and improving new products and services. These expenditures are expensed when incurred. For the years ended December 31, 2012, 2011 and 2010, these expenditures amounted to approximately $273.6 million, $257.3 million and $244.0 million, respectively.

Software Costs: The Company capitalizes certain qualified internal-use software costs during the application development stage and subsequently amortizes those costs over the software's useful life, which ranges from 2 to 7 years. Refer to Note 6 for further details on software.

Employee Benefit Plans: The Company provides a range of benefits, including pensions, postretirement and postemployment benefits to eligible current and former employees. Determining the cost associated with such benefits is dependent on various actuarial assumptions, including discount rates, expected return on plan assets, compensation increases, employee mortality, turnover rates, and healthcare cost trend rates. Actuaries perform the required calculations to determine expense in accordance with GAAP. Actual results may differ from the actuarial assumptions and are generally accumulated into Accumulated other comprehensive income (loss) and amortized into Net earnings over future periods. The Company reviews its actuarial assumptions at each measurement date and makes modifications to the assumptions based on current rates and trends, if appropriate. Refer to Note 11 for further details on employee benefit plans.

Loss Contingencies: Liabilities are recorded for various contingencies arising in the normal course of business, including litigation and administrative proceedings, environmental matters, product liability, product warranty, worker's compensation and other claims. The Company has recorded reserves in the financial statements related to these matters, which are developed using input derived from actuarial estimates and historical and anticipated experience data depending on the nature of the reserve, and in certain instances with consultation of legal counsel, internal and external consultants and engineers. Subject to the uncertainties inherent in estimating future costs for these types of liabilities, the Company believes its estimated reserves are reasonable and does not believe the final determination of the liabilities with respect to these matters would have a material effect on the financial condition, results of operations, liquidity or cash flows of the Company for any year. Refer to Note 20 for further details on loss contingencies.

Derivative Instruments: The Company periodically enters into cash flow and other derivative transactions to specifically hedge exposure to various risks related to interest rates and currency rates. The Company recognizes all derivatives on the Consolidated Balance Sheet at their fair value as either assets or liabilities. For cash flow designated hedges, the effective portion of the changes in fair value of the derivative contract are recorded in Accumulated other comprehensive income (loss), net of taxes, and are recognized in Net earnings at the time earnings are affected by the hedged transaction. For other derivative transactions, the changes in the fair value of the derivative contract are immediately recognized in Net earnings. Refer to Note 10 for further details on derivative instruments.

Recent Accounting Pronouncements

Recently Adopted Accounting Pronouncements:

In May 2011, the FASB issued Accounting Standards Update (ASU) 2011-04, "Fair Value Measurement (Topic 820): Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and International Financial Reporting Standards (IFRS)." ASU 2011-04 represents converged guidance between GAAP and IFRS resulting in common requirements for measuring fair value and for disclosing information about fair value measurements. This new guidance is effective for fiscal years beginning after December 15, 2011 and subsequent interim periods. The requirements of ASU 2011-04 did not have a material impact on the Company's Consolidated Financial Statements. The revised disclosure requirements are reflected in Note 12.

In June 2011, the FASB issued ASU 2011-05, "Presentation of Comprehensive Income." ASU 2011-05 requires the Company to present components of other comprehensive income and of net income in one continuous statement of comprehensive income, or in two separate, but consecutive statements. The option to report other comprehensive income within the statement of equity has been removed. This new presentation of comprehensive income is effective for fiscal years beginning after December 15, 2011 and subsequent interim periods. The revised presentation requirements are reflected in the Consolidated Statements of Comprehensive Income.

In December 2011, the FASB issued ASU 2011-12, "Deferral of the Effective Date for Amendments to the Presentation of Reclassification of Items Out of Accumulated Other Comprehensive Income in Accounting Standards Update No. 2011-05." The revised amendments defer the presentation in the financial statements of reclassifications out of accumulated other comprehensive income for annual and interim financial statements. The deferral is effective for fiscal years beginning after December 15, 2011 and subsequent interim periods. The revised presentation requirements are reflected in the Consolidated Statements of Comprehensive Income.

In September 2011, the FASB issued ASU 2011-08, "Testing Goodwill for Impairment." This revised standard provides entities with the option to first use an assessment of qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If a conclusion is reached that reporting unit fair value is not more likely than not below carrying value, no further impairment testing is necessary. This revised guidance applies to fiscal years beginning after December 15, 2011, and the related interim and annual goodwill impairment tests. The requirements of ASU 2011-08 did not have an impact on the Company's Consolidated Financial Statements.

In July 2012, the FASB issued ASU 2012-02, "Intangibles - Goodwill and Other (Topic 350): Testing Indefinite-Lived Intangible Assets for Impairment." This revised standard provides entities with the option to first use an assessment of qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of an indefinite-lived intangible asset is less than its carrying amount. If a conclusion is reached that the indefinite-lived intangible asset fair value is not more likely than not below carrying value, no further impairment testing is necessary. The Company elected to early adopt. The requirements of ASU 2012-02 did not have an impact on the Company's Consolidated Financial Statements.

In December 2011, the FASB issued ASU 2011-11, "Disclosures about Offsetting Assets and Liabilities." ASU 2011-11 requires enhanced disclosures including both gross and net information about financial and derivative instruments eligible for offset or subject to an enforceable master netting arrangement or similar agreement. This new guidance is effective for annual reporting periods beginning on or after January 1, 2013 and subsequent interim periods. The requirements of ASU 2011-11 will not have an impact on the Consolidated Financial Statements.

NOTE 4 – MARKETABLE SECURITIES

At December 31, Long-term marketable securities included within Other noncurrent assets in the Consolidated Balance Sheets were as follows:

	2012			2011		
In millions	Amortized cost or cost	Unrealized gains	Fair value	Amortized cost or cost	Unrealized gains	Fair value
Equity securities	$ 5.5	$ 11.2	$ 16.7	$ 5.7	$ 4.7	$ 10.4

NOTE 5 – INVENTORIES

At December 31, the major classes of inventory were as follows:

In millions	2012	2011
Raw materials	$ 501.9	$ 478.7
Work-in-process	109.6	114.4
Finished goods	800.2	787.9
	1,411.7	1,381.0
LIFO reserve	(102.9)	(102.7)
Total	$ 1,308.8	$ 1,278.3

NOTE 6 – PROPERTY, PLANT AND EQUIPMENT

At December 31, the major classes of property, plant and equipment were as follows:

In millions	2012	2011
Land	$ 83.6	$ 86.5
Buildings	714.7	693.4
Machinery and equipment	1,900.9	1,784.9
Software	615.0	538.0
	3,314.2	3,102.8
Accumulated depreciation	(1,661.6)	(1,463.4)
Total	$ 1,652.6	$ 1,639.4

Depreciation expense for the years ended December 31, 2012, 2011 and 2010 was $238.8 million, $236.2 million and $261.8 million, which include amounts for software amortization of $57.4 million, $53.6 million and $53.1 million, respectively.

NOTE 7 – GOODWILL

The changes in the carrying amount of Goodwill are as follows:

In millions	Climate Solutions	Residential Solutions	Industrial Technologies	Security Technologies	Total
December 31, 2010 (gross)	$ 5,380.7	$ 2,326.4	$ 368.1	$ 914.0	$ 8,989.2
Acquisitions and adjustments *	(6.9)	(7.4)	(0.3)	2.9	(11.7)
Currency translation	(31.0)	—	(1.0)	(1.5)	(33.5)
December 31, 2011 (gross)	5,342.8	2,319.0	366.8	915.4	8,944.0
Acquisitions and adjustments *	(2.7)	(1.9)	—	—	(4.6)
Currency translation	30.5	—	1.9	7.1	39.5
December 31, 2012 (gross)	5,370.6	2,317.1	368.7	922.5	8,978.9
Accumulated impairment **	(839.8)	(1,656.2)	—	(344.0)	(2,840.0)
Goodwill (net)	$ 4,530.8	$ 660.9	$ 368.7	$ 578.5	$ 6,138.9

* During 2012 and 2011, the Company recorded certain purchase accounting adjustments within the Climate Solutions sector of $2.9 million and $7.9 million, respectively, and the Residential Solutions sector of $1.9 million and $7.4 million, respectively.
** Accumulated impairment relates to a charge of $2,840.0 million recorded in the fourth quarter of 2008 as a result of the Company's annual impairment testing.

The Company records as goodwill the excess of the purchase price over the fair value of the net assets acquired. Once the final valuation has been performed for each acquisition, adjustments may be recorded.

In accordance with the Company's goodwill impairment testing policy outlined in Note 3, the Company performed its annual impairment test on goodwill in the fourth quarter of each 2012, 2011, and 2010. In each year, the Company determined that the fair values of all identified reporting units exceeded their respective carrying values. Therefore, no impairment charges were recorded during 2012, 2011, and 2010.

NOTE 8 – INTANGIBLE ASSETS

The following table sets forth the gross amount and related accumulated amortization of the Company's intangible assets at December 31:

	2012			2011		
In millions	Gross carrying amount	Accumulated amortization	Net carrying amount	Gross carrying amount	Accumulated amortization	Net carrying amount
Completed technologies/patents	$ 203.2	$ (134.4)	$ 68.8	$ 207.1	$ (112.6)	$ 94.5
Customer relationships	1,966.8	(523.6)	1,443.2	1,958.5	(412.5)	1,546.0
Trademarks (finite-lived)	98.0	(32.1)	65.9	96.1	(27.6)	68.5
Other	71.4	(59.4)	12.0	69.7	(56.1)	13.6
Total finite-lived intangible assets	2,339.4	$ (749.5)	1,589.9	2,331.4	$ (608.8)	1,722.6
Trademarks (indefinite-lived)	2,611.0		2,611.0	2,611.0		2,611.0
Total	$ 4,950.4		$ 4,200.9	$ 4,942.4		$ 4,333.6

The Company amortizes intangible assets with finite useful lives on a straight-line basis over their estimated economic lives in accordance with GAAP. Indefinite-lived intangible assets are not subject to amortization, but instead, are tested for impairment at least annually (more frequently if certain indicators are present).

Intangible asset amortization expense for 2012, 2011 and 2010 was $139.6 million, $144.6 million and $153.2 million, respectively. Future estimated amortization expense on existing intangible assets in each of the next five years amounts to approximately $129 million for 2013, $128 million for 2014, $127 million for 2015, $110 million for 2016, and $110 million for 2017.

In accordance with the Company's indefinite-lived intangible asset impairment testing policy outlined in Note 3, the Company performed its annual impairment test in the fourth quarter of each 2012, 2011 and 2010. In each year, the Company determined the fair value of all indefinite-lived intangible assets to exceed their respective carrying values. Therefore, no impairment charges were recorded during 2012, 2011 and 2010.

NOTE 9 – DEBT AND CREDIT FACILITIES

At December 31, short-term borrowings and current maturities of long-term debt consisted of the following:

In millions	2012	2011
Debentures with put feature	$ 343.0	$ 343.6
Exchangeable Senior Notes	—	341.2
6.000% Senior notes due 2013	600.0	—
Other current maturities of long-term debt	10.8	12.5
Other short-term borrowings	9.9	66.0
Total	$ 963.7	$ 763.3

The weighted-average interest rate for total short-term borrowings and current maturities of long-term debt at December 31, 2012 and 2011 was 6.2% and 5.4%, respectively.

At December 31, long-term debt excluding current maturities consisted of:

In millions	2012	2011
6.000% Senior notes due 2013	$ —	$ 599.9
9.500% Senior notes due 2014	655.0	655.0
5.50% Senior notes due 2015	196.4	194.7
4.75% Senior notes due 2015	299.7	299.6
6.875% Senior notes due 2018	749.4	749.3
9.00% Debentures due 2021	125.0	125.0
7.20% Debentures due 2013-2025	90.0	97.5
6.48% Debentures due 2025	149.7	149.7
Other loans and notes, at end-of-year average interest rates of 1.00% in 2012 and 2.87% in 2011, maturing in various amounts to 2019	4.1	8.6
Total	$ 2,269.3	$ 2,879.3

At December 31, 2012, long-term debt retirements are as follows:

In millions	
2013	$ 953.8
2014	660.4
2015	508.0
2016	8.8
2017	7.7
Thereafter	1,084.4
Total	$ 3,223.1

Commercial Paper Program

The maximum aggregate amount of unsecured commercial paper notes available to be issued, on a private placement basis, under the commercial paper program is $2 billion as of December 31, 2012. Under the commercial paper program, Ingersoll-Rand Global Holding Company Limited (IR-Global), may issue notes from time to time, and the proceeds of the financing will be used for general corporate purposes. Each of IR-Ireland, Ingersoll-Rand Company Limited (IR-Limited), and Ingersoll-Rand International Holding Limited (IR-International) has provided an irrevocable and unconditional guarantee for the notes issued under the commercial paper program. The Company had no commercial paper outstanding at December 31, 2012 and December 31, 2011.

Debentures with Put Feature

At December 31, 2012 and December 31, 2011, the Company had outstanding $343.0 million and 343.6 million, respectively, of fixed rate debentures which only require early repayment at the option of the holder. These debentures contain a put feature that the holders may exercise on each anniversary of the issuance date. If exercised, the Company is obligated to repay in whole or in part, at the holder's option, the outstanding principal amount (plus accrued and unpaid interest) of the debentures held by the holder. If these options are not exercised, the final maturity dates would range between 2027 and 2028.

On February 15, 2012, holders of these debentures had the option to exercise the put feature on $37.2 million of the outstanding debentures. No holder chose to exercise the put feature at that date. On October 15, 2012, holders of these debentures had the option to exercise the put feature on $306.4 million of the outstanding debentures. Holders chose to exercise the put feature on $0.6 million of the outstanding debentures at that date, and were paid in November 2012.

Exchangeable Senior Notes Due 2012

In April 2009, the Company issued $345 million of 4.5% Exchangeable Senior Notes (the Notes) through its wholly-owned subsidiary, IR-Global. The Notes were fully and unconditionally guaranteed by each of IR-Ireland, IR-Limited, and IR-International. Holders had the option to exchange their Notes for the Company's ordinary shares through April 12, 2012.

The Company accounted for the Notes in accordance with GAAP, which required the Company to allocate the proceeds between debt and equity at the issuance date, in a manner that reflected the Company's nonconvertible debt borrowing rate. At issuance, the Company allocated approximately $305 million of the gross proceeds to debt, with the remaining discount of approximately $40 million (approximately $39 million after allocated fees) recorded within Equity. The Company amortized the discount into Interest expense over the three-year term. As the Notes were exchangeable at the holders' option through April 12, 2012, the remaining equity portion of the Notes at December 31, 2011 was classified as Temporary equity to reflect the amount that could result in cash settlement at the balance sheet date.

The Company settled all remaining outstanding Notes during 2012. As a result, the Company paid $357 million in cash and issued 10.8 million ordinary shares to settle the principal, interest and equity portion of the Notes.

Other Debt

On May 26, 2010, the Company entered into a 3-year, $1.0 billion revolving credit facility through its wholly-owned subsidiary, IR-Global. On March 15, 2012, this credit facility was refinanced with a 5-year, $1.0 billion revolving credit facility maturing on March 15, 2017. The Company also has a 4-year, $1.0 billion revolving credit facility maturing on May 20, 2015, through its wholly-owned subsidiary, IR-Global. Each of IR-Ireland, IR-Limited and IR-International has provided an irrevocable and unconditional guarantee for these credit facilities. The total committed revolving credit facilities of $2.0 billion are unused and provide support for the Company's commercial paper program as well as for other general corporate purposes.

In addition, other available non-U.S. lines of credit were $933.3 million, of which $705.4 million was unused at December 31, 2012. These lines provide support for bank guarantees, letters of credit and other general corporate purposes.

Guarantees

Subsequent to the Ireland Reorganization, IR-Ireland and IR-Limited guarantees fully and unconditionally the outstanding public debt of IR-International, IR-Global and IR-New Jersey.

NOTE 10 – FINANCIAL INSTRUMENTS

In the normal course of business, the Company may use various financial instruments, including derivative instruments, to manage the risks associated with interest rate and currency rate exposures. These financial instruments are not used for trading or speculative purposes.

On the date a derivative contract is entered into, the Company designates the derivative instrument as a cash flow hedge of a forecasted transaction, a cash flow hedge of a recognized asset or liability, or as an undesignated derivative. The Company formally documents its hedge relationships, including identification of the derivative instruments and the hedged items, as well as its risk management objectives and strategies for undertaking the hedge transaction. This process includes linking derivative instruments that are designated as hedges to specific assets, liabilities or forecasted transactions.

The fair market value of derivative instruments is determined through market-based valuations and may not be representative of the actual gains or losses that will be recorded when these instruments mature due to future fluctuations in the markets in which they are traded.

The Company assesses at inception and at least quarterly thereafter, whether the derivatives used in cash flow hedging transactions are highly effective in offsetting the changes in the cash flows of the hedged item. To the extent the derivative is deemed to be a highly effective hedge, the fair market value changes of the instrument are recorded to Accumulated other comprehensive income (AOCI).

Any ineffective portion of a derivative instrument's change in fair value is recorded in Net earnings in the period of change. If the hedging relationship ceases to be highly effective, or it becomes probable that a forecasted transaction is no longer expected to occur, the hedging relationship will be undesignated and any future gains and losses on the derivative instrument will be recorded in Net earnings.

Currency Hedging Instruments

The notional amount of the Company's currency derivatives were $1,656.7 million and $1,818.5 million at December 31, 2012 and 2011, respectively. At December 31, 2012 and 2011, a loss of $4.0 million and a gain of $2.3 million, net of tax, respectively, was included in AOCI related to the fair value of the Company's currency derivatives designated as accounting hedges. The amount expected to be reclassified into Net earnings over the next twelve months is a loss of $4.0 million. The actual amounts that will be reclassified to Net earnings may vary from this amount as a result of changes in market conditions. Gains and losses associated with the Company's currency derivatives not designated as hedges are recorded in Net earnings as changes in fair value occur. At December 31, 2012, the maximum term of the Company's currency derivatives was approximately 12 months.

Other Derivative Instruments

During the third quarter of 2008, the Company entered into interest rate locks for the forecasted issuance of approximately $1.4 billion of Senior Notes due in 2013 and 2018. These interest rate locks met the criteria to be accounted for as cash flow hedges of a forecasted transaction. Consequently, the changes in fair value of the interest rate locks were recognized in AOCI. No further gain or loss will be recognized in AOCI related to these interest rate locks as the contracts were effectively terminated upon issuance of the underlying debt. However, the amount of AOCI associated with these interest rate locks at the time of termination will be recognized into Interest expense over the term of the notes. At December 31, 2012 and 2011, $7.2 million and $9.0 million, respectively, of losses remained in AOCI related to these interest rate locks. The amount expected to be reclassified into Interest expense over the next twelve months is $1.6 million.

In March 2005, the Company entered into interest rate locks for the forecasted issuance of $300 million of Senior Notes due 2015. These interest rate locks met the criteria to be accounted for as cash flow hedges of a forecasted transaction. Consequently, the changes in fair value of the interest rate locks were recognized in AOCI. No further gain or loss will be recognized in AOCI related to these interest rate locks as the contracts were effectively terminated upon issuance of the underlying debt. However, the amount of AOCI associated with these interest rate locks at the time of termination will be recognized into Interest expense over the term of the notes. At December 31, 2012 and 2011, $3.1 million and $4.3 million, respectively, of losses remained in AOCI related to these interest rate locks. The amount expected to be reclassified into Interest expense over the next twelve months is $1.3 million.

The fair values of derivative instruments included within the Consolidated Balance Sheet as of December 31 were as follows:

	Asset derivatives		Liability derivatives	
In millions	**2012**	**2011**	**2012**	**2011**
Derivatives designated as hedges:				
Currency derivatives	$ 0.1	$ 3.1	$ 4.6	$ 0.3
Derivatives not designated as hedges:				
Currency derivatives	4.6	6.2	7.1	21.9
Total derivatives	$ 4.7	$ 9.3	$ 11.7	$ 22.2

Asset and liability derivatives included in the table above are recorded within Other current assets and Accrued expenses and other current liabilities, respectively.

The amounts associated with derivatives designated as hedges affecting Net earnings and AOCI for the years ended December 31 were as follows:

In millions	Amount of gain (loss) recognized in AOCI 2012	2011	2010	Location of gain (loss) reclassified from AOCI and recognized into Net earnings	Amount of gain (loss) reclassified from AOCI and recognized into Net earnings 2012	2011	2010
Currency derivatives	$ (7.2)	$ 2.4	$ 2.2	Cost of goods sold	$ 0.2	$ 0.1	$ (0.4)
Interest rate locks	—	—	—	Interest expense	(3.0)	(2.9)	(2.8)
Total	$ (7.2)	$ 2.4	$ 2.2		$ (2.8)	$ (2.8)	$ (3.2)

The amounts associated with derivatives not designated as hedges affecting Net earnings for the years ended December 31 were as follows:

In millions	Location of gain (loss) recognized in Net earnings	Amount of gain (loss) recognized in Net earnings 2012	2011	2010
Currency derivatives	Other, net	$ 28.4	$ (7.4)	$ 56.4
Total		$ 28.4	$ (7.4)	$ 56.4

The gains and losses associated with the Company's undesignated currency derivatives are materially offset in Net earnings by changes in the fair value of the underlying transactions.

Concentration of Credit Risk

The counterparties to the Company's forward contracts consist of a number of investment grade major international financial institutions. The Company could be exposed to losses in the event of nonperformance by the counterparties. However, the credit ratings and the concentration of risk in these financial institutions are monitored on a continuous basis and present no significant credit risk to the Company.

NOTE 11 – PENSIONS AND POSTRETIREMENT BENEFITS OTHER THAN PENSIONS

The Company sponsors several U.S. defined benefit and defined contribution plans covering substantially all of our U.S. employees. Additionally, the Company has many non-U.S. defined benefit and defined contribution plans covering eligible non-U.S. employees. Postretirement benefits, other than pensions, provide healthcare benefits, and in some instances, life insurance benefits for certain eligible employees.

Pension Plans

The noncontributory defined benefit pension plans covering non-collectively bargained U.S. employees provide benefits on an average pay formula while most plans for collectively bargained U.S. employees provide benefits on a flat dollar benefit formula. The non-U.S. pension plans generally provide benefits based on earnings and years of service. The Company also maintains additional other supplemental plans for officers and other key employees.

On June 8, 2012, the Board of Directors approved amendments to the Company's retirement plans for certain U.S. and Puerto Rico non-bargained employees. Eligible non-bargained employees hired prior to July 1, 2012 were given a choice of remaining in their respective defined benefit plan until the plan freezes on December 31, 2022 or freezing their accrued benefits in their respective defined benefit plan as of December 31, 2012 and receiving an additional 2% non-matching Company contribution into the Company's applicable defined contribution plan. Eligible employees hired or rehired on or after July 1, 2012 will automatically receive the 2% non-matching Company contribution into the applicable defined contribution plan in lieu of participating in the defined benefit plan. Beginning January 1, 2023, all eligible employees will receive the 2% non-matching contribution into the applicable defined contribution plan . As a result of these changes, the Company's projected benefit obligations for the amended plans were remeasured as of June 8, 2012, which included updating the discount rate assumption to 4.00% from the 4.25% assumed at December 31, 2011. The amendments resulted in a 2012 curtailment loss of $4.0 million. The amendment and remeasurement resulted in an increase of $1.0 million to the projected benefit obligation, an increase of $29.4 million to the plan assets, an actuarial gain of $28.4 million and a credit of $4.0 million to prior service cost during 2012.

In connection with the 2011 Hussmann divestiture, the Company transferred its obligations for pension benefits for all current and former employees related to the divestiture.

The following table details information regarding the Company's pension plans at December 31:

In millions	2012	2011
Change in benefit obligations:		
Benefit obligation at beginning of year	$ 3,841.1	$ 3,799.5
Service cost	96.8	93.5
Interest cost	163.6	185.5
Employee contributions	1.5	1.9
Amendments	3.4	0.9
Actuarial (gains) losses	374.3	273.4
Benefits paid	(217.2)	(244.4)
Currency translation	37.4	(6.0)
Curtailments and settlements	(63.4)	(254.8)
Other, including expenses paid	(8.9)	(8.4)
Benefit obligation at end of year	$ 4,228.6	$ 3,841.1
Change in plan assets:		
Fair value at beginning of year	$ 3,100.4	$ 3,248.6
Actual return on assets	320.5	270.3
Company contributions	89.1	57.3
Employee contributions	1.5	1.9
Benefits paid	(217.2)	(244.4)
Currency translation	31.0	(3.8)
Settlements	(5.6)	(221.1)
Other, including expenses paid	(9.5)	(8.4)
Fair value of assets end of year	$ 3,310.2	$ 3,100.4
Funded status:		
Plan assets less than the benefit obligations	$ (918.4)	$ (740.7)
Amounts included in the balance sheet:		
Other noncurrent assets	$ 5.1	$ 4.7
Accrued compensation and benefits	(9.9)	(14.8)
Postemployment and other benefit liabilities	(913.6)	(730.6)
Net amount recognized	$ (918.4)	$ (740.7)

It is the Company's objective to contribute to the pension plans to ensure adequate funds are available in the plans to make benefit payments to plan participants and beneficiaries when required. However, certain plans are not or cannot be funded due to either legal, accounting, or tax requirements in certain jurisdictions. As of December 31, 2012, approximately six percent of our projected benefit obligation relates to plans that cannot be funded.

The pretax amounts recognized in Accumulated other comprehensive income (loss) were as follows:

In millions	Prior service cost	Net actuarial losses	Total
December 31, 2011	$ (30.4)	$ (1,200.0)	$ (1,230.4)
Current year changes recorded to Accumulated other comprehensive income (loss)	(3.4)	(169.6)	(173.0)
Amortization reclassified to earnings	5.1	60.6	65.7
Settlements/curtailments reclassified to earnings	4.4	0.5	4.9
Currency translation and other	0.8	(10.4)	(9.6)
December 31, 2012	$ (23.5)	$ (1,318.9)	$ (1,342.4)

Weighted-average assumptions used:

Benefit obligations at December 31,	2012	2011
Discount rate:		
U.S. plans	3.75%	4.25%
Non-U.S. plans	4.25%	5.00%
Rate of compensation increase:		
U.S. plans	4.00%	4.00%
Non-U.S. plans	4.00%	4.00%

The accumulated benefit obligation for all defined benefit pension plans was $4,032.2 million and $3,637.8 million at December 31, 2012 and 2011, respectively. The projected benefit obligation, accumulated benefit obligation, and fair value of plan assets for pension plans with accumulated benefit obligations more than plan assets were $4,182.8 million, $3,994.0 million and $3,263.9 million, respectively, as of December 31, 2012, and $3,750.6 million, $3,560.1 million and $3,009.3 million, respectively, as of December 31, 2011.

Pension benefit payments are expected to be paid as follows:

In millions	
2013	$ 220.2
2014	226.4
2015	238.1
2016	232.6
2017	236.0
2018 - 2022	1,326.3

The components of the Company's net periodic pension benefit costs for the years ended December 31 include the following:

In millions	2012	2011	2010
Service cost	$ 96.8	$ 93.5	$ 87.1
Interest cost	163.6	185.5	194.5
Expected return on plan assets	(173.6)	(219.6)	(196.3)
Net amortization of:			
Prior service costs	5.1	5.6	8.2
Transition amount	—	—	0.1
Plan net actuarial losses	60.6	51.1	55.5
Net periodic pension benefit cost	152.5	116.1	149.1
Net curtailment and settlement (gains) losses	4.9	62.5	6.2
Net periodic pension benefit cost after net curtailment and settlement (gains) losses	$ 157.4	$ 178.6	$ 155.3
Amounts recorded in continuing operations	$ 148.1	$ 177.2	$ 148.4
Amounts recorded in discontinued operations	9.3	1.4	6.9
Total	$ 157.4	$ 178.6	$ 155.3

The curtailment and settlement losses in 2012 are associated with the recent amendments to the pension plans and lump sum distributions under the supplemental benefit plans for officers and other key employees. The curtailment and settlement losses in 2011 are associated with the divestiture of Hussmann and lump sum distributions under supplemental benefit plans for officers and other key employees. The curtailment and settlement losses in 2010 are associated with lump sum distributions under supplemental benefit plans for officers and other key employees.

Pension expense for 2013 is projected to be approximately $148.4 million, utilizing the assumptions for calculating the pension benefit obligations at the end of 2012. The amounts expected to be recognized in net periodic pension cost during the year ended 2013 for prior service cost and plan net actuarial losses are $4.7 million and $62.3 million, respectively.

Weighted-average assumptions used:

Net periodic pension cost for the year ended December 31,	2012	2011	2010
Discount rate:			
U.S. plans			
For the period January 1 to June 7	4.25%	5.00%	5.75%
For the period June 8 to December 31	4.00%	5.00%	5.75%
Non-U.S. plans	5.00%	5.50%	5.50%
Rate of compensation increase:			
U.S. plans	4.00%	4.00%	4.00%
Non-U.S. plans	4.00%	4.50%	4.50%
Expected return on plan assets:			
U.S. plans	5.75%	7.25%	7.75%
Non-U.S. plans	5.75%	6.25%	7.00%

The expected long-term rate of return on plan assets reflects the average rate of returns expected on the funds invested or to be invested to provide for the benefits included in the projected benefit obligation. The expected long-term rate of return on plan assets is based on what is achievable given the plan's investment policy, the types of assets held and target asset allocations. The expected long-term rate of return is determined as of the measurement date. The Company reviews each plan and its historical returns and target asset allocations to determine the appropriate expected long-term rate of return on plan assets to be used.

The Company's objective in managing its defined benefit plan assets is to ensure that all present and future benefit obligations are met as they come due. It seeks to achieve this goal while trying to mitigate volatility in plan funded status, contribution, and expense by better matching the characteristics of the plan assets to that of the plan liabilities. Prior to 2011, the Company utilized asset/liability modeling studies as the basis for global asset allocation decisions. In 2011, the Company adopted a dynamic approach to asset allocation whereby a plan's allocation to fixed income assets increases progressively over time towards an ultimate target of 90% as a plan moves toward full funding. The Company monitors plan funded status and asset allocation regularly in addition to investment manager performance.

The fair values of the Company's pension plan assets at December 31, 2012 by asset category are as follows:

In millions	Fair value measurements Level 1	Level 2	Level 3	Total fair value
Cash and cash equivalents	$ 5.8	$ 25.5	$ —	$ 31.3
Equity investments:				
Registered mutual funds - equity specialty[a]	5.9	—	—	5.9
Commingled funds – equity specialty[a]	—	935.2	—	935.2
	5.9	935.2	—	941.1
Fixed income investments:				
U.S. government and agency obligations	—	817.0	—	817.0
Corporate and non-U.S. bonds[b]	—	890.2	—	890.2
Asset-backed and mortgage-backed securities	—	53.0	—	53.0
Registered mutual funds - fixed income specialty[c]	33.8	—	—	33.8
Commingled funds – fixed income specialty[c]	—	439.1	—	439.1
Other fixed income[d]	—	—	21.9	21.9
	33.8	2,199.3	21.9	2,255.0
Derivatives	—	(0.1)	—	(0.1)
Real estate[e]	—	—	29.2	29.2
Other[f]	—	—	54.4	54.4
Total assets at fair value	$ 45.5	$ 3,159.9	$ 105.5	$ 3,310.9
Receivables and payables, net				(0.7)
Net assets available for benefits				$ 3,310.2

(a) This class includes commingled and registered mutual funds that focus on equity investments. It includes both indexed and actively managed funds.

(b) This class includes state and municipal bonds.

(c) This class comprises commingled and registered mutual funds that focus on fixed income securities.

(d) This class includes group annuity and guaranteed interest contracts as well as other miscellaneous fixed income securities.

(e) This class includes several private equity funds that invest in real estate. It includes both direct investment funds and funds-of-funds.

(f) This investment comprises the Company's non-significant, non-U.S. pension plan assets. It mostly includes insurance contracts.

The fair values of the Company's pension plan assets at December 31, 2011 by asset category are as follows:

	Fair value measurements			
In millions	Level 1	Level 2	Level 3	Total fair value
Cash and cash equivalents	$ 1.5	$ 29.0	$ —	$ 30.5
Equity investments:				
Registered mutual funds - equity specialty[(a)] *	5.8	—	—	5.8
Commingled funds – equity specialty[(a)] *	—	858.0	—	858.0
	5.8	858.0	—	863.8
Fixed income investments:				
U.S. government and agency obligations	—	842.4	—	842.4
Corporate and non-U.S. bonds[(b)]	—	773.8	—	773.8
Asset-backed and mortgage-backed securities	—	65.8	—	65.8
Registered mutual funds - fixed income specialty[(c)] *	32.5	—	—	32.5
Commingled funds – fixed income specialty[(c)] *	—	403.6	—	403.6
Other fixed income[(d)]	—	—	21.0	21.0
	32.5	2,085.6	21.0	2,139.1
Derivatives	—	0.1	—	0.1
Real estate[(e)]	—	—	33.6	33.6
Other[(f)]	—	—	42.6	42.6
Total assets at fair value	$ 39.8	$ 2,972.7	$ 97.2	$ 3,109.7
Receivables and payables, net				(9.3)
Net assets available for benefits				$ 3,100.4

* The Company revised the classification of items in the 2011 table to conform to the 2012 table classifications. The most significant revisions were the creation of the registered mutual funds categories and the recategorization of $13 million of registered mutual funds from Level 2 to Level 1 as the fair value of those assets are based on quoted prices in active markets.

(a) This class includes commingled and registered mutual funds that focus on equity investments. It includes both indexed and actively managed funds.

(b) This class includes state and municipal bonds.

(c) This class comprises commingled and registered mutual funds that focus on fixed income securities.

(d) This class includes group annuity and guaranteed interest contracts as well as other miscellaneous fixed income securities.

(e) This class includes several private equity funds that invest in real estate. It includes both direct investment funds and funds-of-funds.

(f) This investment comprises the Company's non-significant, non-U.S. pension plan assets. It mostly includes insurance contracts.

Cash equivalents are valued using a market approach with inputs including quoted market prices for either identical or similar instruments. Fixed income securities are valued through a market approach with inputs including, but not limited to, benchmark yields, reported trades, broker quotes and issuer spreads. Commingled funds are valued at their daily net asset value (NAV) per share or the equivalent. NAV per share or the equivalent is used for fair value purposes as a practical expedient. NAVs are calculated by the investment manager or sponsor of the fund. Private real estate fund values are reported by the fund manager and are based on valuation or appraisal of the underlying investments.

See Note 12 for additional information related to the fair value hierarchy defined by ASC 820, Fair Value Measurement.

The Company made required and discretionary contributions to its pension plans of $89.1 million in 2012, $57.3 million in 2011, and $499.2 million in 2010. The Company currently projects that it will contribute approximately $102.5 million to its plans worldwide in 2013. The Company's policy allows it to fund an amount, which could be in excess of or less than the pension cost expensed, subject to the limitations imposed by current tax regulations. The Company anticipates funding the plans in 2013 in accordance with contributions required by funding regulations or the laws of each jurisdiction.

Most of the Company's U.S. employees are covered by defined contribution plans. Employer contributions are determined based on criteria specific to the individual plans and amounted to approximately $76.8 million, $79.2 million, and $69.9 million in 2012, 2011 and 2010, respectively. The Company's contributions relating to non-U.S. defined contribution plans and other non-U.S. benefit plans were $27.1 million, $28.8 million and $20.4 million in 2012, 2011 and 2010, respectively.

Multiemployer Pension Plans

The Company also participates in a number of multiemployer defined benefit pension plans related to collectively bargained U.S. employees of Trane. The Company's contributions, and the administration of the fixed retirement payments, are determined by the terms of the related collective-bargaining agreements. These multiemployer plans pose different risks to the Company than single-employer plans, including:

1. The Company's contributions to multiemployer plans may be used to provide benefits to all participating employees of the program, including employees of other employers.
2. In the event that another participating employer ceases contributions to a plan, the Company may be responsible for any unfunded obligations along with the remaining participating employers.
3. If the Company chooses to withdraw from any of the multiemployer plans, the Company may be required to pay a withdrawal liability, based on the underfunded status of the plan.

As of December 31, 2012, the Company does not contribute to any plans which are individually significant, nor is the Company an individually significant contributor to any of these plans. Total contributions to multiemployer plans, excluding Hussmann, for the years ended December 31 were as follows:

In millions	2012	2011	2010
Total contributions	$ 5.4	$ 5.2	$ 4.8

Contributions to these plans may increase in the event that any of these plans are underfunded.

During 2011, the Company divested the Hussmann Business and Branches which participated in various multiemployer pension plans. For the years ended December 31, 2011 and 2010, the Company contributed approximately $6.4 million and $9.4 million, respectively, to such plans. These contributions will not occur in future periods.

Postretirement Benefits Other Than Pensions

The Company sponsors several postretirement plans that provide for healthcare benefits, and in some instances, life insurance benefits that cover certain eligible employees. These plans are unfunded and have no plan assets, but are instead funded by the Company on a pay-as-you-go basis in the form of direct benefit payments. Generally, postretirement health benefits are contributory with contributions adjusted annually. Life insurance plans for retirees are primarily noncontributory.

The Board of Directors approved amendments on February 1, 2012 to its postretirement medical plan with respect to post-65 retiree medical coverage. Effective January 1, 2013, the Company discontinued offering company-sponsored retiree medical coverage for certain individuals age 65 and older. The Company transitioned affected individuals to coverage through the individual Medicare market and will provide a tax-advantaged subsidy to those retirees eligible for subsidized company coverage that can be used toward reimbursing premiums and other qualified medical expenses for individual Medicare supplemental coverage that is purchased through our third-party Medicare coordinator.

As a result of these changes, the Company's projected benefit obligations were remeasured as of February 1, 2012, which included updating the discount rate assumption to 3.75% from the 4.00% assumed at December 31, 2011. The remeasurement resulted in a decrease of $40.5 million to the projected benefit obligation, an actuarial loss of $21.3 million and a credit of $61.8 million to prior service cost.

In March 2010, the Patient Protection and Affordable Care Act and the Healthcare and Education Reform Reconciliation Bill of 2010 (collectively, the Healthcare Reform Legislation) were signed into law. The Healthcare Reform Legislation contains provisions which could impact our accounting for retiree medical benefits in future periods. The retiree medical plans currently receive the retiree drug subsidy under Medicare Part D. No later than 2014, a significant portion of the drug coverage will be moved to a Medicare-approved Employer Group Waiver Plan while retaining the same benefit provisions. This change resulted in an actuarial gain which decreased the December 31, 2010 retiree medical plan liability, as well as the net actuarial losses in other comprehensive income, by $41.1 million.

In connection with the 2011 Hussmann divestiture, the Company transferred its obligations for postretirement benefits other than pensions for all current and former employees related to the divestiture.

The following table details information regarding the Company's postretirement plans at December 31:

In millions	2012	2011
Change in benefit obligations:		
Benefit obligation at beginning of year	$ 919.9	$ 883.0
Service cost	7.3	8.4
Interest cost	30.8	42.0
Plan participants' contributions	19.1	20.5
Actuarial (gains) losses	15.4	63.3
Benefits paid, net of Medicare Part D subsidy *	(78.8)	(81.2)
Settlements/curtailments	—	(12.7)
Amendments	(62.3)	(2.2)
Other	—	(1.2)
Benefit obligations at end of year	$ 851.4	$ 919.9

* Amounts are net of Medicare Part D subsidy of $0.7 million and $7.4 million in 2012 and 2011, respectively

	2012	2011
Funded status:		
Plan assets less than benefit obligations	$ (851.4)	$ (919.9)
Amounts included in the balance sheet:		
Accrued compensation and benefits	$ (68.2)	$ (71.8)
Postemployment and other benefit liabilities	(783.2)	(848.1)
Total	$ (851.4)	$ (919.9)

The pretax amounts recognized in Accumulated other comprehensive income (loss) were as follows:

In millions	Prior service gains	Net actuarial losses	Total
Balance at December 31, 2011	$ 5.0	$ (172.2)	$ (167.2)
Current year changes recorded to Accumulated other comprehensive income (loss)	62.2	(15.4)	46.8
Amortization reclassified to earnings	(10.3)	7.3	(3.0)
Balance at December 31, 2012	$ 56.9	$ (180.3)	$ (123.4)

The components of net periodic postretirement benefit (income) cost for the years ended December 31 were as follows:

In millions	2012	2011	2010
Service cost	$ 7.3	$ 8.4	$ 8.9
Interest cost	30.8	42.0	48.1
Net amortization of:			
Prior service gains	(10.3)	(3.5)	(3.4)
Net actuarial losses	7.3	1.6	11.0
Net periodic postretirement benefit cost	35.1	48.5	64.6
Net curtailment and settlement (gains) losses	—	(10.1)	—
Net periodic postretirement benefit (income) cost after net curtailment and settlement (gains) losses	$ 35.1	$ 38.4	$ 64.6
Amounts recorded in continuing operations	$ 23.0	$ 20.9	$ 39.4
Amounts recorded in discontinued operations	12.1	17.5	25.2
Total	$ 35.1	$ 38.4	$ 64.6

The curtailment and settlement gains in 2011 are associated with the divestiture of Hussmann. Postretirement cost for 2013 is projected to be $34.0 million. Amounts expected to be recognized in net periodic postretirement benefits cost in 2013 for prior service gains and plan net actuarial losses are $10.5 million and $10.6 million, respectively.

Assumptions:	2012	2011	2010
Weighted-average discount rate assumption to determine:			
Benefit obligations at December 31	3.25%	4.00%	5.00%
Net periodic benefit cost			
For the period January 1 to January 31	4.00%	5.00%	5.50%
For the period February 1 to December 31	3.75%	5.00%	5.50%
Assumed health-care cost trend rates at December 31:			
Current year medical inflation	8.05%	8.45%	8.85%
Ultimate inflation rate	5.00%	5.00%	5.00%
Year that the rate reaches the ultimate trend rate	2021	2021	2021

A 1% change in the medical trend rate assumed for postretirement benefits would have the following effects at December 31, 2012:

In millions	1% Increase	1% Decrease
Effect on total of service and interest cost components	$ 1.4	$ (1.3)
Effect on postretirement benefit obligation	39.0	(34.2)

Benefit payments for postretirement benefits, which are net of expected plan participant contributions and Medicare Part D subsidy, are expected to be paid as follows:

In millions		
2013	$	69.3
2014		68.0
2015		67.3
2016		66.6
2017		65.3
2018 - 2022		293.2

NOTE 12 – FAIR VALUE MEASUREMENTS

Fair value is defined as the exchange price that would be received to sell an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Fair value measurements are based on a framework that utilizes the inputs market participants use to determine the fair value of an asset or liability and establishes a fair value hierarchy to prioritize those inputs. The fair value hierarchy is comprised of three levels that are described below:

- Level 1 – Inputs based on quoted prices in active markets for identical assets or liabilities.
- Level 2 – Inputs other than Level 1 quoted prices, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the asset or liability.
- Level 3 – Unobservable inputs based on little or no market activity and that are significant to the fair value of the assets and liabilities.

The fair value hierarchy requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. Observable inputs are obtained from independent sources and can be validated by a third party, whereas unobservable inputs reflect assumptions regarding what a third party would use in pricing an asset or liability based on the best information available under the circumstances. A financial instrument's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

Assets and liabilities measured at fair value at December 31, 2012 are as follows:

	Fair value measurements			
In millions	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total fair value
Recurring fair value measurements				
Assets:				
Marketable securities	$ 16.7	$ —	$ —	$ 16.7
Derivative instruments	—	4.7	—	4.7
Total asset recurring fair value measurements	$ 16.7	$ 4.7	$ —	$ 21.4
Liabilities:				
Derivative instruments	$ —	$ 11.7	$ —	$ 11.7
Total liability recurring fair value measurements	$ —	$ 11.7	$ —	$ 11.7
Financial instruments not carried at fair value:				
Total debt	$ —	$ 3,663.1	$ —	$ 3,663.1
Total financial instruments not carried at fair value	$ —	$ 3,663.1	$ —	$ 3,663.1

Assets and liabilities measured at fair value at December 31, 2011 are as follows:

In millions	Fair value measurements: Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total fair value
Recurring fair value measurements				
Assets:				
Marketable securities	$ 10.4	$ —	$ —	$ 10.4
Derivative instruments	—	9.3	—	9.3
Total asset recurring fair value measurements	$ 10.4	$ 9.3	$ —	$ 19.7
Liabilities:				
Derivative instruments	$ —	$ 22.2	$ —	$ 22.2
Total liability recurring fair value measurements	$ —	$ 22.2	$ —	$ 22.2
Financial instruments not carried at fair value:				
Total debt	$ —	$ 4,359.2	$ —	$ 4,359.2
Total financial instruments not carried at fair value	$ —	$ 4,359.2	$ —	$ 4,359.2

In prior years, the Company included benefit trust assets and liabilities within its fair value disclosures. Benefit trust assets consist primarily of insurance contracts and are recorded at cash surrender value. Benefit trust liabilities include deferred compensation and executive death benefits, and are recorded based on the underlying investment portfolio of the deferred compensation plan and the specific benefits guaranteed in the death benefit contract with each executive. Benefit trust assets and liabilities of $169.5 million and $178.3 million, respectively, have been removed from the December 31, 2011 table above.

See Note 11 for disclosure of fair value measurements related to the Company's pension assets.

The Company determines the fair value of its financial assets and liabilities using the following methodologies:

- *Marketable securities* – These securities include investments in publicly traded stock of non-U.S. companies held by non-U.S. subsidiaries of the Company. The fair value is obtained for the securities based on observable market prices quoted on public stock exchanges.

- *Derivative instruments* – These instruments include forward foreign currency contracts and instruments related to non-functional currency balance sheet exposures. The fair value of the derivative instruments are determined based on a pricing model that uses spot rates and forward prices from actively quoted currency markets that are readily accessible and observable.

- *Debt* – These securities are recorded at cost and include fixed-rate debentures maturing in 2027 and 2028, which only require early prepayment at the option of the holder; exchangeable senior notes; other senior notes maturing through 2025, and other short-term borrowings. The fair value of the long-term debt instruments is obtained based on observable market prices quoted on public exchanges for similar assets.

The carrying values of cash and cash equivalents, accounts receivable, and accounts payable are a reasonable estimate of their fair value due to the short-term nature of these instruments.

These methodologies used by the Company to determine the fair value of its financial assets and liabilities at December 31, 2012 are the same as those used at December 31, 2011. There have been no significant transfers between Level 1 and Level 2 categories.

NOTE 13 – EQUITY

Ordinary Shares

At December 31, 2012, a reconciliation of ordinary shares is as follows:

In millions	Total
December 31, 2011	297.1
Shares issued under incentive plans	6.1
Shares issued for settlement of Exchangeable Senior Notes	10.8
Repurchase of ordinary shares	(18.4)
December 31, 2012	295.6

In April 2011, the Board of Directors authorized the repurchase of up to $2.0 billion of the Company's ordinary shares under a share repurchase program. On June 8, 2011, the Company commenced share repurchases under this program. During 2011, the Company repurchased 36.3 million shares for approximately $1.2 billion, excluding commissions. During 2012, the Company repurchased 18.4 million shares for approximately $0.8 billion, excluding commissions. These repurchases were accounted for as a reduction of Ordinary shares and Capital in excess of par value as they were canceled upon repurchase.

In December 2011, the Company declared a dividend of $0.16 per ordinary share payable on March 30, 2012 to shareholders of record on March 12, 2012. This represented a non-cash financing activity and was excluded from the 2011 Consolidated Statement of Cash Flows. The cash impact of the dividend is reflected in the 2012 Consolidated Statement of Cash Flows, as the dividend was paid during 2012.

In December 2012, the Company declared a dividend of $0.21 per ordinary share payable on March 28, 2013 to shareholders of record on March 12, 2013. This represents a non-cash financing activity and has been excluded from the 2012 Consolidated Statement of Cash Flows. The cash impact of the dividend will be reflected in the Consolidated Statement of Cash Flows when paid.

The authorized share capital of IR-Ireland is 1,185,040,000 shares, consisting of (1) 1,175,000,000 ordinary shares, par value $1.00 per share, (2) 40,000 ordinary shares, par value EUR 1.00 and (3) 10,000,000 preference shares, par value $0.001 per share. No preference shares were outstanding at December 31, 2012 or 2011.

Other Comprehensive Income (Loss)

The changes in Accumulated other comprehensive income (loss) are as follows:

In millions	Cash flow hedges and marketable securities	Pension and OPEB Items	Foreign Currency Items	Total
December 31, 2010	$ (5.4)	$ (825.7)	$ 506.1	$ (325.0)
Other comprehensive income (loss), net of tax	0.9	(71.4)	(158.1)	(228.6)
December 31, 2011	$ (4.5)	$ (897.1)	$ 348.0	$ (553.6)
Other comprehensive income (loss), net of tax	3.1	(67.1)	96.6	32.6
December 31, 2012	$ (1.4)	$ (964.2)	$ 444.6	$ (521.0)

The amounts of Other comprehensive income (loss) attributable to noncontrolling interests are as follows:

In millions	2012	2011	2010
Pension and OPEB items	$ (1.3)	$ (0.6)	$ (0.8)
Foreign currency items	(11.1)	—	—
Total other comprehensive income (loss) attributable to noncontrolling interests	$ (12.4)	$ (0.6)	$ (0.8)

During 2012, the Company reclassified a $11.5 million currency translation loss to Noncontrolling interests from IR-Ireland shareholders' equity related to activity from prior to 2012. This reclassification corrects the allocation of currency translation gains (losses) between the Equity components. The Company does not believe this reclassification adjustment is material to 2012 or to any of its previously issued annual or interim financial statements.

NOTE 14 – SHARE-BASED COMPENSATION

The Company records share-based compensation awards using a fair value method and recognizes compensation expense for an amount equal to the fair value of the share-based payment issued in its financial statements. The Company's share-based compensation plans include programs for stock options, restricted stock units (RSUs), performance share units (PSUs), and deferred compensation.

Under the Company's incentive stock plan, the total number of ordinary shares authorized by the shareholders is 27.0 million, of which 5.3 million remains available as of December 31, 2012 for future incentive awards.

Compensation Expense

Share-based compensation expense related to continuing operations is included in Selling and administrative expenses. The following table summarizes the expenses recognized:

In millions	2012	2011	2010
Stock options	$ 5.7	$ 22.3	$ 30.8
RSUs	22.0	21.1	13.7
PSUs	22.5	(0.5)	28.6
Deferred compensation	0.1	1.1	1.5
Other	2.3	(0.9)	1.3
Pre-tax expense	52.6	43.1	75.9
Tax benefit	20.1	16.5	29.0
After-tax expense	$ 32.5	$ 26.6	$ 46.9
Amounts recorded in continuing operations	$ 32.5	$ 26.6	$ 46.8
Amounts recorded in discontinued operations	—	—	0.1
Total	$ 32.5	$ 26.6	$ 46.9

During 2012, the Company recorded a correcting adjustment resulting in the reversal of $13.5 million ($8.3 million after tax) of previously charged compensation expense related to the accounting for stock option forfeitures. The Company does not believe the correcting adjustment is material to 2012 or to any of its previously issued annual or interim financial statements.

Stock Options / RSUs

Eligible participants may receive (i) stock options, (ii) RSUs or (iii) a combination of both stock options and RSUs. The fair value of each of the Company's stock option and RSU awards is expensed on a straight-line basis over the required service period, which is generally the 3-year vesting period. However, for stock options and RSUs granted to retirement eligible employees, the Company recognizes expense for the fair value at the grant date.

The average fair value of the stock options granted for the year ended December 31, 2012 and 2011 was estimated to be $13.67 per share and $13.99 per share, respectively, using the Black-Scholes option-pricing model. The following assumptions were used:

	2012	2011
Dividend yield	1.33%	1.33%
Volatility	43.60%	34.81%
Risk-free rate of return	0.92%	2.45%
Expected life	5.1 years	5.3 years

Expected volatility is based on the historical volatility from traded options on the Company's stock. The risk-free rate of return is based on the yield curve of a zero-coupon U.S. Treasury bond on the date the award is granted with a maturity equal to the expected term of the award. Historical data is used to estimate forfeitures within the Company's valuation model. The expected life of the Company's stock option awards is derived from historical experience and represents the period of time that awards are expected to be outstanding.

Changes in options outstanding under the plans for the years 2012, 2011 and 2010 are as follows:

	Shares subject to option	Weighted-average exercise price	Aggregate intrinsic value (millions)	Weighted-average remaining life
December 31, 2009	27,858,083	$ 29.54		
Granted	2,631,467	31.72		
Exercised	(7,255,729)	20.81		
Cancelled	(1,527,593)	35.63		
December 31, 2010	21,706,228	32.30		
Granted	1,834,564	44.99		
Exercised	(4,275,088)	30.00		
Cancelled	(650,428)	35.36		
December 31, 2011	18,615,276	33.97		
Granted	1,463,352	40.67		
Exercised	(5,578,783)	28.87		
Cancelled	(408,883)	41.30		
Outstanding December 31, 2012	14,090,962	$ 36.47	$ 162.4	4.9
Exercisable December 31, 2012	10,697,954	$ 35.39	$ 135.0	4.0

The following table summarizes information concerning currently outstanding and exercisable options:

			Options outstanding			Options exercisable		
Range of exercise price			Number outstanding at December 31, 2012	Weighted-average remaining life	Weighted-average exercise price	Number outstanding at December 31, 2012	Weighted-average remaining life	Weighted-average exercise price
10.01	—	20.00	1,299,987	5.4	16.70	1,299,987	5.4	16.70
20.01	—	30.00	731,850	2.5	24.35	726,516	2.4	24.33
30.01	—	40.00	6,721,700	4.0	35.80	5,724,586	3.6	36.51
40.01	—	50.00	5,209,053	6.3	43.59	2,827,411	4.6	43.83
50.01	—	60.00	128,372	5.0	52.26	119,454	4.8	52.41
$ 12.04	—	$ 55.22	14,090,962	4.9	$ 36.47	10,697,954	4.0	$ 35.39

At December 31, 2012, there was $16.9 million of total unrecognized compensation cost from stock option arrangements granted under the plan, which is primarily related to unvested shares of non-retirement eligible employees. The aggregate intrinsic value of options exercised during the year ended December 31, 2012 and 2011 was $89.7 million and $76.2 million, respectively. Generally, stock options expire ten years from their date of grant.

The following table summarizes RSU activity for the years 2012, 2011 and 2010:

	RSUs	Weighted-average grant date fair value
Outstanding and unvested at December 31, 2009	864,756	$ 16.85
Granted	839,865	32.22
Vested	(290,868)	16.95
Cancelled	(113,579)	23.71
Outstanding and unvested at December 31, 2010	1,300,174	$ 26.14
Granted	672,185	43.87
Vested	(512,614)	24.20
Cancelled	(152,572)	34.87
Outstanding and unvested at December 31, 2011	1,307,173	$ 35.00
Granted	643,822	40.74
Vested	(575,214)	30.05
Cancelled	(91,089)	38.92
Outstanding and unvested at December 31, 2012	1,284,692	$ 39.81

At December 31, 2012, there was $21.1 million of total unrecognized compensation cost from RSU arrangements granted under the plan, which is related to unvested shares of non-retirement eligible employees.

Performance Shares

The Company has a Performance Share Program (PSP) for key employees. The program provides awards in the form of PSUs based on performance against pre-established objectives. The annual target award level is expressed as a number of the Company's ordinary shares. All PSUs are settled in the form of ordinary shares unless deferred.

Awards granted in 2011 and 2010 are based upon the Company's relative earnings-per-share (EPS) growth as compared to the industrial group of companies in the S&P 500 Index over the three-year performance period.

In 2011 the Compensation Committee approved certain changes to the Company's PSP to be implemented beginning with the 2012 grant year. Under these changes, PSU awards are based 50% upon a performance condition, measured at each reporting period by relative EPS growth to the industrial group of companies in the S&P 500 Index and the fair market value of the Company's stock on the date of grant, and 50% upon a market condition, measured by the Company's relative total shareholder return (TSR) as compared to the TSR of the industrial group of companies in the S&P 500 Index over the three-year performance period. The fair value of the market condition is estimated using a Monte Carlo Simulation approach in a risk-neutral framework based upon historical volatility, risk-free rates and correlation matrix.

In 2012 the Compensation Committee approved a change to fix the measurement of EPS for all outstanding 2010 and 2011 PSU awards, effective January 31, 2012. This change results in fixed accounting being applied as of the date of change. The fair value of the Company's stock price used to fix the remaining amount of expense to be recorded over the life of the awards was $34.94.

The following table summarizes PSU activity for the maximum number of shares that may be issued for the years 2012, 2011 and 2010:

	PSUs	Weighted-average grant date fair value
Outstanding and unvested at December 31, 2009	3,671,374	$ 17.70
Granted	937,788	32.39
Vested	(140,904)	39.00
Forfeited	(699,552)	18.74
Outstanding and unvested at December 31, 2010	3,768,706	$ 20.36
Granted	614,006	46.66
Vested	(633,504)	16.95
Forfeited	(1,116,212)	19.31
Outstanding and unvested at December 31, 2011	2,632,996	$ 27.76
Granted	649,668	50.75
Vested	—	—
Forfeited	(1,423,028)	18.68
Outstanding and unvested at December 31, 2012	1,859,636	$ 40.30

At December 31, 2012, there was $15.4 million of total unrecognized compensation cost from the PSP based on current performance, which is related to unvested shares. This compensation will be recognized over the required service period, which is generally the three-year vesting period.

Deferred Compensation

The Company allows key employees to defer a portion of their eligible compensation into a number of investment choices, including its ordinary share equivalents. Any amounts invested in ordinary share equivalents will be settled in ordinary shares of the Company at the time of distribution.

Other Plans

The Company has not granted stock appreciation rights (SARs) since 2006 and does not anticipate additional grants in the future. As of December 31, 2012, SARs outstanding of 0.3 million are vested and expire 10 years from the date of grant. All SARs exercised are settled with the Company's ordinary shares.

The Company has issued stock grants as an incentive plan for certain key employees, with varying vesting periods. All stock grants are settled with the Company's ordinary shares. At December 31, 2012, there were 43,323 stock grants outstanding, all of which were vested.

NOTE 15 – RESTRUCTURING ACTIVITIES

Restructuring charges recorded during the years ended December 31 were as follows:

In millions	2012	2011		2010
Climate Solutions	$ 12.7	$ 14.9		$ 23.7
Residential Solutions	0.2	2.7		0.6
Industrial Technologies	7.6	6.7	*	17.9
Security Technologies	7.4	(0.3)	**	3.1
Corporate and Other	2.8	0.3		—
Total	$ 30.7	$ 24.3		$ 45.3
Cost of goods sold	$ 13.3	$ 6.8		$ 29.1
Selling and administrative expenses	17.4	17.5		16.2
Total	$ 30.7	$ 24.3		$ 45.3

The changes in the restructuring reserve were as follows:

In millions	Climate Solutions	Residential Solutions	Industrial Technologies	Security Technologies	Corporate and Other	Total
December 31, 2010	$ 3.2	$ 3.2	$ 10.1	$ 8.1	$ 3.4	$ 28.0
Additions, net of reversals	14.9	2.7	6.7 *	(0.3) **	0.3	24.3
Cash and non-cash uses	(14.2)	(4.3)	(12.6)	(6.2)	(2.0)	(39.3)
Currency translation	—	—	—	0.1	—	0.1
December 31, 2011	3.9	1.6	4.2	1.7	1.7	13.1
Additions, net of reversals	12.7	0.2	7.6	7.4	2.8	30.7
Cash and non-cash uses	(12.0)	(1.8)	(9.7)	(6.0)	(2.6)	(32.1)
Currency translation	0.1	—	—	—	—	0.1
December 31, 2012	$ 4.7	$ —	$ 2.1	$ 3.1	$ 1.9	$ 11.8

* Amount includes the reversal of $6.7 million of previously accrued restructuring charges.
** Amount includes the reversal of $2.2 million of previously accrued restructuring charges.

During 2012, 2011, and 2010, the Company incurred costs of $30.7 million, $24.3 million, and $45.3 million respectively, associated with ongoing restructuring actions. These actions included workforce reductions as well as the closure and consolidation of manufacturing facilities in an effort to increase efficiencies across multiple lines of business. Due to changes in various economic factors, the Company made a decision in the first quarter of 2011 to continue operating a facility for which the Company had previously accrued approximately $6.7 million of restructuring charges. In the second quarter of 2011, the Company released approximately $2.2 million of previously accrued restructuring charges as a result of the decision to discontinue a portion of the Company's restructuring plans. As of December 31, 2012, the Company had $11.8 million accrued for costs associated with its ongoing restructuring actions, of which a majority is expected to be paid within one year.

NOTE 16 – OTHER, NET

At December 31, the components of Other, net were as follows:

In millions	2012	2011	2010
Interest income	$ 16.3	$ 25.9	$ 15.2
Exchange gain (loss)	(2.8)	2.8	0.9
Earnings (loss) from equity investments	(5.9)	(3.5)	—
Other	17.4	7.8	16.4
Other, net	$ 25.0	$ 33.0	$ 32.5

Included within Earnings (loss) from equity investments for the years ended December 31, 2012 and 2011 is $5.9 million and $3.5 million of equity loss, respectively, on the Hussmann equity investment incurred subsequent to the Hussmann divestiture transaction dates. The activity included within Other for the year ended December 31, 2012 is primarily related to adjustments to actual and expected insurance recoveries as a result of a settlement.

NOTE 17 – INCOME TAXES

Earnings before income taxes for the years ended December 31 were taxed within the following jurisdictions:

In millions	2012	2011	2010
United States	$ 335.4	$ (718.0)	$ (38.7)
Non-U.S.	941.3	1,331.3	1,049.4
Total	$ 1,276.7	$ 613.3	$ 1,010.7

The components of the Provision for income taxes for the years ended December 31 were as follows:

In millions	2012	2011	2010
Current tax expense (benefit):			
United States	$ (45.6)	$ 59.2	$ 31.0
Non-U.S.	198.7	202.6	114.5
Total:	153.1	261.8	145.5
Deferred tax expense (benefit):			
United States	242.4	(120.0)	84.9
Non-U.S.	(168.5)	45.4	(2.3)
Total:	73.9	(74.6)	82.6
Total tax expense (benefit):			
United States	196.8	(60.8)	115.9
Non-U.S.	30.2	248.0	112.2
Total	$ 227.0	$ 187.2	$ 228.1

The Provision for income taxes differs from the amount of income taxes determined by applying the applicable U.S. statutory income tax rate to pretax income, as a result of the following differences:

	Percent of pretax income		
	2012	2011	2010
Statutory U.S. rate	35.0%	35.0%	35.0%
Increase (decrease) in rates resulting from:			
Non-U.S. tax rate differential	(15.1)	(37.6)	(17.3)
Tax on U.S. subsidiaries on non-U.S. earnings (1)	3.0	8.1	2.4
State and local income taxes (1)	0.6	(4.7)	—
Valuation allowances	(10.8)	(0.2)	0.1
Non-deductible goodwill write-off - Hussmann	—	23.2	—
Reserves for uncertain tax positions	2.8	6.8	0.4
Impact of change in taxation of retiree drugs subsidy	1.3	—	4.0
Provision to return and other true-up adjustments	—	(0.7)	(1.5)
Other adjustments	1.0	0.6	(0.5)
Effective tax rate	17.8%	30.5%	22.6%

(1) Net of changes in valuation allowances

Tax incentives, in the form of tax holidays, have been granted to the Company in certain jurisdictions to encourage industrial development. The expiration of these tax holidays varies by country. The tax holidays are conditional on the Company meeting certain employment and investment thresholds. The most significant tax holidays relate to the Company's qualifying locations in China and Puerto Rico. The benefit for the tax holidays for the years ended December 31, 2012 and 2011 was $13.7 million and $15.2 million, respectively.

At December 31, a summary of the deferred tax accounts were as follows:

In millions	2012	2011
Deferred tax assets:		
Inventory and accounts receivable	$ 35.2	$ 26.8
Fixed assets and intangibles	5.5	4.0
Postemployment and other benefit liabilities	815.2	814.3
Product liability	237.7	258.7
Other reserves and accruals	202.1	213.8
Net operating losses and credit carryforwards	901.4	1,002.9
Other	118.6	148.7
Gross deferred tax assets	2,315.7	2,469.2
Less: deferred tax valuation allowances	(187.3)	(333.8)
Deferred tax assets net of valuation allowances	$ 2,128.4	$ 2,135.4
Deferred tax liabilities:		
Inventory and accounts receivable	$ (47.5)	$ (44.9)
Fixed assets and intangibles	(2,181.8)	(2,149.3)
Postemployment and other benefit liabilities	(1.4)	(4.6)
Other reserves and accruals	(5.0)	(6.6)
Other	(64.6)	(74.3)
Gross deferred tax liabilities	(2,300.3)	(2,279.7)
Net deferred tax assets (liabilities)	$ (171.9)	$ (144.3)

At December 31, 2012, no deferred taxes have been provided for any portion of the $7.5 billion of undistributed earnings of the Company's subsidiaries, since these earnings have been, and under current plans will continue to be, permanently reinvested in these subsidiaries. It is not practicable to estimate the amount of additional taxes which may be payable upon distribution.

At December 31, 2012, the Company had the following operating loss and tax credit carryforwards available to offset taxable income in prior and future years:

In millions	Amount	Expiration Period
U.S. Federal net operating loss carryforwards	$ 1,308.9	2013-2032
U.S. Federal credit carryforwards	79.9	2014-Unlimited
U.S. State net operating loss carryforwards	3,246.5	2013-2032
U.S. State credit carryforwards	18.3	2013-Unlimited
Non-U.S. net operating loss carryforwards	1,166.0	2013-Unlimited
Non-U.S. credit carryforwards	9.7	Unlimited

The amount of net operating loss carryforwards for which a benefit would be recorded in additional paid in capital when realized is $165.0 million.

The U.S. state net operating loss carryforwards were incurred in various jurisdictions. The non-U.S. net operating loss carryforwards were incurred in various jurisdictions, predominantly in Barbados, Belgium, Brazil, Germany, India, Spain, and the United Kingdom.

Activity associated with the Company's valuation allowance is as follows:

In millions	2012	2011	2010
Beginning balance	$ 333.8	$ 378.7	$ 352.6
Increase to valuation allowance	51.6	17.0	106.9
Decrease to valuation allowance	(194.8)	(52.2)	(45.9)
Other deductions	—	(1.5)	(1.5)
Accumulated other comprehensive income (loss)	(3.3)	(8.2)	(33.4)
Ending balance	$ 187.3	$ 333.8	$ 378.7

The Company has total unrecognized tax benefits of $533.7 million and $536.9 million as of December 31, 2012, and December 31, 2011, respectively. The amount of unrecognized tax benefits that, if recognized, would affect the continuing operations effective tax rate are $436.7 million as of December 31, 2012. A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

In millions	2012	2011	2010
Beginning balance	$ 536.9	$ 534.1	$ 525.1
Additions based on tax positions related to the current year	10.1	16.7	14.1
Additions based on tax positions related to acquisitions	—	—	—
Additions based on tax positions related to prior years	94.7	64.9	116.3
Reductions based on tax positions related to prior years	(28.3)	(63.6)	(101.4)
Reductions related to settlements with tax authorities	(51.4)	(3.7)	(11.9)
Reductions related to lapses of statute of limitations	(30.7)	(10.4)	(6.0)
Translation (gain)/loss	2.4	(1.1)	(2.1)
Ending balance	$ 533.7	$ 536.9	$ 534.1

In connection with Trane's spin-off of WABCO Holdings Inc. (WABCO), Trane and WABCO entered into a tax sharing agreement for the allocation of pre spin-off taxes. Of the total unrecognized tax benefit of $533.7 million at December 31, 2012, WABCO has agreed to indemnify Trane for $6.4 million, which is reflected in an other long-term receivable account.

The Company records interest and penalties associated with the uncertain tax positions within its Provision for income taxes. The Company had reserves associated with interest and penalties, net of tax, of $84.1 million and $108.3 million at December 31, 2012 and December 31, 2011, respectively. For the year ended December 31, 2012 and December 31, 2011, the Company recognized $0.9 million and $12.3 million, respectively, in interest and penalties net of tax in continuing operations related to these uncertain tax positions.

The total amount of unrecognized tax benefits relating to the Company's tax positions is subject to change based on future events including, but not limited to, the settlements of ongoing audits and/or the expiration of applicable statutes of limitations. Although the outcomes and timing of such events are highly uncertain, it is reasonably possible that the balance of gross unrecognized tax benefits, excluding interest and penalties, could potentially be reduced by up to approximately $166.9 million during the next 12 months.

The provision for income taxes involves a significant amount of management judgment regarding interpretation of relevant facts and laws in the jurisdictions in which the Company operates. Future changes in applicable laws, projected levels of taxable income and tax planning could change the effective tax rate and tax balances recorded by the Company. In addition, tax authorities periodically review income tax returns filed by the Company and can raise issues regarding its filing positions, timing and amount of income or deductions, and the allocation of income among the jurisdictions in which the Company operates. A significant period of time may elapse between the filing of an income tax return and the ultimate resolution of an issue raised by a revenue authority with respect to that return. In the normal course of business the Company is subject to examination by taxing authorities throughout the world, including such major jurisdictions as Brazil, Canada, China, Germany, Ireland, Italy, the Netherlands and the United States. In general, the examination of the Company's material tax returns is complete for the years prior to 2001, with certain matters being resolved through appeals and litigation.

In 2007, the Company received a notice from the IRS containing proposed adjustments to the Company's tax filings in connection with an audit of the 2001 and 2002 tax years. The IRS did not contest the validity of the Company's reincorporation in Bermuda.

The most significant adjustments proposed by the IRS involve treating the entire intercompany debt incurred in connection with the Company’s reincorporation in Bermuda as equity. As a result of this recharacterization, the IRS disallowed the deduction of interest paid on the debt and imposed dividend withholding taxes on the payments denominated as interest. The IRS also asserted an alternative argument to be applied if the intercompany debt is respected as debt. In that circumstance the IRS proposed to ignore the entities that hold the debt and to which the interest was paid and impose 30% withholding tax on a portion of the interest payments as if they were made directly to a company that was not eligible for reduced U.S withholding tax under a U.S income tax treaty. The IRS asserted under this alternative theory that the Company owes additional taxes with respect to 2002 of approximately $84 million plus interest. The Company strongly disagreed with the view of the IRS and filed a protest with the IRS.

In 2010, the Company received an amended notice from the IRS eliminating its assertion that the intercompany debt incurred in connection with the Company’s reincorporation in Bermuda should be treated as equity. However, the IRS continues to assert the alternative position described above and proposes adjustments to the Company’s 2002 tax filings. If this alternative position is upheld, the Company would be required to record additional charges. In addition, the IRS also provided notice that it is assessing penalties of 30% on the asserted underpayment of tax described above.

The Company has and intends to continue to vigorously contest these proposed adjustments. The Company, in consultation with its outside advisors, carefully considered the form and substance of the Company’s intercompany financing arrangements including the actions necessary to qualify for the benefits of the applicable U.S. income tax treaties. The Company believes that these financing arrangements are in accordance with the laws of the relevant jurisdictions including the U.S., that the entities involved should be respected and that the interest payments qualify for the U.S income tax treaty benefits claimed.

Although the outcome of this matter cannot be predicted with certainty, based upon an analysis of the merits of the Company's position, the Company believes that it is adequately reserved for this matter and does not expect that the ultimate resolution will have a material adverse impact on its future results of operations, financial condition, or cash flows. As the Company moves forward to resolve this matter with the IRS, the reserves established may be adjusted. Although the Company continues to contest the IRS's position, there can be no assurance that it will be successful. If the IRS's position with respect to 2002 is ultimately sustained it will have a material adverse impact on the Company's future results of operations, financial condition and cash flows.

Although the Company expects them to do so, at this time the IRS has not yet proposed any similar adjustments for years subsequent to 2002 as the federal income tax audits for those years are still in process or have not yet begun. It is unclear how the IRS will apply their position to subsequent years or whether the IRS will take a similar position with respect to other intercompany debt instruments.

The Company believes that it has adequately provided for any reasonably foreseeable resolution of any tax disputes, but will adjust its reserves if events so dictate in accordance with GAAP. To the extent that the ultimate results differ from the original or adjusted estimates of the Company, the effect will be recorded in the Provision for income taxes.

On January 18, 2013, the Company received notice of an adverse decision from the Milan Court of Appeal overturning a Milan Provincial Tax Court decision in favor of the Company, primarily regarding the treatment of certain interest costs of one of its Italian subsidiaries. The Company has reviewed the decision and plans to appeal to the Supreme Tax Court of Rome. At this time, based upon an analysis of the merits of the Company's position, the Company believes that its tax return position is valid and that it is more likely than not to prevail in this appeal. Although the outcome of this matter cannot be predicted with certainty, the Company believes that it is adequately reserved for this matter and does not expect that the ultimate resolution will have a material adverse impact on its future results of operations, financial condition, or cash flows.

As a result of the Healthcare Reform Legislation, defined in Note 11, effective 2013, the tax benefits available to the Company are reduced to the extent its prescription drug expenses are reimbursed under the Medicare Part D retiree drug subsidy program. Although the provisions of the Healthcare Reform Legislation relating to the retiree drug subsidy program did not take effect until 2013, the Company is required to recognize the full accounting impact in its financial statements in the reporting period in which the Healthcare Reform Legislation is enacted. As retiree healthcare liabilities and related tax impacts were already reflected in the Company’s financial statements, the Healthcare Reform Legislation resulted in a non-cash charge to income tax expense in the first quarter of 2010 of $40.5 million. In 2012, the Company recorded a $16.6 million non-cash charge to income tax expense related to the required tax accounting between the enactment date of March 30, 2010 and the effective date of January 1, 2013 of the Healthcare Reform Legislation.

During 2012, the Company identified certain accounting errors associated with its previously reported income tax balances and tax positions. The Company corrected these errors in 2012 resulting in a tax charge of $24 million primarily related to the accrual of previously unrecorded unrecognized tax benefits. The Company does not believe that the accounting errors are material to 2012 or to any of its previously issued financial statements. As a result, the Company did not adjust any prior period amount.

During the second quarter of 2012, the Company recorded a $54 million out-of-period adjustment related to a Spanish tax law change (Royal Decree-Law 12/2012) enacted on March 31, 2012, the benefit of which should have been recorded by the Company during the first quarter of 2012. The Company does not believe this out-of-period adjustment is material to its 2012 annual results or to its previously issued interim financial statements.

During 2011, the Company identified certain accounting errors associated with its previously reported income tax balances and tax positions. The Company corrected these errors in 2011 resulting in a tax charge of approximately $38.2 million, of which $30 million was recorded in the third quarter, primarily related to the accrual of a previously unrecorded future withholding tax liability. The Company does not believe that the accounting errors are material to 2011 or to any of its previously issued financial statements. As a result, the Company did not adjust any prior period amounts.

During 2012, the Company recorded to continuing operations a tax benefit of approximately $138 million as a result of reducing its deferred tax asset valuation allowance for non-U.S. net operating losses. During 2011 the Company recorded to continuing operations a tax benefit of approximately $27 million as a result of reducing its deferred tax asset valuation allowance for state net operating losses.

NOTE 18 – DIVESTITURES AND DISCONTINUED OPERATIONS

Divested Operations

Hussmann Divestiture

On September 30, 2011, the Company completed a transaction to sell its Hussmann refrigerated display case business to a newly-formed affiliate (Hussmann Parent) of private equity firm Clayton Dubilier & Rice, LLC (CD&R). This transaction included the equipment business and certain of the service branches in the U.S. and Canada, and the equipment, service and installation businesses in Mexico, Chile, Australia, New Zealand, and Japan (Hussmann Business). The final transaction allowed Hussmann Parent the option to acquire the remaining North American Hussmann service and installation branches (Hussmann Branches). Hussmann Parent completed the acquisition of the Hussmann Branches on November 30, 2011. The Hussmann Business and Branches, which are reported as part of the Climate Solutions segment, manufacture, market, distribute, install, and service refrigerated display merchandising equipment, refrigeration systems, over the counter parts, and other commercial and industrial refrigeration applications.

The Hussmann Business divestiture was originally announced on April 21, 2011 and met the criteria for classification as held for sale treatment in accordance with GAAP during the first quarter of 2011. During the third quarter of 2011, the Company negotiated the final transaction to sell the Hussmann Business and Branches to CD&R in exchange for $370 million in cash, subject to purchase price adjustments, and common stock of Hussmann Parent, such that following the sale, CD&R would own cumulative convertible participating preferred stock of Hussmann Parent, initially representing 60% of the outstanding capital stock (on an as-converted basis) of Hussmann Parent, and the Company would own all of the common stock, initially representing the remaining 40% of the outstanding capital stock (on an as-converted basis) of Hussmann Parent. The Company's ownership of common stock of Hussmann Parent represents significant continuing involvement. Therefore, the results of the Hussmann Business and Branches are included in continuing operations for all periods presented. Based on these terms, the Company recorded a total pre-tax loss on sale/asset impairment charge of $646.9 million during the full year of 2011.

Results for the Hussmann Business and Branches for the years ended December 31 are as follows:

In millions	2011*	2010
Net revenues	$ 818.5	$ 1,106.1
Gain (loss) on sale/asset impairment	(646.9) **	—
Net earnings (loss) attributable to Ingersoll-Rand plc	(513.1)	55.7
Diluted earnings (loss) per share attributable to Ingersoll-Rand plc ordinary shareholders:	(1.51)	0.16

* Results represent the operating results of Hussmann Business and Branches through their respective divestiture transaction dates.
** Included in Gain (loss) on sale/asset impairment for the year ended December 31, 2011 are transaction costs of $12.2 million.

Hussmann Parent is required to pay a quarterly preferred dividend payment to CD&R in the form of cash or additional preferred shares. The Company's ownership percentage as of December 31, 2012 was 37.2%. The Company's ownership interest in Hussmann Parent is reported using the equity method of accounting subsequent to September 30, 2011. The Company's equity investment in the Hussmann Parent is reported within Other noncurrent assets and the related equity earnings reported in Other, net within Net earnings.

Discontinued Operations

The components of discontinued operations for the years ended December 31 are as follows:

In millions	2012	2011	2010
Net revenues	$ —	$ 72.2	$ 143.6
Pre-tax earnings (loss) from operations	(49.2)	(69.0)	(173.4)
Pre-tax gain (loss) on sale	2.3	(57.7)	(5.4)
Tax benefit (expense)	41.2	69.9	61.3
Discontinued operations, net of tax	$ (5.7)	$ (56.8)	$ (117.5)

Discontinued operations by business for the years ended December 31 are as follows:

In millions	2012	2011	2010
Integrated Systems and Services, net of tax	$ (2.8)	$ (6.3)	$ (0.8)
Energy Systems, net of tax	(0.2)	0.2	(17.6)
KOXKA, net of tax	0.5	(3.3)	(54.0)
Other discontinued operations, net of tax	(3.2)	(47.4)	(45.1)
Discontinued operations, net of tax	$ (5.7)	$ (56.8)	$ (117.5)

Integrated Systems and Services Divestiture

On December 30, 2011, the Company completed the divestiture of its security installation and service business, which was sold under the Integrated Systems and Services brand in the United States and Canada, to Kratos Public Safety & Security Solutions, Inc. This business, which was previously reported as part of the Security Technologies segment, designs, installs and services security systems. The Company reported this business as a discontinued operation for all periods presented. During 2011, the Company recorded a pre-tax loss on sale of $6.7 million ($5.0 million after-tax) within discontinued operations.

Net revenues and after-tax earnings of the Integrated Systems and Services business for the year ended December 31 were as follows:

In millions	2012	2011	2010
Net revenues	$ —	$ 72.2	$ 78.0
After-tax earnings (loss) from operations	$ (1.2)	$ (1.3)	$ (0.8)
Gain (loss) on sale, net of tax	(1.6)	(5.0)	—
Discontinued operations, net of tax	$ (2.8)	$ (6.3)	$ (0.8)

Energy Systems Divestiture

On December 30, 2010, the Company completed the divestiture of its gas microturbine generator business, which was sold under the Energy Systems brand, to Flex Energy, Inc. The business, which was previously reported as part of the Industrial Technologies segment, designs, manufactures, markets, distributes, and services gas powered microturbine generators which feature energy efficient design and low emissions technology. During 2010, the Company recognized an $8.3 million after-tax impairment loss within discontinued operations related to the write-down of the net assets to their estimated fair value.

Net revenues and after-tax earnings of the Energy Systems business for the years ended December 31 were as follows:

In millions	2012	2011	2010
Net revenues	$ —	$ —	$ 8.9
After-tax earnings (loss) from operations	$ (0.2)	$ (0.4)	$ (14.4) *
Gain (loss) on sale, net of tax	—	0.6	(3.2)
Discontinued operations, net of tax	$ (0.2)	$ 0.2	$ (17.6)

* Included in discontinued operations for Energy Systems in 2010 is an after-tax impairment loss of $8.3 million related to the initial write-down of the net assets to their estimated fair value.

KOXKA Divestiture

On October 4, 2010, the Company completed the divestiture of its European refrigerated display case business, which was sold under the KOXKA brand, to an affiliate of American Industrial Acquisition Corporation (AIAC Group). The business, which was previously reported as part of the Climate Solutions segment, designs, manufactures and markets commercial refrigeration equipment through sales branches and a network of distributors throughout Europe, Africa and the Middle East. During 2010, the Company recognized a $53.9 million after-tax impairment loss within discontinued operations related to the write-down of the net assets to their estimated fair value.

Net revenues and after-tax earnings of the KOXKA business for years ended December 31 were as follows:

In millions	2012	2011	2010
Net revenues	$ —	$ —	$ 56.7
After-tax earnings (loss) from operations	$ 0.5	$ (3.3)	$ (53.1) *
Gain (loss) on sale, net of tax	—	—	(0.9)
Discontinued operations, net of tax	$ 0.5	$ (3.3)	$ (54.0)

* Included in discontinued operations for KOXKA for 2010 is an after-tax impairment loss of $53.9 million related to the write-down of the net assets to their estimated fair value. Also included in 2010 is a $12.2 million tax benefit resulting from a reduction in the Company's deferred tax asset valuation allowance for net operating losses.

Other Discontinued Operations

The components of other discontinued operations for the years ended December 31 were as follows:

In millions	2012	2011	2010
Retained costs, net of tax	$ (17.2)	$ (31.8)	$ (45.0)
Net gain (loss) on disposals, net of tax	14.0	(15.6)	(0.1)
Discontinued operations, net of tax	$ (3.2)	$ (47.4)	$ (45.1)

On November 30, 2007, the Company completed the sale of its Bobcat, Utility Equipment and Attachments businesses (collectively, Compact Equipment) to Doosan Infracore for gross proceeds of approximately $4.9 billion, subject to post-closing purchase price adjustments. Compact Equipment manufactured and sold compact equipment, including skid-steer loaders, compact track loaders, mini-excavators and telescopic tool handlers; portable air compressors, generators and light towers; general-purpose light construction equipment; and attachments. The Company was in dispute regarding post-closing matters with Doosan Infracore. During the second quarter of 2011, the Company collected approximately $48.3 million of its outstanding receivable from Doosan Infracore related to certain purchase price adjustments. During the second quarter of 2012, Doosan Infracore paid the Company a total of $46.5 million to settle the outstanding receivable and remaining disputed post-closing matters.

Other discontinued operations, net of tax from previously sold businesses is mainly related to postretirement benefits, product liability, worker's compensation, and legal costs (mostly asbestos-related) and tax effects of post-closing purchase price adjustments.

NOTE 19 – EARNINGS PER SHARE (EPS)

Basic EPS is calculated by dividing Net earnings attributable to Ingersoll-Rand plc by the weighted-average number of ordinary shares outstanding for the applicable period. Diluted EPS is calculated after adjusting the denominator of the basic EPS calculation for the effect of all potentially dilutive ordinary shares, which in the Company's case, includes shares issuable under share-based compensation plans and the effects of the Exchangeable Senior Notes issued in April 2009. The following table summarizes the weighted-average number of ordinary shares outstanding for basic and diluted earnings per share calculations:

In millions	2012	2011	2010
Weighted-average number of basic shares	303.9	324.8	324.7
Shares issuable under incentive stock plans	3.7	3.8	5.1
Exchangeable Senior Notes	3.0	10.7	10.0
Weighted-average number of diluted shares	310.6	339.3	339.8
Anti-dilutive shares	5.2	5.0	12.4

The Company settled all remaining outstanding Exchangeable Senior Notes during 2012. As a result, the Company issued 10.8 million ordinary shares related to the equity portion of the Notes. See Note 9 for a further discussion.

NOTE 20 – COMMITMENTS AND CONTINGENCIES

The Company is involved in various litigations, claims and administrative proceedings, including those related to environmental, asbestos, and product liability matters. Amounts recorded for identified contingent liabilities are estimates, which are reviewed periodically and adjusted to reflect additional information when it becomes available. Subject to the uncertainties inherent in estimating future costs for contingent liabilities, except as expressly set forth in this note, management believes that any liability which may result from these legal matters would not have a material adverse effect on the financial condition, results of operations, liquidity or cash flows of the Company.

Environmental Matters

The Company continues to be dedicated to an environmental program to reduce the utilization and generation of hazardous materials during the manufacturing process and to remediate identified environmental concerns. As to the latter, the Company is currently engaged in site investigations and remediation activities to address environmental cleanup from past operations at current and former manufacturing facilities.

The Company is sometimes a party to environmental lawsuits and claims and has received notices of potential violations of environmental laws and regulations from the Environmental Protection Agency and similar state authorities. It has also been identified as a potentially responsible party (PRP) for cleanup costs associated with off-site waste disposal at federal Superfund and state remediation sites. For all such sites, there are other PRPs and, in most instances, the Company's involvement is minimal.

In estimating its liability, the Company has assumed it will not bear the entire cost of remediation of any site to the exclusion of other PRPs who may be jointly and severally liable. The ability of other PRPs to participate has been taken into account, based on our understanding of the parties' financial condition and probable contributions on a per site basis. Additional lawsuits and claims involving environmental matters are likely to arise from time to time in the future.

The Company incurred $4.5 million, $3.1 million, and $1.0 million of expenses during the years ended December 31, 2012, 2011 and 2010, respectively, for environmental remediation at sites presently or formerly owned or leased by us. As of December 31, 2012 and 2011, the Company has recorded reserves for environmental matters of $65.9 million and $70.9 million, respectively. Of these amounts $47.3 million and $51.3 million, respectively, relate to remediation of sites previously disposed by the Company. Environmental reserves are classified as Accrued expenses and other current liabilities, or Other noncurrent liabilities based on their expected term. The Company's total current environmental reserve at December 31, 2012 and 2011 was $22.2 million and $26.1 million, respectively. Given the evolving nature of environmental laws, regulations and technology, the ultimate cost of future compliance is uncertain.

Asbestos-Related Matters

Certain wholly-owned subsidiaries of the Company are named as defendants in asbestos-related lawsuits in state and federal courts. In virtually all of the suits, a large number of other companies have also been named as defendants. The vast majority of those claims have been filed against either Ingersoll-Rand Company (IR-New Jersey) or Trane U.S. Inc. (Trane) and generally allege injury caused by exposure to asbestos contained in certain historical products sold by IR-New Jersey or Trane, primarily pumps, boilers and railroad brake shoes. Neither IR-New Jersey nor Trane was a producer or manufacturer of asbestos, however, some formerly manufactured products utilized asbestos-containing components such as gaskets and packings purchased from third-party suppliers.

The Company engages an outside expert to assist in calculating an estimate of the Company's total liability for pending and unasserted future asbestos-related claims and annually performs a detailed analysis with the assistance of an outside expert to update its estimated asbestos-related assets and liabilities. The methodology used to project the Company's total liability for pending and unasserted potential future asbestos-related claims relied upon and included the following factors, among others:

- the outside expert's interpretation of a widely accepted forecast of the population likely to have been occupationally exposed to asbestos;
- epidemiological studies estimating the number of people likely to develop asbestos-related diseases such as mesothelioma and lung cancer;
- the Company's historical experience with the filing of non-malignancy claims and claims alleging other types of malignant diseases filed against the Company relative to the number of lung cancer claims filed against the Company;
- the outside expert's analysis of the number of people likely to file an asbestos-related personal injury claim against the Company based on such epidemiological and historical data and the Company's most recent three-year claims history;
- an analysis of the Company's pending cases, by type of disease claimed and by year filed;
- an analysis of the Company's most recent three-year history to determine the average settlement and resolution value of claims, by type of disease claimed;
- an adjustment for inflation in the future average settlement value of claims, at a 2.5% annual inflation rate, adjusted downward to 1.5% to take account of the declining value of claims resulting from the aging of the claimant population; and
- an analysis of the period over which the Company has and is likely to resolve asbestos-related claims against it in the future.

At December 31, 2012, over 80 percent of the open claims against the Company are non-malignancy claims, many of which have been placed on inactive or deferral dockets and the vast majority of which have little or no settlement value against the Company, particularly in light of recent changes in the legal and judicial treatment of such claims.

The Company's liability for asbestos-related matters and the asset for probable asbestos-related insurance recoveries are included in the following balance sheet accounts:

In millions	December 31, 2012	December 31, 2011
Accrued expenses and other current liabilities	$ 69.1	$ 69.7
Other noncurrent liabilities	810.4	868.6
Total asbestos-related liabilities	$ 879.5	$ 938.3
Other current assets	$ 22.5	$ 23.5
Other noncurrent assets	297.8	298.9
Total asset for probable asbestos-related insurance recoveries	$ 320.3	$ 322.4

The Company's asbestos insurance receivable related to IR-New Jersey and Trane was $125.5 million and $194.8 million at December 31, 2012, and $126.9 million and $195.5 million at December 31, 2011, respectively.

The (costs) income associated with the settlement and defense of asbestos-related claims after insurance recoveries, for the years ended December 31, were as follows:

In millions	2012	2011	2010
Continuing operations	$ 6.6	$ (1.2)	$ (1.4)
Discontinued operations	(11.0)	(8.9)	(17.4)
Total	$ (4.4)	$ (10.1)	$ (18.8)

IR-New Jersey records income and expenses associated with its asbestos liabilities and corresponding insurance recoveries within discontinued operations, as they relate to previously divested businesses, primarily Ingersoll-Dresser Pump, which was sold in 2000. Income and expenses associated with Trane's asbestos liabilities and corresponding insurance recoveries are recorded within continuing operations.

Trane has now settled claims regarding asbestos coverage with most of its insurers. The settlements collectively account for approximately 95% of its recorded asbestos-related insurance receivable as of December 31, 2012. Most of Trane's settlement agreements constitute "coverage-in-place" arrangements, in which the insurer signatories agree to reimburse Trane for specified portions of its costs for asbestos bodily injury claims and Trane agrees to certain claims-handling protocols and grants to the insurer signatories certain releases and indemnifications. Trane remains in litigation in an action that Trane filed in November 2010 in the Circuit Court for La Crosse County, Wisconsin, relating to claims for insurance coverage for a subset of Trane's historical asbestos-related liabilities.

On January 12, 2012, IR-New Jersey filed an action in the Superior Court of New Jersey, Middlesex County, seeking a declaratory judgment and other relief regarding the Company's rights to defense and indemnity for asbestos claims. The defendants are several dozen solvent insurance companies, including companies that have been paying a portion of IR-New Jersey's asbestos claim defense and indemnity costs. The action involves IR-New Jersey's unexhausted insurance policies applicable to the asbestos claims that are not subject to any settlement agreement. The responding defendants generally challenged the Company's right to recovery, and raised various coverage defenses.

The Company continually monitors the status of pending litigation that could impact the allocation of asbestos claims against the Company's various insurance policies. The Company has concluded that its IR-New Jersey insurance receivable is probable of recovery because of the following factors:

- a review of other companies in circumstances comparable to IR-New Jersey, including Trane, and the success of other companies in recovering under their insurance policies, including Trane's favorable settlement discussed above;
- the Company's confidence in its right to recovery under the terms of its policies and pursuant to applicable law; and
- the Company's history of receiving payments under the IR-New Jersey insurance program, including under policies that had been the subject of prior litigation.

The amounts recorded by the Company for asbestos-related liabilities and insurance-related assets are based on currently available information. The Company's actual liabilities or insurance recoveries could be significantly higher or lower than those recorded if assumptions used in the calculations vary significantly from actual results. Key variables in these assumptions include the number and type of new claims to be filed each year, the average cost of resolution of each such new claim, the resolution of coverage issues with insurance carriers, and the solvency risk with respect to the Company's insurance carriers. Furthermore, predictions with respect to these variables are subject to greater uncertainty as the projection period lengthens. Other factors that may affect the Company's liability include uncertainties surrounding the litigation process from jurisdiction to jurisdiction and from case to case, reforms that may be made by state and federal courts, and the passage of state or federal tort reform legislation.

The aggregate amount of the stated limits in insurance policies available to the Company for asbestos-related claims acquired over many years and from many different carriers, is substantial. However, limitations in that coverage, primarily due to the considerations described above, are expected to result in the projected total liability to claimants substantially exceeding the probable insurance recovery.

Warranty Liability

Standard product warranty accruals are recorded at the time of sale and are estimated based upon product warranty terms and historical experience. The Company assesses the adequacy of its liabilities and will make adjustments as necessary based on known or anticipated warranty claims, or as new information becomes available.

The changes in the standard product warranty liability for the year ended December 31, were as follows:

In millions	2012	2011
Balance at beginning of period	$ 264.4	$ 266.6
Reductions for payments	(151.2)	(168.5)
Accruals for warranties issued during the current period	149.5	175.4
Changes to accruals related to preexisting warranties	(0.3)	(8.5)
Translation	0.7	(0.6)
Balance at end of period	$ 263.1	$ 264.4

Standard product warranty liabilities are classified as Accrued expenses and other current liabilities, or Other noncurrent liabilities based on their expected term. The Company's total current standard product warranty reserve at December 31, 2012 and December 31, 2011 was $147.4 million and $148.8 million, respectively.

The Company's extended warranty liability represents the deferred revenue associated with its extended warranty contracts and is amortized into Revenue on a straight-line basis over the life of the contract, unless another method is more representative of the costs incurred. The Company assesses the adequacy of its liability by evaluating the expected costs under its existing contracts to ensure these expected costs do not exceed the extended warranty liability.

The changes in the extended warranty liability for the year ended December 31, were as follows:

In millions	2012	2011
Balance at beginning of period	$ 372.0	$ 364.8
Amortization of deferred revenue for the period	(102.6)	(100.1)
Additions for extended warranties issued during the period	105.2	105.9
Changes to accruals related to preexisting warranties	0.2	1.7
Translation	0.3	(0.3)
Balance at end of period	$ 375.1	$ 372.0

The extended warranty liability is classified as Accrued expenses and other current liabilities or Other noncurrent liabilities based on the timing of when the deferred revenue is expected to be amortized into Revenue. The Company's total current extended warranty liability at December 31, 2012 and December 31, 2011 was $98.5 million and $96.3 million, respectively. For the years ended December 31, 2012 and 2011, the Company incurred costs of $60.3 million and $70.8 million, respectively, related to extended warranties.

Other Commitments and Contingencies

Certain office and warehouse facilities, transportation vehicles and data processing equipment are leased by the Company. Total rental expense was $202.5 million in 2012, $215.0 million in 2011 and $200.7 million in 2010. Minimum lease payments required under non-cancelable operating leases with terms in excess of one year for the next five years are as follows: $132.4 million in 2013, $105.4 million in 2014, $81.9 million in 2015, $60.8 million in 2016, and $42.6 million in 2017.

Trane has commitments and performance guarantees, including energy savings guarantees, totaling $428.5 million extending from 2013-2032. These guarantees are provided under long-term service and maintenance contracts related to its air conditioning equipment and system controls. Through 2012, the Company has experienced no significant losses under such arrangements and considers the probability of any significant future losses to be remote.

NOTE 21 – BUSINESS SEGMENT INFORMATION

The accounting policies of the operating segments are the same as those described in the summary of significant accounting policies except that the operating segments' results are prepared on a management basis that is consistent with the manner in which the Company disaggregates financial information for internal review and decision making. The Company largely evaluates performance based on Segment operating income and Segment operating margins. Intercompany sales between segments are considered immaterial.

Segment operating income is the measure of profit and loss that the Company's chief operating decision maker uses to evaluate the financial performance of the business and as the basis for performance reviews, compensation and resource allocation. For these reasons, the Company believes that Segment operating income represents the most relevant measure of segment profit and loss. The Company may exclude certain charges or gains from Operating income to arrive at a Segment operating income that is a more meaningful measure of profit and loss upon which to base its operating decisions.

On September 30, 2011 and November 30, 2011, the Company completed transactions to sell the Hussmann Business and Branches, respectively, to a newly-formed affiliate (Hussmann Parent) of private equity firm Clayton Dubilier & Rice, LLC (CD&R). During 2011, the Company recorded a pre-tax loss on sale and impairment charges related to the Hussmann divestiture of $646.9 million. These charges, as well as related adjustments recorded in 2012, have been excluded from Segment operating income within the Climate Solutions segment as management excludes these charges from Operating income when making operating decisions about the business. See Note 18 for a further discussion of the Hussmann divestiture.

2011 Net revenues and Segment operating income for the Climate Solutions segment includes the operating results of the Hussmann Business and Branches prior to the sale. The operating results for the Hussmann Business and Branches are included in Net revenues and Segment operating income for the Climate Solutions segment for the years ended December 31 as follows:

In millions	2011	2010
Net revenues	$ 818.5	$ 1,106.1
Segment operating income	$ 58.6	$ 84.4

On December 30, 2011, the Company completed the divestiture of its security installation and service business, which was sold under the Integrated Systems and Services brand in the United States and Canada, to Kratos Public Safety & Security Solutions, Inc. Segment information for Security Technologies has been revised to exclude the results of this business for all periods presented.

On December 30, 2010, the Company completed the divestiture of its gas microturbine generator business, which was sold under the Energy Systems brand, to Flex Energy, Inc. Segment information for Industrial Technologies has been revised to exclude the results of this business for all periods presented.

On October 4, 2010, the Company completed the divestiture of its European refrigerated display case business, which was sold under the KOXKA brand, to an affiliate of American Industrial Acquisition Corporation (AIAC Group). Segment information for Climate Solutions has been revised to exclude the results of this business for all periods presented.

Each reportable segment is based primarily on the types of products it generates. The operating segments have been aggregated as required by GAAP. A description of the Company's reportable segments is as follows:

The Climate Solutions segment delivers energy-efficient refrigeration and Heating, Ventilation and Air Conditioning (HVAC) throughout the world. Encompassing the transport refrigeration markets as well as the commercial HVAC markets, this segment offers customers a broad range of products, services and solutions to manage controlled temperature environments. This segment includes the market-leading brands of Thermo King and Trane.

The Residential Solutions segment provides safety, comfort and efficiency to homeowners throughout North America and parts of South America. It offers customers a broad range of products, services and solutions including mechanical and electronic locks, energy-efficient HVAC systems, indoor air quality solutions, advanced controls, portable security systems and remote home management. This segment is comprised of well-known brands like American Standard®, Schlage and Trane.

The Industrial Technologies segment provides products, services and solutions that improve productivity, energy efficiency, safety, and operations. It offers global customers a diverse and innovative range of products including compressed air systems, power tools, pumps, material handling equipment, and golf, utility, and rough terrain vehicles. It also provides a range of service offerings including preventative maintenance and comprehensive care multi-year contracts, service parts, installation, remanufactured compressors and tools, and solutions to optimize customers' energy and total production costs. This segment includes the Ingersoll-Rand, Club Car, and ARO® market-leading brands.

The Security Technologies segment is a leading global provider of products and services that make environments safe, secure and productive. The segment's market-leading products include electronic and biometric access control systems and software, locks and locksets, door closers, exit devices, steel doors and frames, as well as time, attendance and personnel scheduling systems. These products serve a wide range of markets including the commercial construction market, healthcare, retail, and transport industries as well as educational and governmental facilities. This segment includes the CISA, LCN, Schlage and Von Duprin market-leading brands.

A summary of operations by reportable segments for the years ended December 31 were as follows:

Dollar amounts in millions	2012	2011	2010
Climate Solutions			
Net revenues	$ 7,409.1	$ 8,284.6	$ 7,800.8
Segment operating income *	768.1	824.6	598.3
Segment operating income as a percentage of revenues	10.4%	10.0%	7.7%
Depreciation and amortization	154.5	171.4	206.0
Capital expenditures	87.0	81.6	67.0
Residential Solutions			
Net revenues	2,054.4	2,012.7	2,121.7
Segment operating income	115.4	62.1	191.3
Segment operating income as a percentage of revenues	5.6%	3.1%	9.0%
Depreciation and amortization	109.8	110.1	107.4
Capital expenditures	22.6	27.7	35.9
Industrial Technologies			
Net revenues	2,945.8	2,852.9	2,485.2
Segment operating income	455.8	415.5	310.4
Segment operating income as a percentage of revenues	15.5%	14.6%	12.5%
Depreciation and amortization	42.9	40.3	41.5
Capital expenditures	62.6	57.2	31.3
Security Technologies			
Net revenues	1,625.6	1,631.8	1,593.4
Segment operating income	327.7	331.6	328.3
Segment operating income as a percentage of revenues	20.2%	20.3%	20.6%
Depreciation and amortization	46.8	37.2	38.7
Capital expenditures	27.5	22.8	14.6
Total net revenues	$ 14,034.9	$ 14,782.0	$ 14,001.1
Reconciliation to Operating Income			
Segment operating income from reportable segments	1,667.0	1,633.8	1,428.3
Gain (loss) on sale/asset impairment *	4.5	(646.9)	—
Unallocated corporate expense	(166.3)	(126.6)	(166.9)
Total operating income	$ 1,505.2	$ 860.3	$ 1,261.4
Total operating income as a percentage of revenues	10.7%	5.8%	9.0%
Depreciation and amortization from reportable segments	354.0	359.0	393.6
Unallocated depreciation and amortization	21.5	43.7	43.2
Total depreciation and amortization	$ 375.5	$ 402.7	$ 436.8
Capital expenditures from reportable segments	199.7	189.3	148.8
Corporate capital expenditures	62.9	53.6	30.7
Total capital expenditures	$ 262.6	$ 242.9	$ 179.5

* During year ended December 31, 2011, the Company recorded a pre-tax loss on sale/asset impairment charge related to the Hussmann divestiture totaling $646.9 million. During the year ended December 31, 2012, the Company recorded $4.5 million of purchase price adjustments related to the Hussmann sale. These amounts have been excluded from Segment operating income within the Climate Solutions segment as management excludes these charges from Operating income when making operating decisions about the business.

Included in Segment operating income for Climate Solutions for the year ended December 31, 2011 is a $23 million gain associated with the sale of assets from a restructured business in China.

Revenues by destination and long-lived assets by geographic area for the years ended December 31 were as follows:

In millions	2012	2011	2010
Revenues			
United States	$ 8,338.9	$ 8,683.7	$ 8,585.9
Non-U.S.	5,696.0	6,098.3	5,415.2
Total	$ 14,034.9	$ 14,782.0	$ 14,001.1

In millions	2012	2011
Long-lived assets		
United States	$ 2,458.9	$ 2,578.5
Non-U.S.	783.6	783.5
Total	$ 3,242.5	$ 3,362.0

NOTE 22 – GUARANTOR FINANCIAL INFORMATION

Ingersoll-Rand plc, an Irish public limited company (IR-Ireland), is the successor to Ingersoll-Rand Company Limited, a Bermuda company (IR-Limited), following a corporate reorganization that became effective on July 1, 2009 (the Ireland Reorganization). IR-Limited is the successor to Ingersoll-Rand Company, a New Jersey corporation (IR-New Jersey), following a corporate reorganization that occurred on December 31, 2001 (the Bermuda Reorganization). Both the Ireland Reorganization and the Bermuda Reorganization were accounted for as a reorganization of entities under common control and accordingly, did not result in any changes to the consolidated amounts of assets, liabilities and equity.

As a part of the Bermuda Reorganization, IR-Limited issued non-voting, Class B common shares to IR-New Jersey and certain IR-New Jersey subsidiaries in exchange for a $3.6 billion note and shares of certain IR-New Jersey subsidiaries. The note had a fixed rate of interest of 11% per annum payable semi-annually and imposed certain restrictive covenants upon IR-New Jersey. In 2002, IR-Limited contributed the note to a wholly-owned subsidiary, which subsequently transferred portions of the note to several other subsidiaries, all of which are included in the “Other Subsidiaries” column below. In the fourth quarter of 2011, the Company repaid the remaining $1.0 billion outstanding of the original $3.6 billion note.

In addition, as part of the Bermuda Reorganization, IR-Limited fully and unconditionally guaranteed all of the issued public debt securities of IR-New Jersey. IR-New Jersey unconditionally guaranteed payment of the principal, premium, if any, and interest on IR-Limited’s 4.75% Senior Notes due in 2015 in the aggregate principal amount of $300 million. The guarantee is unsecured and provided on an unsubordinated basis. The guarantee ranks equally in right of payment with all of the existing and future unsecured and unsubordinated debt of IR-New Jersey.

As part of the Ireland Reorganization, the guarantor financial statements were revised to present IR-Ireland as the ultimate parent company and Ingersoll-Rand International Holding Limited (IR-International) as a stand-alone subsidiary. In addition, the guarantee structure was updated to reflect the newly created legal structure under which (i) IR-International assumed the obligations of IR-Limited as issuer or guarantor, as the case may be, and (ii) IR-Ireland and IR-Limited fully and unconditionally guaranteed the obligations under the various indentures covering the currently outstanding public debt of IR-International, Ingersoll-Rand Global Holding Company Limited (IR-Global), and IR-New Jersey. Also as part of the Ireland Reorganization, IR-Limited transferred all the shares of IR-Global to IR-International in exchange for a note payable that initially approximated $15 billion, which was then immediately reduced by the settlement of net intercompany payables of $4.1 billion. At December 31, 2012, $10.8 billion remains outstanding.

The Condensed Consolidating Financial Statements present the investments of IR-Ireland, IR-Limited, IR-Global, IR-International and IR-New Jersey and their subsidiaries using the equity method of accounting. Intercompany investments in the non-voting Class B common shares are accounted for on the cost method and are reduced by intercompany dividends. In accordance with generally accepted accounting principles, the amounts related to the issuance of the Class B shares have been recorded as a reduction of Total equity. The Notes payable affiliate continues to be reflected on the Condensed Consolidating Balance Sheet of IR-International and is enforceable in accordance with their terms.

See Note 9 for a further discussion on the public debt issuance and related guarantees.

The following condensed consolidating financial information for IR-Ireland, IR-Limited, IR-Global, IR-International and IR-New Jersey, and all their other subsidiaries is included so that separate financial statements of IR-Ireland, IR-Limited, IR-Global, IR-International, and IR-New Jersey are not required to be filed with the U.S. Securities and Exchange Commission.

Condensed Consolidating Statement of Comprehensive Income
For the year ended December 31, 2012

In millions	IR Ireland	IR Limited	IR International	IR Global	IR New Jersey	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Net revenues	$ —	$ —	$ —	$ —	$ 932.7	$ 13,102.2	$ —	$ 14,034.9
Cost of goods sold	—	—	—	—	(613.7)	(9,144.5)	—	(9,758.2)
Selling and administrative expenses	(14.9)	(0.3)	—	(0.6)	(328.4)	(2,431.8)	—	(2,776.0)
Gain (loss) on sale/asset impairment	—	—	—	—	—	4.5	—	4.5
Operating income (loss)	(14.9)	(0.3)	—	(0.6)	(9.4)	1,530.4	—	1,505.2
Equity earnings (loss) in affiliates, net of tax	1,048.8	848.3	919.1	1,339.9	198.3	979.3	(5,333.7)	—
Interest expense	—	(0.1)	(15.8)	(168.3)	(50.0)	(19.3)	—	(253.5)
Intercompany interest and fees	(10.5)	—	(44.3)	(48.8)	0.6	103.0	—	—
Other, net	(4.8)	—	0.7	(200.6)	53.9	(1.9)	177.7	25.0
Earnings (loss) before income taxes	1,018.6	847.9	859.7	921.6	193.4	2,591.5	(5,156.0)	1,276.7
Benefit (provision) for income taxes	—	—	—	—	(74.0)	(153.0)	—	(227.0)
Earnings (loss) from continuing operations	1,018.6	847.9	859.7	921.6	119.4	2,438.5	(5,156.0)	1,049.7
Discontinued operations, net of tax	—	—	—	—	0.3	(6.0)	—	(5.7)
Net earnings (loss)	1,018.6	847.9	859.7	921.6	119.7	2,432.5	(5,156.0)	1,044.0
Less: Net earnings attributable to noncontrolling interests	—	—	—	—	—	(48.7)	23.3	(25.4)
Net earnings (loss) attributable to Ingersoll-Rand plc	$ 1,018.6	$ 847.9	$ 859.7	$ 921.6	$ 119.7	$ 2,383.8	$ (5,132.7)	$ 1,018.6
Total comprehensive income (loss)	1,051.2	880.6	860.9	922.0	185.4	2,386.0	(5,221.9)	1,064.2
Less: Total comprehensive (income) loss attributable to noncontrolling interests	—	—	—	—	—	(36.3)	23.3	(13.0)
Total comprehensive income (loss) attributable to Ingersoll-Rand plc	$ 1,051.2	$ 880.6	$ 860.9	$ 922.0	$ 185.4	$ 2,349.7	$ (5,198.6)	$ 1,051.2

Condensed Consolidating Statement of Comprehensive Income
For the year ended December 31, 2011

In millions	IR Ireland	IR Limited	IR International	IR Global	IR New Jersey	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Net revenues	$ —	$ —	$ —	$ —	$ 867.8	$ 13,914.2	$ —	$ 14,782.0
Cost of goods sold	—	—	—	—	(584.8)	(9,908.8)	—	(10,493.6)
Selling and administrative expenses	(9.2)	(0.1)	—	(0.4)	(277.0)	(2,494.5)	—	(2,781.2)
Gain (loss) on sale/asset impairment	—	—	—	—	—	(646.9)	—	(646.9)
Operating income (loss)	(9.2)	(0.1)	—	(0.4)	6.0	864.0	—	860.3
Equity earnings (loss) in affiliates, net of tax	358.8	614.8	757.5	653.0	116.0	595.2	(3,095.3)	—
Interest expense	—	—	(15.7)	(193.2)	(50.7)	(20.4)	—	(280.0)
Intercompany interest and fees	(2.5)	—	(129.4)	52.5	(117.9)	197.3	—	—
Other, net	(3.9)	(5.2)	1.7	251.5	77.9	(28.9)	(260.1)	33.0
Earnings (loss) before income taxes	343.2	609.5	614.1	763.4	31.3	1,607.2	(3,355.4)	613.3
Benefit (provision) for income taxes	—	—	—	—	29.0	(216.2)	—	(187.2)
Earnings (loss) from continuing operations	343.2	609.5	614.1	763.4	60.3	1,391.0	(3,355.4)	426.1
Discontinued operations, net of tax	—	—	—	—	(79.1)	22.3	—	(56.8)
Net earnings (loss)	343.2	609.5	614.1	763.4	(18.8)	1,413.3	(3,355.4)	369.3
Less: Net earnings attributable to noncontrolling interests	—	—	—	—	—	(35.5)	9.4	(26.1)
Net earnings (loss) attributable to Ingersoll-Rand plc	$ 343.2	$ 609.5	$ 614.1	$ 763.4	$ (18.8)	$ 1,377.8	$ (3,346.0)	$ 343.2
Total comprehensive income (loss)	114.3	380.6	615.3	757.1	(115.7)	1,291.3	(2,902.8)	140.1
Less: Total comprehensive (income) loss attributable to noncontrolling interests	—	—	—	—	—	(34.9)	9.4	(25.5)
Total comprehensive income (loss) attributable to Ingersoll-Rand plc	$ 114.3	$ 380.6	$ 615.3	$ 757.1	$ (115.7)	$ 1,256.4	$ (2,893.4)	$ 114.6

Condensed Consolidating Statement of Comprehensive Income
For the year ended December 31, 2010

In millions	IR Ireland	IR Limited	IR International	IR Global Holding	IR New Jersey	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Net revenues	$ —	$ —	$ —	$ —	$ 741.3	$ 13,259.8	$ —	$ 14,001.1
Cost of goods sold	—	—	—	—	(578.1)	(9,481.8)	—	(10,059.9)
Selling and administrative expenses	(8.4)	(0.1)	—	(0.6)	(223.8)	(2,446.9)	—	(2,679.8)
Operating income (loss)	(8.4)	(0.1)	—	(0.6)	(60.6)	1,331.1	—	1,261.4
Equity earnings (loss) in affiliates, net of tax	659.8	470.4	615.2	1,050.5	168.3	526.6	(3,490.8)	—
Interest expense	—	—	(15.6)	(194.2)	(51.9)	(21.5)	—	(283.2)
Intercompany interest and fees	—	(0.1)	(135.0)	(33.3)	(122.2)	290.6	—	—
Other, net	(8.6)	(0.3)	0.6	(189.7)	51.4	6.0	173.1	32.5
Earnings (loss) before income taxes	642.8	469.9	465.2	632.7	(15.0)	2,132.8	(3,317.7)	1,010.7
Benefit (provision) for income taxes	(0.6)	—	—	—	93.1	(320.6)	—	(228.1)
Earnings (loss) from continuing operations	642.2	469.9	465.2	632.7	78.1	1,812.2	(3,317.7)	782.6
Discontinued operations, net of tax	—	—	—	—	(16.8)	(100.7)	—	(117.5)
Net earnings (loss)	642.2	469.9	465.2	632.7	61.3	1,711.5	(3,317.7)	665.1
Less: Net earnings attributable to noncontrolling interests	—	—	—	—	—	(39.6)	16.7	(22.9)
Net earnings (loss) attributable to Ingersoll-Rand plc	$ 642.2	$ 469.9	$ 465.2	$ 632.7	$ 61.3	$ 1,671.9	$ (3,301.0)	$ 642.2
Total comprehensive income (loss)	751.5	579.3	466.2	630.8	91.8	1,775.5	(3,521.5)	773.6
Less: Total comprehensive (income) loss attributable to noncontrolling interests	—	—	—	—	—	(38.8)	16.7	(22.1)
Total comprehensive income (loss) attributable to Ingersoll-Rand plc	$ 751.5	$ 579.3	$ 466.2	$ 630.8	$ 91.8	$ 1,736.7	$ (3,504.8)	$ 751.5

Condensed Consolidating Balance Sheet
December 31, 2012

In millions	IR Ireland	IR Limited	IR International	IR Global	IR New Jersey	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Current assets:								
Cash and cash equivalents	$ —	$ —	$ —	$ 61.9	$ 59.1	$ 761.1	$ —	$ 882.1
Accounts and notes receivable, net	—	—	—	—	128.8	2,028.7	—	2,157.5
Inventories	—	—	—	—	73.1	1,235.7	—	1,308.8
Other current assets	0.1	—	0.1	0.2	149.3	444.6	—	594.3
Accounts and notes receivable affiliates	148.9	3,039.2	2.0	2,189.0	8,669.5	23,772.0	(37,820.6)	—
Total current assets	149.0	3,039.2	2.1	2,251.1	9,079.8	28,242.1	(37,820.6)	4,942.7
Investment in affiliates	8,885.1	7,095.3	21,185.6	18,589.8	8,179.9	99,205.0	(163,140.7)	—
Property, plant and equipment, net	—	—	—	0.2	254.0	1,398.4	—	1,652.6
Intangible assets, net	—	—	—	—	83.8	10,256.0	—	10,339.8
Other noncurrent assets	—	—	0.5	10.0	867.3	680.0	—	1,557.8
Total assets	$ 9,034.1	$ 10,134.5	$ 21,188.2	$ 20,851.1	$ 18,464.8	$ 139,781.5	$ (200,961.3)	$ 18,492.9
Current liabilities:								
Accounts payable and accruals	$ 70.5	$ —	$ 4.0	$ 46.0	$ 420.2	$ 2,656.9	$ —	$ 3,197.6
Short-term borrowings and current maturities of long-term debt	—	—	—	600.0	350.5	13.2	—	963.7
Accounts and note payable affiliates	1,734.3	34.3	4,888.9	7,602.2	13,337.7	9,867.6	(37,465.0)	—
Total current liabilities	1,804.8	34.3	4,892.9	8,248.2	14,108.4	12,537.7	(37,465.0)	4,161.3
Long-term debt	—	—	299.7	1,404.4	364.7	200.5	—	2,269.3
Note payable affiliate	—	—	10,755.7	—	—	—	(10,755.7)	—
Other noncurrent liabilities	—	4.3	3.8	—	1,620.0	3,204.9	—	4,833.0
Total liabilities	1,804.8	38.6	15,952.1	9,652.6	16,093.1	15,943.1	(48,220.7)	11,263.6
Temporary equity	—	—	—	—	—	—	—	—
Equity:								
Total equity	7,229.3	10,095.9	5,236.1	11,198.5	2,371.7	123,838.4	(152,740.6)	7,229.3
Total liabilities and equity	$ 9,034.1	$ 10,134.5	$ 21,188.2	$ 20,851.1	$ 18,464.8	$ 139,781.5	$ (200,961.3)	$ 18,492.9

Condensed Consolidating Balance Sheet
December 31, 2011

In millions	IR Ireland	IR Limited	IR International	IR Global	IR New Jersey	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Current assets:								
Cash and cash equivalents	$ —	$ —	$ —	$ 241.8	$ 77.8	$ 841.1	$ —	$ 1,160.7
Accounts and notes receivable, net	—	—	—	—	166.7	1,968.9	—	2,135.6
Inventories	—	—	—	—	73.3	1,205.0	—	1,278.3
Other current assets	0.1	—	0.1	0.5	176.0	527.9	—	704.6
Accounts and notes receivable affiliates	137.5	3,013.3	17.0	2,465.4	4,829.9	19,993.4	(30,456.5)	—
Total current assets	137.6	3,013.3	17.1	2,707.7	5,323.7	24,536.3	(30,456.5)	5,279.2
Investment in affiliates	8,179.9	6,254.6	20,206.3	17,362.2	7,921.1	89,195.5	(149,119.6)	—
Property, plant and equipment, net	0.1	—	—	0.2	217.0	1,422.1	—	1,639.4
Intangible assets, net	—	—	—	—	83.9	10,353.7	—	10,437.6
Other noncurrent assets	—	—	0.7	12.7	906.4	568.1	—	1,487.9
Total assets	$ 8,317.6	$ 9,267.9	$ 20,224.1	$ 20,082.8	$ 14,452.1	$ 126,075.7	$ (179,576.1)	$ 18,844.1
Current liabilities:								
Accounts payable and accruals	$ 51.7	$ —	$ 3.9	$ 50.8	$ 433.1	$ 2,822.8	$ —	$ 3,362.3
Short-term borrowings and current maturities of long-term debt	—	—	—	581.0	351.9	70.2	(239.8)	763.3
Accounts and note payable affiliates	1,250.2	40.3	4,812.5	7,352.8	9,455.3	7,131.9	(30,043.0)	—
Total current liabilities	1,301.9	40.3	4,816.4	7,984.6	10,240.3	10,024.9	(30,282.8)	4,125.6
Long-term debt	—	—	299.6	2,004.2	372.6	202.9	—	2,879.3
Note payable affiliate	—	—	10,789.4	—	—	—	(10,789.4)	—
Other noncurrent liabilities	—	—	3.8	—	1,894.4	2,925.3	—	4,823.5
Total liabilities	1,301.9	40.3	15,909.2	9,988.8	12,507.3	13,153.1	(41,072.2)	11,828.4
Temporary equity	3.3	—	—	—	—	—	—	3.3
Equity:								
Total equity	7,012.4	9,227.6	4,314.9	10,094.0	1,944.8	112,922.6	(138,503.9)	7,012.4
Total liabilities and equity	$ 8,317.6	$ 9,267.9	$ 20,224.1	$ 20,082.8	$ 14,452.1	$ 126,075.7	$ (179,576.1)	$ 18,844.1

Condensed Consolidating Statement of Cash Flows
For the year ended December 31, 2012

In millions	IR Ireland	IR Limited	IR International	IR Global	IR New Jersey	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Net cash provided by (used in) continuing operating activities	$ (19.7)	$ (0.4)	$ (15.1)	$ (570.5)	$ (122.1)	$ 2,325.0	$ (319.5)	$ 1,277.7
Net cash provided by (used in) discontinued operating activities	—	—	—	—	0.3	(97.1)	—	(96.8)
Net cash provided by (used in) operating activities	(19.7)	(0.4)	(15.1)	(570.5)	(121.8)	2,227.9	(319.5)	1,180.9
Cash flows from investing activities:								—
Capital expenditures	—	—	—	—	(74.9)	(187.7)	—	(262.6)
Acquisition of businesses, net of cash acquired	—	—	—	—	—	—	—	—
Proceeds from sale of property, plant and equipment	—	—	—	—	3.1	16.1	—	19.2
Proceeds from business disposition, net of cash sold	—	—	—	—	—	52.7	—	52.7
Dividends received from equity investments	—	—	—	—	—	44.3	—	44.3
Net cash provided by (used in) continuing investing activities	—	—	—	—	(71.8)	(74.6)	—	(146.4)
Net cash provided by (used in) discontinued investing activities	—	—	—	—	—	—	—	—
Net cash provided by (used in) investing activities	—	—	—	—	(71.8)	(74.6)	—	(146.4)
Cash flows from financing activities:								—
Net proceeds (repayments) in debt	—	—	—	(344.5)	(9.2)	(61.1)	—	(414.8)
Debt issuance costs	—	—	—	(2.5)	—	—	—	(2.5)
Excess tax benefit from share based compensation	19.6	—	—	—	—	—	—	19.6
Net inter-company proceeds (payments)	884.5	0.4	15.1	737.6	184.1	(1,821.7)	—	—
Dividends paid	(192.4)	—	—	—	—	(340.2)	319.5	(213.1)
Acquisition/divestiture of noncontrolling interests	(0.4)	—	—	—	—	(1.1)	—	(1.5)
Proceeds from shares issued under incentive plans	152.9	—	—	—	—	—	—	152.9
Repurchase of ordinary shares	(839.8)	—	—	—	—	—	—	(839.8)
Other, net	(4.7)	—	—	—	—	—	—	(4.7)
Net cash provided by (used in) continuing financing activities	19.7	0.4	15.1	390.6	174.9	(2,224.1)	319.5	(1,303.9)
Effect of exchange rate changes on cash and cash equivalents	—	—	—	—	—	(9.2)	—	(9.2)
Net increase (decrease) in cash and cash equivalents	—	—	—	(179.9)	(18.7)	(80.0)	—	(278.6)
Cash and cash equivalents - beginning of period	—	—	—	241.8	77.8	841.1	—	1,160.7
Cash and cash equivalents - end of period	$ —	$ —	$ —	$ 61.9	$ 59.1	$ 761.1	$ —	$ 882.1

Condensed Consolidating Statement of Cash Flows
For the year ended December 31, 2011

In millions	IR Ireland	IR Limited	IR International	IR Global	IR New Jersey	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Net cash provided by (used in) continuing operating activities	$ (13.1)	$ (5.3)	$ (14.0)	$ (185.3)	$ 143.0	$ 1,326.4	$ (21.5)	$ 1,230.2
Net cash provided by (used in) discontinued operating activities	—	—	—	—	(79.1)	35.7	—	(43.4)
Net cash provided by (used in) operating activities	(13.1)	(5.3)	(14.0)	(185.3)	63.9	1,362.1	(21.5)	1,186.8
Cash flows from investing activities:								
Capital expenditures	—	—	—	—	(47.6)	(195.3)	—	(242.9)
Acquisition of businesses, net of cash acquired	—	—	—	—	—	(1.9)	—	(1.9)
Proceeds from sale of property, plant and equipment	—	—	—	—	3.1	48.9	—	52.0
Proceeds from business disposition, net of cash sold	—	—	—	—	—	400.3	—	400.3
Net cash provided by (used in) continuing investing activities	—	—	—	—	(44.5)	252.0	—	207.5
Net cash provided by (used in) discontinued investing activities	—	—	—	—	—	—	—	—
Net cash provided by (used in) investing activities	—	—	—	—	(44.5)	252.0	—	207.5
Cash flows from financing activities:								
Net proceeds (repayments) in debt	—	—	—	(0.2)	(7.7)	(46.1)	—	(54.0)
Debt issuance costs	—	—	—	(2.3)	—	—	—	(2.3)
Excess tax benefit from share based compensation	—	—	—	—	11.8	12.8	—	24.6
Net inter-company proceeds (payments)	1,199.0	5.3	2.0	329.7	(81.2)	(1,454.8)	—	—
Dividends paid	(137.3)	—	—	—	—	(47.7)	21.5	(163.5)
Acquisition/divestiture of noncontrolling interests	—	—	—	—	—	(1.3)	—	(1.3)
Proceeds from shares issued under incentive plans	109.0	—	—	—	—	—	—	109.0
Repurchase of ordinary shares	(1,157.5)	—	—	—	—	—	—	(1,157.5)
Other, net	(0.5)	—	—	—	—	(0.9)	—	(1.4)
Net cash provided by (used in) continuing financing activities	12.7	5.3	2.0	327.2	(77.1)	(1,538.0)	21.5	(1,246.4)
Effect of exchange rate changes on cash and cash equivalents	—	—	—	—	—	(1.5)	—	(1.5)
Net increase (decrease) in cash and cash equivalents	(0.4)	—	(12.0)	141.9	(57.7)	74.6	—	146.4
Cash and cash equivalents - beginning of period	0.4	—	12.0	99.9	135.5	766.5	—	1,014.3
Cash and cash equivalents - end of period	$ —	$ —	$ —	$ 241.8	$ 77.8	$ 841.1	$ —	$ 1,160.7

Condensed Consolidating Statement of Cash Flows
For the year ended December 31, 2010

In millions	IR Ireland	IR Limited	IR International	IR Global	IR New Jersey	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Net cash provided by (used in) continuing operating activities	$ 5.7	$ (0.4)	$ (15.0)	$ (379.9)	$ (486.8)	$ 1,678.6	$ (45.8)	$ 756.4
Net cash provided by (used in) discontinued operating activities	—	—	—	—	(16.8)	(44.2)	—	(61.0)
Net cash provided by (used in) operating activities	5.7	(0.4)	(15.0)	(379.9)	(503.6)	1,634.4	(45.8)	695.4
Cash flows from investing activities:								
Capital expenditures	—	—	—	(0.3)	(36.3)	(142.9)	—	(179.5)
Acquisition of businesses, net of cash acquired	—	—	—	—	—	(14.0)	—	(14.0)
Proceeds from sale of property, plant and equipment	—	—	—	—	—	14.5	—	14.5
Proceeds from business disposition, net of cash sold	—	—	—	—	—	—	—	—
Net cash provided by (used in) continuing investing activities	—	—	—	(0.3)	(36.3)	(142.4)	—	(179.0)
Net cash provided by (used in) discontinued investing activities	—	—	—	—	—	0.4	—	0.4
Net cash provided by (used in) investing activities	—	—	—	(0.3)	(36.3)	(142.0)	—	(178.6)
Cash flows from financing activities:								
Net proceeds (repayments) in debt	—	—	—	(249.8)	(7.8)	(171.2)	—	(428.8)
Debt issuance costs	—	—	—	(5.5)	—	—	—	(5.5)
Excess tax benefit from share based compensation	—	—	—	—	4.2	—	—	4.2
Net inter-company proceeds (payments)	(60.6)	37.1	27.0	653.6	503.5	(1,160.6)	—	—
Dividends paid	(90.6)	(36.7)	—	—	—	(29.4)	45.8	(110.9)
Acquisition/divestiture of noncontrolling interests	—	—	—	—	—	(8.0)	—	(8.0)
Proceeds from shares issued under incentive plans	145.3	—	—	—	—	—	—	145.3
Repurchase of ordinary shares	—	—	—	—	—	—	—	—
Other, net	—	—	—	—	—	—	—	—
Net cash provided by (used in) continuing financing activities	(5.9)	0.4	27.0	398.3	499.9	(1,369.2)	45.8	(403.7)
Effect of exchange rate changes on cash and cash equivalents	—	—	—	—	—	24.5	—	24.5
Net increase (decrease) in cash and cash equivalents	(0.2)	—	12.0	18.1	(40.0)	147.7	—	137.6
Cash and cash equivalents - beginning of period	0.6	—	—	81.8	175.5	618.8	—	876.7
Cash and cash equivalents - end of period	$ 0.4	$ —	$ 12.0	$ 99.9	$ 135.5	$ 766.5	$ —	$ 1,014.3

INGERSOLL-RAND PLC
VALUATION AND QUALIFYING ACCOUNTS
FOR THE YEARS ENDED December 31, 2012, 2011 AND 2010
(Amounts in millions)

Allowances for Doubtful Accounts:

Balance December 31, 2009	$ 56.4
Additions charged to costs and expenses	15.7
Deductions*	(31.6)
Business acquisitions and divestitures, net	(0.3)
Currency translation	(0.2)
Other	0.7
Balance December 31, 2010	40.7
Additions charged to costs and expenses	12.6
Deductions*	(25.9)
Currency translation	(0.3)
Balance December 31, 2011	27.1
Additions charged to costs and expenses	16.1
Deductions*	(14.3)
Currency translation	(0.5)
Other	0.8
Balance December 31, 2012	$ 29.2

(*) “Deductions” include accounts and advances written off, less recoveries.

Directors

Ann C. Berzin
Former Chairman and Chief Executive Officer, Financial Guaranty Insurance Company

John Bruton
Former Prime Minister of the Republic of Ireland

Jared L. Cohon
President, Carnegie Mellon University

Gary D. Forsee
Retired Chairman, President and Chief Executive Officer, Sprint Nextel Corporation

Peter C. Godsoe
Retired Chairman and Chief Executive Officer, The Bank of Nova Scotia

Edward E. Hagenlocker
Retired Vice Chairman, Ford Motor Company

Constance J. Horner
Former Deputy Secretary, U.S. Department of Health and Human Services

Michael W. Lamach
Chairman, President and Chief Executive Officer of the Company

Theodore E. Martin
Retired President and Chief Executive Officer, Barnes Group Inc

Nelson Peltz
Chief Executive Officer, Trian Fund Management, L.P.

John P. Surma
Chairman and Chief Executive Officer, United States Steel Corporation

Richard J. Swift
Retired Chairman, President and Chief Executive Officer, Foster Wheeler Ltd

Tony L. White
Retired Chairman, President and Chief Executive Officer, Applied Biosystems Inc

Committees of the Board

Audit
R. J. Swift, Chair; A. C. Berzin; P. C. Godsoe; E. E. Hagenlocker; T. E. Martin; J. P. Surma

Finance
P. C. Godsoe, Chair; A. C. Berzin; E. E. Hagenlocker; T. E. Martin; N. Peltz; J. P. Surma; R. J. Swift

Compensation
T. L. White, Chair; J. Bruton; J. L. Cohon; G. D. Forsee; C. J. Horner

Corporate Governance and Nominating
G. D. Forsee, Chair; J. Bruton; J. L. Cohon; C. J. Horner; N. Peltz; T. L. White

Executive Leadership Team

Michael W. Lamach*
Chairman, President and Chief Executive Officer

Marcia J. Avedon
Senior Vice President, Human Resources and Communications

Paul A. Camuti
Senior Vice President, Innovation and Chief Technology Officer

John W. Conover IV
Senior Vice President and President, Security Technologies Sector

M. Stephen Hagood
Vice President and Chief Information Officer

Robert L. Katz
Senior Vice President and General Counsel

Gary S. Michel
Senior Vice President and President, Residential Solutions Sector

Steven R. Shawley*
Senior Vice President and Chief Financial Officer

Jeff Zhenning Song
President, Ingersoll Rand China

Didier P. M. Teirlinck
Senior Vice President and President, Climate Solutions Sector

Venkatesh Valluri
President, Ingersoll Rand India

Todd D. Wyman
Senior Vice President, Global Operations and Integrated Supply Chain

Robert G. Zafari
Senior Vice President and President, Industrial Technologies Sector

Other Senior Leaders

Lawrence R. Kurland
Vice President, Tax

Barbara A. Santoro*
Vice President, Corporate Governance and Secretary

Patrick S. Shannon
Vice President and Treasurer

Richard J. Weller*
Vice President and Corporate Controller

*Officer of Ingersoll-Rand plc

Corporate Data

Shareholder Information Services
The company's 2012 Annual Report on Form 10-K as filed with the Securities and Exchange Commission, and other company information, is available through Ingersoll Rand's website, www.ingersollrand.com. Securities analysts, portfolio managers and representatives of institutional investors seeking information about the company should contact:

Joseph P. Fimbianti
Director, Investor Relations
704-655-4721

Annual General Meeting
June 6, 2013, 2:30 p.m.

Adare Manor Hotel,
Adare, County Limerick
Ireland

Stock Exchange
New York

IR
LISTED
NYSE

Transfer Agent and Registrar
Computershare
Telephone inquiries: 866-229-8405
Website: www.computershare.com/investor

Address shareholder inquiries with standard priority:
Computershare
P.O. Box 43006
Providence, RI 02940-3006

Address shareholder inquiries with overnight priority:
Computershare
250 Royall Street
Canton, MA 02021

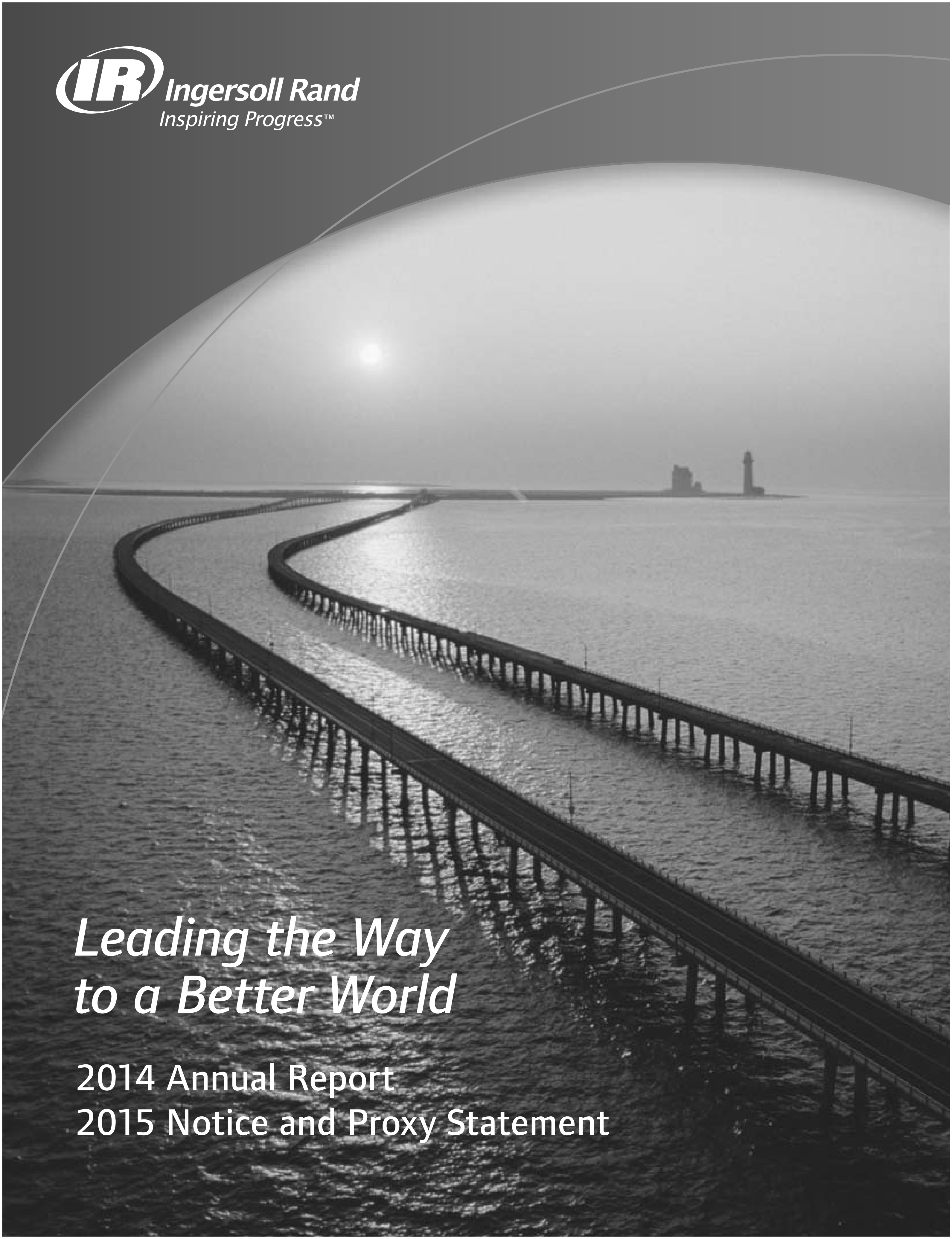
Ingersoll Rand
Inspiring Progress™

Ingersoll Rand

Inspiring Progress™

Ingersoll Rand (NYSE:IR) advances the quality of life by creating and sustaining safe, comfortable and efficient environments. Our people and our family of brands—including Club Car®, Ingersoll Rand®, Schlage®, Thermo King® and Trane®—work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; secure homes and commercial properties; and increase industrial productivity and efficiency. We are a $14 billion global business committed to a world of sustainable progress and enduring results. For more information, visit ingersollrand.com.

Ingersoll Rand
Inspiring Progress™



Leading the Way to a Better World

2014 Annual Report
2015 Notice and Proxy Statement

Our Climate Commitment

Our company pledged to help solve some of the world's most pressing challenges — including the unsustainable demand for energy resources and impact on greenhouse gas emissions.

In September 2014, Ingersoll Rand made a public commitment to significantly increase energy efficiency and reduce environmental impacts from our operations and product portfolio by 2030, with key milestones specified for 2020:

- We will reduce the climate impact related to the refrigerant used in our products by 50 percent before 2020, and will incorporate lower global warming potential (GWP) alternatives across our portfolio by 2030. To accomplish these goals, we will introduce products that are energy and operationally efficient, that use refrigerants with dramatically lower GWP, and that do not compromise the safety, performance or efficiency that our end users expect.
- We will reduce the greenhouse gas (GHG) footprint of our own operations by 35 percent before 2020.
- We will invest $500 million in product-related research and development over the next five years to fund the long-term reduction of GHG emissions.

This ambitious roadmap will result in the avoidance of approximately 21 million metric tons of CO_2e globally before 2020, which is equivalent to the energy used by nearly 2 million U.S. homes for one year.

2 Message from Our Chairman and CEO

5 This is Ingersoll Rand

8 Strategically Focused on Growth

10 Pursuing Operational Excellence

13 Building Our Winning Culture

Our Market-Leading Brands

Ingersoll Rand (NYSE:IR) advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands — including Club Car®, Ingersoll Rand®, Thermo King® and Trane® — work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency. We are a $13 billion global business committed to a world of sustainable progress and enduring results.

Ingersoll Rand products range from complete compressed air and gas systems and services, to power tools, to material handling systems. The diverse and innovative products, services and solutions enhance our customers' energy efficiency, productivity and operations.

Club Car has been one of the most respected names in the golf industry for more than half a century. The Club Car product portfolio includes golf cars, a mobile golf information system, turf and commercial utility vehicles, multi-passenger shuttle vehicles, rough-terrain utility vehicles and street-legal low-speed vehicles for commercial and consumer markets.

Trane solutions optimize indoor environments with a broad portfolio of energy efficient heating, ventilating and air conditioning systems, building and contracting services, parts support and advanced controls. Trane solutions and services help customers create spaces that are reliable and safe, as well as healthy, comfortable and efficient.

Thermo King enhances quality of life through temperature management in global transportation. Thermo King manufactures transport temperature control systems for a variety of mobile applications, including trailers, truck bodies, buses, shipboard containers and railway cars.

Ingersoll Rand® ClubCar TRANE® THERMO KING

This integrated annual report and the 2014 online sustainability supplement at www.ingersollrand.com/sustainabilitysupplement follow the Global Reporting Initiative (GRI) 3.1 guidelines and report on our financial and non-financial performance for the 2014 fiscal year. For more information on GRI, please visit www.globalreporting.org. To ensure the quality of our environmental, health and safety data, we assure selected data with a third-party provider. The results of this assurance can be found in our online sustainability supplement at www.ingersollrand.com/sustainability supplement. In 2014, we completed a corporate-wide review of Scope 1 and 2 GHG emissions for all owned and leased assets using the Greenhouse Gas Protocol accounting standards. This year, for the first time, we are defining our organizational boundary using the financial control approach. We feel this more accurately reflects the direct impact of our operational footprint. Accordingly, prior years' data has been restated. This annual report, including the following letter to shareholders, contains "forward-looking statements," which are statements that are not historical facts, including our ability to address environmental and social challenges, the future success of our operational excellence initiatives, our future financial performance, and our positioning in and the performance of the markets in which we operate. These statements are based on currently available information and our current assumptions, expectations and projections about future events. While we believe that our assumptions, expectations and projections are reasonable in view of the currently available information, you are cautioned not to place undue dependence on our forward-looking statements. Forward-looking statements speak only as of the date they are made and are not guarantees of future performance. They are subject to future events, risks and uncertainties—many of which are beyond our control—as well as potentially inaccurate assumptions that could cause actual results to differ materially from our expectations and projections. You are advised to review the factors described under the captions "Risk Factors" and "Management's Discussion and Analysis of Financial Conditions and Results of Operations" in our Form 10-K for the fiscal year ended December 31, 2014, and any further disclosures we make on related subjects in materials we file with or furnish to the SEC. We do not undertake to update any forward-looking statements. The following letter to shareholders also contains certain non-GAAP financial measures, including "Adjusted Operating Margins" and "Adjusted Earnings Per Share" which should be considered supplemental to, not a substitute for or superior to, the financial measure calculated in accordance with GAAP.

Dear Shareholder:

"The key is for organizations with the right expertise to deliver innovative solutions to pressing global challenges. That's where Ingersoll Rand steps forward."

- Michael W. Lamach
  Chairman and Chief Executive Officer

Over the last year I have visited with thousands of our customers and employees across North America, Europe, Latin America and Asia Pacific. Each conversation strengthened my conviction that we're on the right path — we've built Ingersoll Rand with the right global trends in mind, the right businesses, the right operating system and the right people to attain high engagement and deliver results. In 2014 we again proved our model is working.

The Right Global Trends

A look at the trends reminds our global team that what we do every day matters.

The world population is projected to increase by almost one billion people within the next 12 years. More than half of us reside in urban settings today, and this ratio is expected to approach two-thirds by 2050. The link between urbanization and pressing global issues such as energy demand and food availability is at the center of a global discussion — and so is Ingersoll Rand.

Industrial motors and motor driven systems account for 43 percent of total global electricity demand with compressors comprising about one-third of this demand. And buildings are one of the greatest consumers of energy. Take New York City — nearly three-quarters of its greenhouse gas emissions come from energy used to heat, cool and power buildings. In Europe it is estimated that retrofitting existing buildings could eliminate one-eighth of the region's total greenhouse gas emissions, making retrofits a needed component of any plan to reduce emissions.

Beyond industry and buildings, the requirements for food transportation — availability, access, utilization and stability — are also stressed by increased urbanization. Up to 40 percent of food harvested can be lost due to inefficiencies in processing, storage and transport.

The key is for organizations with the right expertise to deliver innovative solutions to these challenges. That's where Ingersoll Rand steps forward.

Our customers demand systems and services that are efficient and cost effective, but also productive and sustainable. The bold Climate Commitment we announced in 2014, detailed in this report, demonstrates the industry-leading position we have taken on their behalf. I was proud to represent Ingersoll Rand at the United Nations Climate Summit and Clinton Global Initiative to launch this initiative.

The Right Businesses

There is a powerful link between these global trends and our end markets. Our strategy and portfolio position us to help create sustainable choices for our customers and spur the development of energy-efficient solutions with lower greenhouse gas emissions while we continue to improve our business; whether it's Trane

ENERGY IMPROVEMENTS TO EXISTING BUILDINGS ENABLE
20 – 50%
COST SAVINGS
FOR BUILDING OWNERS

products in commercial and residential buildings, Thermo King products to deliver fresh food over longer distances, or Ingersoll Rand air compressors that lower operational costs for our industrial customers.

Our passion to be at the forefront of our industries propels our growth. And growth, when properly executed, is the greatest source of employee and shareholder value.

We are growing Ingersoll Rand in three ways: by developing new and more productive and efficient products, increasing the mix of our service businesses, and expanding market coverage in terms of geography or channels in a specific end market.

We continue to execute our growth strategy and refine our product development process. Through rigorous analysis, we provide a set of alternatives and choose the best solutions for our customers, and in turn, our businesses. Aligning our product management teams to more clearly understand our customers, markets and competitors empowers us to take action.

The Right Operating System
We've also matured in our operational excellence journey — focusing the whole company on creating a lean operating system where we use standard work to create value, reduce cycle times and enhance quality that makes the customer experience better.

2014 marked the intersection of our growth excellence and operational excellence strategies. Over the past year we have launched six product growth teams. Just like our operational excellence value streams that use a structured process for continuous improvement to deliver a better customer experience, these new growth teams coordinate a product's journey from concept to delivery, through every stage of meeting a customer's needs. This results in faster time to market, increased productivity and improved quality and delivery. Our product growth teams grew their product lines at an average rate that was four times greater than the rest of Ingersoll Rand, and we aim to systematically deploy this model across the company.

As we layer a foundation of operational excellence with a disciplined approach to growth and our winning culture, you can see why I am confident in our future.

"Our passion to be at the forefront of our industries propels our growth."

– Michael W. Lamach
Chairman and Chief Executive Officer

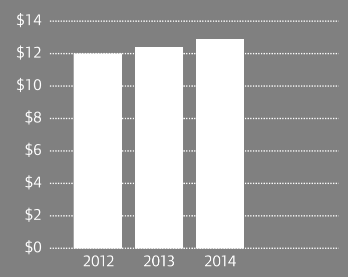
The Right People
Our philosophy is to make our company a great place for people to work which in turn drives a great customer experience and ultimately, grows shareholder value.

We've applied this philosophy to how we operate, and we continue to measure our progress. We achieved top-quartile employee engagement scores in 2014, and our people and company are attracting external attention. We have been recognized as one of FORTUNE magazine's World's Most Admired Companies, honored on Best Companies for Leaders by Chief Executive magazine, Workforce Magazine's 100 top companies for Human Resources and Corporate Responsibility magazine's 100 Best Corporate Citizens.

And we intend to keep getting better. Customers want to do business with people who are engaged to deliver for them, and that's the kind of company we strive to be. That's our winning culture as you'll read about in this year's report.

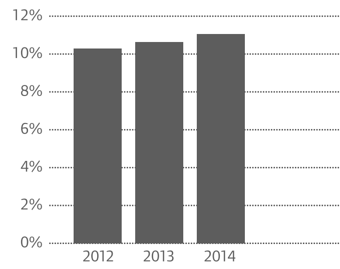
Delivering the Right Results
Beyond employee engagement, we are operating at the top quartile in other metrics that matter — one look at our strong 2014 financial results shows that. For the second year in a row, we delivered top-quartile organic growth among our peer group, even in the absence of a North American institutional construction recovery. We realized a

Total Net Revenues (Billions)



Adjusted Operating Margins

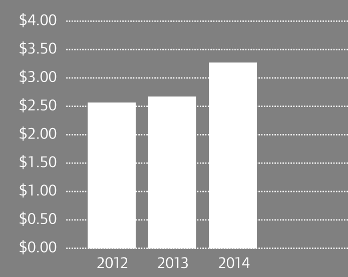
1.8 Percentage Points ↑ 2012 to 2014



Excludes restructuring costs.

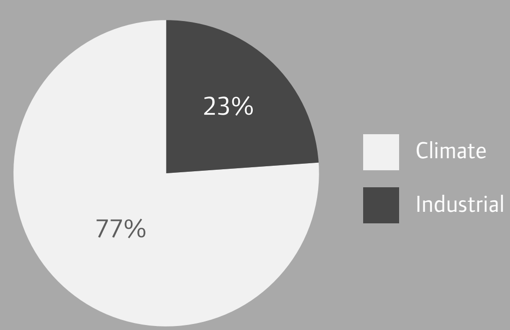
Adjusted Earnings Per Share

30% ↑ from 2012 to 2014

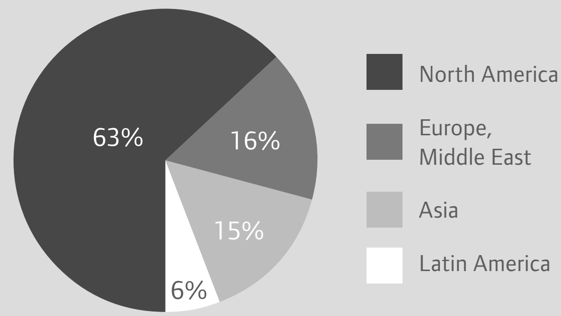


Excludes restructuring costs, refinancing premium and Allegion spin-related costs.

2014 Total Net Revenue by Segment



2014 Revenue by Geography



1.8 percentage point increase of adjusted operating margins over the last three years, and over the past five years we've grown market share and margins in almost every business in the company, in every region.

As a result, we've delivered a 60 percent adjusted earnings per share growth since 2011, and strong shareholder return while investing in the long-term success of the business. Executing on our balanced capital allocation strategy over the last five years, we've:

- Increased investments into the business, consistent with driving organic growth
- Increased the dividend 257 percent from 2011 – 2014 and our 2015 dividend is set at $1.16 per share, up 16 percent year-over-year
- Completed two share repurchase programs at $2 billion each, and now, we're well underway with the third authorization for $1.5 billion
- Returned approximately $5.5 billion to shareholders

We've also been disciplined around mergers and acquisitions, announcing two value-adding acquisitions in 2014. We purchased the assets of Cameron International Corporation's Centrifugal Compression division, which became part of our compressed air business in January 2015, and FRIGOBLOCK became part of our Thermo King business in March 2015. Both acquisitions offer a complementary product set, engineering and technology strength, and financial synergies that are a natural fit for our portfolio, and we expect them to be accretive in 2015.

Looking ahead, we won't change what's working — focusing on the fundamentals of growth, our operating system and our culture to serve our customers. We want to be a company people want to work for, customers want to buy from and investors want to invest in.

I hope you are as optimistic about our future as I am. It's clear to me how our employees, customers and shareholders around the world all win with Ingersoll Rand. I look forward to continuing to grow the company in 2015, and well beyond.

Sincerely,

Michael W. Lamach
Chairman and CEO

Leading the Way to a Better World.

This is Ingersoll Rand

Ingersoll Rand products and services help save energy, transport food and perishables, and spur economic growth. Our business operations reflect a longstanding commitment to innovation, sustainability and exemplary corporate citizenship aimed at leading the way to a better world. Our economic, environmental and social contributions, in turn, enhance the company's financial results, creating value for our employees, shareholders and business partners.

Creating Value for our Stakeholders

Customers. At Ingersoll Rand, everything starts with the customer. Our mission is to exceed our customers' demands for reliability, energy efficiency and productivity whenever and wherever in the world they need us. Our sales and customer relationships are managed through a powerful network of Ingersoll Rand offices, distributors and dealers across the globe in nearly 60 countries. We track customer satisfaction globally by collecting feedback on our sales and delivery performance and the quality and reliability of our products and services on an ongoing basis.

"Ingersoll Rand and companies like it have an extremely important role to play in creating a low-carbon future for the world. It sent a powerful message when Ingersoll Rand stepped out and said that climate change is important and started taking actions to do something about it."

– Jared L. Cohon, Ph.D.,
Member of the Ingersoll Rand Board of Directors

Employees. Ingersoll Rand is dedicated to the long-term endeavor of creating a winning culture. We strive to be truly progressive, diverse and inclusive, and to foster an inspirational environment for all employees. We want our people to understand that what we do as an enterprise — and what they do as individuals — really matters. This is why we engage and empower our employees to inspire progress for our stakeholders every day — as well as for themselves. We are committed to creating a safe and healthy work environment, while offering our employees opportunities to build successful and rewarding careers.

Business Partners. Ingersoll Rand makes it a priority to share its expertise with suppliers, distributors and other business partners. Similar to our interactions with customers, our business partner relationships lead to product and service innovation as well as operational process improvement. At the same time, we expect business partners to share our values related to ethical conduct as well as social and environmental sustainability. These values are embodied in our Business Partner Code of Conduct, which holds them to the same high legal, moral and ethical standards to which we hold ourselves.

Shareholders. Ingersoll Rand is committed to delivering value for our shareholders. Our balanced capital allocation strategy has delivered a multi-year record for achieving industry-leading EPS growth and total shareholder return

FORTUNE WORLD'S MOST ADMIRED COMPANIES 2015

FORTUNE magazine ranked Ingersoll Rand on its 2014 World's Most Admired Companies list, and for 2015 Ingersoll Rand ranks as the No. 1 Industrial Machinery company on the FORTUNE World's Most Admired Companies list, climbing to the top following a steady rise over the last three years. We also ranked No. 9 in the Innovativeness category among all FORTUNE list companies, joining Apple, Google, Amazon and Walt Disney in this prestigious key attribute ranking.

performance, while also enabling us to fully invest in the long-term success of our business. We have returned approximately $5.5 billion to shareholders over the past five years. Since 2009 we have delivered a 400 percent total shareholder return — more than triple the return of the S&P 500.

Policymakers. Ingersoll Rand actively collaborates with a worldwide array of governments, business and trade associations, environmental groups and economic development organizations in efforts to address global challenges. The Climate Commitment we announced in 2014, for instance, positions Ingersoll Rand at the forefront of sustainable solutions and signals to our stakeholders that we are squarely focused on the future and dedicated to helping solve some of the world's most pressing challenges. Among other current policy leadership efforts, we are working proactively with government agencies and refrigerant suppliers to lead a global transition to next-generation refrigerants with low global warming potential. In addition, the team's focus areas in 2014 included new European standards related to noise pollution, building energy efficiency, technology transfer to emerging economies, and improved workforce diversity and labor practices worldwide.

Embedding Sustainability across the Enterprise

We have an established set of initiatives aimed at embedding sustainability across the enterprise in pursuit of six key objectives for 2020.

Governance. We will enhance efforts to uphold our standards for ethical business conduct, transparency, compliance and oversight.

Suppliers. We will collaborate with our suppliers to cultivate a sustainable and innovative supply chain to meet customer needs.

Operational Footprint. We will optimize the use of natural resources in our operations to reduce environmental impact.

Customer Outcomes. We will innovate to deliver optimal economic and performance value over our product lifecycles.

Our People. We will build a winning culture that is values-based, inclusive and engages and develops people for premier performance.

Corporate Citizenship. We will address social and environmental imperatives that create shared value, result in sustained customer and employee loyalty, and improve the communities where we have business operations.

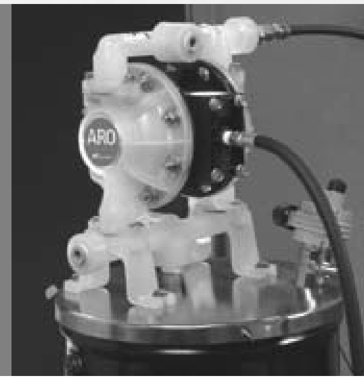
Energy Efficiency and Sustainability — Our DNA

A World of Sustainable Progress and Enduring Results. The value Ingersoll Rand delivers as an enterprise matters more than ever. Clean, comfortable indoor environments and safe, fresh food are essential to quality of life. Greater industrial productivity is key to economic prosperity. But in a world confronting accelerating growth in urban populations, increasingly volatile energy costs and the impending threat of climate change, our approaches to meeting these needs must be environmentally and socially sustainable. At Ingersoll Rand, we are passionate in our commitment to sustainability. As a testament to our commitment, we created the Center for Energy Efficiency and Sustainability (CEES) in 2010 to help our customers and our company leverage best practices in sustainability. Our passion for sustainability is embedded in the way we serve our customers and operate our business, and in the strategic initiatives we pursue in every function across our global enterprise.

Sustainability Governance. Sustainability governance and direction at Ingersoll Rand is the responsibility of our Board of Directors and the Enterprise Leadership Team, with assistance from internal and external advisory and strategy councils. The Board is composed of 12 members, 11 of whom are independent, two of whom are women and two of whom are non-U.S. citizens. The Corporate Governance and Nominating Committee of the Board is responsible for overseeing our environmental health and safety performance, energy consumption, carbon footprint and waste streams.

REDUCED ABSOLUTE WATER WITHDRAWALS **BY 12%**

Compared to 2010 baseline.



27% ABSOLUTE REDUCTION IN NON-HAZARDOUS WASTE

Compared to 2010 baseline.

Our external Sustainability Advisory Council is comprised of global thought leaders in infrastructure, energy policy and technology. Their expertise helps us better understand emerging global issues, which in turn spurs product innovation and presents new opportunities to reduce our operational footprint. Reporting to, and sponsored by, the Enterprise Leadership Team, our internal Sustainability Strategy Council is composed of company leaders representing priority geographies, our Strategic Business Units and all function areas. Their role is to provide guidance and endorsement on social and environmental issues that represent opportunities to drive growth, enhance reputation and ensure the long-term economic viability of Ingersoll Rand and our stakeholders.

"Ingersoll Rand is a great enabler that develops business solutions for its customers and civil society. Its products, services and continuous innovation help make communities more sustainable and improves the quality of life."

– Terry Yosie, Ingersoll Rand Sustainability Advisory Council, President and CEO of World Environment Center

Ingersoll Rand Selected for the 2014 Dow Jones Sustainability World and North American Indices

Ingersoll Rand continued to score high marks in third-party sustainability rankings. Recognition by external organizations documents our improved performance, while also allowing us to benchmark ourselves against peer companies using an objective set of metrics. As an example, for the fourth consecutive year, in 2014 we were honored to be listed on the Dow Jones Sustainability World and North American Indices. Our overall score was improved from 2013 and well above the industry average in all three dimensions – economic, environmental and social performance.

Strategically Focused on Growth.

Top-Quartile Performance and Aiming Higher

Ingersoll Rand excelled in sales growth among its peer group companies for the past five years. We are well positioned to improve on this performance. World energy demand is projected to be 37 percent higher in 2035 — an unsustainable growth rate in the long run. We play an important role in solving this critical challenge. This is because 40 percent of total energy demand in mature economies comes from buildings, with 40 percent attributed to HVAC systems. In emerging economies, building energy demand is as high as 85 percent. As well, 30 percent of all energy demand comes from the transportation industry and about 30 percent from industrial use, where sustainability is now a key competitive advantage.

2014 Growth Milestones. We are leveraging these market dynamics by launching new climate, industrial and transportation products and services that are making vital contributions to the energy efficiency, reliability and productivity that drive sustainable economic progress. Reflecting the more than 200 products and services launched into our markets in 2013 and 2014, the percentage of revenue that we generate from new offerings has more than doubled since 2009. Acquisitions are also important to our growth strategy, as demonstrated by our acquisitions of Cameron International Corporation's Centrifugal Compression division and FRIGOBLOCK, which we announced in 2014 and closed in 2015.

Trane Expands Chiller Portfolio with Breakthrough Systems Designed for European Markets

Trane introduced five new chilled water systems with capacity ranges from 20kW to 14,000kW to meet the cooling, efficiency and acoustics needs of markets in Europe. These innovative systems are available with advanced controls and designed for optimal energy efficiency for part- and full-load performance, and in compliance with the most stringent local standards and performance ratings to meet customer requirements for capacity and sustainability. The photo above shows one of the first chillers being shipped from our facility in Charmes, France.

Product Growth Teams. Product growth teams bring together an engineering, global integrated supply chain (GISC), and product management leader to align on a strategy and deliver the same goal: to grow market share and expand margins for their product line or portfolio. These leaders leverage their expertise in their function's standard work — customer focus and competitive expertise from product management; engineering discipline and technology expertise; and manufacturing, distribution and sourcing expertise of GISC — to work collaboratively from ideation to launch to satisfy customers and drive market growth and margin expansion. They use analytics to make clear strategic choices on what markets to focus on and how to succeed.

"Trane helps us with one of our biggest challenges today, to improve service to our customers and installers. By keeping product quality, technical support and lead times optimal, we are able to consistently deliver quality products and service and maintain excellent relationships with our customers."

- Gerardo Gonzalez, Founder and Owner of Proveedora de Climas, the #1 distributor of Trane products in Latin America

Our accelerated growth through our product growth teams builds on our proficiency in operational excellence — lean organizational efforts through successful transformations — and applies it to the full customer experience. It's a programmatic end-to-end customer process. Ultimately, a growth-led value stream delivers a structured, lean approach to achieving growth and maximizing customer value.

Reliability. As our customers define it, reliability means they can consistently and profitably execute their mission-critical activities because of the solutions Ingersoll Rand provides. We are raising the bar for reliability across the enterprise to create a better customer experience and differentiate our offerings from those of our competitors. This includes going beyond product reliability to include service and sales support.

Analytics. We are making significant investments in our analytics capabilities with an eye toward guiding where we play and how we win in various markets. This disciplined approach helps us to better understand our customers' needs and behaviors, and more accurately estimate the lifecycle costs and potential value of new offerings. These new capabilities also strengthen our ability to exceed customer expectations for on-time delivery and product and service quality.

Ingersoll Rand Product Development Process. The Ingersoll Rand Product Development Process (IRPDP) applies standard work to the product development lifecycle, to ensure we are meeting customer needs, assessing risk, embedding sustainability and developing intellectual property — and ultimately meeting our objectives. Over the past two years IRPDP has improved the way we develop and launch new product and service offerings from initial concept to point of sale. IRPDP has generated or improved more than 60 product development projects during this period, more than doubling our product development improvement metrics.

Breakthrough Innovation. One way to improve reliability is to deliver breakthrough innovation. With this goal in mind, we are making more pervasive use of information technology, including machine-to-machine communication and data analytics, in our manufacturing and supply chain functions, as well as enhancing our service capabilities with remote service offerings.

Club Car Precedent Electronic Fuel Injection Engine Launch

Club Car unveiled its Electronic Fuel Injection (EFI) engine for the Precedent at The Villages Golf Cars in Florida, the largest U.S. retail golf car dealership and a Club Car dealer. In developing the EFI engine, Club Car partnered with world-renowned automaker Subaru, a leader in building small engines with EFI. The EFI engines in Club Car vehicles feature more precise ignition timing, better fuel efficiency, improved reliability and enhanced customer experience.

Ingersoll Rand Adds Small Rotary Compressors to R-Series Line for Enhanced Reliability

Ingersoll Rand extended its R-Series line of compressed air solutions to include small rotary compressors with V-Shield™ technology to reduce leaks and improve reliability. Built on a common platform, the new compressors became available for order in Western Europe, Latin America and the United States in 2014. The compact design of the R-Series makes it the ideal workplace compressor with a 20 percent reduction in footprint and sound levels as quiet as a dishwasher.

Thermo King Offers New Choices to Reduce GHG Emissions in Transport Refrigeration

Thermo King put the finishing touches on a plan to offer its transport customers in Europe, the Middle East, and Africa a choice on how and when to reduce their greenhouse gas footprints. The plan centers on a new line of trailer and self-powered truck units that are energy efficient and reliable and use a next-generation refrigerant that has about half the global warming potential of the refrigerant currently used. Thermo King will continue to offer and service its current line of transport refrigeration products until customers are ready to transition.

Networks of Excellence. At the center of our innovation strategy are the Networks of Excellence we established two years ago, bringing together internal experts and specialists on technologies of critical importance across the enterprise. This shared-expert team approach enables us to capitalize on cross-segment synergies in fields such as modeling and simulation, materials and chemistry, brazing and machining processes.

Services Mindset. Now that smart, connected products are becoming the norm, the traditional transactional product sales model is giving way to innovative models focused on end-to-end, customized solutions that integrate products with services. Adopting a services mindset across the organization is crucial to our growth strategy.

Sales Excellence. Ingersoll Rand is making a significant, long-term investment in our sales people, capabilities and processes. The effort combines learning and development, coaching, and best practices to create a world-class sales function that delivers profitable growth for our businesses and wins in our markets. To take our sales capabilities to the next level, we are transforming how we approach the sales process, as well as the tools with which we manage the sales pipeline.

Pursuing Operational Excellence.

Continuously Improving to Better Serve our Stakeholders

Operational excellence through continuous improvement is core to who we are at Ingersoll Rand. It drives growth, fosters customer satisfaction and employee engagement, strengthens margins and cash flow, and ultimately results in value generation for our shareholders and for society. We think about operational excellence holistically. Although it includes lean transformation and related business process improvement initiatives, our operational excellence strategy also encompasses sales management and supplier relationships, as well as the environmental impact of our products and operations.

City Officials Attend Memphis Distribution Center Supplier Diversity Event

The Trane HVAC Parts & Supply distribution center (MDC) in Memphis, Tennessee, is enrolled in a payment-in-lieu-of-taxes program with the city of Memphis. The plan results in a potential $2.8 million tax savings over eight years and is based on the percentage of its outlays for goods, services and construction to minority-, woman-, or locally-owned small businesses. Attended by 20 local suppliers and Memphis city and Shelby county officials, a Business Opportunity Review event held at the facility enabled the MDC team and the supplier community to better understand the opportunities available for diverse-owned and small businesses to develop relationships with Trane. One attendee wrote, "My take away from this event is that I got to actually see how a huge organization such as Ingersoll Rand really cares about smaller companies."

Monterrey, Mexico, Commercial HVAC Manufacturing Site Wins Greenhouse Gas Emissions Reduction Award for Third Year in a Row

The Commercial HVAC manufacturing site in Monterrey, Mexico, received its third consecutive Greenhouse Gas Emissions Award from the Nuevo Leon state government. With strong commitment from site managers and supervisors and special support from the maintenance and facilities teams, the site calibrated its paint booth natural gas burner and replaced outdated air conditioning units with the new Trane Stealth Chiller™. These initiatives will reduce the site's CO_2e emissions by 1,000 metric tons per year.

Operational Excellence Strategy. Over the past five years our operational excellence strategy has evolved to include every element of lean. It started with the implementation of our business operating system and has matured dramatically. The operating system is what makes our operational excellence and growth strategies work — we do a better job with quality, customer service, on-time delivery and incremental margins by virtue of the operating improvements in the company. The operating system is how we run the company. And as a result, our people better understand value streams – the process of delivering value as defined by the customer. We are using goal deployment principles to manage and achieve breakthrough performance. Each function is now responsible for delivering excellence by standardizing its own work flows and processes.

> *"Suppliers like Ingersoll Rand are the experts in their field and their customers rely on their sustainability expertise to inform and educate them about potential risks around the use of their products, such as pending regulations."*
>
> *- Lee Kindberg, Ph.D., Director, Environment & Sustainability, MAERSK LINE / Maersk Agency USA*

2014 Operational Excellence Milestones. Our focus on value streams started five years ago with a narrow scope — from customer order to order shipment. By the end of 2014, 60 percent of the conversion costs were in value streams under lean transformation. We are tracking five metrics — market share, margin expansion, organic growth, price and the net present value of our innovation portfolio — to evaluate the performance of our value streams under lean transformation. Results in all five metrics improved in 2014.

Sales Performance. We believe operational excellence is as relevant to sales as it is to our other functions. We are boosting the productivity of sales management by

Ft. Smith Lighting Upgrades Reduce Energy Costs, Improve Work Environment and Reduce Emissions

The Residential HVAC manufacturing facility in Ft. Smith, Arkansas, upgraded its lighting system to reduce energy costs, improve the work environment and reduce its carbon footprint. Plant leaders worked with IDG, our North America MRO supplier, and the local utility company and contractors to create a plan for replacing existing lighting with energy-efficient fluorescent fixtures and occupancy sensors. The project resulted in more than a $210,000 energy rebate, the largest utility company issued rebate in the state of Arkansas.

equipping our sales managers with the tools and resources needed to develop and sustain a winning sales organization and culture. We are making sales management best practices and proven ways of winning a regular part of how we work, thus enabling us to grow faster than underlying market growth. At the same time, our value selling and price management initiatives are helping to fuel continued margin expansion at the enterprise level.

Supplier Relationships. The ability to establish mutually beneficial supplier relationships is a key success factor in our business. We have systematic processes in place to govern these relationships, ensuring our suppliers share our values and adhere to our standards of business ethics, health and safety, sustainability and social responsibility. Supplier diversity is integral to our global supply chain strategy not only because it is consistent with our values, but because it enhances competitiveness and drives market connectivity. Our U.S. and Puerto Rico supplier diversity program, launched in 2012, includes strategic outreach, development and mentoring for suppliers whose ownership is primarily minority, female or veteran. We purchased more than $300 million of goods and services from diverse-owned businesses in 2014, a 26 percent increase from 2013.

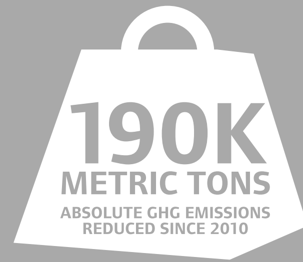
"We're in a competitive market, so wherever we can lower our costs and get good value for the price is extremely important. Trane has helped out with that. We work with our customers on predictive maintenance, lowering energy operating costs and lifecycle planning. These all tie into our core values of partnership, collaboration, reliability, integrity and advocacy, which are shared values with our Trane team."

- John Eldridge, Service Sales Manager, PSF Mechanical, Inc., a 100 year old, design build contractor based in Seattle, Washington

Health, Safety and Wellness. Eliminating injuries and improving the well-being of our employees makes Ingersoll Rand more competitive by increasing productivity, enhancing employee engagement, retention and reducing healthcare costs. Creating an open reporting culture and sustaining a safety-focused, zero-incident philosophy is a top priority for all of us. Our injury reduction strategy is focused on ergonomic improvements as well as recognizing, reporting and correcting unsafe behaviors and conditions. Creating standard work and training provides employees with the tools and knowledge they need to perform their work safely and without injury. In 2014, we continued to address the challenge of ergonomic risk for our field service technicians and factory employees through equipment, work station and product redesign, employee education and predictive analysis of at-risk work activities.

Wujiang Plant Wins Honor of 2014 Quality Guarantee Enterprise of Jiangsu Province

Our Compressed Air Systems and Services facility in Wujiang, China was recognized by Jiangsu Province with the 2014 Quality Guarantee Enterprise honor. The honor recognizes facilities with an integrated quality management system and quality leading products in their regions or industries, as well as a two-year record of zero disqualified products. The Wujiang plant was the only industrial equipment manufacturer to receive this honor.



Kent Employee Wellness Initiatives Promote Lasting Healthy Habits

More than 35 employees at our Material Handling facility in Kent, Washington, participated in a "Biggest Loser Weight Loss and Healthy Habits Challenge." The 12-week challenge encouraged participants to use internal and external resources to track their activity and diets. It also provided them with tips, tricks and challenges for achieving their health and fitness goals. The program included coordinated lunch walks, a 5K training program, bi-weekly check-in meetings and weekly weigh-ins.

Galway, Ireland, Team Honored with National Safety Award

For the first time in its 38-year history, the Thermo King team in Galway, Ireland, was recognized by the 2014 National Irish Safety Organisation (NISO) for their environmental, health and safety (EHS) performance, including eight years without a lost-time incident. Using the Ingersoll Rand EHS framework, the Galway site has achieved certification for the OHSAS 18001 Health and Safety Management Standard, the ISO 14001 Environmental Management Standard and the ISO 50001 Energy Management Standard.

Since 2009, our companywide lost time incident rate has decreased 54 percent and our total recordable incident rate has decreased 42 percent. Along with overall reduction in quantity of injuries, the severity of the injuries has decreased significantly. Since 2009, the number of days employees were out of work due to injuries has decreased by 6,000 days, which is a 64 percent reduction.

Ingersoll Rand is committed to helping employees and their families make well-being a priority. In 2014, we offered employees in the United States and China biometric health screenings and well-being assessments so employees could "know their numbers" and take action against their health improvement goals through company-provided programs and resources. In addition, we provide employees with preventive health care and health improvement programs that are tailored to individual needs. We also recognized World No Tobacco Day globally with education and program resources.

Energy and Greenhouse Gas Emissions. We believe that making responsible use of Earth's limited energy and reducing our GHG emissions is integral to achieving operational excellence. Translating this belief into action, we continued to make progress in 2014 reducing the environmental footprint of our global facilities. As an example, we reduced our total energy use, normalized by net revenue, by approximately 2.5 percent in 2014 and 6 percent from 2010. In 2014, we reduced our GHG emissions by 5.7 percent. During the five years from 2010 to 2014, we reduced absolute greenhouse gas emissions by 28 percent, or 190,000 metric tons CO_2e.

Water Footprint, Waste and Recycling. The world is running out of clean, fresh water, making it vital to reduce water consumption in our operations. We have reduced our absolute water withdrawals by approximately 6 percent, and by 12 percent on a normalized basis since 2010. Many parts of the world face more immediate needs for fresh drinking water, and in these water-stressed regions we have reduced our absolute water withdrawals by approximately 17 percent, and by 23 percent on a normalized basis since 2010. Generating less waste not only contributes to environmental sustainability, but improves operating margins and enhances the life cycle cost profile of our products.

Since 2010, we have achieved a 27 percent absolute reduction in non-hazardous waste sent to landfill at our facilities around the world. In 2014, the amount of non-hazardous waste recycled, reused or sent for energy recovery exceeded three times the amount sent to landfill. In 2014, we reduced the amount of hazardous waste generated by 1 percent and a 36 percent reduction when compared to 2010.

Building Our Winning Culture.

Making a Difference for Ingersoll Rand and the World

Our winning culture is based on the belief that when employees with diverse backgrounds and skills are fully engaged in the company's work, better outcomes are achieved for our customers and shareholders. This success then further engages our people in our vision and purpose. We continue to strengthen our winning culture because we understand it is a unique aspect of our competitive advantage and difficult for others to copy. Our strong employee engagement fosters a climate of innovation that leads to products and services that are better for our customers, society and the environment. Our winning culture reflects the company's commitment to best practices in corporate citizenship and building our reputation. Our employees lead this effort by giving and volunteering their time in our communities.

Living our Values. Our work to create a progressive, diverse and inclusive environment stems from the five core values of Ingersoll Rand: Integrity, Respect, Teamwork, Innovation and Courage. These values are more than aspirational. Our leaders strive to live the values of Ingersoll Rand — leading by example in their decisions and actions and encouraging their employees to do the same.

Engaged and Empowered. We work to create an engaging and empowering workplace that connects our employees to the company's purpose. We expect each of our leaders to inspire their employees to achieve ambitious goals, delight our customers, and contribute to the growth and profitability of our business. We track our performance by conducting an annual global employee engagement survey. Our survey scores extended our record of improvement in 2014. Reflecting feedback from more than 95 percent of our worldwide workforce, our level of employee engagement rose four percentage points from 2013, placing Ingersoll Rand in the top quartile of manufacturing companies.

"What continues to strike me is the level of dedication I see as I interact with Ingersoll Rand employees from around the globe. I believe the company's culture, specifically its emphasis on open communication, and its global commitments have a measurable impact on the dedication of employees. Regardless of level, I see each employee working toward the same goals, and they are eager to exceed performance measures."

- John Bruton, Ingersoll Rand Board of Directors, former EU Commission Head of Delegation to the United States and Former Prime Minister of Ireland

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Progressive, Diverse and Inclusive. With more than 40,000 employees globally, having a progressive, diverse and inclusive environment is not only a strategic imperative, it also drives growth and innovation, enhances operational excellence, and generates value for all of our stakeholders. We are committed to creating an environment where all employees can thrive and are encouraged to grow in their careers.

Our broad range of diversity and inclusion efforts continued to gain momentum in 2014. Some were enterprise-wide, but many others, such as our employee resource groups (ERGs), were local or country-specific initiatives. We now have seven ERGs companywide, including the Women's Network, Black Employee Network, New Net for newly hired employees, Veterans Employee Resource Group, Asian Employee Resource Group, Group of Latinos, and the PRIDE Employee Resource Group, which encompasses lesbian, gay, bisexual and transgender employees and their allies.

Asia Pacific "Glocal" Employee Teams Invest in People and Communities

Combining the global resources of Ingersoll Rand with the hands and passion of our Asia Pacific employees is fueling the success of a new global strategic program – Glocal (global + local) Green Teams. Our CEES team launched the program to encourage community involvement through employee volunteerism as a way to address regional social challenges and strengthen local enterprise relations. For example, Glocal team members have worked with more than 1,300 school children in Wujiang. Glocal Green Teams are now in place at our Wujiang plant, Taicang campus and Engineering and Technology Center Asia Pacific, all located in China.

Trane Partners with St. Jude Children's Research Hospital®

What began as the personal mission of a single Ingersoll Rand employee has grown into a movement of support for St. Jude Children's Research Hospital® across our Trane residential HVAC business internally and externally. Territory manager Angie McCann first kicked off a connection with St. Jude in 2013, successfully orchestrating a regional equipment donation in three states. This connection grew to become a national St. Jude Dream Home® Giveaway sponsorship in 2014, with Trane contributing HVAC systems for nearly 30 custom-built homes that were given away during the year, making it one of the largest single-event fundraisers for St. Jude nationwide. Additionally, more than 260 Trane employees, distributors, dealers and strategic partners participated in supporting and attending St. Jude *Give Thanks. Walk.*™ events to fight childhood cancer.

In addition to fostering innovation and engagement within Ingersoll Rand, the ERG activities result in talent acquisition and retention as we continue to attract growing numbers of military veterans, women and minorities.

In the United States, for instance, in 2014 the Ingersoll Rand Foundation donated $135,000 to the National Association of Manufacturers to help create a leadership program designed to help develop female talent in the manufacturing industry. In Europe, we launched a Women's Network initiative that partners mentors from third-party organizations with Ingersoll Rand women employees across the continent. Our Women's Leadership program, which for the past two years has enhanced retention and increased promotions for our female employees in Europe, launched in North America in 2014.

Learning and Development. Ingersoll Rand is committed to personal and organizational learning and development. More than 10,000 of our employees completed classroom learning programs and courses globally in 2014, and 27,000 participated in online courses. At the same time, we continued to execute on our longstanding priority of leadership development. We strive to develop inspirational, courageous leaders with the skills to achieve results through teamwork and collaboration. We expect our leaders to serve as coaches, helping their employees improve their skills and competencies, and as role models for the personal behaviors that underpin a winning culture.

Employees early in their careers gain exposure to leaders, experience leadership training and build their technical and functional skills. For experienced professionals and executives, we offer learning solutions that focus on skill-building in areas such as innovation, collaboration and business strategy. The centerpiece for these initiatives is Ingersoll Rand University (IRU). Founded in 2003, IRU offers a range of leadership development solutions, including custom executive programs developed in partnership with some of the top higher education partners in the world.

Engaged with our Neighbors. Ingersoll Rand employees strive to match their engagement in the workplace with involvement in the communities in which we live and do business. We believe a winning culture is one that assists employees in contributing both time and financial support to local philanthropies and community organizations. In keeping with this belief, we encourage our fellow employees to align their work as volunteers with our priority areas that improve communities around the world: energy efficiency; science, technology, engineering and math; nutrition and food waste reduction; and housing and shelter.

Employees volunteered more than 15,800 hours in 2014, a 28 percent increase over 2013, to strengthen our communities and provide assistance and relief to our neighbors around the world.

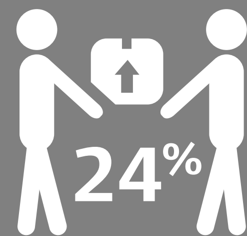
To align our global businesses and employees with a common vision for corporate citizenship, we have established the Ingersoll Rand Global Citizenship Council. The Council's mission is to make recommendations that focus resources

Three Ingersoll Rand Women Honored with Manufacturing Institute's STEP Award

STEP™ AHEAD WOMEN IN MANUFACTURING

Excelling in team sports, sharing their leadership skills with their communities, and bouncing back from setbacks are just a few of the qualities that distinguish the three Ingersoll Rand women honored with the Manufacturing Institute's 2014 Science, Technology, Engineering and Production (STEP) Awards for their achievements in the manufacturing industry. Katie Boor, program management leader, Thermo King; Lycinda McDaniel, plant manager, Trane; and Sheila Tierney, vice president, product management, HVAC Parts and Supply Solutions joined other women leaders from 110 companies around the world in receiving this honor.

INCREASE IN EMPLOYEE VOLUNTEER HOURS



INCREASE IN PHILANTHROPIC GIFTS AND DONATIONS

Power Tools Business Launches Global Brand Day

Ingersoll Rand Power Tools celebrated its first Global Brand Day to help employees understand how to represent and deliver on the brand. Employees engaged with end-use customers to identify with the Power Tools brand and gain firsthand experience using our products. Global Brand Day included Power Tools auto racing program activities for end users and a North American tour to demonstrate our QX Series of assembly power tools, in addition to development of a new Power Tools brand and product launches. Global Brand day originated with employee ideas in one region that were leveraged around the world.

Ingersoll Rand India Wins 2014 Dream Employer to Work For Award

Announced in Mumbai, India, the 2014 Dream Company to Work For award is part of the Global HR Excellence Awards organized by the World HRD Congress. Ingersoll Rand in India has retained the No. 1 ranking in India for two consecutive years within the manufacturing sector and moved up one spot to No. 3 across all industries.

on areas where we truly can make a difference. This mission reflects our belief that we are not simply supporting a "worthy cause" — we are making resource investments that lead to measurable, observable changes in people, communities and our environment. In 2014, we donated a 24 percent increase in philanthropic gifts and donations over 2013. Our culture of giving advances the quality of life in communities around the world, while building employee morale and engagement and nurturing trust in Ingersoll Rand.

Sustainability through our Green Teams. Ingersoll Rand employees around the world have long been engaged and empowered around sustainability. Since we founded our employee "Green Team" network in 2011, the teams have focused on organizational awareness, education and operational improvement by working internally and partnering with community groups to advance our sustainability efforts.

2014 Green Team Accomplishments

Total Waste Diverted from Landfill (Pounds):	**1,083,176**
Total CO_2e Reduced (Metric Tons):	**2,701**
Total Energy Saved (Btu):	**4,685,097,669**
Total Water Saved (Gallons):	**2,473,289**

Corporate Responsibility Magazine Ranks Ingersoll Rand on 100 Best Corporate Citizens List

CR's 100 Best Corporate Citizens 2014

In early 2014, Ingersoll Rand ranked on Corporate Responsibility Magazine's "100 Best Corporate Citizens" list. Inclusion on the list is based on a company's disclosure and performance in seven key areas, including climate change, employee relations, environmental, financial, governance, human rights, and philanthropy. This recognition affirms our approach to corporate responsibility; highlighting our transparency and commitment to helping customers find solutions to critical global needs, such as reducing energy demand and improving productivity.

Vision

A world of sustainable progress and enduring results.

Purpose

We advance the quality of life by creating comfortable, sustainable and efficient environments.

Values

Integrity: We act with the highest ethical and legal standards in everything we do.

Respect: We respect and value the worth of all people, cultures, viewpoints and backgrounds.

Teamwork: We work together and share resources to provide greater value to our customers, employees, business partners and shareholders.

Innovation: We use our diverse skills, talents and ideas to develop customer-driven, innovative and imaginative solutions.

Courage: We speak up for what we believe is right and take measured risks to create progress.

2015 Notice and Proxy Statement

Ingersoll Rand

Ingersoll-Rand plc
Registered in Ireland No. 469272

U.S. Mailing Address:
800-E Beaty Street
Davidson, NC 28036
(704) 655-4000

NOTICE OF 2015 ANNUAL GENERAL MEETING OF SHAREHOLDERS

The Annual General Meeting of Shareholders of Ingersoll-Rand plc (the "Company") will be held on Thursday, June 4, 2015, at 2:30 p.m., local time, at Carton House Hotel, Carton House, Maynooth, County Kildare, Ireland, to consider and vote upon the following proposals:

1. By separate resolutions, to re-elect or elect as directors for a period of 1 year expiring at the end of the Annual General Meeting of Shareholders of Ingersoll-Rand plc in 2016, the following 12 individuals:

(a)	Ann C. Berzin	(g)	Linda P. Hudson
(b)	John Bruton	(h)	Michael W. Lamach
(c)	Elaine L. Chao	(i)	Myles P. Lee
(d)	Jared L. Cohon	(j)	John P. Surma
(e)	Gary D. Forsee	(k)	Richard J. Swift
(f)	Constance J. Horner	(l)	Tony L. White

2. To give advisory approval of the compensation of the Company's Named Executive Officers.
3. To approve the appointment of PricewaterhouseCoopers LLP as independent auditors of the Company and authorize the Audit Committee of the Board of Directors to set the auditors' remuneration.
4. To renew the Directors' existing authority to issue shares.
5. To renew the Directors' existing authority to issue shares for cash without first offering shares to existing shareholders. *(Special Resolution)*
6. To determine the price range at which the Company can reissue shares that it holds as treasury shares. *(Special Resolution)*
7. To conduct such other business properly brought before the meeting.

Only shareholders of record as of the close of business on April 8, 2015, are entitled to receive notice of and to vote at the Annual General Meeting. **Whether or not you plan to attend the meeting, please provide your proxy by either using the Internet or telephone as further explained in the accompanying proxy statement or filling in, signing, dating, and promptly mailing a proxy card.**

Directions to the meeting can be found in Appendix A of the attached Proxy Statement.

Registered Office:
170/175 Lakeview Dr.
Airside Business Park
Swords, Co. Dublin
Ireland

By Order of the Board of Directors,
EVAN M. TURTZ
Secretary

IF YOU ARE A SHAREHOLDER WHO IS ENTITLED TO ATTEND AND VOTE, THEN YOU ARE ENTITLED TO APPOINT A PROXY OR PROXIES TO ATTEND AND VOTE ON YOUR BEHALF. A PROXY IS NOT REQUIRED TO BE A SHAREHOLDER IN THE COMPANY. IF YOU WISH TO APPOINT AS PROXY ANY PERSON OTHER THAN THE INDIVIDUALS SPECIFIED ON THE PROXY CARD, PLEASE CONTACT THE COMPANY SECRETARY AT OUR REGISTERED OFFICE.

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS

FOR THE ANNUAL GENERAL MEETING OF SHAREHOLDERS TO BE HELD ON JUNE 4, 2015

The Annual Report and Proxy Statement are available at www.proxyvote.com.

The Notice of Internet Availability of Proxy Materials, or this Notice of 2015 Annual General Meeting of Shareholders, the Proxy Statement and the Annual Report are first being mailed to shareholders on or about April 23, 2015.

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SUMMARY INFORMATION

This summary highlights information contained elsewhere in this Proxy Statement. For more complete information about these topics, please review Ingersoll-Rand plc's Annual Report on Form 10-K and the entire Proxy Statement.

Annual General Meeting of Shareholders

Date and Time:	June 4, 2015 at 2:30 p.m., local time
Place:	Carton House Hotel, Carton House Maynooth, County Kildare Ireland
Record Date:	April 8, 2015
Voting:	Shareholders as of the record date are entitled to vote. Each ordinary share is entitled to one vote for each director nominee and each of the other proposals.
Attendance:	All shareholders may attend the meeting.

Meeting Agenda and Voting Recommendations

The Board of Directors recommends that you vote "For" each of the following items that will be submitted for shareholder approval at the Annual General Meeting.

Agenda Item	Vote Required	Page
Election of 12 directors named in the proxy statement.	Majority of votes cast	5
Advisory approval of the compensation of the Company's Named Executive Officers.	Majority of votes cast	10
Approval of appointment of PricewaterhouseCoopers LLP as the Company's independent auditors and authorize the Audit Committee to set the auditors' remuneration.	Majority of votes cast	11
Renew the Directors' authority to issues shares.	Majority of votes cast	13
Renew the Directors' authority to issue shares for cash without first offering shares to existing shareholders *(Special Resolution)*	75% of votes cast	14
Determine the price at which the Company can reissue shares held as treasury shares *(Special Resolution)*	75% of votes cast	15

Proxy Statement

Corporate Governance Highlights

- Substantial majority of independent directors (9 of 10) current directors and (11 of 12) if all nominees are elected
- Annual election of directors
- Majority vote for directors
- Independent Lead Director
- Board oversight of risk management
- Succession planning at all levels, including for Board and CEO
- Annual Board and committee self-assessments
- Executive sessions of non-management directors
- Continuing director education
- Executive and director stock ownership guidelines
- Board oversight of sustainability program

Director Nominees

Set forth below is summary information about each director nominee.

Nominee	Age	Director Since	Principal Occupation	Independent	Committee Memberships
Ann C. Berzin	63	2001	Former Chairman and CEO of Financial Guaranty Insurance Company	✓	• Audit • Finance (Chair)
John Bruton	67	2010	Former Prime Minister of the Republic of Ireland and Former European Union Commission Head of Delegation to the United States	✓	• Compensation • Corporate Governance and Nominating
Elaine L. Chao	62	Nominee	24th Secretary of Labor from 2001 until 2009	✓	• Nominee to Compensation • Nominee to Corporate Governance and Nominating
Jared L. Cohon	67	2008	President Emeritus of Carnegie Mellon University, University Professor of Civil and Environmental Engineering and of Engineering and Public Policy, and Director of the Scott Institute for Energy Innovation	✓	• Compensation • Corporate Governance and Nominating
Gary D. Forsee	65	2007	Former President of University of Missouri System and Former Chairman of the Board and Chief Executive Officer of Sprint Nextel Corporation	✓	• Compensation • Corporate Governance and Nominating (Chair)
Constance J. Horner	73	1994	Former Commissioner of U.S. Commission on Civil Rights	✓	• Compensation • Corporate Governance and Nominating
Linda P. Hudson	64	Nominee	Founder, Chairman and CEO of The Cardea Group and Former President and CEO of BAE Systems, Inc.	✓	• Nominee to Audit • Nominee to Finance
Michael W. Lamach	51	2010	Chairman and CEO of Ingersoll-Rand plc		• None
Myles P. Lee	61	2015	Former Director and CEO of CRH plc	✓	• Audit • Finance

John P. Surma	60	2013	Former Chairman and CEO of United States Steel Corporation	✓	• Audit • Finance
Richard J. Swift	70	1995	Former Chairman of Financial Accounting Standards Advisory Council and Former Chairman, President and CEO of Foster Wheeler Ltd.	✓	• Lead Independent Director • Audit (Chair) • Finance
Tony L. White	68	1997	Former Chairman, President and CEO of Applied Biosystems Inc.	✓	• Compensation (Chair) • Corporate

Advisory Approval of Our Executive Compensation

We are asking for your advisory approval of the compensation of our named executive officers (“NEOs”). While our Board of Directors intends to carefully consider the shareholder vote resulting from the proposal, the final vote will not be binding on us and is advisory in nature. Before considering this proposal, please read our Compensation Discussion and Analysis, which explains our executive compensation programs and the Compensation Committee’s compensation decisions.

Executive Compensation

Pay for Performance

Our executive compensation programs are based on the principles of (i) market competitiveness, (ii) pay for performance, (iii) mix of short and long-term incentives, (iv) internal parity, (v) shareholder alignment and (vi) business strategy alignment. Consistent with these principles, the Compensation Committee has adopted executive compensation programs with a strong link between pay and achievement of short and long-term Company goals.

2014 Results

During 2014, our first full year after the spin-off of our commercial and residential security businesses (“Allegion”) and the reorganization of our Company, we achieved strong financial performance. The following table documents the results realized in 2014:

Metric	Performance
Revenue	Adjusted annual Revenue of $12.875 billion, an increase of 4.2% over 2013
OI	Adjusted OI of $1.423 billion, an increase of 19.8% over 2013
OI Margin	Adjusted OI margin of 11.05%, an increase of 1.45 percentage points over 2013
Cash Flow	Adjusted Cash Flow of $853 million, a decrease of 1.1% from 2013
EPS	Adjusted EPS of $3.30, an increase of 25% over 2013
3-Year EPS Growth	3-year EPS growth (2012 - 2014) of 19.37%, which ranks at the 88th percentile of the companies in the S&P 500 Industrials Index
3-Year TSR	3-year TSR (2012-2014) of 153.66%, which ranks at the 91st percentile of the companies in the S&P 500 Industrials Index

Based on our adjusted 2014 results for Revenue, Operating Income (“OI”), Cash Flow and OI margin, we achieved an Annual Incentive Matrix (“AIM”) financial score of 102.41% of target for the Enterprise. At the Segment level, 2014 AIM financial scores were 164.60% of target for the Climate Segment and 61.86% of target for the Industrial Segment.

Based on our achievement of an earnings per share (“EPS”) growth rate of 19.37% and Total Shareholder Return (“TSR”) of 153.66% during the 2012 to 2014 performance period, Performance Share Units (“PSUs”) under our Performance Share Program (“PSP”) paid out at 200% of target (maximum payout allowed under the plan).

Approval of Appointment of Independent Auditors

We are asking you to approve the appointment of PricewaterhouseCoopers LLP (“PwC”) as our independent auditors for 2015 and to authorize the Audit Committee to set PwC’s remuneration.

Renew the Directors’ authority to issues shares

We are asking you to renew our Directors’ authority to issue shares under Irish law. This authority is fundamental to our business and granting the Board this authority is a routine matter for public companies incorporated in Ireland.

Renew the Directors’ authority to issue shares for cash without first offering shares to existing shareholders

We are asking you to renew the Directors’ authority to issue shares for cash without first offering shares to existing shareholders. This authority is fundamental to our business and granting the Board this authority is a routine matter for public companies incorporated in Ireland. As required under Irish law, this proposal requires the affirmative vote of at least 75% of the votes cast.

Determine the price at which the Company can reissue shares held as treasury shares

We are asking you to determine the price at which the Company can reissue shares held as treasury shares. From time to time the Company may acquire ordinary shares and hold them as treasury shares. The Company may reissue such treasury shares, and under Irish law, our shareholders must authorize the price range at which we may reissue any shares held in treasury.

2016 Annual Meeting

Deadline for shareholder proposals for inclusion in the proxy statement:	December 26, 2015
Deadline for business proposals and nominations for director:	March 6, 2016

Ingersoll Rand

Ingersoll-Rand plc

U.S. Mailing Address:
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Davidson, NC 28036
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PROXY STATEMENT

In this Proxy Statement, "Ingersoll Rand," the "Company," "we," "us" and "our" refer to Ingersoll-Rand plc, an Irish public limited company. This Proxy Statement and the enclosed proxy card, or the Notice of Internet Availability of Proxy Materials, are first being mailed to shareholders of record on April 8, 2015 (the "Record Date") on or about April 23, 2015.

PROPOSALS REQUIRING YOUR VOTE

Item 1. Election of Directors

The Company uses a majority of votes cast standard for the election of directors. A majority of the votes cast means that the number of votes cast "for" a director nominee must exceed the number of votes cast "against" that director nominee. Each director of the Company is being nominated for election for a one-year term beginning at the end of the 2015 Annual General Meeting of Shareholders to be held on June 4, 2015 (the "Annual General Meeting") and expiring at the end of the 2016 Annual General Meeting of Shareholders. Mr. Edward E. Hagenlocker and Mr. Theodore E. Martin are retiring at the 2015 Annual General Meeting in accordance with our Corporate Governance Guidelines due to each attaining the age 75 prior to such meeting.

Under our articles of association, if a director is not re-elected in a director election, the director shall retire at the close or adjournment of the Annual General Meeting. Each director standing for election was elected as a director at our 2014 Annual General Meeting except for Myles Lee who was elected February 3, 2015 and Elaine L. Chao and Linda P. Hudson who are standing for election for the first time at this Annual General Meeting.

The Board of Directors recommends a vote FOR the directors nominated for election listed under proposals 1 (a) through (l) below.

(a) Ann C. Berzin – age 63, director since 2001

- Chairman and Chief Executive Officer of Financial Guaranty Insurance Company (insurer of municipal bonds and structured finance obligations), a subsidiary of General Electric Capital Corporation, from 1992 to 2001.
- Current Directorships:
  - Exelon Corporation
  - Baltimore Gas & Electric Company
- Other Directorships Held in the Past Five Years:
  - Constellation Energy Group, Inc.
  - Kindred Healthcare, Inc.

Ms. Berzin's extensive experience in finance at a global diversified industrial firm and her expertise in complex investment and financial products and services bring critical insight to the Company's financial affairs, including its borrowings, capitalization, and liquidity. In addition, Ms. Berzin's relationships across the global financial community strengthen Ingersoll Rand's access to capital markets. Her board memberships provide deep understanding of trends in the energy and healthcare sectors, both of which present ongoing opportunities and challenges for Ingersoll Rand.

(b) John Bruton – age 67, director since 2010

- European Union Commission Head of Delegation to the United States from 2004 to 2009.
- Prime Minister of the Republic of Ireland from 1994 to 1997.
- Current Directorships:
  - Montpelier Re Holding Ltd.
- Other Directorships Held in the Past Five Years: None

Mr. Bruton's long and successful career of public service on behalf of Ireland and Europe provides extraordinary insight into critical regional and global economic, social and political issues, all of which directly influence the successful execution of the Company's strategic plan. In particular, Mr. Bruton's leadership role in transforming

Ireland into one of the world's leading economies during his tenure, as well as in preparing the governing document for managing the Euro, lend substantial authority to Ingersoll Rand's economic and financial oversight.

(c) Elaine L. Chao - age 62, director nominee for 2015 Annual General Meeting

- 24th U.S. Secretary of Labor from 2001 until 2009, the first Asian American woman cabinet officer in American history.
- Chairwoman of the Ruth Mulan Chu Chao Foundation, 2013 to present.
- Distinguished Fellow at the Heritage Foundation from August 1996 to January 2001 and January 2009 to August 2014.
- President and Chief Executive Officer of United Way of America from November 1992 to August 1996.
- Current Directorships:
    - News Corp.
    - Wells Fargo & Co.
    - Vulcan Materials Company
- Other Directorships Held in the Past Five Years: Dole Food Company, Inc., Protective Life

Ms. Chao's extensive leadership experience including high profile positions at large, complex organizations in the public, private and non-profit sectors will bring valuable perspective to matters relevant to the Company in the areas of global competitiveness, international geopolitical dynamics, workforce development, trends in governmental policies and corporate governance. In particular, Ms. Chao's service as U.S. Secretary of Labor will provide extensive knowledge and experience regarding labor and employment trends, workforce health and safety, pension benefits and competition in a worldwide economy. Ms. Chao's ongoing board memberships in the financial and communications industries will also provide further insight into finance, macroeconomics and new media developments.

(d) Jared L. Cohon – age 67, director since 2008

- President Emeritus at Carnegie Mellon University, President of Carnegie Mellon University from 1997-2013 and also appointed University Professor of Civil and Environmental Engineering / Engineering and Public Policy and Director of the Scott Institute for Energy Innovation.
- Current Directorships:
    - Lexmark, Inc.
    - Unisys
- Other Directorships Held in the Past Five Years: None
- Other Activities:
    - Carnegie Corporation, Trustee
    - Heinz Endowments, Trustee
    - Center for Sustainable Shale Gas Development, Director and Chair
    - Health Effects Institute, Director

Dr. Cohon's extensive career in academics, including 16 years as president of an institution known throughout the world for its leadership in the fields of computer science and engineering offers the Company tremendous insight into the latest developments in areas critical to commercial innovation and manufacturing process improvement. A member of the National Academy of Engineering, Dr. Cohon is a recognized authority on environmental and water resources systems analysis and management. As such, Dr. Cohon also brings unique perspectives on sustainable business practices, both within our own operations and on behalf of our customers and communities. In 2008 and 2009, at the request of Congress, Dr. Cohon chaired the National Research Council Committee that produced the report, "Hidden Costs of Energy: Unpriced Consequences of Energy Production and Use." In 2014, Dr. Cohon was appointed co-chair of the Congressionally-mandated Commission to review and evaluate the National Energy Laboratories. Finally, Dr. Cohon's more than nine years of service as a member of Trane Inc.'s (formerly American Standard) board of directors provides critical insight into that part of the Company's business.

(e) Gary D. Forsee – age 65, director since 2007

- President, University of Missouri System from 2008 to 2011.
- Chairman of the Board (from 2006 to 2007) and Chief Executive Officer (from 2005 to 2007) of Sprint Nextel Corporation (a telecommunications company).
- Current Directorships:

- Great Plains Energy Inc.
- DST Systems Inc. - Mr. Forsee's nomination as a director of the DST board will be presented at the DST 2015 Annual Meeting.

- Other Directorships Held in the Past Five Years: None
- Other Activities:
  - Trustee, Midwest Research Institute
  - Board, University of Missouri – Kansas City Foundation
  - Board, University of Missouri – Kansas City Bloch Business School Foundation

In addition to his broad operational and financial expertise, Mr. Forsee's experience as chairman and chief executive officer with the third largest U.S. firm in the global telecommunications industry offers a deep understanding of the opportunities and challenges within markets experiencing significant technology-driven change. His recent role as president of a major university system provides insight into the Company's talent development initiatives, which remain a critical enabler of Ingersoll Rand's long-term success. Mr. Forsee's membership on the board of an energy services utility also benefits the Company as it seeks to achieve more energy-efficient operations and customer solutions.

(f) Constance J. Horner – age 73, director since 1994

- Guest Scholar at the Brookings Institution (a non-partisan research institute) from 1993 to 2005.
- Commissioner of U.S. Commission on Civil Rights from 1993 to 1998.
- Assistant to the President and Director of Presidential Personnel from 1991 to 1993.
- Deputy Secretary, U.S. Department of Health and Human Services from 1989 to 1991.
- Current Directorships:
  - Pfizer Inc. - Ms. Horner will not be standing for reelection to the board of directors at Pfizer's 2015 annual meeting of stockholders because she has reached the mandatory retirement age for directors.
  - Prudential Financial, Inc.
- Other Directorships Held in the Past Five Years: None
- Other Activities:
  - Trustee, The Prudential Foundation
  - Fellow, National Academy of Public Administration

Ms. Horner's substantial leadership experience and public-policy expertise resulting from her service in two presidential administrations and several U.S. government departments provide Ingersoll Rand with important perspective on matters that directly affect the Company's operations and financial affairs. In particular, Ms. Horner has deep insight into employee relations, talent development, diversity, operational management and healthcare through her leadership positions at various federal departments and commissions. Ms. Horner's board memberships afford engagement in the areas of healthcare, risk management and financial services, all of which have a direct influence on Ingersoll Rand's success.

(g) Linda P. Hudson - age 64, director nominee

- Founder, Chairman, and Chief Executive Officer of The Cardea Group, a business management consulting firm
- Former President and Chief Executive Officer of BAE Systems, Inc.
- Current Directorships:
  - The Southern Company
  - Bank of America
- Other Directorships Held in the Past Five Years: BAE Systems Plc
- Other Activities:
  - Director, University of Florida Foundation, Inc. and the University of Florida Engineering Leadership Institute
  - Director, Center for a New American Security
  - Director, Wake Forest Charlotte Center

Ms. Hudson’s prior role as President and CEO of BAE Systems and her extensive experience in the defense and engineering sectors will provide the Company with strong operational insight and understanding of matters crucial to the Company’s business. Prior to becoming CEO, Ms. Hudson was president of BAE Systems' Land & Armaments operating group, the world's largest military vehicle and equipment business, with operations around the world. In addition, Ms. Hudson has broad experience in strategic planning and risk management in complex business environments.

(h) Michael W. Lamach – age 51, Chairman since June 2010 and director since February 2010

- Chief Executive Officer (since February 2010) of the Company.
- President and Chief Operating Officer of the Company from February 2009 to February 2010.
- Senior Vice President and President, Trane Commercial Systems, of the Company from June 2008 to September 2009.
- Current Directorships:
  - Iron Mountain Incorporated - Mr. Lamach has informed Iron Mountain that he will retire from its board of directors and will not be standing for reelection to the board of directors at Iron Mountain's 2015 annual meeting of stockholders.
  - PPG Industries, Inc.
- Other Directorships Held in the Past Five Years: None

Mr. Lamach’s extensive career of successfully leading global businesses, including ten years with Ingersoll Rand, brings significant experience and expertise to the Company’s management and governance. His 30 years of business leadership encompass global automotive components, controls, security and HVAC systems businesses, representing a broad and diverse range of products and services, markets, channels, applied technologies and operational profiles. In his current role of Chief Executive Officer, he led the successful spin-off of the Company’s commercial and residential security business and has been instrumental in driving growth and operational excellence initiatives across the Company’s global operations.

(i) Myles P. Lee – age 61, director since 2015

- Former Director and Chief Executive Officer of CRH plc
- Current Directorships: Babcock International Group plc
- Other Directorships Held in the Past Five Years
  - CRH plc
- Other Activities:
  - Director, St. Vincent’s Healthcare Group

Mr. Lee's experience as the former head of the largest public or private company in Ireland provides strategic and practical judgment to critical elements of the Company’s growth and productivity strategies, expertise in Irish governance matters and significant insight into the building and construction sector. In addition, Mr. Lee's previous service as Finance Director and General Manager of Finance of CRH plc and in a professional accountancy practice provides valuable financial expertise to the Company.

(j) John P. Surma – age 60, director since 2013

- Former Chairman (from 2006-2013) and Chief Executive Officer (from 2004-2013) of United States Steel Corporation (a steel manufacturing company).
- Current Directorships:
  - Marathon Petroleum Corporation
  - MPLX LP (a publicly traded subsidiary of Marathon Petroleum Corporation)
  - Concho Resources Inc.
- Other Directorships Held in the Past Five Years:
  - The Bank of New York Mellon Corporation
- Other Activities:
  - Director and Deputy Chair, Federal Reserve Bank of Cleveland
  - Director, UPMC

Mr. Surma's experience as the former chairman and chief executive officer of a large industrial company provides significant and direct expertise across all aspects of Ingersoll Rand's operational and financial affairs. In particular, Mr. Surma's financial experience, having previously served as the chief financial officer of United States Steel Corporation and as a partner of the audit firm PricewaterhouseCoopers LLP, provides the Board with valuable insight into financial reporting and accounting oversight of a public company. Mr. Surma's past and present board memberships and other activities provide the Board an understanding of developments in the energy sector as the Company seeks to develop more energy-efficient operations and insight into national and international business and trade policy that could impact the Company.

(k) Richard J. Swift – age 70, Lead Director since 2010 and director since 1995

- Chairman of Financial Accounting Standards Advisory Council from 2002 through 2006.
- Chairman, President and Chief Executive Officer of Foster Wheeler Ltd. (provider of design, engineering, construction, manufacturing, management and environmental services) from 1994 to 2001.
- Current Directorships:
  - CVS Caremark Corporation
  - Hubbell Incorporated
  - Kaman Corporation
  - Public Service Enterprise Group
- Other Directorships Held in the Past Five Years: None

Mr. Swift's experience as chairman and chief executive officer of a global engineering firm, the fact that he was a licensed professional engineer for 35 years prior to the retirement of his license and his five-year leadership of the advisory organization to a major accounting standards board imparts substantial expertise to all of the Company's operational and financial matters. His leadership of an organization that was instrumental in some of the world's most significant engineering projects provides unique insight into the complex systems involved in the efficient and effective development of buildings and industrial operations, which represent key global market segments for Ingersoll Rand's products and services. Mr. Swift's board memberships include firms engaged in the manufacture and distribution of industrial, electrical and electronic products, which directly correspond to key elements of the Company's growth and operational strategies.

(l) Tony L. White – age 68, director since 1997

- Chairman, President and Chief Executive Officer of Applied Biosystems Inc. (a developer, manufacturer and marketer of life science systems and genomic information products) from 1995 until his retirement in 2008.
- Current Directorships:
  - C.R. Bard, Inc.
  - CVS Caremark Corporation
- Other Directorships Held in the Past Five Years: None

Mr. White's extensive management experience, including 13 years as chairman and chief executive officer of an advanced-technology life sciences firm, provides substantial expertise and guidance across all aspects of Ingersoll Rand's operational and financial affairs. In particular, Mr. White's leadership of an organization whose success was directly connected to innovation and applied technologies aligns with the Company's focus on innovation as a key source of growth. The Company benefits from Mr. White's ongoing board memberships, where developments related to biotechnology and healthcare delivery systems can offer instructive process methodologies to accelerate our innovation efforts.

Item 2. Advisory Approval of the Compensation of Our Named Executive Officers

The Company is presenting the following proposal, commonly known as a "Say-on-Pay" proposal, which gives you as a shareholder the opportunity to endorse or not endorse our compensation program for Named Executive Officers by voting for or against the following resolution:

"RESOLVED, that the shareholders approve the compensation of the Company's Named Executive Officers, as disclosed in the Compensation Discussion and Analysis, the compensation tables, and the related disclosure contained in the Company's proxy statement."

While our Board of Directors intends to carefully consider the shareholder vote resulting from the proposal, the final vote will not be binding on us and is advisory in nature.

In considering your vote, please be advised that our compensation program for Named Executive Officers is guided by our design principles, as described in the Compensation Discussion and Analysis section of this Proxy Statement:

- *Market competitiveness*
- *Pay for performance*
- *Mix of short and long-term incentives*
- *Internal parity*
- *Shareholder alignment*
- *Business strategy alignment*

By following these design principles, we believe that our compensation program for Named Executive Officers is strongly aligned with the long-term interests of our shareholders.

The Board of Directors recommends that you vote <u>FOR</u> advisory approval of the compensation of our Named Executive Officers as disclosed in the Compensation Discussion and Analysis, the compensation tables, and the related disclosure contained in this proxy statement.

Item 3. Approval of Appointment of Independent Auditors

At the Annual General Meeting, shareholders will be asked to approve the appointment of PricewaterhouseCoopers LLP ("PwC") as our independent auditors for the fiscal year ending December 31, 2015, and to authorize the Audit Committee of our Board of Directors to set the independent auditors' remuneration. PwC has been acting as our independent auditors for many years and, both by virtue of its long familiarity with the Company's affairs and its ability, is considered best qualified to perform this important function.

Representatives of PwC will be present at the Annual General Meeting and will be available to respond to appropriate questions. They will have an opportunity to make a statement if they so desire.

The Board of Directors recommends a vote FOR the proposal to approve the appointment of PwC as independent auditors of the Company and to authorize the Audit Committee of the Board of Directors to set the auditors' remuneration.

Audit Committee Report

While management has the primary responsibility for the financial statements and the reporting process, including the system of internal controls, the Audit Committee reviews the Company's audited financial statements and financial reporting process on behalf of the Board of Directors. The independent auditors are responsible for performing an independent audit of the Company's consolidated financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States) and to issue a report thereon. The Audit Committee monitors those processes. In this context, the Audit Committee has met and held discussions with management and the independent auditors regarding the fair and complete presentation of the Company's results. The Audit Committee has discussed significant accounting policies applied by the Company in its financial statements, as well as alternative treatments. Management has represented to the Audit Committee that the Company's consolidated financial statements were prepared in accordance with United States generally accepted accounting principles, and the Audit Committee has reviewed and discussed the consolidated financial statements with management and the independent auditors. The Audit Committee also discussed with the independent auditors the matters required to be discussed by Auditing Standard No. 16, "Communications with Audit Committees" issued by the Public Company Accounting Oversight Board (United States).

In addition, the Audit Committee has received and reviewed the written disclosures and the letter from PwC required by the Public Company Accounting Oversight Board regarding PwC's communications with the Audit Committee concerning independence and discussed with PwC the auditors' independence from the Company and its management in connection with the matters stated therein. The Audit Committee also considered whether the independent auditors' provision of non-audit services to the Company is compatible with the auditors' independence. The Audit Committee has concluded that the independent auditors are independent from the Company and its management.

The Audit Committee discussed with the Company's internal and independent auditors the overall scope and plans for their respective audits. The Audit Committee meets separately with the internal and independent auditors, with and without management present, to discuss the results of their examinations, the evaluations of the Company's internal controls and the overall quality of the Company's financial reporting.

In reliance on the reviews and discussions referred to above, the Audit Committee recommended to the Board of Directors, and the Board has approved, that the audited financial statements be included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2014 ("2014 Form 10-K"), for filing with the Securities and Exchange Commission (the "SEC"). The Audit Committee has selected PwC, subject to shareholder approval, as the Company's independent auditors for the fiscal year ending December 31, 2015.

AUDIT COMMITTEE

Richard J. Swift (Chair)
Ann C. Berzin
Edward E. Hagenlocker
Myles P. Lee
Theodore E. Martin
John P. Surma

Fees of the Independent Auditors

The following table shows the fees paid or accrued by the Company for audit and other services provided by PwC for the fiscal years ended December 31, 2014 and 2013:

	2014	2013
Audit Fees (a)	$ 12,660,000	$ 14,831,000
Audit-Related Fees (b)	319,000	3,985,000
Tax Fees (c)	5,391,000	10,785,000
All Other Fees (d)	21,000	1,643,000
Total	$ 18,391,000	$ 31,244,000

(a) Audit Fees for the fiscal years ended December 31, 2014 and 2013, respectively, were for professional services rendered for the audits of the Company's annual consolidated financial statements and its internal controls over financial reporting, including quarterly reviews, statutory audits, issuance of consents, comfort letters and assistance with, and review of, documents filed with the SEC.

(b) Audit-Related Fees consist of assurance services that are related to performing the audit and review of our financial statements. Audit-Related Fees for the fiscal year ended December 31, 2014 include employee benefit plan audits, abandoned and unclaimed property tax assessments, and comfort letter related to the 2014 bond offering. Audit-Related Fees for the fiscal year ended December 31, 2013 include employee benefit plan audits, abandoned and unclaimed property tax assessments, systems implementation risk assessment, comfort letter related to a bond offering of disposed businesses and carve-out audits of disposed businesses primarily related to the Spin-off.

(c) Tax Fees for the fiscal years ended December 31, 2014 and 2013 include consulting and compliance services in the U.S. and non-U.S. locations and primarily relate to Spin-off costs.

(d) All Other Fees for the fiscal year ended December 31, 2014 include license fees for technical accounting software. All Other Fees for the fiscal year ended December 31, 2013 include trading platform redesign services, advisory services for the transition of insourcing of information technology services and license fees for technical accounting software.

The Audit Committee has adopted policies and procedures which require that the Audit Committee pre-approve all non-audit services that may be provided to the Company by its independent auditors. The policy: (i) provides for pre-approval of an annual budget for each type of service; (ii) requires Audit Committee approval of specific projects over $100,000, even if included in the approved budget; and (iii) requires Audit Committee approval if the forecast of expenditures exceeds the approved budget on any type of service. The Audit Committee pre-approved all of the services described under "Audit-Related Fees," "Tax Fees" and "All Other Fees." The Audit Committee has determined that the provision of all such non-audit services is compatible with maintaining the independence of PwC.

Item 4. Renewal of the Directors' existing authority to issue shares.

Under Irish law, directors of an Irish public limited company must have authority from its shareholders to issue any shares, including shares which are part of the company's authorized but unissued share capital. Our shareholders provided the Directors with this authorization at our 2014 annual general meeting on June 5, 2014 for a period of 18 months. Because this share authorization period will expire in December 2015, we are presenting this proposal to renew the Directors' authority to issue our authorized shares on the terms set forth below.

We are seeking approval to authorize our Directors to issue up to 33% of our issued ordinary share capital as of April 8, 2015 (the latest practicable date before this proxy statement), for a period expiring 18 months from the passing of this resolution, unless renewed.

Granting the Directors this authority is a routine matter for public companies incorporated in Ireland and is consistent with Irish market practice. This authority is fundamental to our business and enables us to issue shares, including in connection with our equity compensation plans (where required) and, if applicable, funding acquisitions and raising capital. We are not asking you to approve an increase in our authorized share capital or to approve a specific issuance of shares. Instead, approval of this proposal will only grant the Directors the authority to issue shares that are already authorized under our articles upon the terms below. In addition, we note that, because we are a NYSE-listed company, our shareholders continue to benefit from the protections afforded to them under the rules and regulations of the NYSE and SEC, including those rules that limit our ability to issue shares in specified circumstances. Furthermore, we note that this authorization is required as a matter of Irish law and is not otherwise required for other U.S. companies listed on the NYSE with whom we compete. Renewal of the Directors' existing authority to issue shares is fully consistent with NYSE rules and listing standards and with U.S. capital markets practice and governance standards.

As of the date of this Proxy Statement, the Companies Act 2014 (the "Act") is not yet in effect. It is expected to be commenced in June 2015. The Act consolidates existing company law in Ireland and will make a number of amendments to existing legislation. Reference is made to the Act in each of Items 4 to 6 to ensure that the resolutions passed at the Annual General Meeting will be effective after the commencement of the Act, whether this occurs before or after the date of the Annual General Meeting, and prior to the date of the annual general meeting in 2016.

As required under Irish law, the resolution in respect of Item 4 is an ordinary resolution that requires the affirmative vote of a simple majority of the votes cast.

The text of this resolution is as follows:

"That the Directors be and are hereby generally and unconditionally authorized with effect from the passing of this resolution to exercise all powers of the Company to allot relevant securities (within the meaning of Section 20 of the Companies (Amendment) Act 1983) up to an aggregate nominal amount of $87,355,827 (87,355,827 shares) (being equivalent to approximately 33% of the aggregate nominal value of the issued ordinary share capital of the Company as of April 8, 2015 (the latest practicable date before this proxy statement)), and the authority conferred by this resolution shall expire 18 months from the passing of this resolution, unless previously renewed, varied or revoked; provided that the Company may make an offer or agreement before the expiry of this authority, which would or might require any such securities to be allotted after this authority has expired, and in that case, the directors may allot relevant securities in pursuance of any such offer or agreement as if the authority conferred hereby had not expired.

With the commencement of the Companies Act 2014, the authority conferred by this resolution shall be applied as if the reference to Section 20 of the Companies Act (Amendment) Act 1983 in this resolution is deemed to refer to Section 1021 of the Companies Act 2014."

The Board of Directors recommends that you vote FOR renewing the Directors' authority to issue shares.

Item 5: Renewal of Directors' existing authority to issue shares for cash without first offering shares to existing shareholders.

Under Irish law, unless otherwise authorized, when an Irish public limited company issues shares for cash, it is required first to offer those shares on the same or more favorable terms to existing shareholders of the company on a pro-rata basis (commonly referred to as the statutory pre-emption right). Our shareholders provided the Directors with this authorization at our 2014 annual general meeting on June 5, 2014 for a period of 18 months. Because this share authorization period will expire in December 2015, we are presenting this proposal to renew the Directors' authority to opt-out of the pre-emption right on the terms set forth below.

We are seeking approval to authorize our Directors to opt out of the statutory pre-emption rights provision in the event of (1) the issuance of shares for cash in connection with any rights issue and (2) any other issuance of shares for cash, if the issuance is limited to up to 5% of our issued ordinary share capital as of April 8, 2015 (the latest practicable date before this proxy statement), for a period expiring 18 months from the passing of this resolution, unless renewed.

Granting the Directors this authority is a routine matter for public companies incorporated in Ireland and is consistent with Irish market practice. Similar to the authorization sought for Item 4, this authority is fundamental to our business and enables us to issue shares under our equity compensation plans (where required) and if applicable, will facilitate our ability to fund acquisitions and otherwise raise capital. We are not asking you to approve an increase in our authorized share capital. Instead, approval of this proposal will only grant the Directors the authority to issue shares in the manner already permitted under our articles upon the terms below. Without this authorization, in each case where we issue shares for cash, we would first have to offer those shares on the same or more favorable terms to all of our existing shareholders. This requirement could undermine the operation of our compensation plans and cause delays in the completion of acquisitions and capital raising for our business. Furthermore, we note that this authorization is required as a matter of Irish law and is not otherwise required for other U.S. companies listed on the NYSE with whom we compete. Renewal of the Directors' existing authorization to opt out of the statutory pre-emption rights as described above is fully consistent with NYSE rules and listing standards and with U.S. capital markets practice and governance standards.

As required under Irish law, the resolution in respect of this proposal is a special resolution that requires the affirmative vote of at least 75% of the votes cast.

The text of the resolution in respect of this proposal is as follows:

"As a special resolution, that, subject to the passing of the resolution in respect of Item 4 as set out above and with effect from the passing of this resolution, the directors be and are hereby empowered pursuant to Section 24 of the Companies (Amendment) Act 1983 to allot equity securities (as defined in Section 23 of that Act) for cash, pursuant to the authority conferred by Item 4 as if sub-section (1) of Section 23 did not apply to any such allotment, provided that this power shall be limited to:

(a) the allotment of equity securities in connection with a rights issue in favor of the holders of ordinary shares (including rights to subscribe for, or convert into, ordinary shares) where the equity securities respectively attributable to the interests of such holders are proportional (as nearly as may be) to the respective numbers of ordinary shares held by them (but subject to such exclusions or other arrangements as the directors may deem necessary or expedient to deal with fractional entitlements that would otherwise arise, or with legal or practical problems under the laws of, or the requirements of any recognized regulatory body or any stock exchange in, any territory, or otherwise); and

(b) the allotment (otherwise than pursuant to sub-paragraph (a) above) of equity securities up to an aggregate nominal value of $13,235,731 (13,235,731 shares) (being equivalent to approximately 5% of the aggregate nominal value of the issued ordinary share capital of the Company as of April 8, 2015 (the latest practicable date before this proxy statement)) and the authority conferred by this resolution shall expire 18 months from the passing of this resolution, unless previously renewed, varied or revoked; provided that the Company may make an offer or agreement before the expiry of this authority, which would or might require any such securities to be allotted after this authority has expired, and in that case, the directors may allot equity securities in pursuance of any such offer or agreement as if the authority conferred hereby had not expired.

With the commencement of the Companies Act 2014, the authority conferred by this resolution shall be applied as if the references to Sections 20, 23 and 24 of the Companies (Amendment) Act 1983 in this resolution are deemed to refer to their equivalent provisions in Sections 1021, 1022 and 1023 of the Companies Act 2014."

The Board of Directors recommends that you vote FOR renewing the Directors' authority to opt-out of statutory pre-emption rights.

Item 6: Determine the price at which the Company can reissue shares held as treasury shares.

Our open-market share repurchases (redemptions) and other share buyback activities may result in ordinary shares being acquired and held by the Company as treasury shares. We may reissue treasury shares that we acquire through our various share buyback activities including in connection with our executive compensation program and our director programs.

Under Irish law, our shareholders must authorize the price range at which we may reissue any shares held in treasury. In this proposal, that price range is expressed as a minimum and maximum percentage of the closing market price of our ordinary shares on the NYSE the day preceding the day on which the relevant share is re-issued. Under Irish law, this authorization expires 18 months after its passing unless renewed.

The authority being sought from shareholders provides that the minimum and maximum prices at which an ordinary share held in treasury may be reissued are 95% and 120%, respectively, of the closing market price of the ordinary shares on the NYSE the day preceding the day on which the relevant share is re-issued, except as described below with respect to obligations under employee share schemes, which may be at a minimum price of nominal value. Any reissuance of treasury shares will be at price levels that the Board considers in the best interests of our shareholders.

As required under Irish law, the resolution in respect of this proposal is a special resolution that requires the affirmative vote of at least 75% of the votes cast.

The text of the resolution in respect of this proposal is as follows:

"As a special resolution, that the reissue price range at which any treasury shares held by the Company may be reissued off-market shall be as follows:

(a) the maximum price at which such treasury share may be reissued off-market shall be an amount equal to 120% of the "market price"; and

(b) the minimum price at which a treasury share may be reissued off-market shall be the nominal value of the share where such a share is required to satisfy an obligation under an employee share scheme or any option schemes operated by the Company or, in all other cases, an amount equal to 95% of the "market price"; and

(c) for the purposes of this resolution, the "market price" shall mean the closing market price of the ordinary shares on the NYSE the day preceding the day on which the relevant share is re-issued.

FURTHER, that this authority to reissue treasury shares shall expire at 18 months from the date of the passing of this resolution unless previously varied or renewed in accordance with the provisions of Section 209 of the Companies Act 1990.

With the commencement of the Companies Act 2014, the authority conferred by this resolution shall be applied as if the references to Section 209 of the Companies Act 1990 in this resolution are deemed to refer to Section 1078 of the Companies Act 2014."

The Board of Directors recommends that shareholders vote FOR the proposal to determine the price at which the Company can reissue shares held as treasury shares.

CORPORATE GOVERNANCE

Corporate Governance Guidelines

Our Corporate Governance Guidelines, together with the charters of the various Board committees, provide a framework for the corporate governance of the Company. The following is a summary of our Corporate Governance Guidelines and practices. A copy of our Corporate Governance Guidelines, as well as the charters of each of our Board committees, are available on our website at *www.ingersollrand.com* under the heading "Investor Relations – Corporate Governance."

Role of the Board of Directors

The Company's business is managed under the direction of the Board of Directors. The role of the Board of Directors is to oversee the management and governance of the Company and monitor senior management's performance.

Board Responsibilities

The Board of Directors' core responsibilities include:

- selecting, monitoring, evaluating and compensating senior management;
- assuring that management succession planning is adequate;
- reviewing the Company's financial controls and reporting systems;
- overseeing the Company's management of enterprise risk;
- reviewing the Company's ethical standards and legal, compliance programs and procedures; and
- evaluating the performance of the Board of Directors, Board committees and individual directors.

Board Leadership Structure

The positions of Chairman of the Board and CEO at the Company are held by the same person, except in unusual circumstances, such as during a CEO transition. This policy has worked well for the Company. It is the Board of Directors' view that the Company's corporate governance principles, the quality, stature and substantive business knowledge of the members of the Board, as well as the Board's culture of open communication with the CEO and senior management are conducive to Board effectiveness with a combined Chairman and CEO position.

In addition, the Board of Directors has a strong, independent Lead Director and it believes this role adequately addresses the need for independent leadership and an organizational structure for the independent directors. The Board of Directors appoints a Lead Director for a three-year minimum term from among the Board's independent directors. The Lead Director coordinates the activities of all of the Board's independent directors. The Lead Director is the principal confidant to the CEO and ensures that the Board of Directors has an open, trustful relationship with the Company's senior management team. In addition to the duties of all directors, as set forth in the Company's Governance Guidelines, the specific responsibilities of the Lead Director are as follows:

- Chair the meetings of the independent directors when the Chairman is not present;
- Ensure the full participation and engagement of all Board members in deliberations;
- Lead the Board of Directors in all deliberations involving the CEO's employment, including hiring, contract negotiations, performance evaluations, and dismissal;
- Counsel the Chairman on issues of interest/concern to directors and encourage all directors to engage the Chairman with their interests and concerns;
- Work with the Chairman to develop an appropriate schedule of Board meetings and approve such schedule, to ensure that the directors have sufficient time for discussion of all agenda items, while not interfering with the flow of Company operations;
- Work with the Chairman to develop the Board and Committee agendas and approve the final agendas;
- Keep abreast of key Company activities and advise the Chairman as to the quality, quantity and timeliness of the flow of information from Company management that is necessary for the directors to effectively and responsibly perform their duties; although Company management is responsible for the preparation of materials for the Board of Directors, the Lead Director will approve information provided to the Board and may specifically request the inclusion of certain material;
- Engage consultants who report directly to the Board of Directors and assist in recommending consultants that work directly for Board Committees;
- Work in conjunction with the Corporate Governance and Nominating Committee in compliance with Governance Committee processes to interview all Board candidates and make recommendations to the Board of Directors;
- Assist the Board of Directors and Company officers in assuring compliance with and implementation of the Company's Governance Guidelines; work in conjunction with the Corporate Governance Committee to recommend revisions to the Governance Guidelines;

- Call, coordinate and develop the agenda for and chair executive sessions of the Board's independent directors; act as principal liaison between the independent directors and the CEO;
- Work in conjunction with the Corporate Governance and Nominating Committee to identify for appointment the members of the various Board Committees, as well as selection of the Committee chairs;
- Be available for consultation and direct communication with major shareholders;
- Make a commitment to serve in the role of Lead Director for a minimum of three years; and
- Help set the tone for the highest standards of ethics and integrity.

Mr. Swift has been the Company's Lead Director since January 2010.

Board Risk Oversight

The Board of Directors has oversight responsibility of the processes established to report and monitor systems for material risks applicable to the Company. The Board of Directors focuses on the Company's general risk management strategy and the most significant risks facing the Company and ensures that appropriate risk mitigation strategies are implemented by management. The full Board is responsible for considering strategic risks and succession planning and, at each Board meeting, receives reports from each Committee as to risk oversight within their areas of responsibility. The Board of Directors has delegated to its various committees the oversight of risk management practices for categories of risk relevant to their functions as follows:

- The Audit Committee oversees risks associated with the Company's systems of disclosure controls and internal controls over financial reporting, as well as the Company's compliance with legal and regulatory requirements.
- The Compensation Committee considers risks related to the attraction and retention of talent and risks related to the design of compensation programs and arrangements.
- The Corporate Governance and Nominating Committee oversees risks associated with sustainability.
- The Finance Committee oversees risks associated with foreign exchange, insurance, credit and debt.

The Company has appointed the Chief Financial Officer as its Chief Risk Officer and, in that role, the Chief Risk Officer periodically reports on risk management policies and practices to the relevant Board Committee or to the full Board so that any decisions can be made as to any required changes in the Company's risk management and mitigation strategies or in the Board's oversight of these.

Finally, as part of its oversight of the Company's executive compensation program, the Compensation Committee considers the impact of the Company's executive compensation program and the incentives created by the compensation awards that it administers on the Company's risk profile. In addition, the Company reviews all of its compensation policies and procedures, including the incentives that they create and factors that may reduce the likelihood of excessive risk taking, to determine whether they present a significant risk to the Company. Based on this review, the Company has concluded that its compensation policies and procedures are not reasonably likely to have a material adverse effect on the Company.

Director Compensation and Share Ownership

It is the policy of the Board of Directors that directors' fees be the sole compensation received from the Company by any non-employee director. The Company has a share ownership requirement of four times the annual cash retainer paid to the directors. A director cannot sell any shares of Company stock until he or she attains such level of ownership and any sale thereafter cannot reduce the total number of holdings below the required ownership level. Directors are required to retain this minimum level of Company share ownership until their resignation or retirement from the Board.

Board Size and Composition

The Board of Directors consists of a substantial majority of independent, non-employee directors. In addition, our Corporate Governance Guidelines require that all members of the committees of the Board must be independent directors. The Board of Directors has the following four standing committees: Audit Committee, Compensation Committee, Corporate Governance and Nominating Committee, and Finance Committee. The Board of Directors has determined that each member of each of these committees is "independent" as defined in the NYSE listing standards and the Company's Guidelines for Determining Independence of Directors. Committee memberships and chairs are rotated periodically.

Board Diversity

The Company's policy on Board diversity relates to the selection of nominees for the Board of Directors. In selecting a nominee for the Board, the Corporate Governance and Nominating Committee considers the skills, expertise and background that would complement the existing Board and ensure that its members are of sufficiently diverse and independent backgrounds, recognizing that the Company's businesses and operations are diverse and global in nature. The Board of Directors has two female directors, one African-American director, one Hispanic director and two international directors out of a total of 12 directors. If all director nominees are elected at this meeting, the Company will have four female directors, one Hispanic director and two international directors out of a total of 12 directors.

Board Advisors

The Board of Directors and its committees may, under their respective charters, retain their own advisors to carry out their responsibilities.

Executive Sessions

The Company's independent directors meet privately in regularly scheduled executive sessions, without management present, to consider such matters as the independent directors deem appropriate. These executive sessions are required to be held no less than twice each year.

Board and Board Committee Performance Evaluation

The Corporate Governance and Nominating Committee assists the Board in evaluating its performance and the performance of the Board committees. Each committee also conducts an annual self-evaluation. The effectiveness of individual directors is considered each year when the directors stand for re-nomination.

Director Orientation and Education

The Company has developed an orientation program for new directors and provides continuing education for all directors. In addition, the directors are given full access to management and corporate staff as a means of providing additional information.

Director Nomination Process

The Corporate Governance and Nominating Committee reviews the composition of the full Board to identify the qualifications and areas of expertise needed to further enhance the composition of the Board, makes recommendations to the Board concerning the appropriate size and needs of the Board and, on its own or with the assistance of management, a search firm or others, identifies candidates with those qualifications. In considering candidates, the Corporate Governance and Nominating Committee will take into account all factors it considers appropriate, including breadth of experience, understanding of business and financial issues, ability to exercise sound judgment, diversity, leadership, and achievements and experience in matters affecting business and industry. The Corporate Governance and Nominating Committee considers the entirety of each candidate's credentials and believes that at a minimum each nominee should satisfy the following criteria: highest character and integrity, experience and understanding of strategy and policy-setting, sufficient time to devote to Board matters, and no conflict of interest that would interfere with performance as a director. Shareholders may recommend candidates for consideration for Board membership by sending the recommendation to the Corporate Governance and Nominating Committee, in care of the Secretary of the Company. Candidates recommended by shareholders are evaluated in the same manner as director candidates identified by any other means.

Director Retirement

It is the policy of the Board of Directors that each non-employee director must retire at the annual general meeting immediately following his or her 75^{th} birthday. Directors who change the occupation they held when initially elected must offer to resign from the Board of Directors. At that time, the Corporate Governance and Nominating Committee reviews the continued appropriateness of Board membership under the new circumstances and makes a recommendation to the Board of Directors. Employee directors, including the CEO, must retire from the Board of Directors at the time of a change in their status as an officer of the Company, unless the policy is waived by the Board.

Director Independence

The Board of Directors has determined that all of our current directors and director nominees, except M.W. Lamach, who is an employee of the Company, are independent under the standards set forth in Exhibit I to our Corporate Governance Guidelines, which are consistent with the NYSE listing standards. In determining the independence of directors, the Board evaluated transactions between the Company and entities with which directors were affiliated that occurred in the ordinary course of business and that were provided on the same terms and conditions available to other customers. A copy of Exhibit I to our Corporate Governance Guidelines is available on our website, *www.ingersollrand.com*, under the heading "Investor Relations—Corporate Governance."

Communications with Directors

Shareholders and other interested parties wishing to communicate with the Board of Directors, the non-employee directors or any individual director (including our Lead Director and Compensation Committee Chair) may do so either by sending a communication to the Board and/or a particular Board member, in care of the Secretary of the Company, or by e-mail at *irboard@irco.com*. Depending upon the nature of the communication and to whom it is directed, the Secretary will: (a) forward the communication to the appropriate director or directors; (b) forward the communication to the relevant department within the Company; or (c) attempt to handle the matter directly (for example, a communication dealing with a share ownership matter).

Code of Conduct

The Company has adopted a worldwide Code of Conduct, applicable to all employees, directors and officers, including our Chief Executive Officer, our Chief Financial Officer and our Controller. The Code of Conduct meets the requirements of a "code of ethics" as defined by Item 406 of Regulation S-K, as well as the requirements of a "code of business conduct and ethics" under the NYSE listing standards. The Code of Conduct covers topics including, but not limited to, conflicts of interest, confidentiality of information, and compliance with laws and regulations. A copy of the Code of Conduct is available on our website located at *www.ingersollrand.com* under the heading "Investor Relations—Corporate Governance." Amendments to, or waivers of the provisions of, the Code of Conduct, if any, made with respect to any of our directors and executive officers will be posted on our website.

Anti-Hedging Policy and Other Restrictions

The Company prohibits its directors and executive officers from (i) purchasing any financial instruments designed to hedge or offset any decrease in the market value of Company securities and (ii) engaging in any form of short-term speculative trading in Company securities. Directors and executive officers are also prohibited from holding Company securities in a margin account or pledging Company securities as collateral for a loan unless the Senior Vice President and General Counsel provides pre-clearance after the director or executive officer clearly demonstrates the financial capability to repay the loan without resort to the pledged securities.

Committees of the Board

Audit Committee

Members: Richard J. Swift (Chair)
Ann C. Berzin
Myles P. Lee
John P. Surma
Linda P. Hudson (nominee)

Key Functions:

- Review annual audited and quarterly financial statements, as well as the Company's disclosures under "Management's Discussion and Analysis of Financial Conditions and Results of Operations," with management and the independent auditors.
- Obtain and review periodic reports, at least annually, from management assessing the effectiveness of the Company's internal controls and procedures for financial reporting.
- Review the Company's processes to assure compliance with all applicable laws, regulations and corporate policy.
- Recommend the public accounting firm to be proposed for appointment by the shareholders as our independent auditors and review the performance of the independent auditors.
- Review the scope of the audit and the findings and approve the fees of the independent auditors.
- Approve in advance permitted audit and non-audit services to be performed by the independent auditors.
- Satisfy itself as to the independence of the independent auditors and ensure receipt of their annual independence statement.

The Board of Directors has determined that each current member and each director nominee who will become a member of the Audit Committee upon election is "independent" for purposes of the applicable rules and regulations of the SEC, as defined in the NYSE listing standards and the Company's Corporate Governance Guidelines, and has determined that each current member and each director nominee who will become a member of the Audit Committee upon election meets the qualifications of an "audit committee financial expert," as that term is defined by rules of the SEC.

A copy of the charter of the Audit Committee is available on our website, *www.ingersollrand.com*, under the heading "Investor Relations—Corporate Governance."

Compensation Committee

Members: Tony L. White (Chair)
John Bruton
Jared L. Cohon
Gary D. Forsee
Constance J. Horner
Elaine L. Chao (nominee)

Key Functions:

- Establish our executive compensation strategies, policies and programs.
- Review and approve the goals and objectives relevant to the compensation of the Chief Executive Officer, evaluate the Chief Executive Officer's performance against those goals and objectives and set the Chief Executive Officer's compensation level based on this evaluation. The Compensation Committee Chair presents all compensation decisions pertaining to the Chief Executive Officer to the full Board of Directors.
- Approve compensation of officers.
- Review and approve executive compensation and benefit programs.
- Administer the Company's equity compensation plans.
- Review and recommend significant changes in principal employee benefit programs.

- Approve and oversee Compensation Committee consultants.

For a discussion concerning the processes and procedures for determining NEO and director compensation and the role of executive officers and compensation consultants in determining or recommending the amount or form of compensation, see "Compensation Discussion and Analysis" and "Compensation of Directors," respectively.

The Board of Directors has determined that each member of the Compensation Committee is "independent" as defined in the NYSE listing standards and the Company's Corporate Governance Guidelines. In addition, the Board of Directors has determined that each member of the Compensation Committee qualifies as a "Non-Employee Director" within the meaning of Rule 16b-3 of the Securities Exchange Act of 1934 and an "outside director" within the meaning of Section 162(m) of the Code.

A copy of the charter of the Compensation Committee is available on our website, *www.ingersollrand.com*, under the heading "Investor Relations—Corporate Governance."

Corporate Governance and Nominating Committee

Members: Gary D. Forsee (Chair)
John Bruton
Jared L. Cohon
Constance J. Horner
Tony L. White
Elaine L. Chao (nominee)

Key Functions:

- Identify individuals qualified to become directors and recommend the candidates for all directorships.
- Recommend individuals for election as officers.
- Review the Company's Corporate Governance Guidelines and make recommendations for changes.
- Consider questions of independence of directors and possible conflicts of interest of directors as well as executive officers.
- Take a leadership role in shaping the corporate governance of the Company.
- Oversee the Company's sustainability efforts.

The Board of Directors has determined that each current member and each director nominee who will become a member of the Corporate Governance and Nominating Committee is "independent" as defined in the NYSE listing standards and the Company's Corporate Governance Guidelines.

A copy of the charter of the Corporate Governance and Nominating Committee is available on our website, *www.ingersollrand.com*, under the heading "Investor Relations—Corporate Governance."

Finance Committee

Members: Ann C. Berzin (Chair)
Myles P. Lee
John P. Surma
Richard J. Swift
Linda P. Hudson (nominee)

Key Functions:

- Review proposed borrowings and issuances of securities.
- Consider and recommend for approval by the Board of Directors the repurchase of the Company's shares.
- Review cash management policies.
- Review periodic reports of the investment performance of the Company's employee benefit plans.

The Board of Directors has determined that each current member and each director nominee who will become a member of the Finance Committee is "independent" as defined in the NYSE listing standards and the Company's Corporate Governance Guidelines.

A copy of the charter of the Finance Committee is available on our website, *www.ingersollrand.com*, under the heading "Investor Relations—Corporate Governance."

Board, Committee and Annual Meeting Attendance

The Board of Directors and its committees held the following number of meetings during the fiscal year ended December 31, 2014:

Board	6
Audit Committee	9
Compensation Committee	7
Corporate Governance and Nominating Committee	6
Finance Committee	6

Each incumbent director attended 95% or more of the total number of meetings of the Board of Directors and the committees on which he or she served during the year. The Company's non-employee directors held six independent director meetings without management present during the fiscal year 2014. It is the Board's general practice to hold independent director meetings in connection with regularly scheduled Board meetings.

The Company expects all Board members to attend the annual general meeting, but from time to time other commitments prevent all directors from attending the meeting. Ten of our eleven Board members standing for re-election at the 2014 Annual General Meeting attended that meeting, which was held on June 5, 2014.

Compensation of Directors

Director Compensation

Our director compensation program is designed to compensate non-employee directors fairly for work required for a company of our size and scope and align their interests with the long-term interests of our shareholders. The program reflects our desire to attract, retain and use the expertise of highly qualified people serving on the Company's Board of Directors. Employee directors do not receive any additional compensation for serving as a director.

Our 2014 director compensation program for non-employee directors consisted of the following elements:

Compensation Element	Compensation Value	
Annual Retainer (1/2 paid in cash and 1/2 paid in restricted stock units)*	$	285,000
Audit Committee Chair Cash Retainer	$	30,000
Compensation Committee Chair Cash Retainer	$	20,000
Corporate Governance and Nominating Committee Chair and Finance Committee Chair Cash Retainer	$	15,000
Audit Committee Member Cash Retainer (other than Chair)	$	7,500
Lead Director Cash Retainer	$	50,000
Additional Meetings or Unscheduled Planning Session Fees **	$ 2,500 (per meeting or session)	

* The number of restricted stock units granted are determined by dividing the grant date value of the award, $142,500 by the average of the high and low closing price of the Company's common stock on the date of grant. Beginning in 2015, a director who retires, resigns or otherwise separates from the Company will receive a pro-rata cash retainer payment for the quarter in which such event occurs based on the number of days elapsed since the end of the immediately preceding quarter.

** The Board and each Committee, other than Audit, has 6 regularly scheduled meetings each year. The Audit Committee has 9 regularly scheduled meetings each year.

In addition, non-employee directors were previously eligible to receive a tax equalization payment if the Irish income taxes owed on their director compensation exceed the income taxes owed on such compensation in their country of residence. Without these tax equalization payments, a director would be subject to double taxation since they are already paying taxes on their director income in their country of residence. We believe these tax equalization payments were appropriate to ensure our ability to continue to attract highly qualified persons who do not reside in Ireland. In 2014, three non-employee directors received a tax equalization payment for the year 2013. In 2014, our Corporate Governance and Nominating Committee eliminated the tax equalization payments on retainers beginning with the retainers earned for the 2014 fiscal year.

Share Ownership Requirement

To align the interests of directors with shareholders, the Board of Directors has adopted a share ownership requirement of four times the annual cash retainer paid to the directors. A director cannot sell any shares of Company stock until he or she attains such level of ownership and any sale thereafter cannot reduce the total number of holdings below the required ownership level. Directors are required to retain this minimum level of Company share ownership until their resignation or retirement from the Board.

2014 Director Compensation

The compensation paid or credited to our non-employee directors for the year ended December 31, 2014, is summarized in the table below.

Name	Fees earned or paid in cash ($)(a)	Equity / Stock Awards ($) (b)	All Other Compensation ($)(c)	Total ($)
A. C. Berzin	165,000	142,503	235,331	542,834
J. Bruton	145,000	142,503	6,867	294,370
J. L. Cohon	145,000	142,503	—	287,503
G. D. Forsee	160,000	142,503	10,363	312,866
E. E. Hagenlocker	150,000	142,503	13,058	305,561
C. J. Horner	145,000	142,503	—	287,503
T. E. Martin	150,000	142,503	—	292,503
N. Peltz (d)	61,463	142,503	—	203,966
J. P. Surma	150,000	142,503	—	292,503
R. J. Swift	222,500	142,503	—	365,003
T. L. White	165,000	142,503	—	307,503

(a) The amounts in this column represent the following annual cash retainer, the Committee Chair retainers, the Audit Committee member retainer, the Lead Director retainer, and the Board, Committee and other meeting or session fees:

Name	Cash Retainer ($)	Committee Chair Retainer ($)	Audit Committee Member Retainer ($)	Lead Director Retainer Fees ($)	Board, Committee and Other Meeting or Session Fees ($)	Total Fees earned or paid in cash ($)
A. C. Berzin	142,500	15,000	7,500	—	—	165,000
J. Bruton	142,500	—	—	—	2,500	145,000
J. L. Cohon	142,500	—	—	—	2,500	145,000
G. D. Forsee	142,500	15,000	—	—	2,500	160,000
E. E. Hagenlocker	142,500	—	7,500	—	—	150,000
C. J. Horner	142,500	—	—	—	2,500	145,000
T. E. Martin	142,500	—	—	—	2,500	145,000
N. Peltz	61,463	—	—	—	—	61,463
J. P. Surma	142,500	—	7,500	—	—	150,000
R. J. Swift	142,500	30,000	—	50,000	—	222,500
T. L. White	142,500	20,000	—	—	2,500	165,000

(b) Represents RSUs awarded in 2014 as part of each director's annual retainer. The amounts in this column reflect the aggregate grant date fair value of RSU awards granted for the year under Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 718 and do not reflect amounts paid to or realized by the directors. For a discussion of the assumptions made in determining the ASC 718 values see Note 11, “Share-Based Compensation,” to the Company’s consolidated financial statements contained in its 2014 Form 10-K.

For each non-employee director at December 31, 2014, the following table reflects unvested RSUs:

Name	Number of RSUs (#)
A. C. Berzin	2,382
J. Bruton	2,382
J. L. Cohon	2,382
G. D. Forsee	2,382
E. E. Hagenlocker	2,382
C. J. Horner	2,382
T. E. Martin	2,382
N. Peltz[1]	—
J. P. Surma	2,382
R. J. Swift	2,382
T. L. White	2,382

[1] Mr. Peltz resigned effective June 5, 2014 and vested in his RSUs at the time of his resignation.

(c) Represents tax equalization payments made in 2014, and in the case of Mr. Bruton, reimbursement of Irish taxes for travel expenses.

(d) Nelson Peltz resigned effective June 5, 2014. Fees earned by Mr. Peltz were paid to Trian Fund Management, L.P. ("Trian").

For each non-employee director at December 31, 2014, the following table reflects unexercised stock options, all of which are vested:

Name	Number of stock options
A. C. Berzin	–
J. Bruton	–
J. L. Cohon	20,160
G. D. Forsee	–
E. E. Hagenlocker	–
C. J. Horner	–
T. E. Martin	–
N. Peltz	–
J. P. Surma	–
R. J. Swift	–
T. L. White	–

COMPENSATION DISCUSSION AND ANALYSIS

The Compensation Discussion and Analysis ("CD&A") set forth below provides an overview of our executive compensation programs, including the philosophy and objectives of such programs, as well as a discussion of how awards are determined for our Named Executive Officers ("NEOs"). These NEOs include our Chairman and Chief Executive Officer ("CEO"), our Chief Financial Officer ("CFO"), and our three most highly compensated executive officers from the 2014 fiscal year. The executive officers serving as NEOs are:

NEO	Title
Mr. Michael W. Lamach	Chairman and Chief Executive Officer
Ms. Susan K. Carter,	Senior Vice President and Chief Financial Officer
Ms. Marcia J. Avedon, Ph.D.	Senior Vice President, Human Resources, Communications and Corporate Affairs
Mr. Didier P. M. Teirlinck, Ph.D.	Executive Vice President, Climate Segment
Mr. Robert G. Zafari	Executive Vice President, Industrial Segment

This discussion and analysis is divided into the following sections: (I) Executive Summary, (II) Compensation Philosophy and Design Principles, (III) Factors Considered in the Determination of Target Total Direct Compensation ("TDC"), (IV) Role of the Committee, Independent Advisor, and Committee Actions, (V) Compensation Program Descriptions and Compensation Decisions and (VI) Other Compensation and Tax Matters.

I. Executive Summary

At the end of 2013, the organization was restructured from four business sectors into two business segments, Climate and Industrial following the spin-off of our security businesses. In consideration of this reorganization and the refreshed business strategy, a comprehensive review of our compensation philosophy as well as the design of our executive compensation programs was conducted in 2014. The review confirmed that, consistent with our historical intent, the design of these programs allows our Company to attract, retain and focus the talents and energies of executives, including our NEOs, who are capable of meeting the Company's current and future goals, most notably, the creation of sustainable shareholder value.

Overall, our executive compensation programs were designed by incorporating the following principles:

(i) market competitiveness,

(ii) pay for performance,

(iii) mix of short and long-term incentives,

(iv) internal parity,

(v) shareholder alignment, and

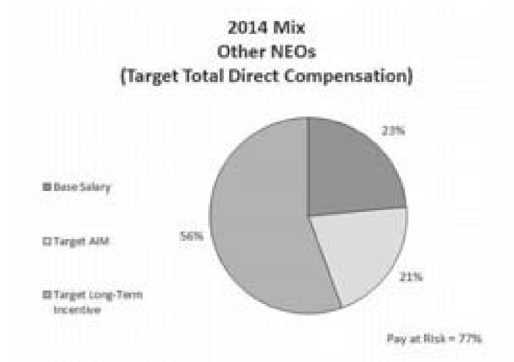
(vi) business strategy alignment.

Consistent with these principles, the Compensation Committee (the "Committee") has adopted executive compensation programs with a strong link between pay and the achievement of short and long-term Company goals. The primary elements of the executive compensation programs are:

Total Direct Compensation	
Element[1]	*Objective of Element*
Base Salary	Fixed cash compensation.
Annual Incentive *(the Annual Incentive Matrix or "AIM")*	Variable cash incentive compensation. Any award earned is based on performance against pre-defined annual revenue ("Revenue"), Operating Income ("OI"), cash flow ("Cash Flow") and OI margin percent objectives, as well as individual performance.
Long-Term Incentives *("LTI")*	Variable long-term incentive compensation. Performance is aligned with the Company's stock price and is awarded in the form of stock options, RSUs and performance share units ("PSUs"). PSUs are only payable if the Company's earnings per share ("EPS") growth and total shareholder return ("TSR") relative to companies in the S&P 500 Industrials Index exceed threshold performance against pre-defined objectives.

[1] See Section V, "Compensation Program Descriptions and Compensation Decisions", for additional discussion of these elements of compensation.

As illustrated in the charts below, the Committee places significant emphasis on variable compensation (AIM and LTI) so that a substantial percentage of each NEO's target total direct compensation is contingent on the successful achievement of the Company's short-term and long-term goals.



2014 Results

During 2014, our first full year after the spin-off of our commercial and residential security businesses ("Allegion") and the reorganization of our Company, we achieved strong financial performance. The following table documents the results realized in 2014:

Metric	Performance
Revenue	Adjusted annual Revenue of $12.875 billion, an increase of 4.2% over 2013
OI	Adjusted OI of $1.423 billion, an increase of 19.8% over 2013
OI Margin	Adjusted OI margin of 11.05%, an increase of 1.45 percentage points over 2013
Cash Flow	Adjusted Cash Flow of $853 million, a decrease of 1.1% from 2013
EPS	Adjusted EPS of $3.30, an increase of 25% over 2013
3-Year EPS Growth	3-year EPS growth (2012 - 2014) of 19.37%, which ranks at the 88th percentile of the companies in the S&P 500 Industrials Index
3-Year TSR	3-year TSR (2012-2014) of 153.66%, which ranks at the 91st percentile of the companies in the S&P 500 Industrials Index

Based on our adjusted 2014 results for Revenue, OI, Cash Flow and OI margin, we achieved an AIM financial score of 102.41% of target for the Enterprise. At the Segment level, 2014 AIM financial scores were 164.60% of target for the Climate Segment and 61.86% of target for the Industrial Segment.

Based on our achievement of an average EPS growth rate of 19.37% and a TSR of 153.66% during the 2012 to 2014 performance period, PSUs under our Performance Share Program ("PSP") paid out at 200% of target (maximum payout allowed under the plan).

2014 Committee Actions

The Committee took the following actions in 2014:

- Reviewed the executive compensation philosophy and strategy in relation to the Company's going-forward business strategy. The Committee concluded that the general design and construct of the programs aligned with the business strategy and was appropriate for the foreseeable future.
- Given the spin-off of Allegion and the reorganization of our Company, reviewed and approved a new peer group to be used to benchmark executive compensation levels and program design in 2015.
- Approved a modification to the definition of "major restructuring" in the Company's Major Restructuring Severance Plan to reflect the reorganization of the Company from four business sectors to two business segments.

Consideration of 2014 Advisory Vote on Executive Compensation

The Committee regularly reviews the philosophy, objectives and elements of our executive compensation programs in relation to our short and long-term business objectives. In undertaking this review, the Committee considers the views of shareholders as reflected in their annual advisory vote on our executive compensation proposal. At our 2014 annual general meeting, shareholders approved our executive compensation proposal by an overwhelming majority (over 97%). Based on the Committee's review and the support our executive compensation programs received from shareholders, the Committee determined it would be appropriate to maintain the core elements of our executive compensation programs.

II. Compensation Philosophy and Design Principles

The objective of our executive compensation programs is to enable us to attract, retain and focus the talents and energies of executive officers (including our NEOs) who are capable of meeting the Company's current and future goals, most notably the creation of sustainable shareholder value. Our compensation programs and decisions are driven by this objective. As we operate in an ever-changing environment, our Committee makes decisions with consideration of economic, technological, regulatory, investor and competitive factors as well as our executive compensation principles.

The design principles that govern our executive compensation programs are:

1. Market competitiveness

The compensation opportunities must serve to attract and retain high performing executives in a competitive environment for talent. Therefore, all of our executive compensation program targets are established using relevant market data to ensure their competitiveness. In aggregate, we structure our executive compensation to provide target total direct compensation ("TDC") at the 50th percentile of the markets in which we compete for talent. However, each executive's target TDC may be above or below the 50th percentile based on his or her experience and proficiency in performing the duties of his or her position.

2. Pay for performance

A strong pay for performance culture is paramount among the considerations that lead to our Company's success. As a result, a substantial percentage of each executive's TDC is contingent on, and variable with performance of the Company, the applicable business, and the individual. Company and business performance are measured against pre-established financial, operational and strategic objectives. Individual performance is measured against pre-established individual goals as well as demonstrated leadership competencies and behaviors consistent with our Company values. In addition, a portion of the long-term incentive is earned based upon earnings and shareholder value performance relative to peer companies.

3. Mix of short and long-term incentives

A proper mix between short and long-term incentives is important to encourage decision making that mitigates risk and balances the need to meet our Annual Operating Plan ("AOP") objectives while also taking into account the long-term interests of the Company and its shareholders. The mix of pay, including short and long-term incentives, is determined by considering the Company's pay for performance compensation philosophy and strategic objectives in addition to competitive market practice.

4. Internal parity

Each executive's target TDC opportunity is proportionate with the responsibility, scope and complexity of his or her role within the Company. Thus, similar jobs are assigned similar target compensation opportunities.

5. Shareholder alignment

Our executive compensation programs align the interests of our executives with those of our shareholders by rewarding the achievement of key financial targets such as revenue growth, EPS, and cash flow which should correlate with share price appreciation over time. In addition, our long-term incentives are tied to total shareholder returns and increase in value as share price increases. Other program requirements, including share ownership guidelines for executives and vesting schedules on equity awards further align executives' and shareholders' interests.

6. Business strategy alignment

Our executive compensation programs provide flexibility to align with changing Company or business unit strategies. In addition, the programs allow for individuals within the Company's businesses to focus on specific financial measures to meet the short and long-term plans of the particular business for which they are accountable. It is not only possible but also desirable for certain leaders to earn substantial awards in years when their business unit outperforms the Company as a whole. Conversely, if a business fails to meet its performance goals, that business' leader may earn a lesser award in that year than his or her peers in a business that met or exceeded its goals. To provide a balanced incentive, all executives have a significant portion of their compensation tied to Company performance.

III. Factors Considered in the Determination of Target Total Direct Compensation ("TDC")

Our Committee reviews and evaluates our executive compensation levels and practices against those companies with which we compete for executive talent. These reviews are conducted throughout the year using a variety of methods such as:

- the direct analysis of the proxy statements of other diversified industrial companies (refer to peer group below),

- a review of compensation survey data of other industrial companies of similar size published by independent consulting firms,
- a review of customized compensation survey data provided by independent consulting firms, and
- feedback received from external constituencies.

The Committee does not rely on a single source of information when making executive compensation decisions. Many of the companies included in these compensation surveys are also included in the S&P 500 Industrials Index referred to in our 2014 Form 10-K under the caption "Performance Graph."

The Committee, with the assistance of its independent advisor, develops a peer group that it uses to evaluate executive compensation programs and levels. The peer group is comprised of global diversified companies that have comparable revenue and/or industry fit with our lines of business and are those with which we compete for both business and talent. The following peer group was adopted in August 2012 and used for benchmarking with respect to the 2014 compensation matters:

3M	Eaton Corp	Johnson Controls Inc.	Pentair
Cummins, Inc.	Emerson Electric	Paccar Inc.	Stanley Black & Decker
Danaher Corp	Honeywell International	Parker Hannifin Corp	Textron
Dover	Illinois Tool Works	PPG Industries	Tyco International

Given the spin-off of Allegion and the reorganization of our Company, in 2014 the Committee reviewed the compensation peer group used to benchmark 2015 compensation matters, and based on their review, added SPX Corporation. The addition of SPX Corporation increased the number of companies in the peer group to 17 (up from 16) and reduced the median revenue of the peer group from $16.1 billion to $15.1 billion for fiscal year 2013.

In addition, the Committee annually reviews tally sheets on the NEOs in order to understand fully all elements of current and potential future compensation when making compensation decisions.

IV. Role of the Committee, Independent Advisor and Committee Actions

Our Committee, which is composed solely of independent directors, oversees our compensation plans and policies, administers our equity-based programs and reviews and approves all forms of compensation relating to our executive officers, including the NEOs.

The Committee exclusively decides the compensation elements and the amounts to be awarded to our CEO. Our CEO does not make any recommendations regarding his own compensation and is not informed of these awards until the decisions have been finalized. Our CEO makes compensation recommendations related to our other NEOs and executive officers. The Committee considers these recommendations when approving the compensation elements and amounts to be awarded to our other NEOs.

Our Committee is responsible for reviewing and approving amendments to our executive compensation and benefit plans. In addition, our Committee is responsible for reviewing our major broad-based employee benefit plans and making recommendations to our Board of Directors for significant amendments to, or termination of, such plans. The Committee's duties are described in the Committee's Charter, which is available on our website at www.ingersollrand.com.

Our Committee has the authority to retain an independent advisor for the purpose of reviewing and providing guidance related to our executive compensation and benefit programs. The Committee is directly responsible for the compensation and oversight of the independent advisor. For 2014, the Committee continued to engage Hay Group, Inc. ("Hay Group") to serve as its independent advisor. Hay Group also provided the Corporate Governance and Nominating Committee advice on director compensation matters. The Committee has determined that the Hay Group is independent and does not have a conflict of interest because (a) Hay Group did not perform any other services for the Company, (b) the fees received by Hay Group for its services for the Compensation and Corporate Governance and Nominating Committees were nominal as a percentage of Hay Group's total revenues, (c) Hay Group has adopted policies and procedures that are designed to prevent conflicts of interest, (d) neither any member of the Committee nor any executive officer has a business or personal relationship with Hay Group, and (e) neither Hay Group nor its consultants that work with the Company directly own stock in the Company.

In addition to the actions taken in 2014, which are described in the Executive Summary, our Committee has adopted a number of changes over the past few years, including:

- Diversified and expanded the metrics associated with our AIM and PSP programs to better align with business strategies and shareholder interests;
- Adopted a claw-back/recoupment policy. Our current policy will be revised, if necessary, to comply with the requirements of the Dodd-Frank Act when the final regulations are issued;
- Incorporated provisions in the 2007 and 2013 Incentive Stock Plans to replace full payout at target of outstanding PSP awards in the event of a Change in Control of the Company with prorated PSP payout at target based on the point in the performance period when the Change in Control occurs; and

- Closed the Ingersoll-Rand Company Elected Officer Supplemental Pension Program ("EOSP") to new participants effective April 30, 2011.

V. Compensation Program Descriptions and Compensation Decisions

The following table provides a summary of the elements, objectives, risk mitigation factors and other key features of our total direct compensation program. Each of these elements is described in detail below:

Element	***Objective of Element including Risk Mitigation Factors***	***Key Features Relative to NEOs***
Base Salary	To provide a sufficient and stable source of cash compensation. To avoid encouraging excessive risk-taking, it is important that an appropriate level of cash compensation is not variable.	Targeted, on average, at the 50^{th} percentile of our peer group. Adjustments are determined by the Committee based on an evaluation of the NEO's proficiency in fulfilling his or her responsibilities, as well as performance against key objectives and behaviors. Only 10% of the CEO's target total direct compensation and only 23% on average for the other NEOs is comprised of base salary.
Annual Incentive Matrix ("AIM") Program	To serve as an annual cash award tied to the achievement of pre-established performance objectives. Structured to take into consideration the unique needs of the various business units. Amount of compensation earned cannot exceed a maximum payout of 200% of individual target levels and is also subject to a claw-back in the event of a financial restatement.	Each NEO has an AIM target expressed as a percentage of base salary. Targets are set based on the compensation levels of similar jobs in comparable companies, as well as on the NEO's experience and proficiency level in performing the duties of the role. Actual AIM payouts are dependent on business and/or enterprise financial and individual performance. The financial metrics used to determine the awards for 2014 were Revenue, OI, and Cash Flow, modified (up or down) based on OI Margin performance. 16% of the CEO's target total direct compensation is comprised of AIM and 21%, on average, for the other NEOs.
Performance Share Program ("PSP")	To serve as a long-term incentive tied to the achievement of pre-established performance objectives relative to companies in the S&P 500 Industrials Index. To promote long-term strategic planning and discourage an overemphasis on attaining short-term goals. Amount earned cannot exceed a maximum payout of 200% of individual target levels and is also subject to a claw-back in the event of a financial restatement.	Earned over a 3-year performance period. The number of PSUs earned is based on relative TSR and relative EPS growth compared to companies within the S&P 500 Industrials Index (with equal weight given to each metric). Actual value of the PSUs earned depends on our share price at the time of payment. 37% of the CEO's target total direct compensation is comprised of PSP and 28%, on average, for the other NEOs.
Stock Options / Restricted Stock Units ("RSUs")	Aligns the interests of the NEOs and shareholders. Awards provide a balanced approach between risk and retention. Awards are subject to a claw-back in the event of a financial restatement.	Stock options and RSUs are granted annually, with stock options having an exercise price equal to the fair market value of ordinary shares on the date of grant. Both stock options and RSUs typically vest ratably over three years, one-third per year. Stock options expire on the 10th anniversary (less one day) of the grant date (unless employment terminates sooner). 37% of the CEO's target total direct compensation is comprised of a mix of stock options and RSUs and 28%, on average, for the other NEOs.

Base Salary

Our Committee generally targets base salaries for the NEOs around the median for executives in our peer group or other relevant comparative companies who have similar roles and responsibilities. However, the Committee will also consider each NEO's experience, proficiency, performance and potential to impact future business results, as well as behavior against competencies and key Company values when making base salary decisions.

The table below reflects the base salary adjustments for the NEOs for the 2014 performance period. When determining base salary adjustments, each NEO is evaluated on the results achieved and the behaviors demonstrated to generate these results.

(dollar amounts annualized)

Name	2013	2014	Percentage Change (%)
M. W. Lamach	$ 1,250,000	$ 1,250,000	—
S. K. Carter	$ 635,000	$ 654,000	3.0%
M. J. Avedon	$ 528,000	$ 555,000	5.1%
D. P. M. Teirlinck(1)	$ 655,000	$ 655,000	—
R. G. Zafari(1)	$ 550,000	$ 550,000	—

(1) Messrs. Teirlinck and Zafari received based salary increases in December 2013 in conjunction with their promotion to EVP, Segment roles. There were no base salary increases in 2014 for Messrs. Teirlinck and Zafari.

Annual Incentives (Annual Incentive Matrix or "AIM")

The AIM program is an annual cash incentive program designed to reward NEOs for Revenue growth, increases in OI, the delivery of strong Cash Flow and individual contributions to the Company. We believe that our AIM design provides participants with clarity as to how they can earn a cash incentive based on strong performance relative to each metric. The Committee establishes a target award for each NEO that is expressed as a percentage of base salary. Individual AIM payouts are calculated as the product of a financial performance score and an individual performance score, both of which are based on achievement relative to pre-established performance objectives adopted by the Committee. Individual AIM awards are calculated by multiplying individual AIM targets by an AIM Payout Percentage calculated as illustrated in the table below:

Financial Score: Core Financial Metrics	x	**Multiplier**	=	**Adjusted Financial Score** *(0% to 200%)*	x	**Individual Performance Score** *(0% to 150%)*	=	**AIM Payout Percentage** *(0% to 200%)*
1/3 Revenue 1/3 Operating Income 1/3 Cash Flow		Operating Margin Percent		Financial Score x Multiplier		Performance against Individual Objectives		Adjusted Financial Score x Individual Performance Score

Financial Performance: AIM incentive opportunity is tied to pre-established goals for three equally-weighted performance metrics ("Core Financial Metrics"): Revenue, OI, and Cash Flow. Threshold performance for each metric must be achieved in order for any incentive to be payable for that metric. The financial AIM payout is the sum of the calculated payout percentage for each metric, adjusted by an OI margin percentage multiplier ("Multiplier"), which can range from 85% to 115%.

The Committee retains the authority to adjust the Company's reported financial results for the impact of changes in accounting principles, extraordinary items and unusual or non-recurring gains or losses, including significant differences from the assumptions contained in the financial plan upon which the incentive targets were established. Adjustments to reported financial results are intended to better reflect an executives' line of sight and ability to affect performance results, align award payments with decisions which support the AOP, avoid artificial inflation or deflation of awards due to unusual or non-recurring items in the applicable period and emphasize the Company's preference for long-term and sustainable growth.

2014 AIM financial performance goals for the NEOs are summarized in the following table:

	Pre-Established Financial Targets *($ million)**			Payout as % of Target**	OI Margin	OI Margin Multiplier**
	Revenue	OI	Cash Flow			
Enterprise						
Threshold	$12,159.7	$1,226.7	$810.0	30%	10.1%	85%
Target	$12,799.7	$1,363.0	$900.0	100%	10.7%	100%
Maximum	$13,439.7	$1,644.9	$1,100.0	200%	12.2%	115%
Climate Segment						
Threshold	$9,338.2	$977.4	$977.4	30%	10.5%	85%
Target	$9,829.7	$1,086.0	$1,086.0	100%	11.0%	100%
Maximum	$10,321.2	$1,326.4	$1,326.4	200%	12.9%	115%
Industrial Segment						
Threshold	$2,821.5	$432.9	$432.9	30%	15.3%	85%
Target	$2,970.0	$481.0	$481.0	100%	16.2%	100%
Maximum	$3,118.5	$553.2	$553.2	200%	17.7%	115%

* Reflects the financial goals for the Enterprise and segments to which incentive opportunity for our 2014 NEOs was tied.

** Results are interpolated between performance levels.

For 2014 AIM purposes, the CEO, CFO and SVP of Human Resources, Communication and Corporate Affairs were measured on the basis of the Enterprise financial metrics. The other two NEOs were measured based on a combination of Enterprise financial objectives (50% weighting) and their respective 2014 Segment financial objectives (50% weighting). We believe this weighting appropriately focuses segment leaders on achieving the pre-established objectives for their business as well as aligning their interests with Enterprise goals to help deliver sustainable shareholder value.

The table below summarizes 2014 performance relative to performance targets and corresponding 2014 AIM payout levels.

(in millions)	Financial Targets	Adjusted Financial Performance	Payout as a % of Target	Aggregate Payout as % of Target	OI Margin Multiplier	AIM Financial Payout
Enterprise						
Revenue	$12,799.7	$12,875.4	112%	98.69%	103.77%	102.41%
OI	$1,363.0	$1,422.5	121%			
Cash Flow	$900.0	$852.6	63%			
OI Margin	10.7%	11.05%	N/A			
Climate Segment						
Revenue	$9,829.7	$9,863.6	107%	151.01%	109.00%	164.60%
OI	$1,086.0	$1,196.9	146%			
Cash Flow	$1,086.0	$1,327.4	200%			
OI Margin	11.1%	12.13%	N/A			
Industrial Segment						
Revenue	$2,970.0	$3,011.7	128%	72.78%	85.00%	61.86%
OI	$481.0	$451.4	57%			
Cash Flow	$481.0	$435.2	33%			
OI Margin	16.2%	14.99%	N/A			

Individual Performance: Individual objectives are established annually and include strategic initiatives as well as financial and non-financial metrics. Each NEO is evaluated based upon actual results against established measures and our core competencies. At the end of the fiscal year the CEO evaluates each NEO's overall performance against individual objectives and submits a recommendation to the Committee. The Committee evaluates the CEO's performance against individual objectives. Based on its evaluation of the CEO and the CEO's recommendation for other NEOs, the Committee determines the individual performance score for each NEO, which can range from 0% to 150%.

In determining the individual factor for each NEO's AIM award, the Committee considered pre-established individual performance objectives, including the following:

- Successful achievement of milestones to further implement the business operating system and operational excellence initiatives.
- Execution of key growth initiatives including product management excellence initiatives, enterprise sales excellence initiatives and innovation programs.
- Accomplishments to further implement the information technology strategy and system launches.
- Improvements in employee engagement, talent development and retention.

Determination of Payout: The actual AIM payout is determined by multiplying the NEO's target award by the financial performance score and multiplying that result by the individual performance score. AIM payouts cannot exceed 200% of the target award. If the overall AIM payout score is less than 30%, no award is payable. In that event, the CEO and the Committee may establish a discretionary pool (equal to 30% of the target payout levels) for top performers and/or other deserving employees in an amount determined to be appropriate based on their performance against objectives.

In determining the 2014 performance levels for 2014 AIM purposes, the Committee approved certain adjustments to financial results at the enterprise and segment levels to (a) exclude the impact of spin-off related and restructuring payments made in 2014 from enterprise Free Cash Flow, (b) adjust operating income and cash flow upwards to offset the impact of acquisitions during the year, (c) adjust revenue and operating income downward and cash flow upward to offset the financial impact of unplanned regulatory changes associated with energy efficiency implementation requirements issued during 2014, and (d) adjust cash flow upward to offset the impact of debt refinancing in 2014. None of these events had been contemplated when the 2014 performance goals were determined. Prior to the Committee approving these adjustments, they were also reviewed with the Audit Committee.

The Committee approved the following AIM awards for NEOs based on achieving both the 2014 financial and individual objectives:

Name	AIM Target			AIM Payout Percent for 2014	Individual Performance Score	AIM Award for 2014
M. W. Lamach	160%	of	$1,250,000	102.41%	100%	$2,048,200
S. K. Carter	100%	of	$654,000	102.41%	100%	$669,761
M. J. Avedon	85%	of	$555,000	102.41%	100%	$483,119
D. P. M. Teirlinck	90%	of	$655,000	133.51%	100%	$787,041
R. G. Zafari	85%	of	$550,000	82.14%	100%	$384,005

Proxy Statement

Long-Term Incentive Program

Our long-term incentive program is comprised of PSUs, stock options and RSUs. It is designed to further align the executives' interests with the interests of our shareholders. This approach enables us to develop and implement long-term strategies that we believe are in the best interest of shareholders.

Performance Share Program ("PSP"): Our PSP is an equity-based incentive compensation program that provides our NEOs and other key executives with an opportunity to earn PSUs based on the Company's performance relative to other companies in the S&P 500 Industrials Index. PSUs are earned over a 3-year performance period based equally on our relative EPS growth (from continuing operations) and TSR as compared to the companies within the S&P 500 Industrials Index. The actual number of PSUs earned for grants made in 2014 (which can range from 0% to 200% of target) is based on the following thresholds:

Ingersoll Rand's Performance Relative to the Companies within the S&P 500 Industrials Index	% of Target PSUs Earned*
< 25^{th} Percentile	0%
25^{th} Percentile	25%
50^{th} Percentile	100%
$\geq 75^{th}$ Percentile	200%

* Results are interpolated between percentiles achieved.

The NEOs' PSP target awards, expressed as a dollar amount, are set by assessing competitive market values for executives in our peer group with similar roles and responsibilities. The dollar target is converted to share equivalent PSUs based on the fair market value of the Company's shares on the date that the award is granted. Our Committee retains the authority and discretion to make downward adjustments to the calculated PSP award payouts or not to grant any award payout regardless of actual performance. EPS is calculated in accordance with U.S. Generally Accepted Accounting Principles ("U.S. GAAP"), subject to adjustments for extraordinary, unusual or infrequent items; the impact of any change in accounting principles; goodwill and other intangible asset impairments; and gains or charges associated with discontinued operations or with obtaining or losing control of a business. As a result, expense for outstanding PSP awards is recorded using fixed accounting.

- EPS growth is measured as the average of the annual EPS growth in each of the three years of the performance cycle.
- TSR is measured as the total stock price appreciation and dividends earned during the three years of the performance cycle. To account for stock price volatility, a 30-day average stock price at the beginning and ending periods is used.

Dividend equivalents are accrued on outstanding PSU awards at the same time and at the same rate as dividends are paid to shareholders, but are only paid upon vesting on the number of PSUs actually earned and vested. Dividend equivalents are payable in cash at the time the associated PSUs are distributed unless the NEO elected to defer the PSUs into our executive deferred compensation plan, in which case the dividends are also deferred.

Stock Options/Restricted Stock Units: We grant our NEOs an equal mix of stock options and RSUs. Our Committee believes that this mix provides an effective balance between risk and retention for our NEOs and conserves share usage under our incentive stock plan. Stock options are considered "at risk" since there is no value unless the stock price appreciates during the term of the option period. RSUs, on the other hand, provide strong retentive value because they have value even if our stock price does not grow during the restricted period. Our Committee annually reviews our equity mix and grant policies to ensure they are aligned with our pay for performance philosophy, our executive compensation objectives and the interests of our shareholders.

Stock option and RSU targets are expressed in dollars. The dollar target is converted to a number of shares based on the fair market value of the Company's shares on the date that the award is granted. In order to determine the target stock option and RSU awards for our NEOs, the Committee considers factors such as market competitiveness with our peer group, demonstrated potential to drive future business results and sustained individual performance.

Both stock options and RSUs generally vest ratably, one third per year, over a three year period following the grant. Dividend equivalents are accrued on outstanding RSU awards at the same time and at the same rate as dividends are paid to shareholders. Dividend equivalents on RSUs are only payable if the underlying RSU award vests. At the time of vesting, one ordinary share is issued for each RSU and any accrued dividend equivalents are paid in cash.

2014 Equity Awards

In 2014, the Committee approved the PSU, stock option and RSU awards based on its evaluation of market competitiveness and each NEO's demonstrated potential to drive future business results and sustained individual performance. The values in the table below reflect equity-based awards approved by the Committee. These values differ from the corresponding values reported in the Summary Compensation Table and the Grants of Plan-Based Awards Table due to different methodologies used in assigning the economic value of equity-based awards required for accounting and proxy statement reporting purposes. The Committee makes its determination based on expected grant date value while the accounting and proxy statement values are determined as of the grant date in accordance with GAAP requirements. The difference is most significant for the PSU awards which are earned, in part, based on TSR relative to the S&P 500 Industrials Index over a three-year performance period. The accounting and proxy report values are greater because they take into account the expected payout distribution from 0-200% of target.

Name	Target Value 2014-16 PSU Award ($)	Stock Option Award ($)	RSU Award ($)
M. W. Lamach	4,625,000	2,312,500	2,312,500
S. K. Carter	950,000	475,000	475,000
M. J. Avedon	550,000	275,000	275,000
D. P. M. Teirlinck	825,000	412,500	412,500
R. G. Zafari	600,000	300,000	300,000

Performance Share Units Payout

As discussed above, PSUs for the 2012 - 2014 performance period were earned based on the Company's EPS growth (from continuing operations) and TSR performance relative to all of the companies in the S&P 500 Industrials Index.

- EPS growth is measured as the average of the annual EPS growth in each of the three years of the performance cycle. The rate of EPS growth was 19.37% for the 2012 to 2014 period, which ranked at the 88th percentile of the companies in the S&P 500 Industrials Index. 2013 EPS growth was calculated including earnings from the residential and commercial security business spun-off to form Allegion. 2014 EPS growth was calculated based on 2013 EPS excluding the residential and commercial security business spun-off to form Allegion.
- TSR is measured as the total stock price appreciation and dividends earned during the three years of the performance cycle. To account for stock price volatility, a 30-day average stock price at the beginning and ending periods is used. TSR was 153.66% for the 2012 to 2014 period, which ranked at the 91st percentile of the companies in the S&P 500 Industrials Index. The TSR calculation includes $14.63 for the Allegion share dividend associated with the spin-off of the residential and commercial security business.

PSUs for the 2012 to 2014 performance cycle paid out at 200% of target levels as summarized in the table below.

Performance Metric	Ingersoll Rand Performance	Percentile Rank	Metric Payout	Weighting	Payout Level
Relative EPS Growth	19.37%	88th %ile	200%	50%	100%
Relative TSR	153.66%	91st %ile	200%	50%	100%
				Total Award Payout Percentage:	**200%**

2015 Compensation Decisions

The Committee annually reviews the total direct compensation for each NEO and, using its discretion based on its compensation philosophy and design principles, may revise such compensation. For 2015, the Committee has set the base salary and target AIM award for each NEO as follows:

Name	Base Salary ($)	Change From 2014 (%)	Target AIM Award (%)
M. W. Lamach	$1,300,000	4.0%	160%
S. K. Carter	$675,000	3.2%	100%
M. J. Avedon	$575,000	3.6%	85%
D. P. M. Teirlinck	$685,000	4.6%	90%
R. G. Zafari	$570,000	3.6%	85%

The Committee established the following target long-term incentives including PSU awards for the 2015 - 2017 performance period and granted the following stock option and RSU awards for each NEO in 2015:

Name	Target 2015 Long-Term Incentive Value(1) ($)	Shares Underlying Stock Option Awards(2) (#)	RSU Shares(3) (#)	Target 2015-17 PSU Shares (#)(3)
M. W. Lamach	9,250,000	158,499	34,487	68,974
S. K. Carter	1,950,000	33,414	7,271	14,541
M. J. Avedon	1,200,000	20,563	4,474	8,948
D. P. M. Teirlinck	1,750,000	29,987	6,525	13,049
R. G. Zafari	1,250,000	21,419	4,661	9,321

(1) The target long-term incentive value is delivered 25% in stock options, 25% in RSUs and 50% in PSUs.

(2) The number of stock options was determined based on the Black-Scholes ratio on December 31, 2014 and the fair market value of our ordinary shares on the date of grant.

(3) The number of RSUs and target PSUs were determined using the fair market value of our ordinary shares on the date of grant.

VI. Other Compensation and Tax Matters

Retirement Programs and Other Benefits

We maintain qualified and nonqualified defined benefit pension plans for our employees, including the NEOs, to provide for fixed benefits upon retirement based on the individual's age and number of years of service. These plans include the Pension Plan, the Trane Pension Plan, the Supplemental Pension Plans and the EOSP or the KMP. Refer to the Pension Benefits table and accompanying narrative for additional details on these programs.

We offer a qualified defined contribution (401(k)) plan called the Ingersoll-Rand Company Employee Savings Plan (the "ESP") to our salaried non-union and hourly U.S. workforce, including the NEOs. The ESP is a plan that provides a dollar-for-dollar Company match on the first six percent of the employee's eligible compensation that the employee contributes to the ESP. The ESP has a number of investment options and is an important component of our retirement program.

We also have a nonqualified defined contribution plan. The Ingersoll-Rand Company Supplemental Employee Savings Plan (the "Supplemental ESP") is an unfunded plan that makes up matching contributions that cannot be made to the ESP due to Internal Revenue Code limitations. The Supplemental ESP is deemed to be invested in the funds selected by the NEOs, which are the same funds available in the ESP except for a self-directed brokerage account, which is not available in the Supplemental ESP.

In June 2012, our Board of Directors approved significant changes to our broad-based, qualified retirement programs with the intent to move from a combined defined benefit/defined contribution approach to a fully defined contribution plan approach over time. Employees active prior to July 1, 2012 were given a choice between continuing to participate in the defined benefit plan until December 31, 2022, or moving to an enhanced version of the ESP effective January 1, 2013. Employees hired or rehired on or after July 1, 2012 were automatically covered under the enhanced version of the ESP. Under the enhanced version of the ESP, employees will receive a basic employer contribution equal to two percent of eligible compensation in addition to the Company's matching contribution while ceasing to accrue benefits under the defined benefit plan (employees of our Club Car business are generally not eligible for the basic employer contribution). Effective as of December 31, 2022, accruals in the defined benefit plan will cease for all employees. The Committee approved corresponding changes to the applicable nonqualified defined benefit and contribution pension plans. Additional details on the changes can be found in the narrative accompanying the Pension Benefits table.

Our Ingersoll Rand Executive Deferred Compensation Plan (the "EDCP Plan I") and the Ingersoll Rand Executive Deferred Compensation Plan II (the "EDCP Plan II" and, together with the EDCP Plan I, the "EDCP Plans") allow eligible employees to defer receipt of a part of their annual salary, AIM award and/or PSP award in exchange for investments in ordinary shares or mutual fund investment equivalents. Refer to the Nonqualified Deferred Compensation table for additional details on the EDCP Plans.

We provide an enhanced, long-term disability plan to certain executives. The plan provides for a higher monthly maximum than the standard group plan and a more favorable definition of disability and has an underlying individual policy that is portable when the executive terminates.

In light of the American Jobs Creation Act of 2004 governing Section 409A of the Code, "mirror plans" for several of our nonqualified plans, including the Ingersoll-Rand Company Supplemental Pension Plan ("Supplemental Pension Plan I") and the EDCP I, were created. The mirror plans are the Ingersoll-Rand Company Supplemental Pension Plan II ("Supplemental Pension Plan II" and, together with the Supplemental Pension Plan I, the "Supplemental Pension Plans") and the EDCP II. The purpose of these mirror plans is not to provide additional benefits to participants, but merely to preserve the tax treatment of the plans that were in place prior to December 31, 2004. In the case of the Supplemental Plans, the mirror plan benefits are calculated by subtracting the original benefit value to avoid duplication of the benefit. For the EDCP Plans, balances accrued through December 31, 2004 are maintained separately from balances accrued after that date.

We provide our NEOs with other benefits that we believe are consistent with prevailing market practice and those of our peer companies. These other benefits and their incremental cost to the Company are reported in "All Other Compensation" shown in the Summary Compensation Table.

Severance Arrangements

In connection with external recruiting of certain officers, we generally enter into employment arrangements that provide for severance payments upon certain termination events, other than in the event of a change in control (which is covered by separate agreements with the officers). Mr. Lamach, Ms. Carter and Ms. Avedon have such arrangements. In 2012 we adopted a Severance Plan, amended outstanding award agreements and adopted new equity award agreements to provide certain employees, including our NEOs, with certain benefits in the event of a termination of employment without cause or for good reason under a Major Restructuring (as defined in the Post-Employment Section below). In addition, although we do not have a formal severance policy for our executives (other than in the event of a Major Restructuring), we do have guidelines that in most cases would provide for severance in the event of termination without cause. The severance payable under employment agreements for Mr. Lamach, Ms. Carter and Ms. Avedon and the benefits available in connection with a Major Restructuring and under the severance guidelines are further described in the Post-Employment Benefits section of the proxy statement.

Change-In-Control Provisions

We have entered into change-in-control agreements with our NEOs. Payments are subject to a double trigger, meaning that payments would be received only if an officer is terminated without cause or resigns for "good reason" within two years following a change in control. We provide change-in-control agreements to our NEOs to focus them on the best interests of shareholders and assure continuity of management in circumstances that reduce or eliminate job security and might otherwise lead to accelerated departures. Our incentive stock plans provide for the accelerated vesting of outstanding stock awards in the event of a change in control of the Company. Refer to the Post-Employment Benefits section of this proxy statement for a more detailed description of the change-in-control provisions.

Tax and Accounting Considerations

Section 162(m) of the Code imposes a limit of $1,000,000 on the amount that we may deduct for federal income tax purposes in any one year for compensation paid to our CEO and any of our three other highest-paid NEOs, other than our CFO, who are employed as of the end of the year. However, to the extent compensation is "performance-based" within the meaning of Section 162(m), the Section's limitations will not apply. We intend most of the variable compensation (*i.e.*, AIM, PSP and stock options) paid to NEOs to qualify as performance-based within the meaning of Section 162(m) so as to be tax deductible by us, which benefits our shareholders. In order to qualify as performance based, the compensation must, among other things, be paid pursuant to a shareholder approved plan upon the attainment of objective performance criteria. Our Committee believes that tax deductibility of compensation is an important factor, but not the sole factor, in setting executive compensation policies and in rewarding superior executive performance. Accordingly, although our Committee generally intends to avoid the loss of a tax deduction due to Section 162(m), it reserves the right, in appropriate circumstances, to pay amounts that are not deductible. In determining variable compensation programs, we consider other tax and accounting implications of particular forms of compensation, such as the implications of Section 409A of the Code governing deferred compensation arrangements and favorable accounting treatment afforded certain equity based plans that are settled in shares. However, the forms of variable compensation we utilize are determined primarily by their effectiveness in creating maximum alignment with our key strategic objectives and the interests of our shareholders.

Senior Executive Performance Plan ("SEPP")

The SEPP is a shareholder approved plan that funds the annual cash incentive awards that may be granted to each of the NEOs. Under the SEPP, the maximum amount of cash incentive that can be paid to the CEO is 0.6% of Consolidated OI from Continuing Operations (as defined in the SEPP) and the maximum amount of cash incentive that can be paid to any other covered executive is 0.3% of Consolidated OI from Continuing Operations. Our Committee generally exercises its discretion to pay less than the maximum amount to the NEOs, after considering the factors described in the AIM Program.

Timing of Awards

Our regular annual equity grants are made by our Committee at a meeting held after the annual earnings release. The timing of this meeting allows management to review the prior year's performance and assemble all of the necessary information for our Committee's consideration. The date is never selected or changed to increase the value of equity awards for executives.

Claw-back /Recoupment Policy

To further align the interests of our employees and our shareholders, we have a claw-back /recoupment policy to ensure that any fraud or intentional misconduct leading to a restatement of our financial statements would be properly addressed. The policy provides that if it is found that an employee committed fraud or engaged in intentional misconduct that resulted, directly or indirectly, in a need to restate our financial statements, then our Committee has the discretion to direct the Company to recover all or a portion of any cash or equity incentive compensation paid or value realized, and/or to cancel any stock-based awards or AIM award granted to an employee on or after the effective date of the policy. Our Committee may also request that the Company seek to recover any gains realized on or after the effective date of the policy for equity or cash awards made prior to that date (including AIM, stock options, PSUs and RSUs). Application of the claw-back /recoupment policy is subject to a determination by our Committee that: (i) the cash incentive or equity compensation to be recouped was calculated on, or its realized value affected by, the financial results that were subsequently restated; (ii) the cash incentive or equity award would have been less valuable than what was actually awarded or paid based on the application of the correct financial results; and (iii) the employee to whom the policy applied engaged in fraud or intentional misconduct. This policy will be revised if required under the Dodd-Frank Act once the regulations implementing the claw-back policy requirements of that law have been issued.

Share-Ownership Guidelines

We impose share ownership requirements on each of our officers. These share ownership requirements are designed to emphasize share ownership by our officers and to further align their interests with our shareholders. Each officer must achieve and maintain ownership of ordinary shares or ordinary share equivalents at or above a prescribed level. The requirements are as follows:

Position	Number of Active Participants as of the Record Date	Individual Ownership Requirement (Shares and Equivalents)
Chief Executive Officer	1	150,000
Executive Vice Presidents	2	75,000
Senior Vice Presidents	6	40,000
Corporate Vice Presidents	8	15,000

This equates to ownership of approximately eight times base salary for the CEO and the Executive Vice Presidents and in excess of four times base salary for the Senior Vice Presidents.

Our share-ownership program requires the accumulation of ordinary shares (or ordinary share equivalents) over a five-year period following the date the person becomes subject to share-ownership requirements at the rate of 20% of the required level each year. Executives who are promoted, and who have their ownership requirement increased, have three years to achieve the new level from the date of promotion. However, given the significant increase in the ownership requirement for an individual who is promoted to CEO, that individual has five years from the date of the promotion to achieve the new level. Ownership credit is given for actual ordinary shares owned, deferred compensation that is invested in ordinary shares within our EDCP Plans, ordinary share equivalents accumulated in our qualified and nonqualified employee savings plans as well as unvested RSUs. Stock options, SARs and unvested PSUs do not count toward meeting the share-ownership target. If executives fall behind their scheduled accumulation level during their applicable accumulation period, or if they fail to maintain their required level of ownership after their applicable accumulation period, their right to exercise stock options will be limited to “buy and hold” transactions and any shares received upon the vesting of RSU and PSU awards must be held until the required ownership level is achieved. As of the Record Date, all of our executives subject to the share-ownership guidelines were in compliance with these requirements.

COMPENSATION COMMITTEE REPORT

We have reviewed and discussed with management the Compensation Discussion and Analysis contained in this Proxy Statement. Based on our review and discussion, we recommended to the Board of Directors that the Compensation Discussion and Analysis be included in this Proxy Statement as well as the Company’s Annual Report on Form 10-K for the year ended December 31, 2014.

COMPENSATION COMMITTEE
Tony L. White (Chair)
John Bruton
Jared L. Cohon
Gary D. Forsee
Constance J. Horner

SUMMARY OF REALIZED COMPENSATION

The table below is a summary of the compensation actually realized by our CEO for 2014, 2013 and 2012. This information is intended as a supplement to and not as a substitute for the information shown on the Summary Compensation Table. The information required to be shown on the Summary Compensation Table includes elements of compensation that may or may not actually be realized by the NEOs at a future date. We believe this table enhances our shareholders' understanding of our CEO's compensation.

Year	Salary ($)	Performance-based Cash Compensation (1)($)	Equity Compensation (2)($)	Other Compensation (3)($)	Total Realized Compensation ($)
2014	$1,250,000	$2,650,000	$15,106,336	$394,328	$19,400,664
2013	$1,237,500	$1,821,270	$19,720,521	$319,785	$23,099,076
2012	$1,175,000	$1,522,950	$171,246	$311,363	$3,180,559

(1) Represents the AIM award paid in the applicable year and earned in the immediately previous year.

(2) Represents amount realized upon the exercise of stock options and the vesting of RSUs and PSUs, before payment of applicable withholding taxes and brokerage commissions, and includes the value of dividend equivalents paid on such awards. For 2014, this includes the following amounts:

	Value Realized	Total Shareholder Return ("TSR") Over the Period Outstanding *
Stock Options Exercise:		
February 1, 2006 Grant	$1,400,236	TSR for 2006-2014 was 126%
February 7, 2007 Grant	$1,121,317	TSR for 2007-2014 was 131%
February 15, 2008 Grant	$1,498,372	TSR for 2008-2014 was 92%
	$4,019,925	
Restricted Stock Units Vesting:		
February 24, 2012 Grant	$1,134,496	TSR for 2012-2014 was 173%
February 22, 2013 Grant	$1,049,467	TSR for 2013-2014 was 77%
	$2,183,963	
Performance Stock Units Earned:		
2011-2013 Performance Period	$8,902,447	TSR for 2011-2013 was 71%

* TSR calculated using closing stock price at the beginning and end of each period.

(3) Represents the amounts imputed as income under applicable IRS rules and regulations.

EXECUTIVE COMPENSATION

The following table provides summary information concerning compensation paid by the Company or accrued on behalf of our NEOs for services rendered during the years ended December 31, 2014, 2013 and 2012.

Summary Compensation Table

Name and Principal Position	Year	Salary ($)(a)	Bonus ($)(b)	Stock Awards ($)(c)	Option Awards ($)(d)	Non-Equity Incentive Plan Compensation ($)(e)	Change in Pension Value and Nonqualified Deferred Compensation Earnings ($)(f)	All Other Compensation ($)(g)	Total ($)
M. W. Lamach	2014	1,250,000	—	7,493,591	2,096,815	2,048,200	6,026,605	502,295	19,417,506
Chairman and Chief Executive Officer	2013	1,237,500	250,000	7,176,489	2,265,976	2,650,000	917,847	490,026	14,987,838
	2012	1,175,000	—	6,288,586	1,697,045	1,571,270	4,920,650	483,868	16,136,419
S. K. Carter	2014	649,250		1,539,248	430,701	669,761	168,481	139,335	3,596,776
Senior Vice President and Chief Financial Officer	2013	163,790	960,000	2,302,436	65,408	218,050	29,347	364,657	4,103,688
M. J. Avedon	2014	548,250	—	891,174	249,361	483,119	985,227	114,066	3,271,197
Senior Vice President, Human Resources, Communications and Corporate Affairs	2013	523,500	100,000	902,256	275,006	615,125	46,862	87,814	2,550,563
	2012	503,400	—	960,778	259,277	371,657	603,324	99,207	2,797,643
D. P. M. Teirlinck	2014	655,000	—	1,336,792	374,026	787,041	1,159,571	150,536	4,462,966
Executive Vice President, Climate Segment	2013	604,167	—	1,939,504	362,505	855,547	356,770	186,124	4,304,617
	2012	580,000	—	1,179,131	318,197	225,695	750,764	117,538	3,171,325
R. G. Zafari	2014	550,000	—	972,208	272,024	384,005	815,343	94,916	3,088,496
Executive Vice President, Industrial Segment	2013	492,250	—	1,652,530	284,102	397,354	392,678	88,626	3,307,540
	2012	470,000	—	873,473	235,706	319,679	844,683	91,083	2,834,624

(a) Pursuant to the EDCP Plans, a portion of a participant's annual salary may be deferred into a number of investment options. In 2014 there were no salary deferrals by any NEO into the EDCP Plans.

(b) The amounts in this column for 2013 reflect completion recognition bonuses that were awarded in December, 2013 to certain individuals, including Mr. Lamach and Ms. Avedon, whose contributions were critical to the successful completion of the spin-off of the companies commercial and residential securities business. Ms. Carter, as part of her employment offer, received a cash payment of $960,000 in 2013 in consideration of the bonus and performance share plan payments forfeited at her prior employer. In the event Ms. Carter voluntarily leaves the company within two years of her hire date, she would have to repay this amount to the Company.

(c) The amounts in this column reflect the aggregate grant date fair value of PSU awards and any RSU awards granted for the year under Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 718 and do not reflect amounts paid to or realized by the NEOs. For a discussion of the assumptions made in determining the ASC 718 values see Note 11, "Share-Based Compensation," to the Company's consolidated financial statements contained in its 2014 Form 10-K. The ASC grant date fair value of the PSU award is spread over the number of months of service required for the grant to become non-forfeitable, disregarding any adjustments for potential forfeitures. In determining the aggregate grant date fair value of the PSU awards, the awards are valued assuming target level performance achievement. If the maximum level performance achievement is assumed, the aggregate grant date fair value of the PSU awards would be as follows:

Name	**Maximum Grant Date Value Of 2014-16 PSU Awards ($)**
M. W. Lamach	10,362,112
S. K. Carter	2,128,476
M. J. Avedon	1,232,318
D. P. M. Teirlinck	1,848,477
R. G. Zafari	1,344,371

Amounts in 2013 for Messrs. Teirlinck and Zafari include $814,968 from special RSU awards granted to them on December 6, 2013 in connection with the reorganization of the company or their respective promotions.

(d) Ms. Carter's 2013 AIM award was prorated to reflect her September 27, 2013 employment date. The amounts in this column reflect the aggregate grant date fair value of stock option grants for financial reporting purposes for the year under ASC 718 and do not reflect amounts paid to or realized by the NEOs. For a discussion of the assumptions made in determining the ASC 718 values see Note 11, "Share-Based Compensation," to the Company's consolidated financial statements contained in its 2014 Form 10-K. Please see "2014 Grants of Plan-Based Awards" and "Outstanding Equity Awards at December 31, 2014" for additional detail.

(e) This column reflects the amounts earned as annual awards under the AIM program. Unless deferred into the EDCP Plans, AIM program payments are made in cash. In 2014, Mr. Zafari was the only NEO who elected to defer a percentage (15%) of his AIM award into the EDCP Plans. Amounts shown in this column are not reduced to reflect deferrals of AIM awards into the EDCP Plans.

(f) Amounts reported in this column reflect the aggregate increase in the actuarial present value of the benefits under the qualified Ingersoll Rand Pension Plan Number One (the "Pension Plan"), Supplemental Pension Plans, Ingersoll-Rand Company Key Management Supplemental Program (the "KMP") and EOSP, as applicable. The change in pension benefits value is attributable to the additional year of service and age, the annual AIM award and any annual salary increase. Amounts are higher for those NEOs who are older and closer to retirement than for those who are younger and further from retirement since the period over which the benefit is discounted to determine its present value is shorter and the impact of discounting is therefore reduced.

Other external factors, outside the influence of the plan design, also impact the values shown in this column. For all the NEOs, the amounts in this column for 2012 and 2014 were impacted by decreasing interest rates (rates for ten-year Constant Maturities for US Treasury Securities), which cause the value of the lump sum distributions under the EOSP and the KMP to increase and in 2013 by increasing interest rates which cause the value of the lump sum distributions under the EOSP and the KMP to decrease. The 2014 change in value attributable to the change in interest rates is as follows for each of the NEOs: Lamach ($1,887,297), Carter ($15,034), Avedon ($259,400), Teirlinck ($121,415) and Zafari ($193,966). In addition, 2014 amounts for all NEOs were impacted by a change to the applicable mortality table as defined by the Internal Revenue Code that is used to estimate life expectancy. The change in value for each of the NEOs attributable to Changes in the applicable mortality table is as follows: Lamach ($1,357,339), Carter ($14,682), Avedon ($213,190), Teirlinck ($242,397) and Zafari ($259,258).

There was no above market interest earned by the NEOs during 2014.

(g) The following table summarizes the components of this column for fiscal year 2014:

Name	Company Contributions ($)(1)	Company Cost for Life Insurance ($)	Company Cost for Long Term Disability ($)	Tax Assistance ($)(2)	Other Benefits ($)(3)	Total ($)
M. W. Lamach	234,000	3,312	1,285	118,757	144,941	502,295
S. K. Carter	73,947	3,019	1,697	3,762	56,910	139,335
M. J. Avedon	69,803	1,319	1,824		41,120	114,066
D. P. M. Teirlinck	90,633	2,864	2,528	374	54,137	150,536
R. G. Zafari	56,841	2,276	2,029	93	33,677	94,916

(1) Represents Company contributions under the Company's ESP and Supplemental ESP plans.

(2) The amount for Mr. Lamach represents tax equalization payments related to Irish taxes owed on $315,000, which is the portion of his income that is allocated to his role as a director of the Company. Without these payments, Mr. Lamach would be subject to double taxation on this amount since he is already paying U.S. taxes on this income. The amount for (i) Ms. Carter represents payments made on her behalf for taxes related to relocation costs and (ii) Messrs. Teirlinck and Zafari represent payments of taxes on their behalf related to Company contributions made to the Belgium social scheme.

(3) Represents: (i) the incremental cost to the Company of personal use of the Company aircraft (whether leased or owned) by the CEO. For security and safety reasons and to maximize his availability for Company business, the Board of Directors requires the CEO to travel on Company-provided aircraft for business and personal purposes, unless commercial travel is deemed a minimal security risk by the Company. The incremental cost to the Company of personal use of leased aircraft used by the Company is calculated based on the hourly average variable operating costs to the Company. Variable operating costs include fuel, maintenance, on-board catering and landing fees. The hourly average variable cost is multiplied by the amount of time flown for personal use to derive the incremental cost. The incremental cost to the Company of personal use of the Company's aircraft is calculated by multiplying the flight time by a variable fuel charge and the average fuel price per gallon and adding any ground costs such as landing and parking fees as well as crew charges for travel expenses. Both methodologies exclude fixed costs that do not change based on usage, such as pilots' and other employees' salaries, management fees and training, hangar and insurance expenses. We impose an annual limit of $150,000 on the CEO's non-business use of Company-provided aircraft. For 2014, the amount for Mr. Lamach includes $121,854 for personal use of Company-provided aircraft; (ii) the following relocation costs for Ms. Carter $36,159, (iii) the following incremental cost of the Company-leased cars, calculated based on the lease, insurance, fuel and maintenance costs to the Company (and for Ms. Avedon and Mr. Teirlinck, it also includes the difference between the resale value and the book value for the Company cars they purchased under the program): Mr. Lamach, $13,638; Ms. Carter $8,931; Ms. Avedon, $28,613; Mr. Teirlinck, $31,784; and Mr. Zafari, $21,056; (iv) additional incremental costs associated with the use of the Company aircraft. Under the Company's aircraft use policy, the Compensation Committee has determined that business use includes travel that is related to the Company's business or benefits the Company, such as travel to meetings of other boards on which the CEO sits. For 2014, the amount for Mr. Lamach includes $35,975 for such business-related travel; (v) the following costs for financial counseling services, which may include tax preparation and estate planning services: Mr. Lamach, $9,449; Ms. Carter $10,000; Ms. Avedon $9,449; Mr. Teirlinck, $5,000; and Mr. Zafari, $5,000; (vi) the following costs for medical services provided through an on-site physician under the Executive Health Program: Mr. Lamach, $0; Ms. Carter, $1,820; Ms. Avedon $3,058; Mr. Teirlinck, $1,817; and Mr. Zafari, $3,737; (vii) the payments of $15,536 and $3,884 to permit Messrs. Teirlinck and Zafari to remain covered under the Belgium social scheme and have access to the country's health plan should they return to Europe.

2014 Grants of Plan-Based Awards

The following table shows all plan-based awards granted to the NEOs during fiscal 2014. This table is supplemental to the Summary Compensation Table and is intended to complement the disclosure of equity awards and grants made under non-equity incentive plans in the Summary Compensation Table.

		Estimated Future Payouts Under Non-Equity Plan Awards			Estimated Future Payouts Under Equity Incentive Plan Awards			All Other Stock Awards: Number of Shares of Stock or Units	All Other Option Awards: Number of Securities Underlying Options	Exercise or Base Price of Option Awards	Grant Date Fair Value of Stock and Option Awards
		Threshold	Target	Maximum	Threshold	Target	Maximum				
Name	Grant Date	($)(a)	($)(a)	($)(a)	(#)(b)	(#)(b)	(#)(b)	(#)(c)	(#)(c)	($/Sh)(d)	($)(e)
M. W. Lamach											
AIM	2/25/2014	600,000	2,000,000	4,000,000	—	—	—	—	—	—	—
PSUs (2014-16)	2/25/2014	—	—	—	19,328	77,309	154,618	—	—	—	5,181,056
Options	2/25/2014	—	—	—	—	—	—	—	146,733	59.8250	2,096,815
RSUs	2/25/2014	—	—	—	—	—	—	38,655	—	—	2,312,535
S. K. Carter											
AIM	2/25/2014	196,200	654,000	1,308,000	—	—	—	—	—	—	—
PSUs (2014-16)	2/25/2014	—	—	—	3,970	15,880	31,760	—	—	—	1,064,238
Options	2/25/2014	—	—	—	—	—	—	—	30,140	59.8250	430,701
RSUs	2/25/2014	—	—	—	—	—	—	7,940	—	—	475,011
M. J. Avedon											
AIM	2/25/2014	141,525	471,750	943,500	—	—	—	—	—	—	—
PSUs (2014-16)	2/25/2014	—	—	—	2,299	9,194	18,388	—	—	—	616,159
Options	2/25/2014	—	—	—	—	—	—	—	17,450	59.8250	249,361
RSUs	2/25/2014	—	—	—	—	—	—	4,597	—	—	275,016
D. P. M. Teirlinck											
AIM	2/25/2014	176,850	589,500	1,179,000	—	—	—	—	—	—	—
PSUs (2014-16)	2/25/2014	—	—	—	3,448	13,791	27,582	—	—	—	924,238
Options	2/25/2014	—	—	—	—	—	—	—	26,174	59.8250	374,026
RSUs	2/25/2014	—	—	—	—	—	—	6,896	—	—	412,553
R. G. Zafari											
AIM	2/25/2014	140,250	467,500	935,000	—	—	—	—	—	—	—
PSUs (2014-16)	2/25/2014	—	—	—	2,508	10,030	20,060	—	—	—	672,186
Options	2/25/2014	—	—	—	—	—	—	—	19,036	59.8250	272,024
RSUs	2/25/2014	—	—	—	—	—	—	5,015	—	—	300,022

(a) The target award levels established for the AIM program are established annually in February and are expressed as a percentage of the NEO's base salary. Refer to Compensation Discussion and Analysis under the heading "Annual Incentive Matrix Program" for a description of the Compensation Committee's process for establishing AIM program target award levels. The amounts reflected in the "Estimated Future Payouts Under Non-Equity Incentive Plan Awards" columns represent the threshold, target and maximum amounts for awards under the AIM program that were paid in March 2015, based on performance in 2014. Thus, the amounts shown in the "threshold, target and maximum" columns reflect the range of potential payouts when the target award levels were established in February 2014 for all NEOs. The AIM program pays $0 for performance below threshold. The actual amounts paid pursuant to those awards are reflected in the "Non-Equity Incentive Plan Compensation" column of the Summary Compensation Table.

(b) The amounts reflected in the "Estimated Future Payouts Under Equity Incentive Plan Awards" columns represent the threshold, target and maximum amounts for PSU awards. The PSP pays $0 for performance below threshold. For a description of the Compensation Committee's process for establishing PSP target award levels and the terms of PSU awards, please refer to Compensation Discussion and Analysis under the heading "Long-Term Incentive Program" and the "Post-Employment Benefits" section below.

(c) The amounts in these columns reflect the stock option and RSU awards. Awards in 2014 were granted in February 2014. For a description of the Compensation Committee's process for determining stock option and RSU awards and the terms of such awards, see Compensation Discussion and Analysis under the heading "Long-Term Incentive Program" and the "Post-Employment Benefits" section below.

(d) Stock options were granted under the Company's Incentive Stock Plan of 2013 (the "2013 Plan"), which requires options to be granted at an exercise price equal to or greater than the fair market value of the Company's ordinary shares on the date of grant. The fair market value is defined in the 2013 Plan as the average of the high and low trading price of the Company's ordinary shares listed on the NYSE on the grant date. The closing price on the NYSE of the Company's ordinary shares was $59.65 on the February 2014 grant date.

(e) Amounts in this column include the grant date fair value of the equity awards calculated in accordance with ASC 718. The Company cautions that the actual amount ultimately realized by each NEO from the stock option awards will likely vary based on a number of factors, including stock price fluctuations, differences from the valuation assumptions used and timing of exercise or applicable vesting. For a description of the assumptions made in valuing the equity awards see Note 11, "Share-Based Compensation" to the Company's consolidated financial statements contained in its 2014 Form 10-K. For PSUs, the grant date fair value has been determined based on achievement of target level performance, which is the performance threshold the Company believes is the most likely to be achieved under the grants.

Outstanding Equity Awards at December 31, 2014

Name	Grant Date	Option Awards (a)				Stock Awards (a)			
		Number of Securities Underlying Unexercised Options (#) Exercisable (b)	Number of Securities Underlying Unexercised Options (#) Unexercisable (b)	Option Exercise Price ($)	Option Expiration Date (d)	Number of Shares or Units of Stock that have Not Vested (#) (e)	Market Value of Shares or Units of Stock that have Not Vested ($) (f)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights that have Not Vested (#) (g)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights that have Not Vested ($) (f)
M. W. Lamach	6/6/2008	100,000	—	34.6558	6/5/2018	—	—	—	—
	2/16/2010	250,000	—	25.2192	2/15/2020	—	—	—	—
	2/14/2011	140,351	—	37.7420	2/13/2021	—	—	—	—
	2/14/2011	88,083	—	37.7116	2/13/2021	—	—	—	—
	2/24/2012	41,351	—	32.4643	2/23/2022	—	—	—	—
	2/24/2012	51,903	51,903	32.4256	2/23/2022	18,507	1,173,159	111,025	7,037,575
	2/22/2013	55,469	110,938	41.9062	2/21/2023	34,801	2,206,035	104,400	6,617,916
	2/25/2014	—	146,733	59.8250	2/24/2024	38,655	2,450,340	77,309	4,900,618
S. K. Carter	10/1/2013 (c)	—	4,016	51.9167	9/30/2023	18,577	1,177,596	7,898	500,654
	10/1/2013	—	—	—	—	—	—	13,966	885,305
	2/25/2014	—	30,140	59.8250	2/24/2024	7,940	503,317	15,880	1,006,633
M. J. Avedon	2/15/2008	13,987	—	31.1121	2/14/2018	—	—	—	—
	2/16/2010	15,815	—	25.2192	2/15/2020	—	—	—	—
	2/14/2011	6,826	—	37.7116	2/13/2021	—	—	—	—
	2/14/2011	10,877	—	37.7420	2/13/2021	—	—	—	—
	2/24/2012	6,317	—	32.4643	2/23/2022	—	—	—	—
	2/24/2012	7,930	7,930	32.4256	2/23/2022	2,829	179,330	16,963	1,075,285
	2/22/2013	6,973	13,947	41.9062	2/21/2023	4,376	277,395	13,126	832,057
	2/25/2014	—	17,450	59.8250	2/24/2024	4,597	291,404	9,194	582,808
D. P. M. Teirlinck	2/24/2012	—	9,733	32.4256	2/23/2022	3,471	220,027	20,818	1,319,653
	2/22/2013	—	18,384	41.9062	2/21/2023	5,768	365,634	17,302	1,096,774
	12/6/2013	—	—	—		13,230	838,650	—	—
	2/25/2014	—	26,174	59.8250	2/24/2024	6,896	437,137	13,791	874,211
R. G. Zafari	2/1/2006	7,500	—	31.4502	1/31/2016	—	—	—	—
	2/24/2012	—	7,210	32.4256	2/23/2022	2,572	163,039	15,422	977,601
	2/22/2013	—	13,947	41.9062	2/21/2023	4,376	277,395	13,126	832,057
	12/6/2013	—	—	—	—	13,230	838,650	—	—
	2/25/2014	—	19,036	59.8250	2/24/2024	5,015	317,901	10,030	635,802

(a) In connection with the spin-off of our commercial and residential security businesses in December 2013 (the "Spin-off"), certain adjustments were made to outstanding equity awards held by our employees, including the NEOs, as described below:

- Vested and exercisable stock options and SARs were adjusted such that the holder of such awards was also afforded the right to options in the number of shares of Allegion plc ("Allegion") that he or she would have received had the ordinary shares of the Company subject to the vested and exercisable stock options and SARs been outstanding shares as of the record date for the Spin-off. The aggregate exercise price of the stock options and SARs was allocated between the adjusted awards in shares of the Company and Allegion in order to preserve the intrinsic value of the awards immediately before and after the Spin-off.

- Unvested stock options were adjusted wholly into stock options in the ordinary shares of the Company such that the number of shares and the exercise price of the options were adjusted to preserve their intrinsic value based on the value of the shares immediately before and after the Spin-off.
- PSUs and RSUs were adjusted such that the number of ordinary shares of the Company subject to the PSU and RSU awards was adjusted based on the value of the shares immediately before and after the Spin-off to preserve their intrinsic value. In addition, with respect to the PSU performance metrics, for purposes of calculating EPS growth, 2013 EPS was calculated as the combined 2013 full year reported EPS for the Company and Allegion; for purposes of calculating TSR in the outstanding award cycles, the stock price of Allegion immediately after the Spin-off, adjusted for the distribution ratio of 1 share of Allegion for every 3 shares of the Company, will be treated as a dividend.

(b) These columns represent stock option and SARs awards. Except as noted in (c) below, these awards generally become exercisable in three equal installments beginning on the first anniversary after the date of grant, subject to continued employment or retirement.

(c) Ms. Carter's option grant dated October 1, 2013, vests and becomes exercisable on the 3rd anniversary of the grant date.

(d) All of the options granted to the NEOs expire on the tenth anniversary (less one day) of the grant date.

(e) This column represents unvested RSUs. Except as described in the following sentence, RSUs generally become exercisable in three equal installments beginning on the first anniversary after the date of grant, subject to continued employment or retirement. In the case of Ms. Carter's grant dated October 1, 2013 and Messrs. Zafari and Teirlinck's grants dated December 6, 2013, 100% of the grant vests on the third anniversary of the grant date.

(f) The market value was computed based on $63.39, the closing market price of the Company's ordinary shares on the NYSE at December 31, 2014.

(g) This column represents unvested and unearned PSUs. PSUs vest upon the completion of a three-year performance period. The actual number of shares an NEO will receive, if any, is subject to achievement of the performance goals as certified by the Compensation Committee, and continued employment.

2014 Option Exercises and Stock Vested

The following table provides information regarding the amounts received by each NEO upon exercise of stock options, the vesting of RSUs or the vesting of PSUs during the fiscal year ended December 31, 2014:

	Option Awards		Stock Awards		
Name	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise ($) (a)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting ($)	
M. W. Lamach	145,040	4,019,926	181,020	10,832,125	(b)
S. K. Carter	—	—	—	—	
M. J. Avedon	20,000	588,984	31,609	1,888,694	(c)
D. P. M. Teirlinck	27,731	749,195	40,668	2,429,911	(c)
R. G. Zafari	84,856	2,514,728	23,415	1,398,799	(d)(e)

(a) This column reflects the aggregate dollar amount realized by the NEO upon the exercise of the stock options by determining the difference between the market price of the Company's ordinary shares at exercise and the exercise price of the stock options.

(b) Reflects the value of the RSUs that vested on February 22, 2014 and February 24, 2014 and PSUs that vested on February 25, 2014, based on the average of the high and low stock price of the Company's ordinary shares on the vesting date.

(c) Reflects the value of the RSUs that vested on February 14, 2014, February 22, 2014 and February 24, 2014 and PSUs that vested on February 25, 2014 based on the average of the high and low stock price of the Company's ordinary shares on the vesting date.

(d) Reflects the value of the RSUs that vested on February 14, 2014, February 22, 2014 and February 24, 2014 and PSUs that vested on February 25, 2014 (other than with respect to shares that were deferred as described in footnote (e) below), based on the average of the high and low stock price of the Company's ordinary shares on the vesting date.

(e) Mr. Zafari elected to defer a portion of the shares acquired upon the vesting of his PSU award on February 25, 2014 into the Company's EDCP II. Mr. Zafari deferred 4,222 shares having a value of $252,581. Mr. Zafari's cash dividends of $6,425.24 that had accrued on the PSU award were also deferred under the EDCP II. Please see "2014 Nonqualified Deferred Compensation" for more information about the terms of the Company's EDCP Plans.

2014 Pension Benefits

The NEOs participate in one or more of the following defined benefit plans, but not in all of the following defined benefit plans:

- the Pension Plan;
- the Supplemental Pension Plans; and
- the EOSP or the KMP.

The Pension Plan is a funded, tax qualified, non-contributory (for all but a small subset of participants) defined benefit plan that covers the majority of the Company's salaried and non union hourly U.S. employees who were hired or re-hired prior to June 30, 2012. The Pension Plan provides for normal retirement at age 65. The formula to determine the lump sum benefit under the Pension Plan is: 5% of final average pay (the five highest consecutive years out of the last ten years of eligible compensation) multiplied by years of credited service. A choice for distribution between an annuity and a lump sum option is available. The Pension Plan was closed to new participants after June 30, 2012 and no further benefits will accrue to any Pension Plan participant for service performed after December 31, 2022. In addition, any employee who was a Pension Plan participant on June 30, 2012 was provided the option to waive participation in the Pension Plan effective January 1, 2013, and, in lieu of participation in the Pension Plan, receive a non-elective employer contribution equal to 2% of eligible compensation in the ESP.

The Supplemental Pension Plans are unfunded, nonqualified, non-contributory defined benefit restoration plans. Since the Code limits the annual compensation and benefits recognized when calculating benefits under the qualified Pension Plan, the Supplemental Pension Plans restore what is lost in the Pension Plan due to these limits. The Supplemental Pension Plans cover all employees of the Company who participate in the Pension Plan and who are impacted by the Code compensation and benefits limits. A participant must meet the vesting requirements of the qualified Pension Plan to vest for benefits under the Supplemental Pension Plans. Benefits under the Supplemental Pension Plans are available only as a lump sum distribution after termination and paid in accordance with Section 409A of the Code. As a result of the 2012 changes to the Pension Plan, the Supplemental Pension Plans were closed to employees hired on or after June 30, 2012, and no further benefits will accrue to any Supplemental Plan participant for service performed after December 31, 2022.

NEOs participate in either the EOSP or the KMP. The EOSP, which was closed to new participants effective April 2011, is an unfunded, nonqualified, non-contributory defined benefit plan, designed to replace a percentage of an officer's final average pay based on his or her age and years of service at the time of retirement. Final average pay is defined as the sum of the officer's current annual base salary plus the average of his or her three highest AIM awards during the most recent six years. No other elements of compensation (other than base salary and AIM awards) are included in final average pay. The EOSP provides a benefit pursuant to a formula in which 1.9% of an officer's final average pay is multiplied by the officer's years of service (up to a maximum of 35 years) and then reduced by the value of other retirement benefits the officer will receive that are provided by the Company under certain qualified and nonqualified retirement plans as well as Social Security. If additional years of service were granted to an officer as part of his or her employment agreement, those additional years of service are reflected in the Pension Benefits table below. Vesting occurs, while the officer is employed by the Company, at the earlier of the attainment of age 55 and the completion of 5 years of service or age 62. Unreduced benefits under the EOSP are available at age 62 and benefits are only available as a lump sum after termination and paid in accordance with Section 409A of the Code. Each NEO, other than Ms. Carter who was hired after the plan was closed, participates in the EOSP.

The KMP is an unfunded, nonqualified, non-contributory defined benefit plan available to certain key management employees. The KMP is designed to replace a percentage of a key employee's final average pay based on his or her age and years of service at the time of retirement. Final average pay is defined as the sum of the key employee's current annual base salary plus the average of the employee's three highest AIM awards during the most recent six years. No other elements of compensation (other than base salary and AIM awards) are included in final average pay. The KMP provides a benefit pursuant to a formula in which 1.7% of a key employee's final average pay is multiplied by years of service (up to a maximum of 30 years) and then reduced by the value of other retirement benefits the key employee will receive that are provided by the Company under certain qualified and nonqualified retirement plans as well as Social Security. Vesting occurs at the earlier of the attainment of age 55 and the completion of 5 years of service or age 65. Benefits are only available as a lump sum after termination and paid in accordance with Section 409A of the Code. Ms. Carter is the only NEO who participates in the KMP.

The table below represents the estimated present value of defined benefits for the plans in which each NEO participates.

Name	Plan Name	Number of Years Credited Service (#) (a)		Present Value of Accumulated Benefit ($) (b)	Payments During Last Fiscal Year ($)
M.W. Lamach	Pension Plan	10.917		120,917	—
	Supplemental Pension Plan II	10.917		1,190,924	—
	EOSP	28	(c)	19,736,930	—
S.K. Carter	KMP	1.333		197,828	—
M. J. Avedon	Pension Plan	7.92		94,388	—
	Supplemental Pension Plan II	7.92		245,215	—
	EOSP	8.00	(d)	2,966,408	—
D.P.M. Teirlinck	Pension Plan	6.33	(e)	90,496	—
	Supplemental Pension Plan II	6.33	(e)	290,161	—
	EOSP	10	(f)	3,378,282	—
R. G. Zafari	Pension Plan	4.42	(e)	59,168	—
	Supplemental Pension Plan II	4.42	(e)	148,511	—
	EOSP	14.75	(f)	3,812,725	—

(a) Under the EOSP or the KMP, for officers covered prior to May 19, 2009, a full year of service is credited for any year in which they work at least one day. In the Pension Plan, the Supplemental Pension Plans, the EOSP and the KMP for officers covered on or after May 19, 2009, the number of years of credited service is based on elapsed time (*i.e.* , credit is given for each month in which a participant works at least one day). The years of credited service used for calculating benefits under the Pension Plan, EOSP, KMP and Supplemental Pension Plan II are the years of credited service through December 31, 2014.

(b) The amounts in this column reflect the estimated present value of each NEO's accumulated benefit under the plans indicated. The calculations reflect the value of the benefits assuming that each NEO was fully vested under each plan. The benefits were computed as of December 31, 2014, consistent with the assumptions described in Note 9, "Pensions and Postretirement Benefits Other than Pensions," to the consolidated financial statements in the 2014 Form 10-K.

(c) Mr. Lamach's credited years of service exceed his actual years of service by 17 years pursuant to the provisions of his employment arrangement. Crediting additional years of service to a nonqualified pension program such as the EOSP was not uncommon in 2004 when Mr. Lamach joined the Company and was used to compensate him for benefits he was forfeiting at his prior employer. Mr. Lamach's benefit under the EOSP is reduced by the pension benefit he received from his former employer in July 2013, updated with interest. The increase in present value of benefits due to those additional years of credited service is $13,032,052.

(d) Ms. Avedon, pursuant to the provisions of her employment arrangement, receives double credit for the first five years of employment (3.8% versus 1.9%) in determining her benefit. The increase in present value of benefits due to this provision is $1,300,591.

(e) Service in the Pension Plan and the Supplemental Pension Plan II for Messrs. Teirlinck and Zafari began in September 2008 and August 2010, respectively, when they transferred to the United States.

(f) Benefits for Messrs. Teirlinck and Zafari under the EOSP use all their service with the Company, not just the service in the United States. The benefit will be reduced by any and all benefits accrued or accumulated while covered under any non-U.S. plan in respect to any period of service that is counted as a year of service in this plan. The value of these non-U.S. benefits is not readily accessible until retirement, and therefore the amount shown for EOSP reflects the value of this benefit prior to these reductions.

2014 Nonqualified Deferred Compensation

The Company's EDCP Plans are unfunded, nonqualified plans that permit certain employees, including the NEOs, to defer receipt of up to 50% of their annual salary and up to 100% of their AIM awards, PSP awards and RSUs received upon commencement of employment. Elections to defer must be made prior to the beginning of the performance period. The Company has established a nonqualified grantor trust with a bank as the trustee to hold certain assets as a funding vehicle for the Company's obligations under the EDCP Plans. These assets are considered general assets of the Company and are available to its creditors in the event of the Company's insolvency. Amounts held in the trust are invested by the trustee using various investment vehicles.

Participants are offered certain investment options (approximately 60 mutual fund investments and ordinary share equivalents), and can choose how they wish to allocate their cash deferrals among those investment options. Participants are 100% vested in all amounts deferred, and bear the risk of any earnings and losses on such deferred amounts.

Generally, deferred amounts may be distributed following termination of employment or at the time of a scheduled in-service distribution date chosen by the participant. If a participant has completed five or more years of service at the time of termination, or is terminated due to long-term disability, death or retirement, the distribution is paid in accordance with the participant's election. If a participant terminates without meeting these requirements, the account balance for all plan years will be paid in a lump sum in the year following the year of termination. A participant can elect to receive distributions at termination over a period of five, 10, or 15 annual installments, or in a single lump sum. A participant can elect to receive scheduled in-service distributions in future years that are at least two years after the end of the plan year for which they are deferring. In-service distributions can be received in two to five annual installments, or if no election is made, in a lump sum. For those participants who have investments in ordinary shares, the distribution of these assets will be in the form of ordinary shares, not cash.

The following table provides information regarding contributions, distributions, earnings and balances for each NEO under our nonqualified deferred compensation plans.

Name	Executive Contributions in Last Fiscal Year ($) (a)	Registrant Contributions in Last Fiscal Year ($) (b)	Aggregate Earnings in Last Fiscal Year ($) (c)	Aggregate Withdrawals/ Distributions ($)	Aggregate Balance at Last Fiscal Year End ($) (d)
M. W. Lamach					
EDCP II	—	—	165,910	—	3,741,545
Supplemental ESP	—	218,400	78,819	—	1,791,463
S. K. Carter					
Supplemental ESP	—	48,584	1,140	—	49,724
M. J. Avedon					
EDCP II	—	—	184,888	—	4,169,542
Supplemental ESP	—	54,203	7,517	—	385,703
D. P. M. Teirlinck					
EDCP II	—	—	237,868	—	5,364,336
Supplemental ESP	—	75,033	30,050	—	478,989
R. G. Zafari					
EDCP II	262,078	—	20,401	—	419,504
Supplemental ESP	—	41,241	10,314	—	232,710

(a) The annual deferrals (salary, AIM & PSP) are all reflected in the Salary column, the Non-Equity Incentive Plan column and the Stock Awards column, respectively of the Summary Compensation Table.

(b) All of the amounts reflected in this column are included in the All Other Compensation column of the Summary Compensation Table.

(c) Amounts in this column include gains and losses on investments, as well as dividends on ordinary shares or ordinary share equivalents. None of the earnings or losses reported in this column are included in the Summary Compensation Table.

(d) The following table reflects the amounts reported in this column previously reported as compensation to the NEOs in the Company's Summary Compensation Table in proxy statements for prior years. Each of Messrs. Lamach, Teirlinck and Zafari and Ms. Carter and Ms. Avedon first became NEOs and therefore had their compensation reported in the Company's proxy statements for fiscal years 2005 (Lamach), 2014 (Carter), 2010 (Avedon), 2010 (Teirlinck) and 2012 (Zafari).

Name	EDCP Plans ($)	Supplemental ESP ($)
M. W. Lamach	1,529,086	771,033
S. K. Carter	—	—
M. J. Avedon	376,016	110,543
D. P. M. Teirlinck	3,213,525	171,157
R. G. Zafari	354,098	113,866

Proxy Statement

Post-Employment Benefits

The following discussion describes the compensation to which each NEO would be entitled in the event of termination of such executive's employment, including termination following a change in control.

Employment Arrangements and Severance. All of the NEOs are entitled to certain benefits upon termination of their employment following a change in control. Mr. Lamach, Ms. Carter and Ms. Avedon are entitled to severance in the event of their involuntary termination without cause pursuant to the terms of their employment agreements. Under the terms of his employment agreement, Mr. Lamach is eligible for 24 months of base annual salary plus a prorated AIM award earned for the year of termination as determined and paid at the conclusion of the full performance year in accordance with the terms of the AIM program. In addition, any unvested PSP awards from completed performance periods would vest and Mr. Lamach would also receive prorated PSP awards (not to exceed target) for the open performance periods at the end of the respective performance periods. These awards would be based on actual performance in accordance with the terms of the PSP program. Under the terms of her employment agreement, Ms. Carter is eligible for 12 months of base salary plus a prorated AIM award (not to exceed target) earned for the year of termination as determined and paid at the conclusion of the full performance year in accordance with the terms of the AIM program. Ms. Avedon is eligible for 12 months of base salary plus an AIM award equal to the target amount. In addition, any unvested PSP awards from completed performance periods would vest and Ms. Avedon would also receive prorated PSP awards (not to exceed target) for the open performance periods at the end of the respective performance periods. These awards would be based on actual performance in accordance with the terms of the PSP program.

In the event of a change in control or termination due to a Major Restructuring, severance for Mr. Lamach, Ms. Carter and Ms. Avedon would be determined pursuant to the terms of the change-in-control agreements or the Major Restructuring Severance Plan described below in lieu of severance under the terms of the employment agreements. Although the Company does not have a formal severance policy for officers, NEOs who are terminated by the Company other than for cause will generally be entitled to received up to 12 months' base salary as severance and, depending on the circumstances and timing of the termination, a pro-rated portion of their AIM award, not to exceed target. In addition, the Company's equity award agreements provide for the following upon the occurrence of one of the specified events in the table below:

<table>
<tr><th></th><th>Stocks Options</th><th>RSUs</th><th>PSUs</th></tr>
<tr><td>Retirement</td><td>Continue to vest on the same basis as active employees and remain exercisable for a period of five years (or three years in the case of retirement for awards granted prior to 2007) following termination.</td><td>Continue to vest on the same basis as active employees.</td><td rowspan="3">Vest pro-rata based on the time worked during the performance period and the achievement of performance goals through the end of the performance period.</td></tr>
<tr><td>Group Termination</td><td>Immediately vest in the portion of the awards that would have vested within twelve months of termination and remain exercisable for a period of three years following termination.</td><td>Immediately vest in the portion of the awards that would have vested within twelve months of termination.</td></tr>
<tr><td>Job Elimination</td><td>Unvested awards are forfeited and vested awards remain exercisable for a period of one year following termination.</td><td>Unvested awards are forfeited.</td></tr>
<tr><td>Death or Disability</td><td>Either vest or continue to vest on the same basis as active employees and the stock options remain exercisable for a period of three years following termination.</td><td>Either vest or continue to vest on the same basis as active employees.</td><td>Vest pro-rata based on the time worked during the performance period and the achievement of performance goals from the beginning of the performance period through the end of the calendar quarter in which employment terminated.</td></tr>
</table>

Change in Control. The Company has entered into a change-in-control agreement with each NEO. The change-in-control agreement provides for certain payments if the employment is terminated by the Company without "cause" (as defined in the change-in-control agreements) or by the NEO for "good reason" (as defined in the change-in-control agreements), in each case, within two years following a change in control of the Company. For officers who first became eligible for a change-in-control agreement on or after May 19, 2009, including Mr. Zafari and Ms. Carter, the Company eliminated a severance payment based on outstanding PSP awards and eliminated a payment to cover the impact to the executive of certain incremental taxes incurred in connection with the payments made following a change in control.

Following a change in control, each NEO is entitled to continue receiving his or her current base salary and is entitled to an annual bonus in an amount not less than the highest annual bonus paid during the prior three full fiscal years.

If an NEO's employment is terminated "without cause" or by the NEO for "good reason" following a change in control, the NEO is entitled to the following:

- any base salary and annual bonus for a completed fiscal year that had not been paid;
- an amount equal to the NEO's annual bonus for the last completed fiscal year pro-rated for the number of full months employed in the current fiscal year;
- an amount equal to the NEO's base salary pro-rated for any unused vacation days;
- a lump sum severance payment from the Company equal to the three times (for the CEO) or two and one-half times (for other NEOs) the sum of:
- the NEO's annual salary in effect on the termination date, or, if higher, the annual salary in effect immediately prior to the reduction of the NEO's annual salary after the change in control; and
- the NEO's target AIM award for the year of termination or, if higher, the average of the AIM award amounts beginning three years immediately preceding the change in control and ending on the termination date; and
- for Messrs. Lamach and Teirlinck and Ms. Avedon, a lump sum payment equal to three times for Mr. Lamach and two and one-half times for Ms. Avedon and Mr. Teirlinck of: (a) the cash value of the target amount of the most recent PSU award; or (b) if higher, the average amounts of the last three PSU awards granted and paid to the NEO immediately preceding termination. This payment is in lieu of any rights the individual might have with respect to unvested PSU awards.

In addition to the foregoing, the NEOs would also be eligible to participate in the Company's welfare employee benefit programs for the severance period (three years for the CEO and two and one-half years for the other NEOs). The Company would also provide each NEO up to $100,000 of outplacement services. For purposes of calculating the NEO's nonqualified pension benefits, three years would be added to both age and service with the Company under the EOSP or KMP. In addition, the "final average pay" under the EOSP or KMP would be calculated as 33.33% of his severance benefit under his change-in-control agreement in the case of Mr. Lamach and 40% of the severance benefit under the applicable change-in-control agreement in the case of the other NEOs. For purposes of determining eligibility for applicable post-retirement welfare benefits, the NEO would be credited with any combination of additional years of service and age, not exceeding 10 years, to the extent necessary to qualify for such benefits.

Under the Company's incentive plans, outstanding unvested stock options, SARs and RSUs immediately vest and become exercisable or payable, as applicable, following a change in control. PSUs will be deemed to have earned a pro-rata award based on the target award opportunity and total number of months worked in the applicable performance period.

A "change in control" is defined as the occurrence of any of the following events: (i) any person unrelated to the Company becomes the beneficial owner of 30% or more of the combined voting power of the Company's voting stock; (ii) the directors serving at the time the change-in-control agreements were executed (or the directors subsequently elected by the shareholders of the Company whose election or nomination was duly approved by at least two-thirds of the then serving directors) fail to constitute a majority of the Board of Directors; (iii) the consummation of a merger or consolidation of the Company with any other corporation in which the Company's voting securities outstanding immediately prior to such merger or consolidation represent 50% or less of the combined voting securities of the Company immediately after such merger or consolidation; (iv) any sale or transfer of all or substantially all of the Company's assets, other than a sale or transfer with a corporation where the Company owns at least 80% of the combined voting power of such corporation or its parent after such transfer; or (v) any other event that the continuing directors determine to be a change in control; provided however, with respect to (i), (iii) and (iv) above, there shall be no change in control if shareholders of the Company own more than 50% of the combined voting power of the voting securities of the Company or the surviving entity or any parent immediately following such transaction in substantially the same proportion to each other as prior to such transaction.

Enhanced Retirement Benefits. An officer is vested in the EOSP or KMP upon the earlier of: (i) the attainment of age 55 and the completion of 5 years of service; (ii) attainment of age 62 for the EOSP and age 65 for the KMP; (iii) death; (iv) disability (as provided under plan term); or (iv) change in control. A termination within two years following a change in control also triggers the payment of an enhanced benefit (as described above). Benefits under the EOSP or KMP are forfeited in the event of termination for cause. In order to be eligible for an EOSP or KMP benefit in the event of disability, a participant must remain disabled until age 65. An officer becomes vested in both the Pension Plan and the Supplemental Pension Plans upon the completion of 5 years of service. As of December 31, 2014, Mr. Lamach and Ms. Avedon were not vested in the EOSP and Ms. Carter was not vested in the KMP.

Health Benefits. In the event of a change in control, health benefits are provided, which include the Company cost of both active health and welfare benefits for the severance period (three years for Mr. Lamach and two and one-half years for the other NEOs), as well as retiree medical, if applicable.

Major Restructuring. The Company has adopted a Severance Plan that provides a cash severance payment in the event a participant's employment is terminated due to an involuntary loss of job without Cause (as defined in the Severance Plan) or a Good

Reason (as defined in the Severance Plan), provided that the termination is substantially related to or a result of the Major Restructuring. The cash severance payment would be equal to two and one-half times (for the CEO) or two times (for other NEOs) (a) current base salary, and (b) current target AIM award. In addition, the participants would receive a pro-rated portion of their target AIM award, based on actual Company and individual performance during the fiscal year in which termination of employment occurred. Participants in the EOSP or KMP who are not vested in such plans would also receive a cash payment equal to the amount of the benefit to which they would have been entitled if they were vested. As of December 31, 2014, the value of cash severance for the NEOs was: Mr. Lamach, $8,125,000; Ms. Carter, $2,616,000; Ms. Avedon, $2,053,500; Mr. Teirlinck, $2,489,000; and Mr. Zafari, $2,035,000.

In addition the Company's equity awards provide that employees who terminate employment due to an involuntary loss of job without Cause (as defined in the applicable award agreement) or for Good Reason (as defined in the applicable award agreement) within one year of completion of a Major Restructuring will, provided that the termination is substantially related to the Major Restructuring, (i) immediately vest in all unvested stock options and may exercise all vested stock options at any time within the following three-year period (five years if retirement eligible) or the remaining term of the stock option, if shorter, (ii) immediately vest in all RSUs, except that retirement eligible participants with at least five years of service would continue their existing vesting schedule, (iii) receive a prorated payout of outstanding PSUs based on actual performance at the end of performance period , and (iv) have the right to exercise all vested SARs at any time within the following three-year period (five years if retirement eligible) or the remaining term of the SAR, if shorter. As of December 31, 2014, the value of unvested equity awards was: Mr. Lamach, $23,425,074; Ms. Carter, $3,260,587; Ms. Avedon, $3,179,631; Mr. Teirlinck, $4,993,099; and Mr. Zafari, $3,931,848.

A "Major Restructuring" is defined as a reorganization, recapitalization, extraordinary stock dividend, merger, sale, spin-off or other similar transaction or series of transactions, which individually or in the aggregate, has the effect of resulting in the elimination of all, or the majority of, any one or more of the Company's two business segments (*i.e.* , Climate and Industrial), so long as such transaction or transactions do not constitute a Change in Control (as defined in the applicable plan).

Post-Employment Benefits Table

The following table describes the compensation to which each of the NEOs would be entitled in the event of termination of such executive's employment on December 31, 2014, including termination following a change in control. The potential payments were determined under the terms of our plans and arrangements in effect on December 31, 2014. The table does not include the pension benefits or nonqualified deferred compensation amounts that would be paid to an NEO, which are set forth in the Pension Benefits table and the Nonqualified Deferred Compensation table above, except to the extent that the NEO is entitled to an additional benefit as a result of the termination.

Name	Voluntary Resignation/ Retirement ($)	Involuntary without Cause ($)	Involuntary with Cause ($)	Change in Control ($)	Disability ($)	Death ($)
M. W. Lamach						
Severance (a)	–	2,500,000	–	9,750,000	–	–
Earned but Unpaid AIM Award(s) (b)	–	2,048,200	–	2,048,200	–	–
PSP Award Payout (c)	–	13,081,921	–	19,772,424	13,081,921	13,081,921
Value of Unvested Equity Awards (d)	–	–	–	10,343,153	10,343,153	10,343,153
Enhanced Retirement Benefits (e)	–	–	–	3,896,906	–	–
Outplacement (f)	–	13,400	–	100,000	–	–
Health Benefits (g)	–	–	–	26,843	–	–
Tax Assistance (h)	–	–	–	26,055,045	–	–
Total	–	17,643,521	–	71,992,571	23,425,074	23,425,074
S. K. Carter						
Severance (a)	–	654,000	–	3,270,000	–	–
Earned but Unpaid AIM Award(s) (b)	–	654,000	–	669,761	–	–
PSP Award Payout (c)	–	–	–	1,426,465	1,426,148	1,426,148
Value of Unvested Equity Awards (d)	–	–	–	1,834,439	1,834,439	1,834,439
Enhanced Retirement Benefits (e)	–	–	–	1,233,855	–	–
Outplacement (f)	–	13,400	–	100,000	–	–
Health Benefits (g)	–	–	–	22,397	–	–
Tax Assistance (h)	–	–	–	–	–	–
Total	–	1,321,400	–	8,556,917	3,260,587	3,260,587
M. J. Avedon						
Severance (a)	–	555,000	–	2,566,875	–	–
Earned but Unpaid AIM Award(s) (b)	–	471,750	–	483,119	–	–
PSP Award Payout (c)	–	1,824,111	–	2,614,439	1,824,111	1,824,111
Value of Unvested Equity Awards (d)	–	–	–	1,355,520	1,355,520	1,355,520
Enhanced Retirement Benefits (e)	–	–	–	1,115,184	–	–
Outplacement (f)	–	13,400	–	100,000	–	–
Health Benefits (g)	–	–	–	22,397	–	–
Tax Assistance (h)	–	–	–	4,094,820	–	–
Total	–	2,864,261	–	12,352,354	3,179,631	3,179,631
D. P. M. Teirlinck						
Severance (a)	–	655,000	–	3,111,250	–	–
Earned but Unpaid AIM Award(s) (b)	–	589,500	–	787,041	–	–
PSP Award Payout (c)	2,342,007	2,342,007	–	4,198,053	2,342,007	2,342,007
Value of Unvested Equity Awards (d)	2,651,092	2,651,092	–	2,651,092	2,651,092	2,651,092
Enhanced Retirement Benefits (e)	–	–	–	1,590,345	–	–
Outplacement (f)	–	13,400	–	100,000	–	–
Health Benefits (g)	–	–	–	22,397	–	–
Tax Assistance (h)	–	–	–	5,111,936	–	–
	4,993,099	6,250,999	–	17,572,114	4,993,099	4,993,099

Name	Voluntary Resignation/ Retirement ($)	Involuntary without Cause ($)	Involuntary with Cause ($)	Change in Control ($)	Disability ($)	Death ($)
R. G. Zafari						
Severance (a)	–	550,000	–	2,543,750	–	–
Earned but Unpaid AIM Award(s) (b)	–	384,005	–	384,005	–	–
PSP Award Payout (c)	1,744,112	1,744,112	–	1,744,303	1,744,112	1,744,112
Value of Unvested Equity Awards (d)	2,187,735	2,187,735	–	2,197,898	2,187,735	2,187,735
Enhanced Retirement Benefits (e)	–	–	–	1,577,109	–	–
Outplacement (f)	–	13,400	–	100,000	–	–
Health Benefits (g)	–	–	–	22,397	–	–
Tax Assistance (h)	–	–	–	–	–	–
Total	3,931,847	4,879,252	–	8,569,462	3,931,847	3,931,847

(a) For the "Involuntary without Cause" column, for those NEOs who do not have a formal separation agreement, the current severance guidelines permit payment of up to one year's base salary provided that such termination was not eligible for severance benefits under the Major Restructuring Severance Plan. For the amounts shown under the "Change in Control" columns, refer to the description of how severance is calculated in the section above, entitled Post-Employment Benefits.

(b) For the "Involuntary without Cause" column, these amounts represent the (i) AIM award earned by Mr. Lamach and Ms. Avedon in 2014 and paid pursuant to the terms of their employment agreements and (ii) prorated AIM award (up to target) earned by Ms. Carter in 2014 and (iii) prorated AIM awards (up to target) that may be paid to the other NEOs depending on the circumstances and timing of the termination. For the amounts under "Change in Control," these amounts represent the actual award earned for the 2014 performance period, which may be more or less than the target award.

(c) For the "Involuntary without Cause" column, these amounts represent the cash value of the prorated PSU award payout to (i) Mr. Lamach and Ms. Avedon pursuant to the terms of their employment agreements and (ii) Messrs. Teirlinck and Zafari because they were retirement eligible at December 31, 2014. For the "Change in Control" column for Messrs. Lamach and Teirlinck and Ms. Avedon, these amounts represent the cash value of the PSU award payout, based on the appropriate multiple. For the "Change in Control" column for Mr. Zafari and Ms. Carter, these values represent what would be provided under the terms of the 2007 Plan and 2013 Plan, which provide a pro-rated payment for all outstanding awards at target. For the "Retirement," "Disability" and "Death" columns, amounts represent the cash value of the prorated portion of their PSUs that vest upon such events assuming performance at target. Amounts for each column are based on the closing stock price of the ordinary shares on December 31, 2014 ($63.69).

(d) The amounts shown for "Retirement," "Involuntary without Cause," "Change in Control," "Death" and "Disability" represent (i) the value of the unvested RSUs, which is calculated based on the number of unvested RSUs multiplied by the closing stock price of the ordinary shares on December 31, 2014 ($63.69), and (ii) the intrinsic value of the unvested stock options and SARs, which is calculated based on the difference between the closing stock price of the ordinary shares on December 31, 2014 ($63.69) and the relevant exercise price. However, only in the event of termination following a "Change in Control" or, beginning with the 2013 awards, termination due to death or disability is there accelerated vesting of unvested awards. In addition, in the event of a "Change in Control," holders of outstanding stock options and SARs under the Stock Incentive Plan of 1998 may elect to receive a cash payment based on the difference between the highest fair market value of the shares during the 60 days prior to the event ($64.745) and the exercise price. For "Retirement," "Disability" (before 2013 grant) and "Death" (before 2013 grant), the awards do not accelerate but continue to vest on the same basis as active employees. Because Messrs. Teirlinck and Zafari were retirement eligible, they would continue to vest in stock options and RSUs after termination of employment for any reason other than cause.

(e) In the event of a change in control of the Company and termination of the NEOs, the present value of the pension benefits under the EOSP, KMP and Supplemental Pension Plans would be paid out as lump sums. While there is no additional benefit to the NEOs as a result of either voluntary retirement/resignation and/or involuntary resignation without cause, there are differences (based on the methodology mandated by the SEC) between the numbers that are shown in the Pension Benefits Table and those that would actually be payable to the NEO under these termination scenarios.

(f) For the “Involuntary without Cause” column, each NEO is eligible for outplacement services for a twelve month period, not to exceed $13,400. For the “Change in Control” column, the amount represents the maximum expenses the Company would reimburse the NEO for professional outplacement services.

(g) Represents the Company cost of health and welfare coverage. The cost for “Change in Control” represents continued active coverage for the severance period.

(h) Pursuant to the change-in-control agreements for Messrs. Lamach and Teirlinck and Ms. Avedon, if any payment or distribution by the Company to these NEOs creates certain incremental taxes, they would be entitled to receive from the Company a payment in an amount sufficient to place them in the same after-tax financial position as if such taxes had not been imposed.

Proxy Statement

INFORMATION CONCERNING VOTING AND SOLICITATION

Why Did I Receive This Proxy Statement?

We sent you this Proxy Statement or a Notice of Internet Availability of Proxy Materials ("Notice") because our Board of Directors is soliciting your proxy to vote at the Annual General Meeting. This Proxy Statement summarizes the information you need to know to vote on an informed basis.

Why Are There Two Sets Of Financial Statements Covering The Same Fiscal Period?

U.S. securities laws require us to send you our 2014 Form 10-K, which includes our financial statements prepared in accordance with U.S. GAAP. These financial statements are included in the mailing of this Proxy Statement. Irish law also requires us to provide you with our Irish Statutory Accounts for our 2014 fiscal year, including the reports of our Directors and auditors thereon, which accounts have been prepared in accordance with Irish law. The Irish Statutory Accounts are available on the Company's website at *www.ingersollrand.com/irishstatutoryaccounts* and will be laid before the Annual General Meeting.

How Do I Attend The Annual General Meeting?

All shareholders are invited to attend the Annual General Meeting. **In order to be admitted, you must present a form of personal identification and evidence of share ownership.**

If you are a shareholder of record, evidence of share ownership will be either (1) an admission ticket, which is attached to the proxy card and must be separated from the proxy card and kept for presentation at the meeting if you vote your proxy by mail, or (2) a Notice.

If you own your shares through a bank, broker or other holder of record ("street name holders"), evidence of share ownership will be either (1) your most recent bank or brokerage account statement, or (2) a Notice. If you would rather have an admission ticket, you can obtain one in advance by mailing a written request, **along with proof of your ownership of the Company's ordinary shares,** to:

Secretary
Ingersoll-Rand plc
170/175 Lakeview Dr.
Airside Business Park
Swords, Co. Dublin
Ireland

No cameras, recording equipment, electronic devices, large bags, briefcases or packages will be permitted at the Annual General Meeting.

Who May Vote?

You are entitled to vote if you beneficially owned the Company's ordinary shares at the close of business on April 8, 2015, the Record Date. At that time, there were 264,714,628 of the Company's ordinary shares outstanding and entitled to vote. Each ordinary share that you own entitles you to one vote on all matters to be voted on a poll at the Annual General Meeting.

How Do I Vote?

Shareholders of record can cast their votes by proxy by:

- using the Internet and voting at www.proxyvote.com;
- calling 1-800-690-6903 and following the telephone prompts; or
- completing, signing and returning a proxy card by mail. If you received a Notice and did not receive a proxy card, you may request one at sendmaterial@proxyvote.com.

The Notice is not a proxy card and it cannot be used to vote your shares.

Shareholders of record may also vote their shares directly by attending the Annual General Meeting and casting their vote in person or appointing a proxy (who does not have to be a shareholder) to attend the Annual General Meeting and casting votes on their behalf in accordance with their instructions.

Street name holders must vote their shares in the manner prescribed by their bank, brokerage firm or nominee. Street name holders who wish to vote in person at the Annual General Meeting must obtain a legal proxy from their bank, brokerage firm or nominee. Street name holders will need to bring the legal proxy with them to the Annual General Meeting and hand it in with a signed ballot that is available upon request at the meeting. Street name holders will not be able to vote their shares at the Annual General Meeting without a legal proxy and a signed ballot.

Even if you plan to attend the Annual General Meeting, we recommend that you vote by proxy as described above so that your vote will be counted if you later decide not to attend the meeting.

In order to be timely processed, your vote must be received by 5:00 p.m. Eastern Time on June 3, 2015 (or, if you are a street name holder, such earlier time as your bank, brokerage firm or nominee may require).

How May Employees Vote Under Our Employee Plans?

If you participate in the ESP, the Ingersoll-Rand Company Employee Savings Plan for Bargained Employees, the Ingersoll-Rand Retirement Savings Plan for Participating Affiliates in Puerto Rico, the Ingersoll-Rand Individual Account Retirement Plan for Bargaining Unit Employees at the Buffalo, New York Plant or the Trane 401(k) and Thrift Plan, then you may be receiving these materials because of shares held for you in those plans. In that case, you may use the enclosed proxy card to instruct the plan trustees of those plans how to vote your shares, or give those instructions by telephone or over the Internet. They will vote these shares in accordance with your instructions and the terms of the plan.

To allow plan administrators to properly process your vote, your voting instructions must be received by 11:59 p.m. on June 1, 2015. If you do not provide voting instructions for shares held for you in any of these plans, the plan trustees will vote these shares in the same ratio as the shares for which voting instructions are provided.

May I Revoke My Proxy?

You may revoke your proxy at any time ***before it is voted at the Annual General Meeting*** in any of the following ways:

- by notifying the Company's Secretary in writing: c/o Ingersoll-Rand plc, 170/175 Lakeview Dr., Airside Business Park, Swords, Co. Dublin, Ireland;
- by submitting another properly signed proxy card with a later date or another Internet or telephone proxy at a later date but prior to the close of voting described above; or
- by voting in person at the Annual General Meeting.

Merely attending the Annual General Meeting does not revoke your proxy. To revoke a proxy, you must take one of the actions described above.

How Will My Proxy Get Voted?

If your proxy is properly submitted, your proxy holder (one of the individuals named on the proxy card) will vote your shares as you have directed. If you are a street name holder, the rules of the NYSE permit your bank, brokerage firm or nominee to vote your shares on Items 3, 4 and 6 (routine matter) if it does not receive instructions from you. However, your bank, brokerage firm or nominee may not vote your shares on Items 1, 2 and 5 (non-routine matters) if it does not receive instructions from you ("broker non-votes"). Broker non-votes will not be counted as votes for or against the non-routine matters, but rather will be regarded as votes withheld and will not be counted in the calculation of votes for or against the resolution.

If you are a shareholder of record and you do not specify on the proxy card you send to the Company (or when giving your proxy over the Internet or telephone) how you want to vote your shares, then the Company-designated proxy holders will vote your shares in the manner recommended by our Board of Directors on all matters presented in this Proxy Statement and as the proxy holders may determine in their discretion regarding any other matters properly presented for a vote at the meeting.

What Constitutes A Quorum?

The presence (in person or by proxy) of shareholders entitled to exercise a majority of the voting power of the Company on the Record Date is necessary to constitute a quorum for the conduct of business. Abstentions and broker non-votes are treated as "shares present" for the purposes of determining whether a quorum exists.

What Vote Is Required To Approve Each Proposal?

A majority of the votes cast at the Annual General Meeting is required to approve each of Items 1, 2, 3 and 4. A majority of the votes cast means that the number of votes cast "for" an Item must exceed the number of votes cast "against" that Item. Items 5 and 6 are considered special resolutions under Irish law and require 75% of the votes cast for approval.

Although abstentions and broker non-votes are counted as "shares present" at the Annual General Meeting for the purpose of determining whether a quorum exists, they are not counted as votes cast either "for" or "against" the resolution and, accordingly, will not affect the outcome of the vote.

Who Pays The Expenses Of This Proxy Statement?

We have hired Georgeson Inc. to assist in the distribution of proxy materials and the solicitation of proxies for a fee estimated at $17,500 plus out-of-pocket expenses. Proxies will be solicited on behalf of our Board of Directors by mail, in person, by telephone and through the Internet. We will bear the cost of soliciting proxies. We will also reimburse brokers and other custodians, nominees and fiduciaries for their reasonable out-of-pocket expenses for forwarding proxy materials to the persons for whom they hold shares.

How Will Voting On Any Other Matter Be Conducted?

Although we do not know of any matters to be presented or acted upon at the Annual General Meeting other than the items described in this Proxy Statement, if any other matter is proposed and properly presented at the Annual General Meeting, the proxy holders will vote on such matters in accordance with their best judgment.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth as of the Record Date, the beneficial ownership of our ordinary shares by (i) each director and director nominee of the Company, (ii) each executive officer of the Company named in the Summary Compensation Table below, and (iii) all directors and executive officers of the Company as a group:

Name	Ordinary Shares[a]	Notional Shares[b]	Options Exercisable Within 60 Days[c]
A. C. Berzin	21,837	32,119	—
J. Bruton	4,775	—	—
E. L. Chao	—	—	—
J. L. Cohon	24,175	—	10,080
G. D. Forsee	23,541	—	—
E. E. Hagenlocker	10,682	—	—
C. J. Horner	3,101	43,306	—
L. P. Hudson	80	—	—
T. E. Martin	28,433	76,929	—
M. P. Lee	—	—	—
J. P. Surma	4,338	—	—
R. J. Swift	9,348	58,870	—
T. L. White	22,998	45,357	—
M.W. Lamach	123,986	59,276	733,440
S.K. Carter	10,649	—	10,046
M. J. Avedon	29,702	66,056	82,444
D. P. M. Teirlinck	4	84,985	27,649
R. G. Zafari	32,523	5,659	28,028
All directors and executive officers as a group (22 persons)[e]	400,874	582,466	1,063,507

(a) Represents (i) ordinary shares held directly; (ii) ordinary shares held indirectly through a trust; (iii) unvested shares, including any RSUs or PSUs, and ordinary shares and ordinary share equivalents notionally held under the Trane Deferred Compensation Plan (the "TDCP") that may vest or are distributable within 60 days of the Record Date; and (iv) ordinary shares held by the trustee under the ESP for the benefit of executive officers. No director or executive officer of the Company beneficially owns 1% or more of the Company's ordinary shares.

(b) Represents ordinary shares and ordinary share equivalents notionally held under the Ingersoll Rand Directors Deferred Compensation Plan (the "DDCP I") and the Ingersoll Rand Directors Deferred Compensation and Stock Award Plan II (the "DDCP II" and, together with the DDCP I, referred to as the "DDCP Plans"), the EDCP Plans and the TDCP that are not distributable within 60 days of the Record Date.

(c) Represents ordinary shares as to which directors and executive officers had stock options or SARs exercisable within 60 days of the Record Date, under the Company's Incentive Stock Plans.

(d) The Company's ordinary shares beneficially owned by all directors and executive officers as a group (including shares issuable under exercisable options) aggregated approximately 0.55% of the total outstanding ordinary shares. Ordinary shares and ordinary share equivalents notionally held under the DDCP Plans, the EDCP Plans and the TDCP and ordinary share equivalents resulting from dividends on deferred stock awards are not counted as outstanding shares in calculating these percentages because they are not beneficially owned; the directors and executive officers have no voting or investment power with respect to these shares or share equivalents.

The following table sets forth each shareholder which is known by us to be the beneficial owner of more than 5% of the outstanding ordinary shares of the Company based solely on the information filed by such shareholder on Schedule 13D or filed by such shareholder in 2015 for the year ended December 31, 2014 on Schedule 13G under the Securities Exchange Act of 1934:

Name and Address of Beneficial Owner	Amount and Nature of Beneficial Ownership	Percent of Class(a)
BlackRock, Inc. 40 East 52nd Street New York, New York 10022	14,944,106	5.66%
Vanguard Group Inc. 100 Vanguard Blvd. Malvern, PA 19355	13,560,384	5.12%

(a) The ownership percentages set forth in this column are based on the Company's outstanding ordinary shares on the Record Date and assumes that each of the beneficial owners continued to own the number of shares reflected in the table above on such date.

(b) Information regarding BlackRock, Inc. and its stockholdings was obtained from a Schedule 13G filed with the SEC on February 2, 2015. The filing indicated that, as of December 31, 2014, BlackRock, Inc. had sole voting power as to 12,242,741 of such shares and sole dispositive power as to 14,911,198 of such shares.

(c) Information regarding Vanguard Group Inc. and its stockholdings was obtained from a Schedule 13G filed with the SEC on February 10, 2015. The filing indicated that, as of December 31, 2014, Vanguard Group Inc. had sole voting power as to 460,003 of such shares and sole dispositive power as to 13,124,938 of such shares.

Equity Compensation Plan Information

The following table provides information as of December 31, 2014, with respect to the Company's ordinary shares that may be issued under equity compensation plans:

Plan Category	Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in First Column)
Equity compensation plans approved by security holders (1)	10,390,360	$36.18	16,315,042
Equity compensation plans not approved by security holders (2)	1,376,071	0	0
Total	11,766,431	$36.18	16,315,042

(1) Consists of the Incentive Stock Plan of 1998, the 2007 Plan, the 2013 Plan and the Trane 2002 Omnibus Incentive Plan.

(2) Consists of EDCP Plans, DDCP Plans and the TDCP. Plan participants acquire Company shares under these plans as a result of the deferral of salary, AIM awards and PSUs.

CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS

The Company does not generally engage in transactions in which its executive officers, directors or nominees for directors, any of their immediate family members or any of its 5% shareholders have a material interest. Pursuant to the Company's written related person transaction policy, any such transaction must be reported to management, which will prepare a summary of the transaction and refer it to the Corporate Governance and Nominating Committee for consideration and approval by the disinterested directors. The Corporate Governance and Nominating Committee reviews the material terms of the related person transaction, including the dollar values involved, the relationships and interests of the parties to the transaction and the impact, if any, to a director's independence. The Corporate Governance and Nominating Committee only approves those transactions that are in the best interest of the Company. In addition, the Company's Code of Conduct, which sets forth standards applicable to all employees, officers and directors of the Company, generally proscribes transactions that could result in a conflict of interest for the Company. Any waiver of the Code of Conduct for any executive officer or director requires the approval of the Company's Board of Directors. Any such waiver will, to the extent required by law or the NYSE, be disclosed on the Company's website at *www.ingersollrand.com* or on a current report on Form 8-K. No such waivers were requested or granted in 2014.

We have not made payments to directors other than the fees to which they are entitled as directors (described under the heading "Compensation of Directors") and the reimbursement of expenses related to their services as directors. We have made no loans to any director or officer nor have we purchased any shares of the Company from any director or officer.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires our directors and officers, and persons who beneficially own more than ten percent of the Company's ordinary shares, to file reports of ownership and reports of changes in ownership with the SEC and the NYSE. To the Company's knowledge, based solely on its review of such forms received by the Company and written representations that no other reports were required, all Section 16(a) filing requirements were complied with for the year 2014 other than with respect to one Form 4 filing for Mr. Richard Weller due to administrative error.

SHAREHOLDER PROPOSALS AND NOMINATIONS

Any proposal by a shareholder intended to be presented at the 2016 Annual General Meeting of shareholders of the Company must be received by the Company at its registered office at 170/175 Lakeview Drive, Airside Business Park, Swords, Co. Dublin, Ireland, Attn: Secretary, no later than December 26, 2015, for inclusion in the proxy materials relating to that meeting. Any such proposal must meet the requirements set forth in the rules and regulations of the SEC, including Rule 14a-8, in order for such proposals to be eligible for inclusion in our 2015 proxy statement.

The Company's Articles of Association set forth procedures to be followed by shareholders who wish to nominate candidates for election to the Board of Directors in connection with Annual General Meetings of shareholders or pursuant to written shareholder consents or who wish to bring other business before a shareholders' general meeting. All such nominations must be accompanied by certain background and other information specified in the Articles of Association. In connection with the 2016 Annual General Meeting, written notice of a shareholder's intention to make such nominations or bring business before the Annual General Meeting must be given to the Secretary of the Company not later than March 6, 2015. If the date of the 2016 Annual General Meeting occurs more than 30 days before, or 60 days after, the anniversary of the 2015 Annual General Meeting, then the written notice must be provided to the Secretary of the Company not later than the seventh day after the date on which notice of such Annual General Meeting is given.

The Corporate Governance and Nominating Committee will consider all shareholder recommendations for candidates for Board membership, which should be sent to the Committee, care of the Secretary of the Company, at the address set forth above. In addition to considering candidates recommended by shareholders, the Committee considers potential candidates recommended by current directors, Company officers, employees and others. As stated in the Company's Corporate Governance Guidelines, all candidates for Board membership are selected based upon their judgment, character, achievements and experience in matters affecting business and industry. Candidates recommended by shareholders are evaluated in the same manner as director candidates identified by any other means.

In order for you to bring other business before a shareholder general meeting, timely notice must be received by the Secretary of the Company within the time limits described above. The notice must include a description of the proposed item, the reasons you believe support your position concerning the item, and other specified matters. These requirements are separate from and in addition to the requirements you must meet to have a proposal included in our Proxy Statement. The foregoing time limits also apply in determining whether notice is timely for purposes of rules adopted by the SEC relating to the exercise of discretionary voting authority.

If a shareholder wishes to communicate with the Board of Directors for any other reason, all such communications should be sent in writing, care of the Secretary of the Company, or by email at *irboard@irco.com*.

HOUSEHOLDING

SEC rules permit a single set of annual reports and proxy statements to be sent to any household at which two or more shareholders reside if they appear to be members of the same family. Each shareholder continues to receive a separate proxy card. This procedure is referred to as householding. While the Company does not household in mailings to its shareholders of record, a number of brokerage firms with account holders who are Company shareholders have instituted householding. In these cases, a single proxy statement and annual report will be delivered to multiple shareholders sharing an address unless contrary instructions have been received from the affected shareholders. Once a shareholder has received notice from his or her broker that the broker will be householding communications to the shareholder's address, householding will continue until the shareholder is notified otherwise or until the shareholder revokes his or her consent. If at any time a shareholder no longer wishes to participate in householding and would prefer to receive a separate proxy statement and annual report, he or she should notify his or her broker. Any shareholder can receive a copy of the Company's proxy statement and annual report by contacting the Company at its registered office at 170/175 Lakeview Drive, Airside Business Park, Swords, Co. Dublin, Ireland, Attention: Secretary or by accessing it on the Company's website at *www.ingersollrand.com* .

Shareholders who hold their shares through a broker or other nominee who currently receive multiple copies of the proxy statement and annual report at their address and would like to request householding of their communications should contact their broker.

NOTICE REGARDING ADOPTION OF FINANCIAL REPORTING STANDARD ("FRS") 102

Recent changes in Irish accounting regulations require the Company to adopt FRS 101 or FRS 102 for the parent company's Irish statutory accounts for the fiscal year starting January 1, 2015. The transition date for the purpose of preparing a prior year comparative will be January 1, 2014. The Board of Directors considers it to be in the best interest of the Company to adopt FRS 102 (the financial reporting standard applicable in the UK and Ireland) for the fiscal year starting January 1, 2015. The Company intends to utilize the disclosure exemptions available under this framework. No disclosures in the current Irish GAAP financial statements would be omitted on adoption of FRS 102. If shareholders wish to object to the use of the disclosure exemptions and have a holding in aggregate of 5% or more of the Company's total allotted shares, they may do so in writing to the Company Secretary at Ingersoll-Rand plc, 170-175 Lakeview Drive, Airside Business Park, Swords, Co. Dublin, Ireland stating their objection by the deadline date of May 31, 2015.

Dated: April 23, 2015

Appendix A

Directions to the Annual General Meeting

<u>Direction from Dublin to Carton House Hotel, Maynooth, Co. Kildare, Ireland</u>

- Take the main M4 motorway westbound.
- From the motorway, take the “Leixlip West” exit (Junction 6) and follow the signs to Carton House Hotel.

2014 Financials

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K

(Mark One)

X ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2014
or

— TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from ____ to ____
Commission File No. 001-34400
INGERSOLL-RAND PUBLIC LIMITED COMPANY
(Exact name of registrant as specified in its charter)

Ireland	**98-0626632**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*

170/175 Lakeview Dr.
Airside Business Park
Swords, Co. Dublin
Ireland
(Address of principal executive offices)
Registrant's telephone number, including area code: +(353) (0) 18707400
Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Name of each exchange on which registered**
Ordinary Shares, Par Value $1.00 per Share	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES__X__ NO____

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. YES____ NO_X_

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES_X_ NO____

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES_X_ NO____

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. [ ]

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.:

Large accelerated filer X	Accelerated filer _____
Non-accelerated filer ____ (Do not check if a smaller reporting company)	Smaller reporting company ______

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). YES____ NO_X_

The aggregate market value of ordinary shares held by nonaffiliates on June 30, 2014 was approximately $16.6 billion based on the closing price of such stock on the New York Stock Exchange.

The number of ordinary shares outstanding as of February 2, 2015 was 263,321,574.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's proxy statement to be filed within 120 days of the close of the registrant's fiscal year in connection with the registrant's Annual General Meeting of Shareholders to be held June 4, 2015 are incorporated by reference into Part II and Part III of this Form 10-K.

INGERSOLL-RAND PLC

Form 10-K
For the Fiscal Year Ended December 31, 2014

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CAUTIONARY STATEMENT FOR FORWARD LOOKING STATEMENTS

Certain statements in this report, other than purely historical information, are “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These forward-looking statements generally are identified by the words “believe,” “project,” “expect,” “anticipate,” “estimate,” “forecast,” “outlook,” “intend,” “strategy,” “plan,” “may,” “should,” “will,” “would,” “will be,” “will continue,” “will likely result,” or the negative thereof or variations thereon or similar terminology generally intended to identify forward-looking statements.

Forward-looking statements may relate to such matters as projections of revenue, margins, expenses, tax provisions, earnings, cash flows, benefit obligations, share or debt repurchases or other financial items; any statements of the plans, strategies and objectives of management for future operations, including those relating to any statements concerning expected development, performance or market share relating to our products and services; any statements regarding future economic conditions or our performance; any statements regarding pending investigations, claims or disputes, including those relating to the Internal Revenue Service audit of our consolidated subsidiaries' tax filings; any statements of expectation or belief; and any statements of assumptions underlying any of the foregoing. These statements are based on currently available information and our current assumptions, expectations and projections about future events. While we believe that our assumptions, expectations and projections are reasonable in view of the currently available information, you are cautioned not to place undue reliance on our forward-looking statements. You are advised to review any further disclosures we make on related subjects in materials we file with or furnish to the SEC. Forward-looking statements speak only as of the date they are made and are not guarantees of future performance. They are subject to future events, risks and uncertainties - many of which are beyond our control - as well as potentially inaccurate assumptions, that could cause actual results to differ materially from our expectations and projections. We do not undertake to update any forward-looking statements.

Factors that might affect our forward-looking statements include, among other things:

- overall economic, political and business conditions in the markets in which we operate;
- the demand for our products and services;
- competitive factors in the industries in which we compete;
- changes in tax requirements (including tax rate changes, new tax laws and revised tax law interpretations);
- the outcome of any litigation, governmental investigations or proceedings;
- the outcome of any income tax audits or settlements;
- interest rate fluctuations and other changes in borrowing costs;
- other capital market conditions, including availability of funding sources;
- currency exchange rate fluctuations, exchange controls and currency devaluations;
- availability of and fluctuations in the prices of key commodities and the impact of higher energy prices;
- the ability to achieve cost savings in connection with our productivity programs;
- impairment of our goodwill, indefinite-lived intangible assets and/or our long-lived assets;
- climate change, changes in weather patterns and seasonal fluctuations;
- the impact of potential information technology or data security breaches;
- the strategic acquisition of businesses, product lines and joint ventures; and
- the possible effects on us of future legislation in the U.S. that may limit or eliminate potential U.S. tax benefits resulting from our incorporation in a non-U.S. jurisdiction, such as Ireland.

Some of the significant risks and uncertainties that could cause actual results to differ materially from our expectations and projections are described more fully in Item 1A “Risk Factors.” You should read that information in conjunction with “Management's Discussion and Analysis of Financial Condition and Results of Operations” in Item 7 of this report and our Consolidated Financial Statements and related notes in Item 8 of this report. We note such information for investors as permitted by the Private Securities Litigation Reform Act of 1995.

PART I

Item 1. **BUSINESS**

Overview

Ingersoll-Rand plc (IR-Ireland), a public limited company incorporated in Ireland in 2009, and its consolidated subsidiaries (collectively, we, our, the Company) is a diversified, global company that provides products, services and solutions to enhance the quality and comfort of air in homes and buildings, transport and protect food and perishables, and increase industrial productivity and efficiency. Our business segments consist of Climate and Industrial, both with strong brands and leading positions within their respective markets. We generate revenue and cash primarily through the design, manufacture, sale and service of a diverse portfolio of industrial and commercial products that include well-recognized, premium brand names such as Ingersoll-Rand®, Trane®, Thermo King®, American Standard® and Club Car®.

To achieve our mission of being a world leader in creating comfortable and efficient environments, we continue to focus on increasing our recurring revenue stream from parts, service, used equipment and rentals; and to continuously improve the efficiencies and capabilities of the products and services of our businesses. We also continue to focus on operational excellence strategies as a central theme to improving our earnings and cash flows.

Recent Divestitures

Discontinued Operations

On December 1, 2013, the Company completed the previously announced separation of its commercial and residential security businesses by distributing the related ordinary shares of Allegion, on a pro rata basis, to the Company's shareholders of record as of November 22, 2013. After the Distribution Date, Allegion became an independent publicly traded company.

The results of the commercial and residential security businesses prior to the spin-off are presented as a discontinued operation on the Consolidated Statement of Comprehensive Income and Consolidated Statement of Cash Flows for all periods presented.

See “Discontinued Operations” within Management's Discussion and Analysis of Financial Condition and Results of Operations and also Note 15 to the Consolidated Financial Statements for a further discussion of our discontinued operations.

Business Segments

Our business segments provide products, services and solutions used to increase the efficiency and productivity of both industrial and commercial operations and homes, as well as improve the health and comfort of people around the world.

Our business segments are as follows:

Climate

Our Climate segment delivers energy-efficient solutions globally and includes Trane® and American Standard® Heating & Air Conditioning which provide heating, ventilation and air conditioning (HVAC) systems, and commercial and residential building services, parts, support and controls; and Thermo King® transport temperature control solutions. This segment had 2014 net revenues of $9.9 billion.

Industrial

Our Industrial segment delivers products and services that enhance energy efficiency, productivity and operations. It includes Ingersoll Rand® compressed air systems and services, power tools, material handling systems, ARO® fluid management equipment, as well as Club Car® golf, utility and rough terrain vehicles. This segment had 2014 net revenues of $3.0 billion.

Segment Revenue and profit information and additional financial data and commentary on recent financial results for operating segments are provided in the Review of Business Segments section in Part II, Item7. “Management's Discussion and Analysis of Financial Condition and Results of Operations” and in Note 18 to the Consolidated Financial Statements in Part II, Item 8. “Financial Statements and Supplementary Data” of this Annual Report on Form 10-K.

Products and Services

Our principal products and services by business segment include the following:

Climate	
Aftermarket parts and service	Energy management services
Air cleaners	Facility management services
Air conditioners	Furnaces
Air exchangers	Heat pumps
Air handlers	Humidifiers
Airside and terminal devices	Installation contracting
Auxiliary idle reduction	Package heating and cooling systems
Auxiliary temperature management	Performance contracting
Building management systems	Repair and maintenance services
Bus and rail HVAC systems	Service agreements
Chillers	Temporary heating and cooling systems
Coils and condensers	Thermostats/controls
Container refrigeration systems and gensets	Trailer refrigeration systems
Control systems	Unitary systems
Cryogenic refrigeration systems	Vehicle-powered truck refrigeration systems
Diesel-powered refrigeration systems	

Industrial	
Air compressors (centrifugal, reciprocating, and rotary)	Hoists (air, electric, and manual)
Aftermarket parts and accessories	Motion control components
Airends	Power tools (air, cordless, and electric)
Blowers	Precision fastening systems
Dryers	Pumps (diaphragm and piston)
Engine starting systems	Rough terrain (AWD) vehicles
Ergonomic material handling systems	Service contracts and programs
Filters	Utility and low-speed vehicles
Fluid handling systems	Visage® mobile golf information systems
Golf vehicles	Winches (air, electric, and hydraulic)

These products are sold primarily under our name and under other names including American Standard, ARO, Club Car, Thermo King and Trane.

Competitive Conditions

Our products and services are sold in highly competitive markets throughout the world. Due to the diversity of these products and services and the variety of markets served, we encounter a wide variety of competitors that vary by product line and services. They include well-established regional or specialized competitors, as well as larger U.S. and non-U.S. corporations or divisions of larger companies.

The principal methods of competition in these markets relate to price, quality, delivery, service and support, technology and innovation. We believe that we are one of the leading manufacturers in the world of HVAC systems and services, air compression systems, transport temperature control products, air tools, and golf and utility vehicles.

Distribution

Our products are distributed by a number of methods, which we believe are appropriate to the type of product. U.S. sales are made through branch sales offices, distributors and dealers across the country. Non-U.S. sales are made through numerous subsidiary sales and service companies with a supporting chain of distributors throughout the world.

Customers

We have no customer that accounted for more than 10% of our consolidated net revenues in 2014, 2013 or 2012. No material part of our business is dependent upon a single customer or a small group of customers; therefore, the loss of any one customer would not have a material adverse effect on our results of operations or cash flows.

Raw Materials

We manufacture many of the components included in our products, which requires us to employ a wide variety of commodities. Principal commodities, such as steel, copper and aluminum, are purchased from a large number of independent sources around the world. In the past, variability in prices for some commodities, particularly steel and non-ferrous metals, have caused pricing pressures in some of our businesses. We have historically been able adjust pricing with customers to maintain our margins; however, we may not always be able to offset these cost changes with price changes.

We believe that available sources of supply will generally be sufficient for the foreseeable future. There have been no commodity shortages which have had a material adverse effect on our businesses. However, significant changes in certain material costs may have an adverse impact on our costs and operating margins. To mitigate this potential impact, we enter into long-term supply contracts in order to manage our exposure to potential supply disruptions.

Working Capital

We manufacture products that must be readily available to meet our customers' rapid delivery requirements. Therefore, we maintain an adequate level of working capital to support our business needs and our customers' requirements. Such working capital requirements are not, however, in the opinion of management, materially different from those experienced by our major competitors. We believe our sales and payment terms are competitive in and appropriate for the markets in which we compete.

Seasonality

Demand for certain of our products and services is influenced by weather conditions. For instance, Trane's sales have historically tended to be seasonally higher in the second and third quarters of the year because this represents summer in the U.S. and other northern hemisphere markets, which is the peak season for sales of air conditioning systems and services. Therefore, results of any quarterly period may not be indicative of expected results for a full year and unexpected cool trends or unseasonably warm trends during the summer season could negatively or positively affect certain segments of our business and impact overall results of operations.

Research and Development

We engage in research and development activities in an effort to introduce new products, enhance existing product effectiveness, improve ease of use and reliability as well as expand the various applications for which our products may be appropriate. In addition, we continually evaluate developing technologies in areas that we believe will enhance our business for possible investment or acquisition. We anticipate that we will continue to make significant expenditures for research and development activities as we look to maintain and improve our competitive position. Research and development expenditures were approximately $212.3 million in 2014, $218.2 million in 2013 and $235.4 million in 2012.

Patents and Licenses

We own numerous patents and patent applications, and are licensed under others. Although in aggregate we consider our patents and licenses to be valuable to our operations, we do not believe that our business is materially dependent on a single patent or license or any group of them. In our opinion, engineering, production skills and experience are more responsible for our market position than our patents and/or licenses.

Operations by Geographic Area

Approximately 40% of our net revenues in 2014 were derived outside the U.S. and we sold products in more than 100 countries. Therefore, the attendant risks of manufacturing or selling in a particular country, such as nationalization and establishment of common markets, may have an adverse impact on our non-U.S. operations. For a discussion of risks associated with our non-U.S. operations, see "Risk Factors – Our global operations subject us to economic risks," and "Risk Factors – Currency exchange rate fluctuations and other related risks may adversely affect our results," in Item 1A and "Quantitative and Qualitative Disclosure about Market Risk" in Item 7A. Additional geographic data is provided in Note 18 to the Consolidated Financial Statements.

Backlog

Our approximate backlog of orders, believed to be firm, at December 31, was as follows:

In millions	2014	2013
Climate	$ 1,499.3	$ 1,342.7
Industrial	489.6	517.4
Total	$ 1,988.9	$ 1,860.1

These backlog figures are based on orders received. While the major portion of our products are built in advance of order and either shipped or assembled from stock, orders for specialized machinery or specific customer application are submitted with extensive lead times and are often subject to revision, deferral, cancellation or termination. We expect to ship substantially all the December 31, 2014 backlog during 2015.

Environmental Matters

We continue to be dedicated to an environmental program to reduce the utilization and generation of hazardous materials during the manufacturing process and to remediate identified environmental concerns. As to the latter, we are currently engaged in site investigations and remediation activities to address environmental cleanup from past operations at current and former manufacturing facilities.

We are sometimes a party to environmental lawsuits and claims and have received notices of potential violations of environmental laws and regulations from the Environmental Protection Agency and similar state authorities. We have also been identified as a potentially responsible party (PRP) for cleanup costs associated with off-site waste disposal at federal Superfund and state remediation sites. For all such sites, there are other PRPs and, in most instances, our involvement is minimal.

In estimating our liability, we have assumed that we will not bear the entire cost of remediation of any site to the exclusion of other PRPs who may be jointly and severally liable. The ability of other PRPs to participate has been taken into account, based on our understanding of the parties' financial condition and probable contributions on a per site basis. Additional lawsuits and claims involving environmental matters are likely to arise from time to time in the future.

We incurred $5.2 million, $(0.5) million, and $3.1 million of expenses during the years ended December 31, 2014, 2013, and 2012, respectively, for environmental remediation at sites presently or formerly owned or leased by us. As of December 31, 2014 and 2013, we have recorded reserves for environmental matters of $45.2 million and $47.9 million, respectively. Of these amounts $36.3 million and $42.1 million, respectively, relate to remediation of sites previously disposed by us. Our total current environmental reserve at December 31, 2014 and 2013 was $17.1 million and $13.5 million, respectively. Given the evolving nature of environmental laws, regulations and technology, the ultimate cost of future compliance is uncertain.

For a further discussion of our potential environmental liabilities, see also Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, Contingent Liabilities, as well as Note 17 to the Consolidated Financial Statements.

Asbestos Related Matters

Certain of our wholly-owned subsidiaries are named as defendants in asbestos-related lawsuits in state and federal courts. In virtually all of the suits, a large number of other companies have also been named as defendants. The vast majority of those claims have been filed against either Ingersoll-Rand Company (IR-New Jersey) or Trane U.S. Inc. (Trane) and generally allege injury caused by exposure to asbestos contained in certain historical products sold by IR-New Jersey or Trane, primarily pumps, boilers and railroad brake shoes. Neither IR-New Jersey nor Trane was a producer or manufacturer of asbestos, however, some formerly manufactured products utilized asbestos-containing components such as gaskets and packings purchased from third-party suppliers.

We incurred net costs after insurance recoveries of $(64.9) million, $56.2 million, and $7.8 million during the years ended December 31, 2014, 2013, and 2012, respectively, related to the settlement and defense of asbestos-related claims. Our total liability for asbestos-related matters and our total asset for probable asbestos-related insurance recoveries were $776.6 million and $335.7 million, respectively, as of December 31, 2014 and $846.2 million and $321.8 million, respectively, as of December 31, 2013.

See also the discussion under Part I, Item 3, Legal Proceedings, and Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, Contingent Liabilities, as well as further detail in Note 17 to the Consolidated Financial Statements.

Employees

As of December 31, 2014, we employed approximately 43,000 people throughout the world.

Available Information

We file annual, quarterly, and current reports, proxy statements, and other documents with the SEC under the Securities Exchange Act of 1934. The public may read and copy any materials filed with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Also, the SEC maintains an Internet website that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The public can obtain any documents that are filed by us at http://www.sec.gov.

In addition, this Annual Report on Form 10-K, as well as our quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to all of the foregoing reports, are made available free of charge on our Internet website (http://www.ingersollrand.com) as soon as reasonably practicable after such reports are electronically filed with or furnished to the SEC. The Board of Directors of the Company has also adopted and posted in the Investor Relations section of the Company's website our Corporate Governance Guidelines and charters for each of the Board's standing committees. The contents of the Company's website are not incorporated by reference in this report.

Certifications

New York Stock Exchange Annual Chief Executive Officer Certification

The Company's Chief Executive Officer submitted to the New York Stock Exchange the Annual CEO Certification as the Company's compliance with the New York Stock Exchange's corporate governance listing standards required by Section 303A.12 of the New York Stock Exchange's listing standards.

Sarbanes-Oxley Act Section 302 Certification

The certifications of the Chief Executive Officer and Chief Financial Officer of the Company pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 are filed as exhibits to this Annual Report on Form 10-K.

Item 1A. **RISK FACTORS**

Our business, financial condition, results of operations, and cash flows are subject to a number of risks that could cause the actual results and conditions to differ materially from those projected in forward-looking statements contained in this Annual Report on Form 10-K. The risks set forth below are those we consider most significant. We face other risks, however, that we do not currently perceive to be material but could cause actual results and conditions to differ materially from our expectations. You should evaluate all risks before you invest in our securities. If any of the risks actually occur, our business, financial condition, results of operations or cash flows could be adversely impacted. In that case, the trading price of our ordinary shares could decline, and you may lose all or part of your investment.

Our global operations subject us to economic risks.

Our global operations are dependent upon products manufactured, purchased and sold in the U.S. and internationally, including Europe, China, Brazil, Venezuela, Africa, India, Argentina, Mexico and Russia. These activities are subject to risks that are inherent in operating globally, including:

- changes in local laws and regulations or imposition of currency restrictions and other restraints;
- limitation of ownership rights, including expropriation of assets by a local government, and limitation on the ability to repatriate earnings;
- sovereign debt crises and currency instability in developed and developing countries;
- imposition of burdensome tariffs and quotas;
- difficulty in staffing and managing global operations;
- difficulty of enforcing agreements, collecting receivables and protecting assets through non-U.S. legal systems;
- national and international conflict, including war, civil disturbances and terrorist acts; and
- economic downturns, slowing economic growth and social and political instability.

These risks could increase our cost of doing business internationally, increase our counterparty risk, disrupt our operations, disrupt the ability of suppliers and customers to fulfill their obligations, limit our ability to sell products in certain markets and have a material adverse impact on our results of operations, financial condition, and cash flows.

Our growth is dependent, in part, on the development, commercialization and acceptance of new products and services.

We must develop and commercialize new products and services in order to remain competitive in our current and future markets and in order to continue to grow our business. The development and commercialization of new products and services require a significant investment of resources. We cannot provide any assurance that any new product or service will be successfully commercialized in a timely manner, if ever, or, if commercialized, will result in returns greater than our investment. Investment in a product or service could divert our attention and resources from other projects that become more commercially viable in the market. We also cannot provide any assurance that any new product or service will be accepted by the market. Failure to develop new products and services that are accepted by the market could have a material adverse impact on our competitive position, results of operations, financial condition, and cash flows.

The capital and credit markets are important to our business.

Instability in U.S. and global capital and credit markets, including market disruptions, limited liquidity and interest rate volatility, or reductions in the credit ratings assigned to us by independent rating agencies could reduce our access to capital markets or increase the cost of funding our short and long term credit requirements. In particular, if we are unable to access capital and credit markets on terms that are acceptable to us, we may not be able to make certain investments or fully execute our business plans and strategies.

Our suppliers and customers are also dependent upon the capital and credit markets. Limitations on the ability of customers, suppliers or financial counterparties to access credit could lead to insolvencies of key suppliers and customers, limit or prevent customers from obtaining credit to finance purchases of our products and services and cause delays in the delivery of key products from suppliers.

Currency exchange rate fluctuations and other related risks may adversely affect our results.

We are exposed to a variety of market risks, including the effects of changes in currency exchange rates. See Part II Item 7A, Quantitative and Qualitative Disclosure About Market Risk.

We have operations throughout the world that manufacture and sell products in various international markets. As a result, we are exposed to movements in exchange rates of various currencies against the U.S. dollar as well as against other currencies throughout the world.

Our consolidated financial results reported in U.S. dollars are exposed to changes in the exchange rates used to translate certain non-U.S. operations into U.S. dollars. The majority of our Net revenues are denominated in U.S. dollars or Chinese Yuan, which currently has a fixed rate of exchange with the U.S. dollar. The largest concentration of non-U.S. denominated sales is in the Euro functional currency. If the average exchange rate used to translate revenue from Euro-denominated operations into U.S. dollars were to change we are exposed to impacts on Net earnings.

We are also exposed to gains or losses on purchases, sales and other transactions at the operating unit level that are denominated in foreign currencies. We use derivative instruments to hedge those exposures that cannot be naturally offset to an insignificant amount. The instruments utilized are viewed as risk management tools, involve little complexity and are not used for trading or speculative purposes. To minimize the risk of counter party non-performance, derivative instrument agreements are made only through major financial institutions with significant experience in such derivative instruments.

We also face risks arising from the imposition of exchange controls and currency devaluations. Exchange controls may limit our ability to convert foreign currencies into U.S. dollars or to remit dividends and other payments by our foreign subsidiaries or businesses located in or conducted within a country imposing controls. Currency devaluations result in a diminished value of funds denominated in the currency of the country instituting the devaluation.

Material adverse legal judgments, fines, penalties or settlements could adversely affect our results of operations or financial condition.

We are currently and may in the future become involved in legal proceedings and disputes incidental to the operation of our business or the business operations of previously-owned entities. Our business may be adversely affected by the outcome of these proceedings and other contingencies (including, without limitation, product liability and asbestos-related matters) that cannot be predicted with certainty. Moreover, any insurance or indemnification rights that we may have may be insufficient or unavailable to protect us against the total aggregate amount of losses sustained as a result of such proceedings and contingencies. As required by generally accepted accounting principles in the United States, we establish reserves based on our assessment of contingencies. Subsequent developments in legal proceedings and other events could affect our assessment and estimates of the loss contingency recorded as a reserve and we may be required to make additional material payments, which could have a material adverse impact on our liquidity, results of operations, financial condition, and cash flows.

Our reputation, ability to do business and results of operations could be impaired by improper conduct by any of our employees, agents or business partners.

We are subject to regulation under a wide variety of U.S. federal and state and non-U.S. laws, regulations and policies, including laws related to anti-corruption, export and import compliance, anti-trust and money laundering, due to our global operations. We cannot provide assurance our internal controls will always protect us from the improper conduct of our employees, agents and business partners. Any violations of law or improper conduct could damage our reputation and, depending on the circumstances, subject us to, among other things, civil and criminal penalties, material fines, equitable remedies (including profit disgorgement and injunctions on future conduct), securities litigation and a general loss of investor confidence, any one of which could have a material adverse impact on our business prospects, financial condition, results of operations, cash flows, and the market value of our stock.

We may be subject to risks relating to our information technology systems.

We rely extensively on information technology systems, some of which are supported by third party vendors, to manage and operate our business. We are also investing in new information technology systems that are designed to continue improving our operations. If these systems cease to function properly, if these systems experience security breaches or disruptions or if these systems do not provide the anticipated benefits, our ability to manage our operations could be impaired, which could have a material adverse impact on our results of operations, financial condition, and cash flows.

Security breaches or disruptions of our technology systems, infrastructure or products could negatively impact our business and financial results.

Our information technology systems and infrastructure and technology embedded in certain of our control products may be subject to cyber attacks and unauthorized security intrusions. In addition, hardware, software or applications we develop or obtain from third parties may contain defects in design or manufacture or other problems that could unexpectedly result in security breaches or disruptions. The methods used to obtain unauthorized access, disable or degrade service, or sabotage systems are constantly changing and evolving. Despite having instituted security policies and business continuity plans, and implementing and regularly reviewing and updating processes and procedures to protect against unauthorized access, the ever-evolving threats mean we must continually evaluate and adapt our systems and processes, and there is no guarantee that they will be adequate to safeguard against all data security breaches or misuses of data. Our systems, networks and certain of our control products may be vulnerable to system damage, malicious attacks from hackers, employee errors or misconduct, viruses, power and utility outages, and other catastrophic events that could cause significant harm to our business by negatively impacting our business operations, compromising the security of our proprietary information or the personally identifiable data relating to our customers, employees and business partners and exposing us to litigation that could adversely affect our reputation. Such events could have a material adverse impact on our results of operations, financial condition and cash flows.

Commodity shortages and price increases and higher energy prices could adversely affect our financial results.

We rely on suppliers to secure commodities, particularly steel and non-ferrous metals, required for the manufacture of our products. A disruption in deliveries from our suppliers or decreased availability of commodities could have an adverse effect on our ability to meet our commitments to customers or increase our operating costs. We believe that available sources of supply will generally be sufficient for our needs for the foreseeable future. Nonetheless, the unavailability of some commodities could have a material adverse impact on our results of operations and cash flows.

Volatility in the prices of these commodities or the impact of inflationary increases could increase the costs of our products and services. We may not be able to pass on these costs to our customers and this could have a material adverse impact on our results of operations and cash flows. Conversely, in the event there is deflation, the Company may experience pressure from its customers to reduce prices. There can be no assurance that the Company would be able to reduce its costs (through negotiations with suppliers or other measures) to offset any such price concessions which could adversely impact results of operations and cash flows. We do not currently use financial derivatives to hedge against this volatility. While we use fixed price contracts to mitigate this exposure, we expect any future hedging activity to seek to minimize near-term volatility of the commodity prices which would not protect us from long-term commodity price increases.

Additionally, we are exposed to large fluctuations in the price of petroleum-based fuel due to the instability of current market prices. Higher energy costs increase our operating costs and the cost of shipping our products, and supplying services, to customers around the world. Consequently, sharp price increases, the imposition of taxes or an interruption of supply, could cause us to lose the ability to effectively manage the risk of rising fuel prices and may have a material adverse impact on our results of operations and cash flows.

Our operational excellence efforts may not achieve the improvements we expect.

We utilize a number of tools, such as Lean Six Sigma, to improve operational efficiency and productivity. Implementation of new processes to our operations could cause disruptions and there is no assurance that all of our planned operational excellence projects will be fully implemented or, if implemented, will realize the expected improvements.

We may be required to recognize impairment charges for our goodwill and other indefinite-lived intangible assets.

At December 31, 2014, the net carrying value of our goodwill and other indefinite-lived intangible assets totaled $5.4 billion and $2.6 billion, respectively. In accordance with generally accepted accounting principles, we periodically assess these assets to determine if they are impaired. Significant negative industry or economic trends, disruptions to our business, unexpected significant changes or planned changes in use of the assets, divestitures and market capitalization declines may result in recognition of impairments to goodwill or other indefinite-lived assets. Any charges relating to such impairments could have a material adverse impact on our results of operations in the periods recognized.

Changes in weather patterns and seasonal fluctuations may adversely affect certain segments of the Company's business and impact overall results of operations.

Demand for certain segments of the Company's products and services is influenced by weather conditions. For instance, Trane's sales have historically tended to be seasonally higher in the second and third quarters of the year because, in the U.S. and other northern hemisphere markets, summer is the peak season for sales of air conditioning systems and services. Therefore, results of any quarterly period may not be indicative of expected results for a full year and unexpected cool trends or unseasonably warm trends during the summer season could negatively or positively affect certain segments of the Company's business and impact overall results of operations.

Global climate change could negatively affect our business.

Refrigerants are essential to many of our products and there is a growing awareness and concern regarding global warming potential of such materials. As such, national, regional and international regulations and policies are being considered to curtail their use. As we begin to see regulations impeding the use of the current class of widely used refrigerants we are planning for, and managing transitions to, sustainable solutions. We have committed to increase energy efficiency and reduce our climate impact with operational and product-related climate targets, including among other initiatives: (i) 50 percent reduction in the greenhouse gas refrigerant footprint of our products for customers by 2020 and lower global warming potential alternatives across our portfolio by 2030; (ii) $500 million investment in product-related research and development over the next five years to fund the long-term reduction of greenhouse gas emissions; and (iii) 35 percent reduction in the greenhouse gas footprint of our office buildings, manufacturing facilities and fleet by 2020. While we are committed to pursuing these sustainable solutions, there can be no assurance that our commitments will be successful, that our products will be accepted by the market or that economic returns will match the investment that we are making in new product development.

Concerns regarding global climate change may result in more international, regional and/or federal requirements to reduce or mitigate global warming and these regulations could mandate even more restrictive standards than the voluntary commitments that we have made or require such changes on a more accelerated timeframe. There continues to be a lack of consistent climate legislation, which creates economic and regulatory uncertainty. Such regulatory uncertainty extends to future incentives for energy efficient buildings and vehicles and costs of compliance, which may impact the demand for our products, obsolescence of our products and our results of operations.

In addition, to the extent climate change influences weather patterns, such changes could also disrupt our operations by causing business interruptions or by impacting the availability and cost of materials needed for manufacturing and could increase insurance and other operating costs. These factors may impact our decisions to construct new facilities or maintain existing facilities in areas most prone to physical climate risks.

Weakness in the commercial and residential construction markets may adversely impact our results of operations and cash flow.

Our commercial and residential HVAC businesses, which collectively represent 60% of our net revenues, provide products and services to a wide range of markets, including significant sales to the commercial and residential construction markets. Weakness in either or both of these construction markets may negatively impact the demand for our products and services. Decrease in the demand for our products and services could have a material adverse impact on our results of operations and cash flow.

Our business strategy includes acquiring companies, entering into joint ventures and making investments that complement our existing businesses. We may not identify acquisition or joint venture candidates at the same rate as the past. Acquisition, joint ventures and investments that we identify could be unsuccessful or consume significant resources, which could adversely affect our operating results.

We continue to analyze and evaluate the acquisition of strategic businesses and product lines, joint ventures and investments with the potential to strengthen our industry position, enhance our existing set of product and services offerings or grow revenues, earnings and cash flow. There can be no assurance that we will identify or successfully complete transactions with suitable candidates in the future, that we will consummate these transactions at rates similar to the past or that completed transactions will be successful. Acquisitions, joint ventures and investments may involve significant cash expenditures, debt incurrence, operating losses and expenses that could have a material adverse effect on our business, financial condition, results of operations and cash flows. Such transactions involve numerous other risks, including:

- diversion of management time and attention from daily operations;
- difficulties integrating acquired businesses, technologies and personnel into our business;
- difficulties in obtaining and verifying the financial statements and other business information of acquired businesses;
- inability to obtain required regulatory approvals and/or required financing on favorable terms;
- potential loss of key employees, key contractual relationships or key customers of acquired businesses or of ours;
- assumption of the liabilities and exposure to unforeseen liabilities of acquired businesses;
- dilution of interests of holders of our common shares through the issuance of equity securities or equity-linked securities; and
- in the case of joint ventures and other investments, interests that diverge from those of our partners without the ability to direct the management and operations of the joint venture or investment in the manner we believe most appropriate.

It may be difficult for us to complete transactions quickly and to integrate acquired operations efficiently into our business operations. Any acquisitions, joint ventures or investments may ultimately harm our business, financial condition, results of operations and cash flows, as such transactions may not be successful and may ultimately result in impairment charges.

Our operations are subject to regulatory risks.

Our U.S. and non-U.S. operations are subject to a number of laws and regulations, including among others, laws related to the environment and health and safety. We have made, and will be required to continue to make, significant expenditures to comply with these laws and regulations. Changes in current laws and regulations could require us to increase our compliance expenditures, cause us to significantly alter or discontinue offering existing products and services or cause us to develop new products and services. Altering current products and services or developing new products and services to comply with changes in the applicable laws and regulations could require significant research and development investments, increase the cost of providing the products and services and adversely affect the demand for our products and services. The U.S. federal government and various states and municipalities have enacted or may enact legislation intended to deny government contracts to U.S. companies that reincorporate outside of the U.S. or have reincorporated outside of the U.S or may take other actions negatively impacting such companies. Our failure to comply with applicable laws and regulations could lead to significant penalties, fines or other sanctions. If we are unable to effectively respond to changes to applicable laws and regulations or comply with existing and future laws and regulations, our competitive position, results of operations, financial condition and cash flows could be materially adversely impacted.

Risks Relating to our Past Spin-off Transaction

In December 2013, we completed the spin-off of our former commercial and residential security businesses to our shareholders (the spin-off) pursuant to which each shareholder as of the record date for the spin-off received one ordinary share of Allegion, plc (Allegion) for every three Ingersoll-Rand plc ordinary shares. Allegion is now an independent public company. This spin-off exposed us and our shareholders to the risks described below. In addition, we cannot be assured that all of the anticipated benefits of the spin-off and subsequent to the spin-off will be realized.

If the distribution or certain internal transactions undertaken in anticipation of the spin-off are determined to be taxable for U.S. federal income tax purposes, we, our shareholders as of the time of the distribution that are subject to U.S. federal income tax and/or Allegion could incur significant U.S. federal income tax liabilities.

We received a ruling from the U.S. Internal Revenue Service (the "IRS") substantially to the effect that, among other things, the distribution of Allegion plc's ordinary shares, together with certain related transactions, will qualify for tax-free treatment under Sections 355 and 368(a) of the U.S. Internal Revenue Code of 1986, as amended (the "Code"), with the result that we and our shareholders will not recognize any taxable income, gain or loss for U.S. federal income tax purposes as a result of the spin-off, except to the extent of cash received in lieu of fractional shares (the "IRS Ruling"). The IRS Ruling also provides that specified internal transactions undertaken in anticipation of the distribution will qualify for favorable treatment under the Code. In addition, we received opinions from the law firm of Simpson Thacher & Bartlett LLP substantially to the effect that specified requirements, including certain requirements that the IRS will not rule on, necessary to obtain tax-free treatment have been satisfied, such that the distribution for U.S. federal income tax purposes and certain other matters relating to the distribution, including certain internal transactions undertaken in anticipation of the distribution, will receive tax-free treatment under Section 355 of the Code. The IRS Ruling and the opinions relied on certain facts and assumptions and certain representations and undertakings from us and Allegion regarding the past and future conduct of our respective businesses and other matters.

Notwithstanding the IRS Ruling and the opinions, the IRS could determine on audit that the distribution or the internal transactions should be treated as taxable transactions if it determines that any of these facts, assumptions, representations or undertakings is not correct or has been violated, or that the distribution or the internal transactions should be taxable for other reasons, including as a result of significant changes in shares or asset ownership after the distribution. A legal opinion represents the tax adviser's best legal judgment and is not binding on the IRS or the courts, and the IRS or the courts may not agree with the opinion. In addition, the opinion is based on current law and cannot be relied upon if current law changes with retroactive effect. If the distribution, and/or internal transactions, ultimately is determined to be taxable, we or Allegion could incur significant U.S. federal income tax liabilities, which could cause a material adverse impact on our business, financial condition, results of operations and cash flows in future reporting periods.

Furthermore, if, notwithstanding receipt of the IRS Ruling and opinions, the spin-off were determined to be a taxable transaction, each shareholder subject to U.S. federal income tax who received shares of Allegion in the spin-off would generally be treated as receiving a taxable distribution of property in an amount equal to the fair market value of the Allegion shares received. That distribution would be taxable as a dividend to the extent of our then-current and accumulated earnings and profits. Any amount that exceeded our earnings and profits would be treated first as a non-taxable return of capital to the extent of the applicable shareholder's tax basis in our ordinary shares with any remaining amount being taxed as a capital gain.

Under the terms of the Tax Matters Agreement between us and Allegion executed in connection with the spin-off, in the event the distribution or the internal transactions were determined to be taxable as a result of actions taken after the distribution by us or Allegion, the party responsible for such failure would be responsible for all taxes imposed on us or Allegion as a result thereof. If such failure is not the result of actions taken after the distribution by us or Allegion, then Allegion would be responsible for any taxes imposed on us or Allegion as a result of such determination. Such tax amounts could be significant. If Allegion were to default in its obligation to us to pay such taxes, we could be legally liable under applicable tax law for such liabilities and required to make additional tax payments. Accordingly, under certain circumstances, we may be obligated to pay amounts in excess of our agreed-upon share of tax liabilities. To the extent we are responsible for any liability under the Tax Matters Agreement, there could be a material adverse impact on our business, financial condition, results of operations and cash flows in future reporting periods.

We might not be able to engage in desirable strategic transactions and equity issuances as a result of the distribution because of restrictions relating to U.S. federal income tax requirements for tax-free distributions.

We may be deterred from engaging in significant equity transactions in order to preserve, for U.S. federal income tax purposes, the tax-free nature of the distribution. Even if the distribution otherwise qualifies for tax-free treatment under Section 355 of the Code, it may result in corporate-level taxable gain to us and certain of our affiliates under Section 355(e) of the Code if 50% or more, by vote or value, of our shares or Allegion's shares are acquired or issued as part of a plan or series of related transactions that includes the distribution. Any acquisitions or issuances of our shares or Allegion's shares within two years after the distribution will generally be presumed to be part of such a plan, although we or Allegion may be able to rebut that presumption. As a result, we may not pursue strategic transactions or engage in new business or other transactions that would otherwise maximize the value of our business.

If the distribution is determined to be taxable for Irish tax purposes, significant Irish tax liabilities may arise.

We received an opinion of the Irish Revenue regarding the Irish tax consequences of the distribution to the effect that certain reliefs and exemptions for corporate reorganizations apply. In addition to obtaining the opinion from Irish Revenue, we also received opinions from the law firm of Arthur Cox confirming the applicability of the relevant exemptions and reliefs to the distribution as well as received opinions from other external advisers that certain internal transactions will not trigger Irish tax costs as well. These opinions relied on certain facts and assumptions and certain representations and undertakings from us and Allegion regarding the past and future conduct of our respective businesses and other matters. Notwithstanding the opinions, Irish Revenue could determine on audit that the distribution or the internal transactions do not qualify for the relevant exemptions or reliefs if it determines that any of these facts, assumptions, representations or undertakings is not correct or has been violated. A legal opinion represents the tax adviser's best legal judgment and is not binding on Irish Revenue or the courts and Irish Revenue or the courts may not agree with the legal opinion. In addition, the legal opinion is based on current law and cannot be relied upon if current law changes with retroactive effect. If the distribution ultimately is determined not to fall within certain exemptions or reliefs, the distribution could result in certain of our shareholders having an Irish tax liability as a result of the distribution, or we or Allegion could incur Irish tax liabilities. To the extent we are responsible for any such liability under the Tax Matters Agreement, there could be a material adverse impact on our business, financial condition, results of operations and cash flows in future reporting periods.

Risks Relating to Our Past Reorganizations

We effected a corporate reorganization in December 2001 to become a Bermuda company (the Bermuda Reorganization) and a subsequent corporate reorganization in July 2009 to become an Irish public limited company. These reorganizations exposed us and our shareholders to the risks described below. In addition, we cannot be assured that all of the anticipated benefits of the reorganizations will be realized.

Changes in tax or other laws, regulations or treaties, changes in our status under U.S. or non-U.S. laws or adverse determinations by taxing or other governmental authorities could increase our tax burden or otherwise affect our financial condition or operating results, as well as subject our shareholders to additional taxes.

The realization of any tax benefit related to our reorganizations could be impacted by changes in tax or other laws, treaties or regulations or the interpretation or enforcement thereof by the U.S. or non-U.S. tax or other governmental authorities. From time to time, proposals have been made and/or legislation has been introduced to change the tax laws, regulations or interpretations thereof of various jurisdictions or limit tax treaty benefits that if enacted could materially increase our tax burden and/or effective tax rate and could have a material adverse impact on our financial condition and results of operations. For instance, recent U.S. legislative proposals would broaden the circumstances under which we would be considered a U.S. resident for U.S. tax purposes, which would significantly diminish the realization of any tax benefit related to our reorganizations. There are other recent U.S. legislative proposals that could modify or eliminate the tax deductibility of various currently deductible payments, which could materially and adversely affect our effective tax rate and cash tax position. Moreover, other U.S. legislative proposals could have a material adverse impact on us by overriding certain tax treaties and limiting the treaty benefits on certain payments by our U.S. subsidiaries to our non-U.S. affiliates, which could increase our tax liability. We cannot predict the outcome of any of these potential changes in any jurisdiction.

While we monitor proposals and other developments that would materially impact our tax burden and/or effective tax rate and investigate our options, we could still be subject to increased taxation on a going forward basis no matter what action we undertake if certain legislative proposals or regulatory changes are enacted, certain tax treaties are amended and/or our interpretation of applicable tax or other laws is challenged and determined to be incorrect. In particular, any changes and/or differing interpretations of applicable tax law that have the effect of disregarding the Ireland Reorganization, limiting our ability to take advantage of tax treaties between jurisdictions, modifying or eliminating the deductibility of various currently deductible payments, or increasing the tax burden of operating or being resident in a particular country, could subject us to increased taxation.

While our U.S. operations are subject to U.S. tax, we believe that a significant portion of our non-U.S. operations are generally not subject to U.S. tax other than withholding taxes. The IRS or a court, however, may not concur with our conclusions including our determination that we, and a significant number of our foreign subsidiaries, are not controlled foreign corporations (CFC) within the meaning of the U.S. tax laws. A contrary determination, which could also arise through significant future acquisitions of our stock by U.S. persons, could also potentially cause U.S. holders (direct, indirect or constructive owners) of 10% or more of our stock (or the voting stock of our non-U.S. subsidiaries) to include in their gross income their pro rata share of certain of our and our non-U.S. subsidiary income for the period during which we (and our non-U.S. subsidiaries) were a CFC. In addition, gain (or a portion of such gain) realized on CFC shares sold by such shareholders may be treated as ordinary income depending on certain facts. Treatment of us or any of our non-U.S. subsidiaries as a CFC could have a material adverse impact on our results of operations, financial condition, and cash flows.

As described further in “Legal Proceedings,” we have received several notices from the IRS containing proposed adjustments to our tax filings in connection with audits of the 2001-2006 tax years. The IRS has not contested the validity of our reincorporation in Bermuda in any of these notices. We have and intend to continue to vigorously contest all of these proposed adjustments.

Although the outcome of these matters cannot be predicted with certainty, based upon an analysis of the merits of our position, we believe that we are adequately reserved for these matters and do not expect that the ultimate resolution will have a material adverse impact on our future results of operations, financial condition, or cash flows. As we move forward to resolve these matters with the IRS, the reserves established may be adjusted. Although we continue to contest the IRS's position, there can be no assurance that we will be successful. If the IRS's position with respect to 2002-2006 is ultimately sustained, we would be required to record additional charges and the resulting liability would have a material adverse impact on our future results of operations, financial condition and cash flows. Furthermore, a substantial amount of information has been provided to the IRS in connection with its audit of our 2007-2011 tax years. We expect the IRS to propose similar adjustments with respect to the intercompany debt incurred in connection with our reincorporation in Bermuda, although we do not know how the IRS will apply its position to the different facts presented in these years or whether the IRS will take a similar position with respect to intercompany debt instruments not outstanding in prior years.

The inability to realize any anticipated tax benefits related to our reorganizations could have a material adverse impact on our results of operations, financial condition, and cash flows.

Irish law differs from the laws in effect in the United States and may afford less protection to holders of our securities.

The United States currently does not have a treaty with Ireland providing for the reciprocal recognition and enforcement of judgments in civil and commercial matters. As such, there is some uncertainty as to whether the courts of Ireland would recognize or enforce judgments of U.S. courts obtained against us or our directors or officers based on U.S. federal or state civil liability laws, including the civil liability provisions of the U.S. federal or state securities laws, or hear actions against us or those persons based on those laws.

As an Irish company, we are governed by the Irish Companies Act, which differs in some material respects from laws generally applicable to U.S. corporations and shareholders, including, among others, differences relating to interested director and officer transactions and shareholder lawsuits. Likewise, the duties of directors and officers of an Irish company generally are owed to the company only. Shareholders of Irish companies generally do not have a personal right of action against directors or officers of the company and may exercise such rights of action on behalf of the company only in limited circumstances. Accordingly, holders of our securities may have more difficulty protecting their interests than would holders of securities of a corporation incorporated in a jurisdiction of the United States.

In addition, Irish law allows shareholders to authorize share capital which then can be issued by a board of directors without shareholder approval. Also, subject to specified exceptions, Irish law grants statutory pre-emptive rights to existing shareholders to subscribe for new issuances of shares for cash, but allows shareholders to authorize the waiver of the statutory pre-emptive rights with respect to any particular allotment of shares. Under Irish law, these authorizations must be renewed by the shareholders every five years and we cannot guarantee that these authorizations will always be approved. Beginning with the 2014 proxy season, Institutional Shareholder Services (ISS) began taking the position that Irish companies should limit these authorizations in terms of the number of authorized but unissued shares that can be issued without shareholder approval to 33% of such company's issued ordinary share capital, the number of shares that can be issued without pre-emptive rights to up to 5% of such company's issued ordinary share capital and the duration of the authorizations to eighteen months. If we are required to conform these authorizations to the ISS standards in order to obtain shareholder approval, we will be limited in our ability to issue shares in ways that U.S. companies are not limited and will need to renew the authorizations even more frequently than the five-year period provided under Irish law.

Dividends received by our shareholders may be subject to Irish dividend withholding tax.

In certain circumstances, we are required to deduct Irish dividend withholding tax (currently at the rate of 20%) from dividends paid to our shareholders. In the majority of cases, shareholders resident in the United States will not be subject to Irish withholding tax, and shareholders resident in a number of other countries will not be subject to Irish withholding tax provided that they complete certain Irish dividend withholding tax forms. However, some shareholders may be subject to withholding tax, which could have an adverse impact on the price of our shares.

Dividends received by our shareholders could be subject to Irish income tax.

Dividends paid in respect of our shares will generally not be subject to Irish income tax where the beneficial owner of these dividends is exempt from dividend withholding tax, unless the beneficial owner of the dividend has some connection with Ireland other than his or her shareholding in IR-Ireland.

Our shareholders who receive their dividends subject to Irish dividend withholding tax will generally have no further liability to Irish income tax on the dividends unless the beneficial owner of the dividend has some connection with Ireland other than his or her shareholding in IR-Ireland.

Item 1B. **UNRESOLVED STAFF COMMENTS**

None.

Item 2. **PROPERTIES**

As of December 31, 2014, we owned or leased a total of approximately 14 million square feet of space worldwide. Manufacturing and assembly operations are conducted in 50 plants across the world. We also maintain various warehouses, offices and repair centers throughout the world.

The majority of our plant facilities are owned by us with the remainder under long-term lease arrangements. We believe that our plants have been well maintained, are generally in good condition and are suitable for the conduct of our business.

The locations by segment of our principal plant facilities at December 31, 2014 were as follows:

Climate		
Americas	Europe	Asia Pacific and India
Curitiba, Brazil	Kolin, Czech Republic	Zhong Shan, China
Monterrey, Mexico	Charmes, France	Taicang, China
Arecibo, Puerto Rico	Golbey, France	Chennai, India
Fort Smith, Arkansas	Galway, Ireland	Penang, Malaysia
Pueblo, Colorado	Barcelona, Spain	Samut Prakan, Thailand
Lynn Haven, Florida		
Macon, Georgia		
Vidalia, Georgia		
Rushville, Indiana		
Lexington, Kentucky		
St. Paul, Minnesota		
Hastings, Nebraska		
Trenton, New Jersey		
Columbia, South Carolina		
Clarksville, Tennessee		
Tyler, Texas		
Waco, Texas		
La Crosse, Wisconsin		

Industrial		
Americas	Europe	Asia Pacific and India
Dorval, Canada	Unicov, Czech Republic	Changzhou, China
Augusta, Georgia	Sin le Noble, France	Guilin, China
Campbellsville, Kentucky	Wasquehal, France	Nanjing, China
Madison Heights, Michigan	Oberhausen, Germany	Wujiang, China
Mocksville, North Carolina	Fogliano Redipuglia, Italy	Naroda, India
Southern Pines, North Carolina	Vignate, Italy	Sahibabad, India
West Chester, Pennsylvania	Logatec, Slovenia	
Kent, Washington		

Item 3. **LEGAL PROCEEDINGS**

In the normal course of business, we are involved in a variety of lawsuits, claims and legal proceedings, including commercial and contract disputes, employment matters, product liability claims, asbestos-related claims, environmental liabilities, intellectual property disputes, and tax-related matters. In our opinion, pending legal matters are not expected to have a material adverse impact on our results of operations, financial condition, liquidity or cash flows.

Tax Related Matters

In 2007, we received a notice from the IRS containing proposed adjustments to our tax filings in connection with an audit of the 2001 and 2002 tax years. The IRS did not contest the validity of our reincorporation in Bermuda. The IRS proposed to ignore the entities that hold the intercompany debt incurred in connection with our reincorporation in Bermuda (the "2001 Debt") and to which the interest was paid and impose 30% withholding tax on a portion of the interest payments as if they were made directly to a company that was not eligible for reduced U.S. withholding tax under a U.S. income tax treaty. The IRS asserted that we owe additional taxes with respect to 2002 of approximately $84 million plus interest. In 2010, we received an amended notice from the IRS assessing penalties of 30% on the asserted underpayment of tax described above.

We have so far been unsuccessful in resolving this dispute and in 2013 received a Notice of Deficiency from the IRS for 2002. The Company filed a petition in the United States Tax Court in November 2013 contesting this deficiency. In its January 2014 answer to our petition, the IRS asserted that we also owe 30% withholding tax on the portion of 2002 interest payments made on the 2001 Debt upon which it did not previously assert withholding tax. This increases the total tax liability proposed for 2002 to $109.0 million ($84.0 million referred to in the paragraph above plus an additional $25.0 million) plus 30% penalties and interest.

In 2013, we received notices from the IRS containing proposed adjustments to the Company's tax filings in connection with an audit of the 2003-2006 tax years. In these notices, the IRS asserts that we owe a total of approximately $665 million of additional taxes, as described more fully in the two paragraphs below, in connection with our interest payments on the 2001 Debt for the 2003-2006 period, plus penalties and interest on these unpaid taxes.

The IRS continues to take the position on the 2001 Debt, which was retired at the end of 2011, that it previously took for our 2002 tax year and which is described above. As a result of this recharacterization, the IRS asserts that we owe approximately $455 million of withholding tax for 2003-2006 plus 30% penalties.

The IRS also proposes to extend its position further and to treat all of the interest income from the 2001 Debt as creating earnings and profits at IR-Limited and, as a result, recharacterize the distributions made by IR-Limited during the 2002-2006 tax years as taxable dividends instead of as a return of capital. Consequently the IRS asserts that we owe approximately $210 million of income tax on these dividends plus penalties of 20%. We strongly disagree with the view of the IRS and filed a protest in January 2014 for the 2003-2006 tax years.

Furthermore, a substantial amount of information has been provided to the IRS in connection with its audit of our 2007-2011 tax years. We expect the IRS to propose similar adjustments with respect to the 2001 Debt, although we do not know how the IRS will apply its position to the different facts presented in these years or whether the IRS will take a similar position with respect to intercompany debt instruments not outstanding in prior years.

We have vigorously contested all of these proposed adjustments and intend to continue to do so. Although the outcome of these matters cannot be predicted with certainty, based upon an analysis of the merits of our position we believe that we are adequately reserved under the applicable accounting standards for these matters and do not expect that the ultimate resolution will have a material adverse impact on our future results of operations, financial condition, or cash flows. As we move forward to resolve these matters with the IRS, the reserves established may be adjusted. Although we continue to contest the IRS's position, there can be no assurance that we will be successful. If the IRS's position with respect to the 2002-2006 tax years is ultimately sustained we would be required to record additional charges and the resulting liability would have a material adverse impact on our future results of operations, financial condition and cash flows.

We believe that we have adequately provided for any reasonably foreseeable resolution of any tax disputes, but will adjust our reserves if events so dictate in accordance with GAAP. To the extent that the ultimate results differ from our original or adjusted estimates, the effect will be recorded in the Provision for income taxes.

For a further discussion of tax matters, see Note 14 to the Consolidated Financial Statements.

Asbestos-Related Matters

Certain wholly-owned subsidiaries of the Company are named as defendants in asbestos-related lawsuits in state and federal courts. In virtually all of the suits, a large number of other companies have also been named as defendants. The vast majority of those claims have been filed against either IR-New Jersey or Trane and generally allege injury caused by exposure to asbestos contained in certain historical products sold by IR-New Jersey or Trane, primarily pumps, boilers and railroad brake shoes. Neither IR-New Jersey nor Trane was a producer or manufacturer of asbestos, however, some formerly manufactured products utilized asbestos-containing components such as gaskets and packings purchased from third-party suppliers.

See also the discussion under Part II, Item 7, Management’s Discussion and Analysis of Financial Condition and Results of Operations, Contingent Liabilities, and also Note 17 to the Consolidated Financial Statements.

Executive Officers of the Registrant

The following is a list of executive officers of the Company as of February 13, 2015.

Name and Age	Date of Service as an Executive Officer	Principal Occupation and Other Information for Past Five Years
Michael W. Lamach (51)	2/16/2004	Chairman of the Board (since June 2010) and Chief Executive Officer and President (since February 2010); President and Chief Operating Officer (2009-2010); Senior Vice President and President, Trane Commercial Systems (2008-2009); Senior Vice President and President, Security Technologies (2004-2008)
Susan K. Carter (56)	10/2/2013	Senior Vice President and Chief Financial Officer (since October 2013); KBR Inc. (a global engineering, construction and services business), Executive Vice President and Chief Financial Officer (2009-2013); Lennox International Inc. (a heating, air conditioning and refrigeration company), Executive Vice President and Chief Financial Officer (2004 to 2009)
Marcia J. Avedon (53)	2/7/2007	Senior Vice President, Human Resources, Communications and Corporate Affairs (since June 2013); Senior Vice President, Human Resources and Communications (2007 - 2013)
Paul A. Camuti (53)	8/1/2011	Senior Vice President, Innovation and Chief Technology Officer (since August 2011); President, Smart Grid Applications, Siemens Energy, Inc. (an energy technology subsidiary of Siemens Corporation) (2010 -2011); President, Research Division, Siemens Corporation (a diversified global technology company) (2009 - 2010); President and Chief Executive Officer, Siemens Corporate Research, Inc. (the research subsidiary of Siemens Corporation) (2005 - 2009)
Robert L. Katz (52)	11/1/2010	Senior Vice President and General Counsel (since November 2010); Federal- Mogul Corporation (a global automotive supplier), Senior Vice President, General Counsel and Corporate Secretary (2007-2010)
Gary S. Michel (52)	8/1/2011	Senior Vice President and President, Residential HVAC (since December 2013); Senior Vice President and President, Residential Solutions (2011-2013); President and Chief Executive Officer, Club Car (2007 - 2011)
Didier Teirlinck (58)	6/4/2008	Executive Vice President Ingersoll Rand, Climate Segment (since December 2013); Senior Vice President and President, Climate Solutions (2009-2013); President, Climate Control Technologies (2008-2009); President, Climate Control Europe (2005-2008)
Todd D. Wyman (47)	11/16/2009	Senior Vice President, Global Operations and Integrated Supply Chain: (since November 2009); GE Transportation (a unit of General Electric Company), Vice President, Global Supply Chain (2007-2009)
Robert G. Zafari (56)	7/1/2010	Executive Vice President Ingersoll Rand, Industrial Segment (since December 2013); Senior Vice President and President, Industrial Technologies (2010-2013); President, TCS and Climate Solutions EMEIA (2009-2010); President, Security Technologies ESA (2007-2008)
Richard J. Weller (58)	9/8/2008	Vice President and Controller (since September 2008); Vice President, Finance (2008); Vice President, Finance, Security Technologies Sector (2005-2008)

No family relationship exists between any of the above-listed executive officers of the Company. All officers are elected to hold office for one year or until their successors are elected and qualified.

Item 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Information regarding the principal market for our ordinary shares and related shareholder matters is as follows:

Our ordinary shares are traded on the New York Stock Exchange under the symbol IR. As of February 2, 2015, the approximate number of record holders of ordinary shares was 3,910.

The high and low sales price per share and the dividend declared per share for the following periods were as follows:

	Ordinary shares		
2014	High	Low	Dividend
First quarter	$ 62.88	$ 55.70	$ 0.25
Second quarter	63.99	54.39	0.25
Third quarter	64.50	56.36	0.25
Fourth quarter	64.59	53.57	0.25
2013	High	Low	Dividend
First quarter [(a)]	$ 56.77	$ 48.06	$ —
Second quarter	58.92	52.03	0.21
Third quarter	66.62	55.32	0.21
Fourth quarter [(b)]	71.75	54.83	0.21

(a) In December 2012, we declared a dividend of $0.21 per ordinary share payable on March 28, 2013 to shareholders of record on March 12, 2013.

(b) On December 1, 2013, we spun off our commercial and residential security businesses to our shareholders. Each of our shareholders of record as of November 22, 2013 received one ordinary share of Allegion for every three Ingersoll-Rand plc ordinary shares owned.

Future dividends on our ordinary shares, if any, will be at the discretion of our Board of Directors and will depend on, among other things, our results of operations, cash requirements and surplus, financial condition, contractual restrictions and other factors that the Board of Directors may deem relevant, as well as our ability to pay dividends in compliance with the Irish Companies Act. Under the Irish Companies Act, dividends and distributions may only be made from distributable reserves. Distributable reserves, broadly, means the accumulated realized profits of Ingersoll-Rand plc (IR-Ireland). In addition, no distribution or dividend may be made unless the net assets of IR-Ireland are equal to, or in excess of, the aggregate of IR-Ireland's called up share capital plus undistributable reserves and the distribution does not reduce IR-Ireland's net assets below such aggregate.

Information regarding equity compensation plans required to be disclosed pursuant to this Item is incorporated by reference from our definitive proxy statement for the Annual General Meeting of Shareholders.

Issuer Purchases of Equity Securities

The following table provides information with respect to purchases by the Company of its ordinary shares during the quarter ended December 31, 2014:

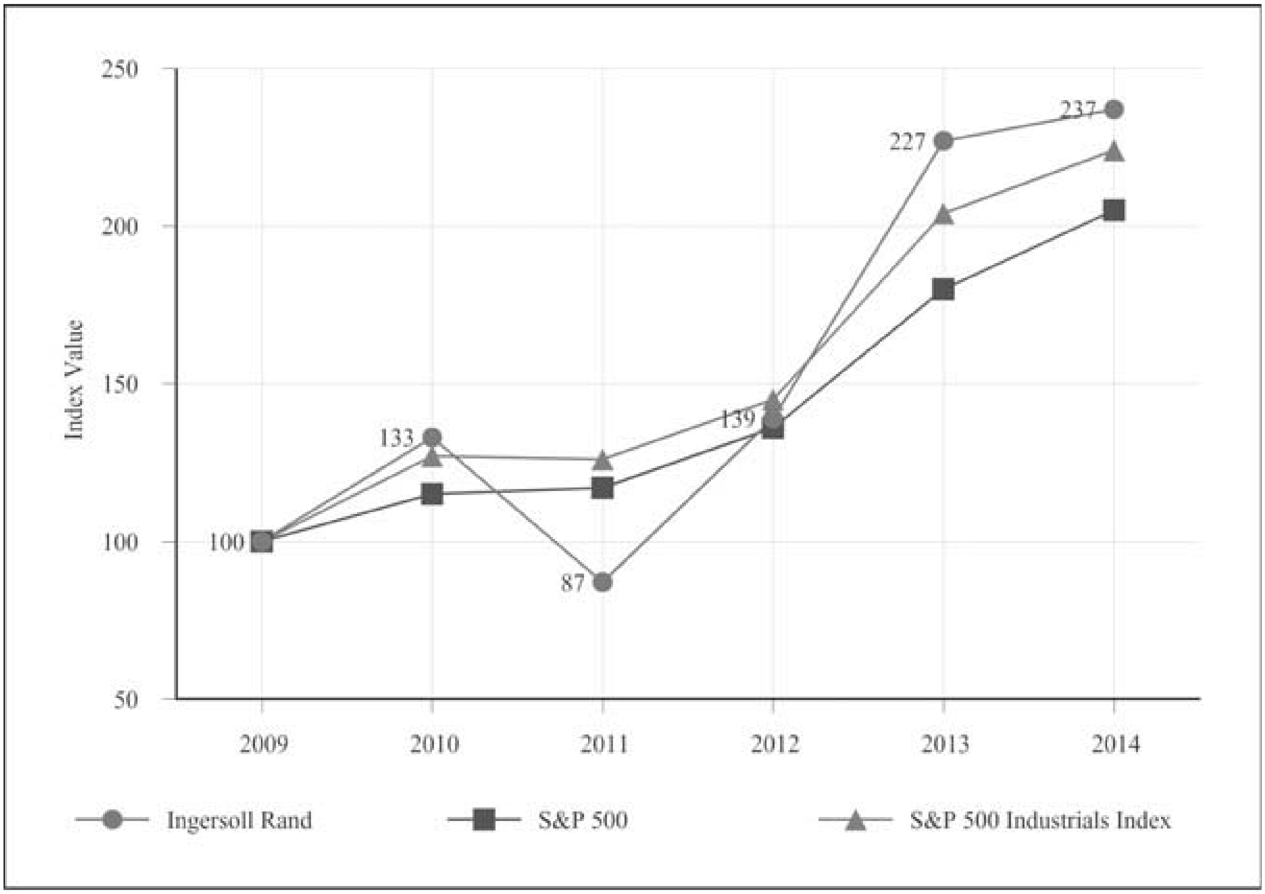
Period	Total number of shares purchased (000's) (a) (b)	Average price paid per share (a) (b)	Total number of shares purchased as part of program (000's) (a)	Approximate dollar value of shares still available to be purchased under the program ($000's) (a)
October 1 - October 31	1,445.5	$ 56.74	1,444.5	$ 1,036,638
November 1 - November 30	1,238.6	62.64	1,213.2	960,639
December 1 - December 31	702.0	63.04	697.9	916,639
Total	3,386.1	$ 60.21	3,355.6	

(a) In February 2014, our Board of Directors authorized the repurchase of up to $1.5 billion of our ordinary shares under a share repurchase program, which began in April 2014. Based on market conditions, share repurchases will be made from time to time in the open market and in privately negotiated transactions at the discretion of management. The repurchase program does not have a prescribed expiration date.

(b) We may also reacquire shares outside of the repurchase program from time to time in connection with the surrender of shares to cover taxes on vesting of share based awards. We reacquired 1,005 shares in October; 25,442 shares in November; and 4,058 shares in December in transactions outside the repurchase programs.

Performance Graph

The following graph compares the cumulative total shareholder return on our ordinary shares with the cumulative total return on (i) the Standard & Poor's 500 Stock Index and (ii) the Standard & Poor's 500 Industrial Index for the five years ended December 31, 2014. The graph assumes an investment of $100 in our ordinary shares, the Standard & Poor's 500 Stock Index and the Standard & Poor's 500 Industrial Index on December 31, 2009 and assumes the reinvestment of dividends.



Company/Index	2009	2010	2011	2012	2013	2014
Ingersoll Rand	100	133	87	139	227	237
S&P 500	100	115	117	136	180	205
S&P 500 Industrials Index	100	127	126	145	204	224

Item 6. **SELECTED FINANCIAL DATA**

In millions, except per share amounts:

At and for the years ended December 31,		2014		2013		2012		2011		2010
Net revenues	$	12,891.4	$	12,350.5	$	11,988.3	$	12,760.8	$	12,033.4
Net earnings (loss) attributable to Ingersoll-Rand plc ordinary shareholders:										
Continuing operations		897.0		620.1		772.4		123.4		505.2
Discontinued operations		34.7		(1.3)		246.2		219.8		137.0
Total assets		17,298.5		17,658.1		18,482.1		18,819.6		20,078.0
Total debt		4,224.4		3,521.2		3,229.4		3,637.6		3,677.8
Total Ingersoll-Rand plc shareholders' equity		5,987.4		7,068.9		7,147.8		6,924.3		7,981.3
Earnings (loss) per share attributable to Ingersoll-Rand plc ordinary shareholders:										
Basic:										
Continuing operations	$	3.32	$	2.11	$	2.54	$	0.38	$	1.56
Discontinued operations		0.12		—		0.81		0.68		0.42
Diluted:										
Continuing operations	$	3.27	$	2.08	$	2.49	$	0.36	$	1.49
Discontinued operations		0.13		(0.01)		0.79		0.65		0.40
Dividends declared per ordinary share	$	1.00	$	0.63	$	0.69	$	0.59	$	0.28

1. 2011 amounts represent the operating results of the Hussmann Business and Branches through their respective divestiture and transaction dates of September 30, 2011 and November 30, 2011, including an after-tax loss on sale and impairment charges of $546 million.
2. 2011 Dividends declared per ordinary share includes a dividend of $0.16 per ordinary share, declared in December 2011, and payable on March 30, 2012 to shareholders of record on March 12, 2012.
3. 2012 Dividends declared per ordinary share includes a dividend of $0.21 per ordinary share, declared in December 2012, and payable on March 28, 2013 to shareholders of record on March 12, 2013.

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following Management's Discussion and Analysis of Financial Condition and Results of Operations contains forward-looking statements that involve risks and uncertainties. Our actual results may differ materially from the results discussed in the forward-looking statements. Factors that might cause a difference include, but are not limited to, those discussed under Item 1A. Risk Factors in this Annual Report on Form 10-K. The following section is qualified in its entirety by the more detailed information, including our financial statements and the notes thereto, which appears elsewhere in this Annual Report.

Overview

Organization

We are a diversified, global company that provides products, services and solutions to enhance the quality and comfort of air in homes and buildings, transport and protect food and perishables and increase industrial productivity and efficiency. Our business segments consist of Climate and Industrial, both with strong brands and leading positions within their respective markets. We generate revenue and cash primarily through the design, manufacture, sale and service of a diverse portfolio of industrial and commercial products that include well-recognized, premium brand names such as Ingersoll-Rand®, Trane®, Thermo King®, American Standard® and Club Car®.

To achieve our mission of being a world leader in creating comfortable, sustainable and efficient environments, we continue to focus on increasing our recurring revenue stream from parts, service, used equipment and rentals; and to continuously improve the efficiencies and capabilities of the products and services of our high-potential businesses. Additional emphasis is placed on expanding market coverage in terms of geography or by taking advantage of a particular vertical market or opportunity. We also continue to focus on operational excellence strategies as a central theme to improving our earnings and cash flows.

Trends and Economic Events

We are a global corporation with worldwide operations. As a global business, our operations are affected by worldwide, regional and industry-specific economic factors, as well as political factors, wherever we operate or do business. Our geographic and industry diversity, and the breadth of our product and services portfolios, have helped mitigate the impact of any one industry or the economy of any single country on our consolidated operating results.

Given the broad range of products manufactured and geographic markets served, management uses a variety of factors to predict the outlook for the Company. We monitor key competitors and customers in order to gauge relative performance and the outlook for the future. We regularly perform detailed evaluations of the different market segments we are serving to proactively detect trends and to adapt our strategies accordingly. In addition, we believe our order rates are indicative of future revenue and thus a key measure of anticipated performance. In those industry segments where we are a capital equipment provider, revenues depend on the capital expenditure budgets and spending patterns of our customers, who may delay or accelerate purchases in reaction to changes in their businesses and in the economy.

Current market conditions remain challenging across different international markets. Residential and Commercial new construction activity are slowly recovering in the United States. This is impacting the results of our commercial Heating, Ventilation and Air Conditioning (HVAC) business. Non-residential new construction remains sluggish in Europe and is growing at slower pace in Asia. However, HVAC equipment replacement and aftermarket continue to experience steady growth. We have seen slower worldwide industrial equipment and aftermarket activity. As economic conditions stabilize, we expect moderate growth in worldwide construction markets and slow growth in industrial markets, along with benefits from productivity programs for the remainder of the year.

Despite the current market environment, we believe we have a solid foundation of global brands and leading market shares in all of our major product lines. Our growing geographic and industry diversity coupled with our large installed product base provides growth opportunities within our service, parts and replacement revenue streams. In addition, we are investing substantial resources to innovate and develop new products and services which we expect will drive our future growth.

Significant events in 2014

Announcement to Acquire Cameron International Corporation's Centrifugal Compression Division

On August 18, 2014, the Company announced an agreement to acquire the assets of Cameron International Corporation's Centrifugal Compression division (the Division) for $850 million. The acquisition was completed on January 1, 2015, and was funded through a combination of cash from operations and debt. The Division provides centrifugal compression equipment and aftermarket parts and services for global industrial applications, air separation, gas transmission and process. The assets acquired and the results of its operations will be reflected in our consolidated financial statements beginning in the first quarter of 2015.

Issuance of Senior Notes due 2020, 2024, and 2044

In October 2014, we issued $1.1 billion principal amount of Senior Notes in three tranches through a newly-created wholly-owned subsidiary, Ingersoll-Rand Luxembourg Finance S.A. (IR-Lux). The tranches consist of $300 million of 2.625% Senior Notes due in 2020, $500 million of 3.55% Senior Notes due 2024, and $300 million of 4.65% Senior Notes due in 2044. The notes are fully and unconditionally guaranteed by Ingersoll-Rand Plc (IR-Ireland) and certain of our wholly-owned subsidiaries.

The proceeds from the notes were primarily used to (i) fund the October 2014 redemption of the $200 million of 5.50% Notes due 2015 and $300 million 4.75% Senior Notes due 2015, and (ii) fund the acquisition of Cameron International Corporation's Centrifugal Compression division on January 1, 2015. Related to the redemption, the Company recognized $10.2 million of premium expense in Interest expense.

For additional information regarding the terms of the notes and the related guarantees, see Notes 7 and 19 to the Consolidated Financial Statements.

2014 Dividend Increase and Share Repurchase Activity

In February 2015, we announced an increase in our quarterly dividend from $0.25 to $0.29 per share beginning with our March 2015 payment.

In February 2014, our Board of Directors authorized the repurchase of up to $1.5 billion of our ordinary shares under a new share repurchase program. The new share repurchase program began in the second quarter of 2014. During 2014, the Company repurchased 23.0 million shares for $1.4 billion, of which 9.8 million shares for $583.4 million were under the 2014 program. Shares repurchased prior to October 2014 were canceled upon repurchase and beginning in October 2014, repurchased shares were held in treasury and recognized at cost.

In December 2012, our Board of Directors authorized the repurchase of up to $2.0 billion of our ordinary shares under a share repurchase program. The share repurchase program began in April 2013, and during 2013, we repurchased 20.8 million shares for $1.2 billion, excluding commissions. The remaining $0.8 billion of repurchases authorized under this program were made during the first and second quarter of 2014.

Venezuela Currency Devaluation

In February 2013, the government of Venezuela announced a devaluation of the Bolivar, from the pre-existing official exchange rate obtained through the National Center of Foreign Trade (CENCOEX, formerly CADIVI through April 2014) of 4.29 Bolivars to the U.S. dollar to 6.3 Bolivars to the U.S. dollar. We have one subsidiary with operations in Venezuela. Due to the designation of Venezuela as highly inflationary, the U.S. dollar was determined to be the functional currency for this subsidiary. As a result of the devaluation, we realized a foreign currency translation loss of approximately $3.8 million in the year ended December 31, 2013.

In January 2014, the Venezuelan government significantly expanded the use of the Supplementary Foreign Currency Administration System (SICAD) I exchange market and created a third exchange market called SICAD II. These markets have exchange rates significantly less favorable than the CENCOEX rate. The Venezuelan government also indicated that the CENCOEX rate will be reserved for purchases of "essential goods and services." In February 2015, the Venezuelan government announced a new exchange market called the Marginal Currency System (SIMADI), which will replace the SICAD II exchange and allow for trading based on supply and demand. An exchange rate for the SIMADI market has not been published.

The financial position and results of our Venezuelan subsidiary as of December 31, 2014, are reflected in USD utilizing the CENCOEX rate and not the December 31, 2014 SICAD I (12.0 Bolivars to $1.00), SICAD II (49.98 Bolivars to $1.00) or SIMADI rates due to our belief that our imports will continue to qualify for the CENCOEX rate and our intent to continue to pursue this rate for future exchanges. However, we will continue to monitor the evolving Venezuela exchange market, including the establishment of the new SIMADI exchange market.

As of December 31, 2014, we had net monetary assets of approximately 273 million Bolivars. For 2014, annual net revenues of our Venezuela subsidiary were approximately 300 million Bolivars. Further devaluation of the Bolivar, or our inability to convert our net monetary assets denominated in bolivars into US Dollars at certain of the exchange rates discussed above, could negatively impact our results of operations, financial condition, or cash flows.

IRS Exam Results

In 2007, we received a notice from the IRS containing proposed adjustments to our tax filings in connection with an audit of the 2001 and 2002 tax years. The IRS did not contest the validity of our reincorporation in Bermuda. The IRS proposed to ignore the entities that hold the intercompany debt incurred in connection with our reincorporation in Bermuda (the "2001 Debt") and to which the interest was paid and impose 30% withholding tax on a portion of the interest payments as if they were made directly to a company that was not eligible for reduced U.S. withholding tax under a U.S. income tax treaty. The IRS asserted that we owe additional taxes with respect to 2002 of approximately $84 million plus interest. In 2010, we received an amended notice from the IRS assessing penalties of 30% on the asserted underpayment of tax described above.

We have so far been unsuccessful in resolving this dispute and in 2013 received a Notice of Deficiency from the IRS for 2002. The Company filed a petition in the United States Tax Court in November 2013 contesting this deficiency. In its January 2014 answer to our petition, the IRS asserted that we also owe 30% withholding tax on the portion of 2002 interest payments made on the 2001 Debt upon which it did not previously assert withholding tax. This increases the total tax liability proposed for 2002 to $109.0 million ($84 million referred to in the paragraph above plus an additional $25.0 million) plus 30% penalties and interest.

In 2013, we received notices from the IRS containing proposed adjustments to the Company's tax filings in connection with an audit of the 2003-2006 tax years. In these notices, the IRS asserts that we owe a total of approximately $665.0 million of additional taxes, as described more fully in the two paragraphs below, in connection with our interest payments on the 2001 Debt for the 2003-2006 period, plus penalties and interest on these unpaid taxes.

The IRS continues to take the position on the 2001 Debt, which was retired at the end of 2011, that it previously took for our 2002 tax year and which is described above. As a result of this recharacterization, the IRS asserts that we owe approximately $455.0 million of withholding tax for 2003-2006 plus 30% penalties.

The IRS also proposes to extend its position further and to treat all of the interest income from the 2001 Debt as creating earnings and profits at IR-Limited and, as a result, recharacterize the distributions made by IR-Limited during the 2002-2006 tax years as taxable dividends instead of as a return of capital. Consequently the IRS asserts that we owe approximately $210.0 million of income tax on these dividends plus penalties of 20%. We strongly disagree with the view of the IRS and filed a protest in January 2014 for the 2003-2006 tax years.

Furthermore, a substantial amount of information has been provided to the IRS in connection with its audit of our 2007-2011 tax years. We expect the IRS to propose similar adjustments with respect to the 2001 Debt, although we do not know how the IRS will apply its position to the different facts presented in these years or whether the IRS will take a similar position with respect to intercompany debt instruments not outstanding in prior years.

We have vigorously contested all of these proposed adjustments and intend to continue to do so. Although the outcome of these matters cannot be predicted with certainty, based upon an analysis of the merits of our position we believe that we are adequately reserved under the applicable accounting standards for these matters and do not expect that the ultimate resolution will have a material adverse impact on our future results of operations, financial condition, or cash flows. As we move forward to resolve these matters with the IRS, the reserves established may be adjusted. Although we continue to contest the IRS's position, there can be no assurance that we will be successful. If the IRS's position with respect to the 2002-2006 tax years is ultimately sustained we would be required to record additional charges and the resulting liability would have a material adverse impact on our future results of operations, financial condition and cash flows.

We believe that we have adequately provided for any reasonably foreseeable resolution of any tax disputes, but will adjust our reserves if events so dictate in accordance with GAAP. To the extent that the ultimate results differ from our original or adjusted estimates, the effect will be recorded in the Provision for income taxes.

Significant events in 2013

Allegion Spin-Off

On December 1, 2013, the Company completed the previously announced separation of its commercial and residential security businesses by distributing the related ordinary shares of Allegion, on a pro rata basis, to the Company's shareholders of record as of November 22, 2013. Following the spin-off, Allegion became an independent publicly traded company.

We do not beneficially own any ordinary shares of Allegion, and no longer consolidate Allegion into our financial results. Allegion's historical financial results for all periods prior to December 1, 2013 are presented as a discontinued operation in our Consolidated Financial Statements.

See "Discontinued Operations" within Management's Discussion and Analysis of Financial Condition and Results of Operations and also Note 15 to the Consolidated Financial Statements for a further discussion of our discontinued operations.

Issuance of Senior Notes due 2019, 2023, and 2043

In June 2013, we issued $1.55 billion principal amount of Senior Notes in three tranches through our wholly-owned subsidiary, Ingersoll-Rand Global Holding Company Limited (IR-Global) pursuant to Rule 144A of the U.S. Securities Act of 1933 (Securities

Act). The tranches consist of $350 million of 2.875% Senior Notes due in 2019, $700 million of 4.250% Senior Notes due in 2023, and $500 million of 5.750% Senior Notes due in 2043. Later in 2013, the notes were modified to include IR-Jersey as a co-obligor. The notes are also fully and unconditionally guaranteed by IR-Ireland and certain of our wholly-owned subsidiaries.

The proceeds from these notes were primarily used to fund the July 2013 redemption of $600 million of 6.000% Senior Notes due 2013 and $655 million of 9.500% Senior Notes due 2014 and to fund expenses related to the spin-off of the commercial and residential security businesses. Related to this redemption, the Company recorded $45.6 million of premium expense in Interest expense.

For additional information regarding the terms of the notes and the related guarantees, see Notes 7 and 19 to the Consolidated Financial Statements.

Results of Operations - For the years ended December 31

Dollar amounts in millions, except per share data	2014	% of Revenues	2013	% of Revenues	2012	% of Revenues
Net revenues	$ 12,891.4		$ 12,350.5		$ 11,988.3	
Cost of goods sold	(8,982.8)	69.8%	(8,722.3)	70.6%	(8,533.5)	71.2%
Selling and administrative expenses	(2,503.9)	19.4%	(2,523.2)	20.4%	(2,382.9)	19.9%
Operating income	1,404.7	10.9%	1,105.0	8.9%	1,071.9	8.9%
Interest expense	(225.3)		(278.8)		(252.0)	
Other, net	30.0		3.4		28.1	
Earnings before income taxes	1,209.4		829.6		848.0	
Provision for income taxes	(293.7)		(189.0)		(56.0)	
Earnings from continuing operations	915.7		640.6		792.0	
Discontinued operations, net of tax	34.7		13.3		252.0	
Net earnings	950.4		653.9		1,044.0	
Less: Net earnings attributable to noncontrolling interests	(18.7)		(35.1)		(25.4)	
Net earnings attributable to Ingersoll-Rand plc	$ 931.7		$ 618.8		$ 1,018.6	
Diluted net earnings (loss) per ordinary share attributable to Ingersoll-Rand plc ordinary shareholders:						
Continuing operations	$ 3.27		$ 2.08		$ 2.49	
Discontinued operations	0.13		(0.01)		0.79	
Net earnings	$ 3.40		$ 2.07		$ 3.28	

Net Revenues

Net revenues for the year ended December 31, 2014 increased by 4.4%, or $540.9 million, compared with the same period of 2013, which primarily resulted from the following:

Volume/product mix	4.6 %
Pricing	0.5 %
Currency exchange rates	(0.7)%
Total	4.4 %

The increase in revenues was primarily driven by volume improvements within the Climate and Industrial segments.

Net revenues for the year ended December 31, 2013 increased by 3.0%, or $362.2 million, compared with the same period of 2012, which primarily resulted from the following:

Volume/product mix	2.3%
Pricing	0.7%
Total	3.0%

The increase in revenues was primarily driven by higher volumes and improved pricing across both segments.

Operating Income/Margin

Operating margin improved to 10.9% for the year ended December 31, 2014, compared to 8.9% for the same period of 2013. The increase was primarily due to productivity benefits in excess of other inflation (1.1%), favorable product mix and volume (0.6%), improved pricing net of material inflation (0.2%) and decreased restructuring spending (0.6%), partially offset by increased investment (0.5%).

Operating margin remained flat at 8.9% for the years ended December 31, 2013, and 2012. During 2013, we experienced improved pricing in excess of material inflation (0.5%) and productivity benefits in excess of other inflation (0.4%), offset by increased investment and restructuring spending (0.9%). During 2013 and 2012, the Company incurred costs of $82.3 million and $23.3

million, respectively, associated with ongoing restructuring actions. These actions included workforce reductions as well as the closure and consolidation of manufacturing facilities in an effort to improve the Company's cost structure.

Interest Expense

Interest expense for the year ended December 31, 2014 decreased by $53.5 million compared with the same period of 2013, primarily as a result of lower redemption premium expense from early debt retirements ($10.2 million in 2014 compared to $45.6 million in 2013) and lower interest rates on refinanced debt, as discussed in Liquidity and Capital Resources.

Interest expense for the year ended December 31, 2013 increased by $26.8 million compared with the same period of 2012, primarily as a result of the redemption premium expense incurred during the July 2013 debt redemption.

Other, Net

The components of Other, net, for the year ended December 31 are as follows:

In millions	2014	2013	2012
Interest income	$ 13.2	$ 12.8	$ 16.3
Exchange gain (loss)	(0.1)	(14.0)	0.2
Earnings (loss) from equity investments	7.8	(2.6)	(5.9)
Other	9.1	7.2	17.5
Other, net	$ 30.0	$ 3.4	$ 28.1

Exchange gain (loss) for the year ended December 31, 2013 includes a loss of approximately $3.8 million related to the devaluation of the Venezuela Bolivar.

For the years ended December 31, 2014, 2013 and 2012, we recognized equity earnings (loss) of $7.8 million, $(2.6) million and $(5.9) million, respectively, from our 37.2% ownership interest in Hussmann, a refrigeration display case business.

Other activity for the year ended December 31, 2014 includes a $6.0 million gain on the sale of an investment. Other activity in 2012 includes adjustments to insurance receivables as a result of favorable settlements.

Provision for Income Taxes

The 2014 effective tax rate was 24.3%. The 2014 effective tax rate is lower than the U.S. Statutory rate of 35% primarily due to earnings in non-U.S. jurisdictions, which in aggregate have a lower effective rate partially offset by U.S. State and Local income taxes and U.S. tax on non-U.S. earnings. Revenues from non-U.S. jurisdictions account for approximately 40% of our total revenues, such that a material portion of our pretax income is earned and taxed outside the U.S. at rates ranging from 0% to 38%. When comparing the results of multiple reporting periods, among other factors, the mix of earnings between U.S. and foreign jurisdictions can cause variability on our overall effective tax rate.

The 2013 effective tax rate was 22.8%. The 2013 effective tax rate is lower than the U.S. Statutory rate of 35% primarily due to earnings in non-U.S. jurisdictions, which in aggregate, have a lower effective rate and a $36 million net reduction in our liability for unrecognized tax benefits primarily due to the settlement of an audit in a major tax jurisdiction, partially offset by a tax charge of $51 million as a result of a change in assertion in certain subsidiary earnings that the company has previously determined to be permanently reinvested and approximately $74 million of Allegion spin-off tax charges, primarily related to a net increase in our valuation allowances on certain deferred tax assets.

The 2012 effective tax rate was 6.6%, which included a tax benefit of approximately $140.0 million resulting from a reduction in valuation allowances on certain Non-U.S. deferred tax assets. The 2012 effective tax rate is lower than the U.S. Statutory rate of 35.0% primarily due to earnings in non-U.S. jurisdictions, which in aggregate, have a lower effective rate and a reduction in valuation allowances mentioned above, partially offset by a net increase in our liability for unrecognized tax benefits.

For a further discussion of tax matters, see Note 14 to the Consolidated Financial Statements.

Review of Business Segments

The segment discussions that follow describe the significant factors contributing to the changes in results for each segment included in continuing operations.

Segment operating income is the measure of profit and loss that our chief operating decision maker uses to evaluate the financial performance of the business and as the basis for performance reviews, compensation and resource allocation. For these reasons, we believe that Segment operating income represents the most relevant measure of segment profit and loss. We may exclude certain charges or gains from Operating income to arrive at a Segment operating income that is a more meaningful measure of profit and loss upon which to base our operating decisions. We define Segment operating margin as Segment operating income as a percentage of Net revenues.

Climate

Our Climate segment delivers energy-efficient solutions globally and includes Trane® and American Standard® Heating & Air Conditioning which provide heating, ventilation and air conditioning (HVAC) systems, and commercial and residential building services, parts, support and controls; and Thermo King®, the leader in transport temperature control solutions.

Climate segment results for the years ended December 31 were as follows:

Dollar amounts in millions	2014	% change	2013	% change	2012
Net revenues	$ 9,879.7	4.9%	$ 9,414.0	4.1%	$ 9,042.5
Segment operating income	1,195.6	27.7%	936.0	14.5%	817.6
Segment operating margin	12.1%		9.9%		9.0%

2014 vs 2013
Net revenues for the year ended December 31, 2014 increased by 4.9% or $465.7 million, compared with the same period of 2013, which primarily resulted from the following:

Volume/product mix	5.0 %
Pricing	0.6 %
Currency exchange rates	(0.7)%
Total	4.9 %

Commercial HVAC net revenues increased due to improvements in equipment, parts, services and solutions markets. Residential HVAC net revenues increased due to increased volume in all major product categories. Thermo King refrigerated transport revenues increases in North America were partially offset by declines overseas.

Segment operating margin improved to 12.1% for the year ended December 31, 2014, compared to 9.9% for the same period of 2013. The improvement was primarily driven by productivity benefits in excess of other inflation (1.2%), favorable volume/product mix (0.6%), pricing improvements in excess of material inflation (0.2%) and decreased restructuring spending (0.4%); partially offset by increased investment spending (0.2%).

2013 vs 2012
Net revenues for the year ended December 31, 2013 increased by 4.1% or $371.5 million, compared with the same period of 2012, which primarily resulted from the following:

Volume/product mix	3.5 %
Pricing	0.8 %
Currency exchange rates	(0.2)%
Total	4.1 %

Commercial HVAC business was impacted by weakness in the worldwide commercial building markets. Commercial HVAC revenues increased due to improvements in both equipment and parts, services and solutions markets. Residential HVAC revenues increased due to increased volume in all equipment categories. These improvements were slightly offset by a continued mix shift to lower SEER units. Thermo King refrigerated transport net revenues increased driven by improvements in the Americas and Europe.

Segment operating margin improved to 9.9% for the year ended December 31, 2013, compared to 9.0% for the same period of 2012. The improvement was primarily driven by productivity benefits in excess of other inflation (0.8%), pricing improvements in excess of material inflation (0.6%) and favorable volume/product mix (0.2%). These improvements were partially offset by increased investment and restructure spending (0.7).

Industrial

Our Industrial segment delivers products and services that enhance energy efficiency, productivity and operations. It includes Ingersoll Rand® compressed air systems and services, power tools and material handling systems, ARO® fluid management equipment, as well as Club Car® golf, utility and rough terrain vehicles.

Segment results for the years ended December 31 were as follows:

Dollar amounts in millions	2014	% change	2013	% change	2012
Net revenues	$ 3,011.7	2.6 %	$ 2,936.5	(0.3)%	$ 2,945.8
Segment operating income	443.0	(1.6)%	450.3	(1.2)%	455.8
Segment operating margin	14.7%		15.3%		15.5%

2014 vs 2013
Net revenues for the year ended December 31, 2014 increased by 2.6% or $75.2 million, compared with the same period of 2013, which primarily resulted from the following:

Volume/product mix	3.2 %
Pricing	0.3 %
Currency exchange rates	(0.9)%
Total	2.6 %

Air compressors and industrial product net revenues increased with gains in Americas. Club Car net revenues increased with growth in both golf car and utility vehicle sales.

Segment operating margin decreased to 14.7% for the year end December 31, 2014 compared to compared to 15.3% for the same period of 2013. The decrease was due to increased investment spending (1.2%), partially offset by lower restructuring spending (0.4%) and favorable volume/product mix (0.2%).

2013 vs 2012
Net revenues for the year ended December 31, 2013 decreased by 0.3%, or $9.3 million, compared with the same period of 2012, which primarily resulted from the following:

Pricing	0.6 %
Currency exchange rates	0.3 %
Volume/product mix	(1.2)%
Total	(0.3)%

Air compressors and industrial net revenues decreased due to declines in equipment sales, partially offset by growth in parts, service and solutions. Club Car revenues increased due to growth in both the golf car and utility vehicle markets.

Segment operating margin remained mostly flat for the year ended December 31, 2013 and 2012. Productivity benefits in excess of other inflation (1.0%) were offset by increased investment and restructuring spending (0.7%) and unfavorable volume/product mix (0.5%).

Discontinued Operations

The components of discontinued operations for the years ended December 31 are as follows:

In millions	2014	2013	2012
Net revenues	$ —	$ 1,889.9	$ 2,046.6
Pre-tax earnings (loss) from operations	41.2	84.7	379.5
Pre-tax gain (loss) on sale	—	—	2.3
Tax benefit (expense)	(6.5)	(71.4)	(129.8)
Discontinued operations, net of tax	$ 34.7	$ 13.3	$ 252.0

Discontinued operations by business for the years ended December 31 are as follows:

In millions	2014	2013	2012
Allegion spin-off, net of tax	$ 15.0	$ 12.4	$ 254.2
Other discontinued operations, net of tax	19.7	0.9	(2.2)
Discontinued operations, net of tax	$ 34.7	$ 13.3	$ 252.0

Allegion Spin-Off

On December 1, 2013, (the Distribution Date) we completed the spin-off of our commercial and residential security businesses, now under the name of Allegion, plc (Allegion), to our shareholders (the spin-off). On the Distribution Date, each of our shareholders of record as of the close of business on November 22, 2013 (the Record Date) received one ordinary share of Allegion for every three Ingersoll-Rand plc ordinary shares held as of the Record Date. Allegion is now an independently traded public company.

Net revenues and after-tax earnings of Allegion for the year ended December 31 were as follows:

In millions	2014	2013	2012
Net revenues	$ —	$ 1,889.9	$ 2,046.6
After-tax earnings (loss) from operations	$ 15.0	$ 12.4	$ 254.2

After-tax earnings from Allegion for the year ended December 31, 2014 primarily represent adjustments for certain tax matters. After-tax earnings from Allegion for the years ended December 31, 2013 and 2012 include spin costs of $128.0 million and $5.7 million, respectively. Also, the 2013 results include non-cash goodwill charges and tax of $111.4 million and $148.2 million, respectively.

Other Discontinued Operations

The components of other discontinued operations for the years ended December 31 were as follows:

In millions	2014	2013	2012
Retained costs, net of tax	$ 19.7	$ 0.9	$ (16.2)
Net gain (loss) on disposals, net of tax	—	—	14.0
Discontinued operations, net of tax	$ 19.7	$ 0.9	$ (2.2)

Other discontinued operations, net of tax for the years ended December 31, 2014, 2013 and 2012 are mainly related to postretirement benefits, product liability, worker's compensation, and legal costs (mostly asbestos-related) from previously sold businesses and tax effects of post-closing purchase price adjustments.

Retained costs recognized in 2012 are primarily related to the settlement of post-closing matters with Doosan Infracore related to its 2007 acquisition of our Bobcat Utility Equipment and Attachments business in 2007.

Liquidity and Capital Resources

We earn a significant amount of our operating income in jurisdictions where it is deemed to be permanently reinvested. Our most prominent jurisdiction of operation is the U.S. We currently do not intend nor foresee a need to repatriate funds to the U.S., and no provision for U.S. income taxes has been made with respect to such earnings. We expect existing cash and cash equivalents available to the U.S., the cash generated by our U.S. operations, our committed credit lines as well as our expected ability to access the capital and debt markets will be sufficient to fund our U.S. operating and capital needs for at least the next twelve months and thereafter for the foreseeable future. In addition, we expect existing non-U.S. cash and cash equivalents and the cash generated by our non-U.S. operations will be sufficient to fund our non-U.S. operating and capital needs for at least the next twelve months and thereafter for the foreseeable future. Should we require more capital in the U.S. than is generated by our U.S. operations, and we determine that repatriation of non-U.S. cash is necessary, such amounts would be subject to U.S. federal income taxes.

In February 2015, we announced an increase in our quarterly share dividend from $0.25 to $0.29 per share beginning with our March 2015 payment. In February 2014, our Board of Directors authorized the repurchase of up to $1.5 billion of our ordinary shares under a new share repurchase program upon completion of the current share repurchase program. The new share repurchase program began in April of 2014. During the year ended December 31, 2014, we repurchased 23.0 million shares for $1.4 billion, of which 9.8 million shares for $583.4 million were under the 2014 program. We expect our available cash flow, committed credit lines and access to the capital markets will be sufficient to fund the increased dividend and share repurchases.

On August 18, 2014, we announced an agreement to acquire the assets of Cameron International Corporation’s Centrifugal Compression division for $850 million. The acquisition was completed on January 1, 2015, funded through a combination of cash from operations and debt.

Liquidity

The following table contains several key measures to gauge our financial condition and liquidity at the periods ended December 31:

In millions	2014	2013	2012
Cash and cash equivalents	$ 1,705.2	$ 1,937.2	$ 708.4
Short-term borrowings and current maturities of long-term debt	482.7	367.7	962.9
Long-term debt	3,741.7	3,153.5	2,266.5
Total debt	4,224.4	3,521.2	3,229.4
Total Ingersoll-Rand plc shareholders' equity	5,987.4	7,068.9	7,147.8
Total equity	6,045.4	7,131.3	7,229.3
Debt-to-total capital ratio	41.1%	33.1%	30.9%

Short-term borrowings and current maturities of long-term debt at December 31 consisted of the following:

In millions	2014	2013
Debentures with put feature	$ 343.0	$ 343.0
Other current maturities of long-term debt	23.6	8.0
Other short-term borrowings	116.1	16.7
Total	$ 482.7	$ 367.7

Commercial Paper Program

The maximum aggregate amount of unsecured commercial paper notes available to be issued, on a private placement basis, under the commercial paper program is $2 billion as of December 31, 2014. Under the commercial paper program, the Company may issue notes from time to time through Ingersoll-Rand Global Holding Company Limited (IR-Global) or Ingersoll-Rand Luxembourg Finance S.A. (IR-Lux), and the proceeds of the financing will be used for general corporate purposes. The Company had $100.0 million of commercial paper outstanding at December 31, 2014. No commercial paper was outstanding at December 31, 2013. See Notes 7 and 19 to the Consolidated Financial Statements for related guarantee information for our commercial paper program.

Debentures with Put Feature

At December 31, 2014 and December 31, 2013, we had outstanding $343.0 million and $343.0 million, respectively, of fixed rate debentures which only require early repayment at the option of the holder. These debentures contain a put feature that the holders may exercise on each anniversary of the issuance date, subject to a notice requirement. If exercised, we are obligated to repay in whole or in part, at the holder's option, the outstanding principal amount (plus accrued and unpaid interest) of the debentures held by the holder. If these options are not exercised, the final maturity dates would range between 2027 and 2028.

Holders of these debentures had the option to exercise the put feature on $37.2 million of the outstanding debentures in February 2014, subject to the notice requirement. No exercises were made. Holders of the remaining $305.8 million in outstanding debentures had the option to exercise the put feature, subject to the notice requirement, in November 2014. No material exercises were made.

Senior Notes due 2020, 2024, and 2044

In October 2014, we issued $1.1 billion principal amount of Senior Notes in three tranches through a newly-created wholly-owned subsidiary, Ingersoll-Rand Luxembourg Finance S.A. (IR-Lux). The tranches consist of $300 million of 2.625% Senior Notes due in 2020, $500 million of 3.55% Senior Notes due 2024, and $300 million of 4.65% Senior Notes due in 2044. The notes are fully and unconditionally guaranteed by IR-Ireland and certain of our wholly-owned subsidiaries.

The proceeds from the notes were primarily used to (i) fund the October 2014 redemption of the $200 million of 5.50% Notes due 2015 and $300 million 4.75% Senior Notes due 2015, and (ii) fund the previously announced acquisition of Cameron International Corporation's Centrifugal compression division on January 1, 2015. Related to the redemption, the Company recognized $10.2 million of premium expense in Interest expense.

For additional information regarding the terms of the notes and the related guarantees, see Notes 7 and 19 to the Consolidated Financial Statements.

Senior Notes due 2019, 2023, and 2043

In June 2013, we issued $1.55 billion principal amount of Senior Notes in three tranches through our wholly-owned subsidiary, IR-Global pursuant to Rule 144A of the Securities Act. The tranches consist of $350 million of 2.875% Senior Notes due in 2019, $700 million of 4.250% Senior Notes due in 2023, and $500 million of 5.750% Senior Notes due in 2043. Later in 2013, the notes were modified to include IR-Jersey as a co-obligor. The notes are also fully and unconditionally guaranteed by IR-Ireland and certain of our wholly-owned subsidiaries.

The proceeds from these notes were primarily used to fund the July 2013 redemption of $600 million of 6.000% Senior Notes due 2013 and $655 million of 9.500% Senior Notes due 2014 and to fund expenses related to the spin-off of the commercial and residential security businesses. Related to this redemption, the Company recorded $45.6 million of premium expense in Interest expense.

For additional information regarding the terms of the notes and the related guarantees, see Notes 7 and 19 to the Consolidated Financial Statements.

Exchangeable Senior Notes Due 2012

In April 2009, we issued $345 million of 4.5% Exchangeable Senior Notes (the Notes) through our wholly-owned subsidiary, IR-Global. We settled all remaining outstanding Notes during 2012. As a result, we paid $357.0 million in cash and issued 10.8 million ordinary shares to settle the principal, interest and equity portion of the Notes.

Other Credit Facilities

On March 20, 2014, the Company entered into an unsecured 5-year, $1.0 billion revolving credit facility through our wholly-owned subsidiary, IR-Global. The credit facility matures in March 2019. In connection with the entry into this credit facility, the Company's existing 4-year, $1.0 billion revolving credit facility, due to expire in May 2015, was terminated. The Company also has a 5-year, $1.0 billion revolving credit facility IR-Global maturing in March 2017. During the fourth quarter of 2014, both credit agreements were amended to include IR-Lux as an additional borrower.

The total committed revolving credit facilities of $2.0 billion are unused and provide support for the Company's commercial paper program, as well as other general corporate purposes.

For additional information regarding guarantees of these revolving credit facilities by certain of our wholly-owned subsidiaries, see Notes 7 and 19 to the Consolidated Financial Statements.

The Company also has various non-U.S. lines of credit that provide an aggregate borrowing capacity of $847.4 million, of which $610.2 million was unused at December 31, 2014. These lines provide support for bank guarantees, letters of credit and other general corporate purposes.

Pension Plans

Our investment objective in managing defined benefit plan assets is to ensure that all present and future benefit obligations are met as they come due. We seek to achieve this goal while trying to mitigate volatility in plan funded status, contribution and expense by better matching the characteristics of the plan assets to that of the plan liabilities. We use a dynamic approach to asset allocation whereby a plan's allocation to fixed income assets increases as the plan's funded status improves. We monitor plan funded status and asset allocation regularly in addition to investment manager performance.

We monitor the impact of market conditions on our defined benefit plans on a regular basis. None of our defined benefit pension plans have experienced a significant impact on their liquidity due to the volatility in the markets. For further details on pension plan activity, see Note 9 to the Consolidated Financial Statements.

Cash Flows

The following table reflects the major categories of cash flows for the years ended December 31, respectively. For additional details, please see the Consolidated Statements of Cash Flows in the Consolidated Financial Statements.

In millions	**2014**	**2013**	**2012**
Operating cash flow provided by (used in) continuing operations	$ 991.7	$ 798.8	$ 882.5
Investing cash flow provided by (used in) continuing operations	(197.0)	(213.2)	(128.2)
Financing cash flow provided by (used in) continuing operations	(859.5)	354.1	(1,295.7)

<u>Operating Activities</u>

Net cash provided by operating activities from continuing operations was $991.7 million for the year ended December 31, 2014 compared with $798.8 million in 2013. Operating cash flows for 2014 reflect improved earnings from continuing operations partially offset by rising working capital in 2014.

Net cash provided by operating activities from continuing operations was $798.8 million for the year ended December 31, 2013 compared with $882.5 million in 2012. Operating cash flows for 2013 reflect consistent earnings from continuing operations after taking into account spin-related tax charges with no cash impact in 2013 and favorable changes in working capital.

Investing Activities

Net cash used in investing activities from continuing operations was $197.0 million for the year ended December 31, 2014 compared with $213.2 million in 2013. The change in investing activities is primarily attributable to $30.3 million cash dividend received from equity investments during the year ended December 31, 2014.

Net cash used in investing activities from continuing operations was $213.2 million for the year ended December 31, 2013 compared with $128.2 million in 2012. The change in investing activities is primarily attributable to increased capital expenditures and decreased net proceeds from business dispositions and equity investments in 2013 compared to 2012.

Financing Activities

Net cash used in financing activities from continuing operations during the year ended December 31, 2014 was $859.5 million, compared with net cash provided by financing activities from continuing operations of $354.1 million in 2013. The change in financing activities is primarily related to a transfer of $1,274.2 million from Allegion in connection with the spin-off in 2013.

Net cash provided by financing activities from continuing operations during the year ended December 31, 2013 was $354.1 million, compared with net cash used in financing activities from continuing operations of $1,295.7 million during 2012. The change in financing activities is primarily related to net proceeds from refinancing of our long term debt in 2013 and a transfer of $1,274.2 million from Allegion in connection with the spin-off, partially offset by increased repurchases of ordinary shares in 2013.

Capital Resources

Based on historical performance and current expectations, we believe our cash and cash equivalents balance, the cash generated from our operations, our committed credit lines and our expected ability to access capital markets will satisfy our working capital needs, capital expenditures, dividends, share repurchase programs, upcoming debt maturities, and other liquidity requirements associated with our operations for the foreseeable future.

Capital expenditures were $233.5 million, $242.2 million and $243.1 million for 2014, 2013 and 2012, respectively. Our investments continue to improve manufacturing productivity, reduce costs and provide environmental enhancements and advanced technologies for existing facilities. The capital expenditure program for 2015 is estimated to be approximately $320 million, including amounts approved in prior periods. Many of these projects are subject to review and cancellation at our option without incurring substantial charges.

For financial market risk impacting the Company, see Item 7A. Quantitative and Qualitative Disclosure About Market Risk.

Capitalization

In addition to cash on hand and operating cash flow, we maintain significant credit availability under our Commercial Paper Program. Our ability to borrow at a cost-effective rate under the Commercial Paper Program is contingent upon maintaining an investment-grade credit rating. As of December 31, 2014, our credit ratings were as follows:

	Short-term	Long-term
Moody's	P-2	Baa2
Standard and Poor's	A-2	BBB

The credit ratings set forth above are not a recommendation to buy, sell or hold securities and may be subject to revision or withdrawal by the assigning rating organization. Each rating should be evaluated independently of any other rating.

Our public debt does not contain financial covenants and our revolving credit lines have a debt-to-total capital covenant of 65%. As of December 31, 2014, our debt-to-total capital ratio was significantly beneath this limit.

Contractual Obligations

The following table summarizes our contractual cash obligations by required payment periods, in millions:

	Less than 1 year	1 - 3 years	3 - 5 years	More than 5 years	Total
Short-term debt	$ 116.1	$ —	$ —	$ —	$ 116.1
Long-term debt	366.6 *	15.5	1,115.3	2,619.7	$ 4,117.1
Interest payments on long-term debt	209.2	414.3	331.6	1,463.8	2,418.9
Purchase obligations	795.1	36.2	—	—	831.3
Operating leases	114.8	161.4	88.2	59.4	423.8
Total contractual cash obligations	$ 1,601.6	$ 627.4	$ 1,535.1	$ 4,142.9	$ 7,907.0

* Includes $343.0 million of debt redeemable at the option of the holder. The scheduled maturities of these bonds range between 2027 and 2028. See Note 7 to the Consolidated Financial Statements for additional information.

Future expected obligations under our pension and postretirement benefit plans, income taxes, environmental, asbestos-related, and product liability matters have not been included in the contractual cash obligations table above.

Pensions

At December 31, 2014, we had net obligations of $701.0 million, which consist of noncurrent pension assets of $11.5 million and current and non-current pension benefit liabilities of $712.5 million. It is our objective to contribute to the pension plans to ensure adequate funds are available in the plans to make benefit payments to plan participants and beneficiaries when required. We currently project that we will contribute approximately $59.9 million to our plans worldwide in 2015. The timing and amounts of future contributions are dependent upon the funding status of the plan, which is expected to vary as a result of changes in interest rates, returns on underlying assets, and other factors. Therefore, pension contributions have been excluded from the preceding table. See Note 9 to the Consolidated Financial Statements for additional information.

Postretirement Benefits Other than Pensions

At December 31, 2014, we had postretirement benefit obligations of $700.7 million. We fund postretirement benefit costs principally on a pay-as-you-go basis as medical costs are incurred by covered retiree populations. Benefit payments, which are net of expected plan participant contributions and Medicare Part D subsidy, are expected to be approximately $59.5 million in 2015. Because benefit payments are not required to be funded in advance, and the timing and amounts of future payments for are dependent on the cost of benefits for retirees covered by the plan, they have been excluded from the preceding table. See Note 9 to the Consolidated Financial Statements for additional information.

Income Taxes

At December 31, 2014, we have total unrecognized tax benefits for uncertain tax positions of $343.8 million and $69.7 million of related accrued interest and penalties, net of tax. The liability has been excluded from the preceding table as we are unable to reasonably estimate the amount and period in which these liabilities might be paid. See Note 14 to the Consolidated Financial Statements for additional information regarding matters relating to income taxes, including unrecognized tax benefits and Internal Revenue Service (IRS) tax disputes.

Contingent Liabilities

We are involved in various litigations, claims and administrative proceedings, including those related to environmental, asbestos-related, and product liability matters. We believe that these liabilities are subject to the uncertainties inherent in estimating future costs for contingent liabilities, and will likely be resolved over an extended period of time. Because the timing and amounts of potential future cash flows are uncertain, they have been excluded from the preceding table. See Note 17 to the Consolidated Financial Statements for additional information.

See Note 7 and Note 17 to the Consolidated Financial Statements for additional information on matters affecting our liquidity.

Critical Accounting Policies

Management's Discussion and Analysis of Financial Condition and Results of Operations are based upon our Consolidated Financial Statements, which have been prepared in accordance with accounting principles generally accepted in the United States (GAAP). The preparation of financial statements in conformity with those accounting principles requires management to use judgment in making estimates and assumptions based on the relevant information available at the end of each period. These estimates and assumptions have a significant effect on reported amounts of assets and liabilities, revenue and expenses as well as the disclosure of contingent assets and liabilities because they result primarily from the need to make estimates and assumptions on matters that are inherently uncertain. Actual results may differ from estimates. If updated information or actual amounts are different from previous estimates, the revisions are included in our results for the period in which they become known.

The following is a summary of certain accounting estimates and assumptions made by management that we consider critical.

- Allowance for doubtful accounts – We maintain an allowance for doubtful accounts receivable which represents our best estimate of probable loss inherent in our accounts receivable portfolio. This estimate is based upon our two step policy that results in the total recorded allowance for doubtful accounts. The first step is to record a portfolio reserve based on the aging of the outstanding accounts receivable portfolio and the Company's historical experience with our end markets, customer base and products. The second step is to create a specific reserve for significant accounts as to which the customer's ability to satisfy their financial obligation to the Company is in doubt due to circumstances such as bankruptcy, deteriorating operating results or financial position. In these circumstances, management uses its judgment to record an allowance based on the best estimate of probable loss, factoring in such considerations as the market value of collateral, if applicable. Actual results could differ from those estimates. These estimates and assumptions are reviewed periodically, and the effects of changes, if any, are reflected in the statement of operations in the period that they are determined.

- Goodwill and indefinite-lived intangible assets – We have significant goodwill and indefinite-lived intangible assets on our balance sheet related to acquisitions. Our goodwill and other indefinite-lived intangible assets are tested and reviewed annually during the fourth quarter for impairment or when there is a significant change in events or circumstances that indicate that the fair value of an asset is more likely than not less than the carrying amount of the asset.

  Recoverability of goodwill is measured at the reporting unit level and begins with a qualitative assessment to determine if it is more likely than not that the fair value of each reporting unit is less than its carrying amount as a basis for determining whether it is necessary to perform the two-step goodwill impairment test included in U.S. GAAP. For those reporting units where it is required, the first step compares the carrying amount of the reporting unit to its estimated fair value. If the estimated fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is not impaired and the second step of the impairment test is not necessary. To the extent that the carrying value of the reporting unit exceeds its estimated fair value, a second step is performed, wherein the reporting unit's carrying value of goodwill is compared to the implied fair value of goodwill. To the extent that the carrying value exceeds the implied fair value, impairment exists and must be recognized.

  As quoted market prices are not available for our reporting units, the calculation of their estimated fair value in step one is determined using three valuation techniques: a discounted cash flow model (an income approach), a market-adjusted multiple of earnings and revenues (a market approach), and a similar transactions method (also a market approach). The discounted cash flow approach relies on the Company's estimates of future cash flows and explicitly addresses factors such as timing, growth and margins, with due consideration given to forecasting risk. The earnings and revenue multiple approach reflects the market's expectations for future growth and risk, with adjustments to account for differences between the guideline publicly traded companies and the subject reporting units. The similar transactions method considers prices paid in transactions that have recently occurred in our industry or in related industries. These methods are weighted 50%, 40% and 10%, respectively.

  In step 2, the implied fair value of goodwill is determined in the same manner as the amount of goodwill recognized in a business combination. The estimated fair value of the reporting unit is allocated to all of the assets and liabilities of the reporting unit (including any unrecognized intangible assets) as if the reporting unit had been acquired in a business combination and the fair value of the reporting unit, as determined in the first step of the goodwill impairment test, was the price paid to acquire that reporting unit.

  Recoverability of other intangible assets with indefinite useful lives is first assessed using a qualitative assessment to determine whether it is more likely than not that an indefinite-lived intangible asset is impaired. This assessment is used as a basis for determining whether it is necessary to calculate the fair value of an indefinite-lived intangible asset. For those indefinite-lived assets where it is required, a fair value is determined on a relief from royalty methodology (income approach) which is based on the implied royalty paid, at an appropriate discount rate, to license the use of an asset rather than owning the asset. The present value of the after-tax cost savings (i.e. royalty relief) indicates the estimated fair value of the asset. Any excess of the carrying value over the estimated fair value is recognized as an impairment loss equal to that excess.

  The determination of the estimated fair value and the implied fair value of goodwill and other indefinite-lived intangible assets requires us to make assumptions about estimated cash flows, including profit margins, long-term forecasts, discount rates and terminal growth rates. We developed these assumptions based on the market and geographic risks unique to each reporting unit.

  2014 Impairment Test

  For our annual impairment testing performed during the fourth quarter of 2014, we calculated the fair value for each of the reporting units and indefinite-lived intangibles. Based on the results of these calculations, we determined that the fair value of the reporting units and indefinite-lived intangible assets exceeded their respective carrying values. The estimates of fair value are based on the best information available as of the date of the assessment, which primarily incorporates management assumptions about expected future cash flows.

Goodwill - Under the income approach, we assumed a forecasted cash flow period of five years with discount rates ranging from 10.5% to 15.0%, near term growth rates ranging from 3.0% to 19.6% and terminal growth rates ranging from 3.0% to 3.5%. Under the market approach, we used an adjusted multiple ranging from 7.0 to 11.5 of projected earnings before interest, taxes, depreciation and amortization (EBITDA) based on the market information of comparable companies. Additionally, we compared the estimated aggregate fair value of our reporting units to our overall market capitalization.

For all reporting units, the excess of the estimated fair value over carrying value (expressed as a percentage of carrying value) was a minimum of 50%. A significant increase in the discount rate, decrease in the long-term growth rate, or substantial reductions in our end markets and volume assumptions could have a negative impact on the estimated fair value of these reporting units.

Other Indefinite-lived intangible assets - In testing our other indefinite-lived intangible assets for impairment, we assumed forecasted revenues for a period of five years with discount rates of 12.5%, terminal growth rate of 3.0%, and royalty rates ranging from 3.0% to 4.5%. For all tradenames, the excess of the estimated fair value over carrying value (expressed as a percentage of carrying value) was a minimum of 36%.

A significant increase in the discount rate, decrease in the long-term growth rate, decrease in the royalty rate or substantial reductions in our end markets and volume assumptions could have a negative impact on the estimated fair values of any of our tradenames.

2013 Impairment Test

For our annual impairment testing performed during the fourth quarter of 2013, we concluded it was necessary to calculate the fair value for each of the reporting units and indefinite-lived intangibles. Based on the results of these calculations, we determined that the fair value of the reporting units and indefinite-lived intangible assets exceeded their respective carrying values. The estimates of fair value are based on the best information available as of the date of the assessment, which primarily incorporates management assumptions about expected future cash flows.

Goodwill - Under the income approach, we assumed a forecasted cash flow period of five years with discount rates ranging from 10.0% to 15.5%, near term growth rates ranging from (0.2)% to 8.7% and terminal growth rates ranging from 3.0% to 4.0%. Under the market approach, we used an adjusted multiple ranging from 7.2 to 9.8 of projected earnings before interest, taxes, depreciation and amortization (EBITDA) and 0.9 to 2.4 of projected revenues based on the market information of comparable companies. Additionally, we compared the estimated aggregate fair value of our reporting units to our overall market capitalization.

For all reporting units, the excess of the estimated fair value over carrying value (expressed as a percentage of carrying value) was a minimum of 15%. A significant increase in the discount rate, decrease in the long-term growth rate, or substantial reductions in our end markets and volume assumptions could have a negative impact on the estimated fair value of these reporting units.

In our 2012 Form 10-K, we disclosed a Security Technologies reporting unit whose excess estimated fair value over carrying value was less than 15%. As a result of the spin-off, beginning in the fourth quarter of 2013, this reporting unit is now presented within discontinued operations. Please see Note 15 to the Consolidated Financial Statements for further discussion of goodwill impairment charges related to discontinued operations.

Other Indefinite-lived intangible assets - In testing our other indefinite-lived intangible assets for impairment, we assumed forecasted revenues for a period of five years with discount rates ranging from 10.5% to 12.0%, terminal growth rate of 3.0%, and royalty rates ranging from 3.0% to 4.5%. For all tradenames, the excess of the estimated fair value over carrying value (expressed as a percentage of carrying value) was a minimum of 15%.

A significant increase in the discount rate, decrease in the long-term growth rate, decrease in the royalty rate or substantial reductions in our end markets and volume assumptions could have a negative impact on the estimated fair values of any of our tradenames.

2012 Impairment Test

For our annual impairment testing performed during the fourth quarter of 2012, we concluded it was necessary to calculate the fair value for each of the reporting units and indefinite-lived intangibles. Based on the results of these calculations, we determined that the fair value of the reporting units and indefinite-lived intangible assets exceeded their respective carrying values. The estimates of fair value are based on the best information available as of the date of the assessment, which primarily incorporates management assumptions about expected future cash flows.

Goodwill - Under the income approach, we assumed a forecasted cash flow period of five years with discount rates ranging from 11.0% to 15.5%, near term growth rates ranging from (3.5)% to 14.5% and terminal growth rates ranging from 2.5% to 4.0%. Under the market approach, we used an adjusted multiple ranging from 6.6 to 9.2 of projected earnings before interest, taxes, depreciation and amortization (EBITDA) and 0.8 to 1.8 of projected revenues based on the market information of comparable companies. Additionally, we compared the estimated aggregate fair value of our reporting units to our overall market capitalization.

For all reporting units except one, the excess of the estimated fair value over carrying value (expressed as a percentage of carrying value) was a minimum of 15%. The reporting unit with a percentage of carrying value less than 15%, reported within the Climate segment, exceeded its carrying value by 14.4%. This reporting unit had goodwill of approximately $599 million at December 31, 2012. A significant increase in the discount rate, decrease in the long-term growth rate, or substantial reductions in our end markets and volume assumptions could have a negative impact on the estimated fair value of these reporting units.

Other Indefinite-lived intangible assets - In testing our other indefinite-lived intangible assets for impairment, we assumed forecasted revenues for a period of five years with discount rates ranging from 12.0% to 12.5%, terminal growth rates ranging from 2.5% to 3.0%, and royalty rates ranging from 3.0% to 4.0%. The fair values of our Trane and American Standard tradenames exceeded their respective carrying amounts by less than 15%. The two tradenames exceeded their carrying value by 10.5% and 13.0%, respectively. The carrying values of these tradenames are approximately $2,497 million and $105 million, respectively, at December 31, 2012.

A significant increase in the discount rate, decrease in the long-term growth rate, decrease in the royalty rate or substantial reductions in our end markets and volume assumptions could have a negative impact on the estimated fair values of any of our tradenames.

- Long-lived assets and finite-lived intangibles – Long-lived assets and finite-lived intangibles are reviewed for impairment whenever events or changes in business circumstances indicate that the carrying amount of an asset may not be fully recoverable. Assets are grouped with other assets and liabilities at the lowest level for which identifiable cash flows can be generated. Impairment in the carrying value of an asset would be recognized whenever anticipated future undiscounted cash flows from an asset are less than its carrying value. The impairment is measured as the amount by which the carrying value exceeds the fair value of the asset as determined by an estimate of discounted cash flows. We believe that our use of estimates and assumptions are reasonable and comply with generally accepted accounting principles. Changes in business conditions could potentially require future adjustments to these valuations.
- Loss contingencies – Liabilities are recorded for various contingencies arising in the normal course of business, including litigation and administrative proceedings, environmental and asbestos matters and product liability, product warranty, worker's compensation and other claims. We have recorded reserves in the financial statements related to these matters, which are developed using input derived from actuarial estimates and historical and anticipated experience data depending on the nature of the reserve, and in certain instances with consultation of legal counsel, internal and external consultants and engineers. Subject to the uncertainties inherent in estimating future costs for these types of liabilities, we believe our estimated reserves are reasonable and do not believe the final determination of the liabilities with respect to these matters would have a material effect on our financial condition, results of operations, liquidity or cash flows for any year.
- Asbestos matters – Certain of our wholly-owned subsidiaries are named as defendants in asbestos-related lawsuits in state and federal courts. We record a liability for our actual and anticipated future claims as well as an asset for anticipated insurance settlements. Asbestos related defense costs are excluded from the asbestos claims liability and are recorded separately as services are incurred. Although we were neither a manufacturer nor producer of asbestos, some of our formerly manufactured components from third party suppliers utilized asbestos-related components. As a result, we record certain income and expenses associated with our asbestos liabilities and corresponding insurance recoveries within discontinued operations, net of tax, as they relate to previously divested businesses, except for amounts associated with Trane U.S. Inc.'s asbestos liabilities and corresponding insurance recoveries which are recorded within continuing operations. Refer to Note 17 to the Consolidated Financial Statements for further details of asbestos-related matters.
- Revenue recognition – Revenue is recognized and earned when all of the following criteria are satisfied: (a) persuasive evidence of a sales arrangement exists; (b) the price is fixed or determinable; (c) collectability is reasonably assured; and (d) delivery has occurred or service has been rendered. Delivery generally occurs when the title and the risks and rewards of ownership have substantially transferred to the customer. Both the persuasive evidence of a sales arrangement and fixed or determinable price criteria are deemed to be satisfied upon receipt of an executed and legally binding sales agreement or contract that clearly defines the terms and conditions of the transaction including the respective obligations of the parties. If the defined terms and conditions allow variability in all or a component of the price, revenue is not recognized until such time that the price becomes fixed or determinable. At the point of sale, the Company validates that existence of an enforceable claim that requires payment within a reasonable amount of time and assesses the collectability of that claim. If collectability

is not deemed to be reasonably assured, then revenue recognition is deferred until such time that collectability becomes probable or cash is received. Delivery is not considered to have occurred until the customer has taken title and assumed the risks and rewards of ownership. Service and installation revenue are recognized when earned. In some instances, customer acceptance provisions are included in sales arrangements to give the buyer the ability to ensure the delivered product or service meets the criteria established in the order. In these instances, revenue recognition is deferred until the acceptance terms specified in the arrangement are fulfilled through customer acceptance or a demonstration that established criteria have been satisfied. If uncertainty exists about customer acceptance, revenue is not recognized until acceptance has occurred.

We offer various sales incentive programs to our customers, dealers, and distributors. Sales incentive programs do not preclude revenue recognition, but do require an accrual for the Company's best estimate of expected activity. Examples of the sales incentives that are accrued for as a contra receivable and sales deduction at the point of sale include, but are not limited to, discounts (i.e. net 30 type), coupons, and rebates where the customer does not have to provide any additional requirements to receive the discount. Sales returns and customer disputes involving a question of quantity or price are also accounted for as a reduction in revenue and a contra receivable. At December 31, 2014 and 2013, the Company had a customer claim accrual (contra receivable) of $4.7 million and $1.7 million, respectively. All other incentives or incentive programs where the customer is required to reach a certain sales level, remain a customer for a certain period of time, provide a rebate form or is subject to additional requirements are accounted for as a reduction of revenue and establishment of a liability. At December 31, 2014 and 2013, the Company had a sales incentive accrual of $73.4 million and $80.1 million, respectively. Each of these accruals represents the best estimate the Company expects to pay related to previously sold units. These estimates are reviewed regularly for accuracy. If updated information or actual amounts are different from previous estimates, the revisions are included in our results for the period in which they become known. Historically, the aggregate differences, if any, between our estimates and actual amounts in any year have not had a material impact on the Consolidated Financial Statements.

The Company enters into maintenance and extended warranty contracts with customers. Revenue related to these services is recognized on a straight-line basis over the life of the contract, unless sufficient historical evidence indicates that the cost of providing these services is incurred on an other than straight-line basis. In these circumstances, revenue is recognized over the contract period in proportion to the costs expected to be incurred in performing the service.

The Company, primarily through its Climate segment, provides equipment (e.g. HVAC, controls), integrated solutions, and installation designed to customer specifications through construction-type contracts. The term of these types of contracts is typically less than one year, but can be as long as three years. Revenues related to these contracts are recognized using the percentage-of-completion method in accordance with GAAP. This measure of progress toward completion, utilized to recognize sales and profits, is based on the proportion of actual cost incurred to date as compared to the total estimate of contract costs at completion. The timing of revenue recognition often differs from the invoicing schedule to the customer, with revenue recognition in advance of customer invoicing recorded to unbilled accounts receivable and invoicing in advance of revenue recognition recorded to deferred revenue. At December 31, 2014, all recorded receivables (billed and unbilled) are due within one year. The Company re-evaluates its contract estimates periodically and reflects changes in estimates in the current period using the cumulative catch-up method. These periodic reviews have not historically resulted in significant adjustments. If estimated contract costs are in excess of contract revenues, then the excess costs are accrued.

We enter into sales arrangements that contain multiple elements, such as equipment, installation and service revenue. For multiple element arrangements, each element is evaluated to determine the separate units of accounting. The total arrangement consideration is then allocated to the separate units of accounting based on their relative selling price at the inception of the arrangement. The relative selling price is determined using vendor specific objective evidence (VSOE) of selling price, if it exists; otherwise, third-party evidence (TPE) of selling price is used. If neither VSOE nor TPE of selling price exists for a deliverable, a best estimate of the selling price is developed for that deliverable. The Company primarily utilizes VSOE to determine its relative selling price. The Company recognizes revenue for delivered elements when the delivered item has stand-alone value to the customer, the basic revenue recognition criteria have been met, and only customary refund or return rights related to the delivered elements exist.

- Income taxes – Deferred tax assets and liabilities are determined based on temporary differences between financial reporting and tax bases of assets and liabilities, applying enacted tax rates expected to be in effect for the year in which the differences are expected to reverse. We recognize future tax benefits, such as net operating losses and non-U.S. tax credits, to the extent that realizing these benefits is considered in our judgment to be more likely than not. We regularly review the recoverability of our deferred tax assets considering our historic profitability, projected future taxable income, timing of the reversals of existing temporary differences and the feasibility of our tax planning strategies. Where appropriate, we record a valuation allowance with respect to a future tax benefit.

  The provision for income taxes involves a significant amount of management judgment regarding interpretation of relevant facts and laws in the jurisdictions in which we operate. Future changes in applicable laws, projected levels of taxable income, and tax planning could change the effective tax rate and tax balances recorded by us. In addition, tax authorities periodically review income tax returns filed by us and can raise issues regarding our filing positions, timing and amount of income or deductions, and the allocation of income among the jurisdictions in which we operate. A significant period of time may elapse between the filing of an income tax return and the ultimate resolution of an issue raised by a revenue authority with respect to that return. We believe that we have adequately provided for any reasonably foreseeable resolution of these matters. We will adjust our estimate if significant events so dictate. To the extent that the ultimate results differ from our original or adjusted estimates, the effect will be recorded in the provision for income taxes in the period that the matter is finally resolved.

- Employee benefit plans – We provide a range of benefits to eligible employees and retirees, including pensions, postretirement and postemployment benefits. Determining the cost associated with such benefits is dependent on various actuarial assumptions including discount rates, expected return on plan assets, compensation increases, employee mortality, turnover rates and healthcare cost trend rates. Actuarial valuations are performed to determine expense in accordance with GAAP. Actual results may differ from the actuarial assumptions and are generally accumulated and amortized into earnings over future periods. We review our actuarial assumptions at each measurement date and make modifications to the assumptions based on current rates and trends, if appropriate. The discount rate, the rate of compensation increase and the expected long-term rates of return on plan assets are determined as of each measurement date. A discount rate reflects a rate at which pension benefits could be effectively settled. Discount rates for all plans are established using hypothetical yield curves based on the yields of corporate bonds rated AA quality. Spot rates are developed from the yield curve and used to discount future benefit payments. The rate of compensation increase is dependent on expected future compensation levels. The expected long-term rate of return on plan assets reflects the average rate of returns expected on the funds invested or to be invested to provide for the benefits included in the projected benefit obligation. The expected long-term rate of return on plan assets is based on what is achievable given the plan's investment policy, the types of assets held and the target asset allocation. The expected long-term rate of return is determined as of each measurement date. We believe that the assumptions utilized in recording our obligations under our plans are reasonable based on input from our actuaries, outside investment advisors and information as to assumptions used by plan sponsors.

  Changes in any of the assumptions can have an impact on the net periodic pension cost or postretirement benefit cost. Estimated sensitivities to the expected 2015 net periodic pension cost of a 0.25% rate decline in the two basic assumptions are as follows: the decline in the discount rate would increase expense by approximately $9.5 million and the decline in the estimated return on assets would increase expense by approximately $7.3 million. A 0.25% rate decrease in the discount rate for postretirement benefits would increase expected 2015 net periodic postretirement benefit cost by $0.6 million and a 1.0% increase in the healthcare cost trend rate would increase the service and interest cost by approximately $1.1 million.

Recent Accounting Pronouncements

Recently Adopted Accounting Pronouncements:

In February 2013, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2013-04, "Obligations Resulting from Joint and Several Liability Arrangements for Which the Total Amount of the Obligation Is Fixed at the Reporting Date." ASU 2013-04 provides guidance for the recognition, measurement, and disclosure of obligations resulting from joint and several liability arrangements where the total obligation is fixed at the reporting date, and for which no specific guidance currently exists. This new guidance became effective for annual reporting periods beginning on or after December 15, 2013 and subsequent interim periods. The revised requirements of ASU 2013-04 did not have an impact on the consolidated financial statements.

In March 2013, the FASB issued ASU 2013-05, "Parent's Accounting for the Cumulative Translation Adjustment upon Derecognition of Certain Subsidiaries or Groups of Assets within a Foreign Entity or of an Investment in a Foreign Entity." ASU 2013-05 clarifies the application of GAAP to the release of cumulative translation adjustments related to changes of ownership in or within foreign entities, including step acquisitions. This new guidance became effective for annual reporting periods beginning on or after December 15, 2013 and subsequent interim periods. The Company will apply the new guidance, as applicable, to future derecognitions of certain subsidiaries or groups of assets within a Foreign Entity or of an Investment in foreign entities.

In July 2013, the FASB issued ASU 2013-11, "Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists." ASU 2013-11 clarifies guidance and eliminates diversity in practice on the presentation of unrecognized tax benefits when a net operating loss carryforward, a similar tax loss, or a tax credit carryforward exists at the reporting date. This new guidance became effective for annual reporting periods beginning on or after December 15, 2013 and subsequent interim periods. The Company has applied the requirements of ASU 2013-11 prospectively in preparing the December 31, 2014 consolidated balance sheet, which resulted in a decrease to current and noncurrent deferred tax assets of $21.9 million and $10.0 million, respectively, an increase to noncurrent deferred tax liabilities of $114.8 million and a decrease to noncurrent reserves for uncertain tax positions of $146.7 million. Had the Company applied the requirements of

ASU 2013-11 retrospectively to the December 31, 2013 consolidated balance sheet, the impact would have been a decrease to current and noncurrent deferred tax assets of $22.6 million and $20.7 million, respectively, an increase to noncurrent deferred tax liabilities of $128.9 million and a decrease to noncurrent reserves for uncertain tax positions of $172.2 million.

Recently Issued Accounting Pronouncements

In April 2014, the FASB issued ASU 2014-08, "Presentation of Financial Statements and Property, Plant, and Equipment - Reporting Discontinued Operations and Disclosures of Disposals of Components of an Entity." ASU 2014-08 provides new guidance related to the definition of a discontinued operation and requires new disclosures of both discontinued operations and certain other disposals that do not meet the definition of a discontinued operation. This new guidance is effective for annual periods beginning on or after December 15, 2014 and interim periods within those years. Beginning in 2015, the Company will apply the new guidance, as applicable, to future disposals of components or classifications as held for sale.

In May 2014, the FASB issued ASU 2014-09, "Revenue from Contracts with Customers." ASU 2014-09 provides new guidance related to how an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In addition, ASU 2014-08 specifies new accounting for costs associated with obtaining or fulfilling contracts with customers and expands the required disclosures related to revenue and cash flows from contracts with customers. This new guidance is effective for fiscal years, and interim periods within those years, beginning after December 15, 2016, and can be adopted either retrospectively to each prior reporting period presented or as a cumulative-effect adjustment as of the date of adoption, with early application not permitted. The Company is currently determining its implementation approach and assessing the impact on the consolidated financial statements.

In June 2014, the FASB issued ASU 2014-12 "Accounting for Share-Based Payments When the Terms of an Award Provide That a Performance Target Could Be Achieved after the Requisite Service Period." ASU 2014-12 requires that a performance target that affects vesting, and that could be achieved after the requisite service period, be treated as a performance condition. As such, the performance target should not be reflected in estimating the grant date fair value of the award. This update further clarifies that compensation cost should be recognized in the period in which it becomes probable that the performance target will be achieved and should represent the compensation cost attributable to the period(s) for which the requisite service has already been rendered. The new guidance is effective for annual and interim reporting periods beginning after December 15, 2015, including interim periods within that reporting period. Early application is permitted. Beginning in 2015, the Company will apply the new guidance to future share-based payment arrangements, as applicable.

In August 2014, the FASB issued ASU 2014-15, "Presentation of Financial Statements - Going Concern - Disclosures of Uncertainties about an entity's Ability to Continue as a Going Concern." ASU 2014-15 provides new guidance related to management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern by incorporating and expanding upon certain principles that are currently in U.S. auditing standards and to provide related footnote disclosures. This new guidance is effective for the annual period ending after December 15, 2016, and for annual periods and interim periods thereafter. The requirements of ASU 2014-15 are not expected to have a significant impact on the consolidated financial statements.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK

We are exposed to fluctuations in currency exchange rates, interest rates and commodity prices which could impact our results of operations and financial condition.

Foreign Currency Exposures

We have operations throughout the world that manufacture and sell products in various international markets. As a result, we are exposed to movements in exchange rates of various currencies against the U.S. dollar as well as against other currencies throughout the world.

Our consolidated financial results reported in U.S. dollars are exposed to changes in the exchange rates used to translate certain non-U.S. operations into U.S. dollars. Approximately 63% of Net revenues for the year ended December 31, 2014 were denominated in U.S. dollars and 7% were denominated in Chinese Yuan, which currently has a fixed rate of exchange with the U.S. dollar. The largest concentration of non-U.S. denominated sales is in the Euro functional currency, which was approximately 10% of Net revenues for year ended December 31, 2014. If the average exchange rate used to translate revenue from Euro-denominated operations into U.S. dollars changed unfavorably by $0.01 compared to the actual exchange rates used, Net earnings would have been approximately $2 million lower for the year ended December 31, 2014 (equivalent to a reduction in earnings per share of $0.01).

We are also exposed to gains or losses on purchases, sales and other transactions at the operating unit level that are denominated in foreign currencies. We use derivative instruments to hedge those exposures that cannot be naturally offset to an insignificant amount. The instruments utilized are viewed as risk management tools, involve little complexity and are not used for trading or speculative purposes. To minimize the risk of counter party non-performance, derivative instrument agreements are made only through major financial institutions with significant experience in such derivative instruments.

We evaluate our exposure to changes in currency exchange rates on our foreign currency derivatives using a sensitivity analysis. The sensitivity analysis is a measurement of the potential loss in fair value based on a percentage change in exchange rates. Based on the firmly committed currency derivative instruments in place at December 31, 2014, a hypothetical change in fair value of those derivative instruments assuming a 10% adverse change in exchange rates would result in an unrealized loss of approximately $44.2 million, as compared with $107.8 million at December 31, 2013. These amounts, when realized, would be offset by changes in the fair value of the underlying transactions.

Effective January 1, 2010, Venezuela was determined to be a highly inflationary economy and we changed the functional currency of our operations in Venezuela to the U.S. dollar. On February 8, 2013,the government of Venezuela announced a devaluation of the Bolivar, from the pre-existing official exchange rate obtained through the National Center of Foreign Trade (CENCOEX, formerly CADIVI through April 2014) of 4.29 Bolivars to the U.S. dollar to 6.3 Bolivars to the U.S. dollar. We have one subsidiary with operations in Venezuela. Due to the designation of Venezuela as highly inflationary the U.S. dollar was determined to be the functional currency for this subsidiary. As a result of the devaluation, we realized a foreign currency translation loss of approximately $3.8 million in the year ended December 31, 2013.

In January 2014, the Venezuelan government significantly expanded the use of the Supplementary Foreign Currency Administration System (SICAD) I exchange market and created a third exchange market called SICAD II. These markets have exchange rates significantly less favorable than the CENCOEX rate. The Venezuelan government also indicated that the CENCOEX rate will be reserved for purchases of "essential goods and services." In February 2015, the Venezuelan government announced a new exchange market called the Marginal Currency System (SIMADI), which will replace the SICAD II exchange and allow for trading based on supply and demand. An exchange rate for the SIMADI market has not been published.

The financial position and results of our Venezuelan subsidiary as of December 31, 2014, are reflected in USD utilizing the CENCOEX rate and not the December 31, 2014 SICAD I (12.0 Bolivars to $1.00), SICAD II (49.98 Bolivars to $1.00) or SIMADI rates due to our belief that our imports will continue to qualify for the CENCOEX rate and our intent to continue to pursue this rate for future exchanges. However, we will continue to monitor the evolving Venezuela exchange market, including the establishment of the new SIMADI exchange market.

As of December 31, 2014, we had net monetary assets of approximately 273 million Bolivars. For 2014, annual net revenues of our Venezuela subsidiary were approximately 300 million Bolivars. Further devaluation of the Bolivar, or our inability to convert our net monetary assets denominated in bolivars into US Dollars at certain of the exchange rates discussed above, could negatively impact our results of operations, financial condition, or cash flows.

Commodity Price Exposures

We are exposed to volatility in the prices of commodities used in some of our products and we use fixed price contracts to manage this exposure. We do not have committed commodity derivative instruments in place at December 31, 2014.

Interest Rate Exposure

Our debt portfolio mainly consists of fixed-rate instruments, and therefore any fluctuation in market interest rates would not have a material effect on our results of operations.

Item 8. **FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

(a) The following Consolidated Financial Statements and Financial Statement Schedules and the report thereon of PricewaterhouseCoopers LLP dated February 13, 2015, are presented following Item 15 of this Annual Report on Form 10-K.

Consolidated Financial Statements:
Report of independent registered public accounting firm
Consolidated Statements of comprehensive income for the years ended December 31, 2014, 2013 and 2012
Consolidated balance sheets at December 31, 2014 and 2013
For the years ended December 31, 2014, 2013 and 2012:
Consolidated statements of equity
Consolidated statements of cash flows
Notes to Consolidated Financial Statements

Financial Statement Schedule:
Schedule II – Valuation and Qualifying Accounts for the years ended December 31, 2014, 2013 and 2012:

(b) The unaudited selected quarterly financial data for the two years ended December 31, is as follows:

	2014			
In millions, except per share amounts	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Net revenues	$ 2,722.9	$ 3,542.9	$ 3,385.0	$ 3,240.5
Cost of goods sold	(1,954.8)	(2,439.9)	(2,327.0)	(2,261.1)
Operating income	155.0	463.3	440.0	346.3
Net earnings	83.6	310.6	296.2	260.2
Net earnings attributable to Ingersoll-Rand plc	79.0	306.0	291.3	255.5
Earnings per share attributable to Ingersoll-Rand plc ordinary shareholders:				
Basic	$ 0.28	$ 1.13	$ 1.11	$ 0.96
Diluted	$ 0.28	$ 1.12	$ 1.10	$ 0.95

	2013			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Net revenues	$ 2,639.0	$ 3,398.4	$ 3,214.2	$ 3,098.9
Cost of goods sold	(1,912.6)	(2,377.5)	(2,217.7)	(2,214.5)
Operating income	120.0	387.5	379.5	218.0
Net earnings	94.5	324.7	180.9	53.8
Net earnings attributable to Ingersoll-Rand plc	88.0	317.2	165.9	47.7
Earnings per share attributable to Ingersoll-Rand plc ordinary shareholders:				
Basic	$ 0.29	$ 1.07	$ 0.57	$ 0.17
Diluted	$ 0.29	$ 1.05	$ 0.56	$ 0.16

Item 9. **CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

None.

Item 9A. **CONTROLS AND PROCEDURES**

(a) Evaluation of Disclosure Controls and Procedures

The Company's management, including its Chief Executive Officer and Chief Financial Officer, have conducted an evaluation of the effectiveness of the Company's disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act)), as of the end of the period covered by this Annual Report on Form 10-K. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded as of December 31, 2014, that the Company's disclosure controls and procedures were effective in ensuring that information required to be disclosed by the Company in reports that it files or submits under the Exchange Act has been recorded, processed, summarized and reported, within the time periods specified in the Commission's rules and forms, and that such information has been accumulated and communicated to the Company's management including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

(b) Management's Report on Internal Control Over Financial Reporting

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting as such term is defined under Exchange Act Rules 13a-15(f) and 15d-15(f). Internal control over financial reporting is a process designed by, or under the supervision of, the Chief Executive Officer and Chief Financial Officer and effected by the Company's Board of Directors to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies and procedures may deteriorate.

Management has assessed the effectiveness of internal control over financial reporting as of December 31, 2014. In making its assessment, management has utilized the criteria set forth by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission in Internal Control - Integrated Framework (2013). Management concluded that based on its assessment, the Company's internal control over financial reporting was effective as of December 31, 2014.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2014 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.

(c) Changes in Internal Control Over Financial Reporting

There were no changes in internal control over financial reporting (as defined by Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the quarter ended December 31, 2014 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B. **OTHER INFORMATION**

As previously disclosed in a Form 8-K dated December 12, 2014, Mr. Richard Weller, the Company’s Vice President and Controller and Principal Accounting Officer, will retire from his positions effective February 15, 2015. Ms. Susan K. Carter, the Company’s Chief Financial Officer will also serve as the Company’s Principal Accounting Officer effective as of February 15, 2015 until a successor is named.

PART III

Item 10. **DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE**

The information regarding our executive officers is included in Part I under the caption "Executive Officers of Registrant."

The other information required by this item is incorporated herein by reference to the information contained under the headings "Item 1. Election of Directors", "Section 16(a) Beneficial Ownership Reporting Compliance" and "Corporate Governance" in our definitive proxy statement for the 2015 annual general meeting of shareholders ("2015 Proxy Statement").

Item 11. **EXECUTIVE COMPENSATION**

The other information required by this item is incorporated herein by reference to the information contained under the headings "Compensation Discussion and Analysis", "Executive Compensation" and "Compensation Committee Report" in our 2015 Proxy Statement.

Item 12. **SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**

The other information required by this item is incorporated herein by reference to the information contained under the headings "Security Ownership of Certain Beneficial Owners and Management" and "Equity Compensation Plan Information" of our 2015 Proxy Statement.

Item 13. **CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE**

The other information required by this item is incorporated herein by reference to the information contained under the headings "Corporate Governance" and "Certain Relationships and Related Person Transactions" of our 2015 Proxy Statement.

Item 14. **PRINCIPAL ACCOUNTANT FEES AND SERVICES**

The information required by this item is incorporated herein by reference to the information contained under the caption "Fees of the Independent Auditors" in our 2015 Proxy Statement.

PART IV

Item 15. **EXHIBITS AND FINANCIAL STATEMENT SCHEDULES**

(a) 1. and 2.	Financial statements and financial statement schedule See Item 8.
3.	Exhibits The exhibits listed on the accompanying index to exhibits are filed as part of this Annual Report on Form 10-K.

INGERSOLL-RAND PLC
INDEX TO EXHIBITS
(Item 15(a))

Description

Pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC"), Ingersoll-Rand plc (the "Company") has filed certain agreements as exhibits to this Annual Report on Form 10-K. These agreements may contain representations and warranties by the parties. These representations and warranties have been made solely for the benefit of the other party or parties to such agreements and (i) may have been qualified by disclosures made to such other party or parties, (ii) were made only as of the date of such agreements or such other date(s) as may be specified in such agreements and are subject to more recent developments, which may not be fully reflected in our public disclosure, (iii) may reflect the allocation of risk among the parties to such agreements and (iv) may apply materiality standards different from what may be viewed as material to investors. Accordingly, these representations and warranties may not describe our actual state of affairs at the date hereof and should not be relied upon.

On July 1, 2009, Ingersoll-Rand Company Limited, a Bermuda company, completed a reorganization to change the jurisdiction of incorporation of the parent company from Bermuda to Ireland. As a result, Ingersoll-Rand plc replaced Ingersoll-Rand Company Limited as the ultimate parent company effective July 1, 2009. All references related to the Company prior to July 1, 2009 relate to Ingersoll-Rand Company Limited.

(a) Exhibits

Exhibit No.	Description	Method of Filing
2.1	Asset and Stock Purchase Agreement, dated as of July 29, 2007, among Ingersoll-Rand Company Limited, on behalf of itself and certain of its subsidiaries, and Doosan Infracore Co., Ltd. and Doosan Engine Co., Ltd., on behalf of themselves and certain of their subsidiaries	Incorporated by reference to Exhibit 2.1 to the Company's Form 8-K (File No. 001-16831) filed with the SEC on July 31, 2007.
2.2	Separation and Distribution Agreement, dated as of July 16, 2007, by and between Trane Inc. (formerly American Standard Companies Inc.) and WABCO Holdings Inc.	Incorporated by reference to Exhibit 2.1 to Trane Inc.'s Form 8-K (File No. 001-11415) filed with the SEC on July 20, 2007.
2.3	Separation and Distribution Agreement between Ingersoll-Rand plc and Allegion plc, dated November 29, 2013.	Incorporated by reference to Exhibit 3.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on December 2, 2013.
3.1	Memorandum of Association of Ingersoll-Rand plc	Incorporated by reference to Exhibit 3.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
3.2	Articles of Association of Ingersoll-Rand plc, as amended and restated on June 6,2013.	Incorporated by reference to Exhibit 3.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on June 10, 2013.
3.3	Certificate of Incorporation of Ingersoll-Rand plc	Incorporated by reference to Exhibit 3.3 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.

Exhibit No.	Description	Method of Filing
	The Company and its subsidiaries are parties to several long-term debt instruments under which, in each case, the total amount of securities authorized does not exceed 10% of the total assets of the Company and its subsidiaries on a consolidated basis.	Pursuant to paragraph 4 (iii)(A) of Item 601 (b) of Regulation S-K, the Company agrees to furnish a copy of such instruments to the Securities and Exchange Commission upon request.
4.1	Indenture, dated as of August 12, 2008, among the Company, Ingersoll-Rand Global Holding Company Limited and Wells Fargo Bank, N.A., as Trustee (replacing the Indenture originally filed as Exhibit 4.1 to the Company's Form 10-Q (File No. 001-16831) for the period ended September 30, 2008 as filed with the SEC on November 7, 2008)	Incorporated by reference to Exhibit 4.4 to the Company's Form 10-K for the fiscal year ended 2008 (File No. 001-16831) filed with the SEC on March 2, 2009.
4.2	First Supplemental Indenture, dated as of August 15, 2008, among the Company, Ingersoll-Rand Global Holding Company Limited and Wells Fargo Bank, N.A., as trustee, to that certain Indenture, dated as of August 12, 2008, among the Company, Ingersoll-Rand Global Holding Company Limited and Wells Fargo Bank, N.A., as trustee	Incorporated by reference to Exhibit 1.1 to the Company's Form 8-K (File No. 001-16831) filed with the SEC on August 18, 2008.
4.3	Second Supplemental Indenture, dated as of April 3, 2009, among the Company, Ingersoll-Rand Global Holding Company Limited and Wells Fargo Bank, N.A., as trustee, to that certain Indenture, dated as of August 12, 2008, among the Company, Ingersoll-Rand Global Holding Company Limited and Wells Fargo Bank, N.A., as trustee	Incorporated by reference to Exhibit 4.1 to the Company's Form 8-K (File No. 001-16831) filed with the SEC on April 6, 2009.
4.4	Third Supplemental Indenture, dated as of April 6, 2009, among the Company, Ingersoll-Rand Global Holding Company Limited and Wells Fargo Bank, N.A., as trustee, to that certain Indenture, dated as of August 12, 2008, among the Company, Ingersoll-Rand Global Holding Company Limited and Wells Fargo Bank, N.A., as trustee	Incorporated by reference to Exhibit 4.2 to the Company's Form 8-K (File No. 001-16831) filed with the SEC on April 6, 2009.

Exhibit No.	Description	Method of Filing
4.5	Fourth Supplemental Indenture, dated as of June 29, 2009, among Ingersoll-Rand Global Holding Company Limited, a Bermuda exempted company, Ingersoll-Rand Company Limited, a Bermuda exempted company, Ingersoll-Rand International Holding Limited, a Bermuda exempted company, Ingersoll-Rand plc, an Irish public limited company, and Wells Fargo Bank, N.A., as Trustee, to the Indenture dated as of August 12, 2008	Incorporated by reference to Exhibit 4.1 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
4.6	Fifth Supplemental Indenture dated as of November 20, 2013, among Ingersoll-Rand Global Holding Company Limited, a Bermuda company, Ingersoll-Rand International Holding Limited, a Bermuda company, Ingersoll-Rand Company, a New Jersey corporation, and Wells Fargo Bank, N.A., as Trustee, to the Indenture dated as of August 12, 2008	Incorporated by reference to Exhibit 4.2 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on November 26, 2013.
4.7	Sixth Supplemental Indenture, dated as of October 28, 2014, by and among Ingersoll-Rand Global Holding Company Limited, as issuer, Ingersoll-Rand Company, as co-obligor, Ingersoll-Rand plc, Ingersoll-Rand International Holding Limited, Ingersoll-Rand Luxembourg Finance S.A., as guarantors, and Wells Fargo Bank, N.A., as Trustee, to an Indenture, dated as of August 12, 2008.	Incorporated by reference to Exhibit 4.6 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on November 26, 2013.
4.8	Fifth Supplemental Indenture, dated as of June 29, 2009, among Ingersoll-Rand Company, a New Jersey corporation, Ingersoll-Rand plc, an Irish public limited company, Ingersoll-Rand International Holding Limited, a Bermuda exempted company, and The Bank of New York Mellon, as Trustee, to the Indenture dated as of August 1, 1986	Incorporated by reference to Exhibit 4.3 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
4.9	Sixth Supplemental Indenture, dated as of October 28, 2014, by and among Ingersoll-Rand Company, as issuer, Ingersoll-Rand plc, Ingersoll-Rand International Holding Limited, Ingersoll-Rand Company Limited, Ingersoll-Rand Luxembourg Finance S.A., as guarantors, and The Bank of New York Mellon, as Trustee, to an Indenture, dated as of August 1, 1986.	Incorporated by reference to Exhibit 4.7 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on November 26, 2013.

Exhibit No.	Description	Method of Filing
4.10	Indenture, dated as of May 24. 2005, among Ingersoll-Rand Company Limited, Ingersoll-Rand Company and Wells Fargo Bank, N.A., as trustee	Incorporated by reference to Exhibit 10.2 to the Company's 8-K (File No. 001-16831) filed with the SEC on May 27, 2005.
4.11	First Supplemental Indenture, dated as of June 29, 2009, among Ingersoll-Rand Company Limited, a Bermuda exempted company, Ingersoll-Rand Company, a New Jersey corporation, Ingersoll-Rand International Holding Limited, a Bermuda exempted company, Ingersoll-Rand plc, an Irish public limited company, and Wells Fargo Bank, N.A., as Trustee, to the Indenture dated as of May 24, 2005	Incorporated by reference to Exhibit 4.2 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
4.12	Second Supplemental Indenture, dated as of November 20, 2013, among Ingersoll-Rand International Holding Limited, a Bermuda company, Ingersoll-Rand Company, a New Jersey corporation, and Wells Fargo Bank, N.A., as Trustee, to the Indenture dated as of May 24, 2005.	Incorporated by reference to Exhibit 4.3 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on November 26, 2013.
4.13	Indenture, dated as of April 1, 2005, among the American Standard Inc., Trane Inc. (formerly American Standard Companies Inc.), American Standard International Inc. and The Bank of New York Trust Company, N.A., as trustee	Incorporated by reference to Exhibit 4.1 to Trane, Inc.'s 8-K (File No. 001-11415) filed with the SEC on April 1, 2005.
4.14	Indenture, dated as of June 20, 2013, by and among Ingersoll-Rand Global Holding Company Limited, as issuer, Ingersoll-Rand plc, Ingersoll-Rand Company Limited and Ingersoll-Rand International Holding Limited, as guarantors and The Bank of New York Mellon, as Trustee.	Incorporated by reference to Exhibit 4.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on June 26, 2013.
4.15	First Supplemental Indenture, dated as of June 20, 2013, by and among Ingersoll-Rand Global Holding Company Limited, as issuer, Ingersoll-Rand plc, Ingersoll-Rand Company Limited and Ingersoll-Rand International Holding Limited, as guarantors and The Bank of New York Mellon, as Trustee, relating to the 2.875% Senior Notes due 2019.	Incorporated by reference to Exhibit 4.2 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on June 26, 2013.

Exhibit No.	Description	Method of Filing
4.16	Second Supplemental Indenture, dated as of June 20, 2013, by and among Ingersoll-Rand Global Holding Company Limited, as issuer, Ingersoll-Rand plc, Ingersoll-Rand Company Limited and Ingersoll-Rand International Holding Limited, as guarantors and The Bank of New York Mellon, as Trustee, relating to the 4.250% Senior Notes due 2023.	Incorporated by reference to Exhibit 4.3 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on June 26, 2013.
4.17	Third Supplemental Indenture, dated as of June 20, 2013, by and among Ingersoll-Rand Global Holding Company Limited, as issuer, Ingersoll-Rand plc, Ingersoll-Rand Company Limited and Ingersoll-Rand International Holding Limited, as guarantors and The Bank of New York Mellon, as Trustee, relating to the 5.750% Senior Notes due 2043.	Incorporated by reference to Exhibit 4.4 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on June 26, 2013.
4.18	Fourth Supplemental Indenture, dated as of November 20, 2013, among Ingersoll-Rand Global Holding Company Limited, a Bermuda company, Ingersoll-Rand Company Limited, a Bermuda company, Ingersoll-Rand International Holding Limited, a Bermuda company, Ingersoll-Rand plc, an Irish public limited company, Ingersoll-Rand Company, a New Jersey corporation, and The Bank of New York Mellon, as Trustee, to the Indenture dated as of June 20, 2013.	Incorporated by reference to Exhibit 4.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on November 26, 2013.
4.19	Fifth Supplemental Indenture, dated as of October 28, 2014, by and among Ingersoll-Rand Global Holding Company Limited, as issuer, Ingersoll-Rand Company, as co-obligor, Ingersoll-Rand plc, Ingersoll-Rand Company Limited, Ingersoll-Rand International Holding Limited, Ingersoll-Rand Luxembourg Finance S.A., as guarantors, and The Bank of New York Mellon, as Trustee, to an Indenture, dated as of June 20, 2013.	Incorporated by reference to Exhibit 4.5 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on October 29, 2014.
4.20	Form of Registration Rights Agreement, dated as of June 20, 2013, by and among Ingersoll-Rand Global Holding Company Limited, Ingersoll-Rand plc, Ingersoll-Rand Company Limited, Ingersoll-Rand International Holding Limited and the Representatives of the Initial Purchasers named therein.	Incorporated by reference to Exhibit 4.5 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on June 26, 2013.

Exhibit No.	Description	Method of Filing
4.21	Indenture, dated as of October 28, 2014, by and among Ingersoll-Rand Luxembourg Finance S.A., as issuer, and Ingersoll-Rand plc, Ingersoll-Rand Company Limited, Ingersoll-Rand International Holding Limited, Ingersoll-Rand Company and Ingersoll-Rand Global Holding Company Limited, as guarantors, and The Bank of New York Mellon, as Trustee.	Incorporated by reference to Exhibit 4.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on October 29, 2014.
4.22	First Supplemental Indenture, dated as of October 28, 2014, by and among Ingersoll-Rand Luxembourg Finance S.A., as issuer, and Ingersoll-Rand plc, Ingersoll-Rand Company Limited, Ingersoll-Rand International Holding Limited, Ingersoll-Rand Company and Ingersoll-Rand Global Holding Company Limited, as guarantors, and The Bank of New York Mellon, as Trustee, relating to the 2.625% Senior Notes due 2020.	Incorporated by reference to Exhibit 4.2 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on October 29, 2014.
4.23	Second Supplemental Indenture, dated as of October 28, 2014, by and among Ingersoll-Rand Luxembourg Finance S.A., as issuer, and Ingersoll-Rand plc, Ingersoll-Rand Company Limited, Ingersoll-Rand International Holding Limited, Ingersoll-Rand Company and Ingersoll-Rand Global Holding Company Limited, as guarantors, and The Bank of New York Mellon, as Trustee, relating to the 3.550% Senior Notes due 2024.	Incorporated by reference to Exhibit 4.3 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on October 29, 2014.
4.24	Third Supplemental Indenture, dated as of October 28, 2014, by and among Ingersoll-Rand Luxembourg Finance S.A., as issuer, and Ingersoll-Rand plc, Ingersoll-Rand Company Limited, Ingersoll-Rand International Holding Limited, Ingersoll-Rand Company and Ingersoll-Rand Global Holding Company Limited, as guarantors, and The Bank of New York Mellon, as Trustee, relating to the 4.650% Senior Notes due 2044.	Incorporated by reference to Exhibit 4.3 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on October 29, 2014.
4.25	Form of Ordinary Share Certificate of Ingersoll-Rand plc	Incorporated by reference to Exhibit 4.6 to the Company's Form S-3 (File No. 333-161334) filed with the SEC on August 13, 2009.
10.1	Form of IR Stock Option Grant Agreement (February 2015)	Filed herewith.

Exhibit No.	Description	Method of Filing
10.2	Form of IR Restricted Stock Unit Grant Agreement (February 2015)	Filed herewith.
10.3	Form of IR Performance Stock Unit Grant Agreement (February 2015)	Filed herewith.
10.4	Credit Agreement dated March 15, 2012 among Ingersoll-Rand Global Holding Company Limited, Ingersoll-Rand plc, Ingersoll-Rand Company Limited, Ingersoll-Rand International Holding Limited, JPMorgan Chase Bank, N.A., as Administrative Agent, Citibank, N.A., as Syndication Agent, Bank of America, N.A., BNP Paribas, Deutsche Bank Securities Inc., Goldman Sachs Bank USA, Morgan Stanley MUFG Loan Partners, LLC, and Mizuho Corporate Bank, Ltd., as Documentation Agents, and J.P. Morgan Securities LLC and Citigroup Global Markets Inc., as joint lead arrangers and joint bookrunners; and certain other lending institutions from time to time parties thereto	Incorporated by reference to Exhibit 10.1 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on March 21, 2012.
10.5	Supplement No. 1, dated as of November 20, 2013, between Ingersoll-Rand Company, a New Jersey Corporation, and JPMorgan Chase Bank, N.A., as Administrative Agent, to the Credit Agreement dated as of March 15, 2012.	Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on November 26, 2013.
10.6	Credit Agreement dated March 20, 2014 among Ingersoll-Rand Global Holding Company Limited, Ingersoll-Rand plc, Ingersoll-Rand Company Limited, Ingersoll-Rand International Holding Limited, Ingersoll-Rand Company, JPMorgan Chase Bank, N.A., as Administrative Agent, Citibank, N.A., as Syndication Agent, Bank of America, N.A., BNP Paribas, Deutsche Bank Securities Inc., Goldman Sachs Bank USA, Mizuho Bank, Ltd., and The Bank of Tokyo-Mitsubishi UFJ, Ltd. as Documentation Agents, and J.P. Morgan Securities LLC and Citigroup Global Markets Inc., as joint lead arrangers and joint bookrunners, and certain lending institutions from time to time parties thereto	Incorporated by reference to Exhibit 10.1 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on March 26, 2014.

Exhibit No.	Description	Method of Filing
10.7	Deed Poll Indemnity of Ingersoll-Rand plc, an Irish public limited company, as to the directors, secretary and officers and senior executives of Ingersoll-Rand plc and the directors and officers of Ingersoll-Rand plc's subsidiaries	Incorporated by reference to Exhibit 10.5 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.8	Deed Poll Indemnity of Ingersoll-Rand Company Limited, a Bermuda company, as to the directors, secretary and officers and senior executives of Ingersoll-Rand plc and the directors and officers of Ingersoll-Rand plc's subsidiaries	Incorporated by reference to Exhibit 10.6 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.9	Tax Sharing Agreement, dated as of July 16, 2007, by and among American Standard Companies Inc. and certain of its subsidiaries and WABCO Holdings Inc. and certain of its subsidiaries	Incorporated by reference to Exhibit 10.1 to Trane Inc.'s Form 8-K (File No. 001-11415) filed with the SEC on July 20, 2007.
10.10	Tax Matters Agreement between Ingersoll-Rand plc and Allegion plc, dated November 30, 2013	Incorporated by reference to Exhibit 10.2 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on December 2, 2013.
10.11	Ingersoll-Rand plc Incentive Stock Plan of 2013	Incorporated by reference to Exhibit 4.5 to the Company's Form S-8 (File No. 333-189446) filed with the SEC on June 19, 2013.
10.12	Ingersoll-Rand plc Incentive Stock Plan of 2007 (amended and restated as of December 1, 2010)	Incorporated by reference to Exhibit 10.18 to the Company's Form 10-K for the fiscal year ended 2010 (File No. 001-34400) filed with the SEC on February 22, 2011.
10.13	Ingersoll-Rand plc Incentive Stock Plan of 1998 (amended and restated as of July 1, 2009)	Incorporated by reference to Exhibit 10.8 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.14	Ingersoll-Rand Company Incentive Stock Plan of 1995 (amended and restated effective July 1, 2009)	Incorporated by reference to Exhibit 10.7 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.15	IR Executive Deferred Compensation Plan (as amended and restated effective July 1, 2009)	Incorporated by reference to Exhibit 10.9 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.16	IR Executive Deferred Compensation Plan II (as amended and restated effective July 1, 2009)	Incorporated by reference to Exhibit 10.10 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.

Exhibit No.	Description	Method of Filing
10.17	First Amendment to IR Executive Deferred Compensation Plan II (dated December 22, 2009)	Incorporated by reference to Exhibit 10.19 to the Company’s Form 10-K for the fiscal year ended 2011 (File No. 001-34400) filed with the SEC on February 21, 2012.
10.18	Second Amendment to IR Executive Deferred Compensation Plan II (dated December 23, 2010)	Incorporated by reference to Exhibit 10.20 to the Company’s Form 10-K for the fiscal year ended 2011 (File No. 001-16831) filed with the SEC on February 21, 2012.
10.19	IR-plc Director Deferred Compensation and Stock Award Plan (as amended and restated effective July 1, 2009)	Incorporated by reference to Exhibit 10.11 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.20	IR-plc Director Deferred Compensation and Stock Award Plan II (as amended and restated effective July 1, 2009)	Incorporated by reference to Exhibit 10.12 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.21	Ingersoll-Rand Company Supplemental Employee Savings Plan (amended and restated effective October 1, 2012)	Incorporated by reference to exhibit 10.23 to the Company's Form 10-K for the fiscal year ended 2012 (File No. 001-34400) filed with the SEC on February 14, 2013.
10.22	Ingersoll-Rand Company Supplemental Employee Savings Plan II (effective January 1, 2005 and amended and restated through October 1, 2012)	Incorporated by reference to exhibit 10.24 to the Company's Form 10-K for the fiscal year ended 2012 (File No. 001-34400) filed with the SEC on February 14, 2013.
10.23	Trane Inc. 2002 Omnibus Incentive Plan (restated to include all amendments through July 1, 2009)	Incorporated by reference to Exhibit 10.17 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.24	Trane Inc. Deferred Compensation Plan (as amended and restated as of July 1, 2009, except where otherwise stated)	Incorporated by reference to Exhibit 10.19 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.25	Ingersoll-Rand Company Supplemental Pension Plan (Amended and Restated Effective January 1, 2005)	Incorporated by reference to Exhibit 10.28 to the Company’s Form 10-K for the fiscal year ended 2008 (File No. 001-16831) filed with the SEC on March 2, 2009.
10.26	First Amendment to the Ingersoll-Rand Company Supplemental Pension Plan, dated as of July 1, 2009	Incorporated by reference to Exhibit 10.21 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on July 1, 2009.
10.27	Ingersoll-Rand Company Supplemental Pension Plan II (Effective January 1, 2005 and Amended and Restated effective October 1, 2012)	Incorporated by reference to exhibit 10.31 to the Company's Form 10-K for the fiscal year ended 2012 (File No. 001-34400) filed with the SEC on February 14, 2013.

Exhibit No.	Description	Method of Filing
10.28	Ingersoll-Rand Company Elected Officers Supplemental Plan II (Effective January 1, 2005 and Amended and Restated effective October 1, 2012)	Incorporated by reference to exhibit 10.32 to the Company's Form 10-K for the fiscal year ended 2012 (File No. 001-34400) filed with the SEC on February 14, 2013.
10.29	Senior Executive Performance Plan	Incorporated by reference to Exhibit 10.39 to the Company's Form 10-K for the fiscal year ended 2011 (File No. 001-34400) filed with the SEC on February 21, 2012.
10.3	Description of Annual Incentive Matrix Program	Incorporated by reference to Exhibit 10.40 to the Company's Form 10-K for the fiscal year ended 2011 (File No. 001-34400) filed with the SEC on February 21, 2012.
10.31	Form of Tier 1 Change in Control Agreement (Officers before May 19, 2009)	Incorporated by reference to Exhibit 99.1 to the Company's Form 8-K (File No. 001-16831) filed with the SEC on December 4, 2006.
10.32	Form of Tier 2 Change in Control Agreement (Officers before May 19, 2009)	Incorporated by reference to Exhibit 99.2 to the Company’s Form 8-K (File No. 001-16831) filed with the SEC on December 4, 2006.
10.33	Form of Tier 1 Change in Control Agreement (New Officers on or after May 19, 2009)	Incorporated by reference to Exhibit 10.32 to the Company’s Form 10-Q for the period ended June 30, 2009 (File No. 001-34400) filed with the SEC on August 6, 2009.
10.34	Form of Tier 2 Change in Control Agreement (New Officers on or after May 19, 2009)	Incorporated by reference to Exhibit 10.33 to the Company’s Form 10-Q for the period ended June 30, 2009 (File No. 001-34400) filed with the SEC on August 6, 2009.
10.35	Amended and Restated Major Restructuring Severance Plan (as amended and restated effective December 31, 2014)	Filed herewith.
10.36	Didier Teirlinck Offer Letter, dated June 5, 2008	Incorporated by reference to Exhibit 10.4 to the Company’s Form 8-K (File No. 001-16831) filed with the SEC on June 10, 2008.
10.37	Addendum to Didier Teirlinck Offer Letter, dated July 17, 2008	Incorporated by reference to Exhibit 10.13 to the Company’s Form 10-Q for the period ended June 30, 2008 (File No. 001-16831) filed with the SEC on August 8, 2008.

Exhibit No.	Description	Method of Filing
10.38	Addendum to Didier Teirlinck Offer Letter, dated December 9, 2013	Incorporated by reference to exhibit 10.48 to the Company's Form 10-K for the fiscal year ended 2013 (File No. 001-34400) filed with the SEC on February 14, 2014
10.39	Michael W. Lamach Letter, dated December 24, 2003	Incorporated by reference to Exhibit 10.23 to the Company’s Form 10-K for the fiscal year ended 2003 (File No. 001-16831) filed with the SEC on February 27, 2004.
10.40	Michael W. Lamach Letter, dated June 4, 2008	Incorporated by reference to Exhibit 10.2 to the Company’s Form 8-K (File No. 001-16831) filed with the SEC on June 10, 2008.
10.41	Michael W. Lamach Letter, dated February 4, 2009	Incorporated by reference to Exhibit 10.43 to the Company’s Form 10-K for the fiscal year ended 2008 (File No. 001-16831) filed with the SEC on March 2, 2009.
10.42	Michael W. Lamach Letter, dated February 3, 2010	Incorporated by reference to Exhibit 10.1 to the Company’s Form 8-K (File No. 001-34400) filed with the SEC on February 5, 2010.
10.43	Michael W. Lamach Letter, dated December 23, 2012	Incorporated by reference to exhibit 10.48 to the Company's Form 10-K for the fiscal year ended 2012 (File No. 001-34400) filed with the SEC on February 14, 2013.
10.44	Robert Zafari Letter and Addendum, dated August 25, 2010	Incorporated by reference to Exhibit 10.1 to the Company’s Form 10-Q for the period ended September 30, 2010 (File No. 001-34400) filed with the SEC on November 1, 2010.
10.45	Addendum to Robert Zafari Offer Letter, dated December 9, 2013	Incorporated by reference to exhibit 10.55 to the Company's Form 10-K for the fiscal year ended 2013 (File No. 001-34400) filed with the SEC on February 14, 2014.
10.46	Robert L. Katz Letter, dated September 28, 2010	Incorporated by reference to Exhibit 10.65 to the Company’s Form 10-K for the fiscal year ended 2010 (File No. 001-34400) filed with the SEC on February 22, 2011.
10.47	Robert L. Katz Letter, dated December 20, 2012	Incorporated by reference to exhibit 10.51 to the Company's Form 10-K for the fiscal year ended 2012 (File No. 001-34400) filed with the SEC on February 14, 2013.

Exhibit No.	Description	Method of Filing
10.48	Employment Agreement with Marcia J. Avedon, Senior Vice President, dated January 8, 2007	Incorporated by reference to Exhibit 10.45 to the Company's Form 10-K for the fiscal year ended December 31, 2006 (File No. 001-16831) filed with the SEC on March 1, 2007.
10.49	Marcia J. Avedon Letter, dated December 20, 2012	Incorporated by reference to exhibit 10.53 to the Company's Form 10-K for the fiscal year ended 2012 (File No. 001-34400) filed with the SEC on February 14, 2013.
10.50	Susan K. Carter Employment Agreement, dated as of August 19, 2013	Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on October 2, 2013.
10.51	Employee Matters Agreement between Ingersoll-Rand plc and Allegion plc, dated November 30, 2013.	Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K (File No. 001-34400) filed with the SEC on December 2, 2013.
12	Computations of Ratios of Earnings to Fixed Charges	Filed herewith.
21	List of Subsidiaries of Ingersoll-Rand plc	Filed herewith.
23.1	Consent of Independent Registered Public Accounting Firm	Filed herewith.
31.1	Certification of Chief Executive Officer Pursuant to Rule 13a-14(a) or Rule 15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith.
31.2	Certification of Chief Financial Officer Pursuant to Rule 13a-14(a) or Rule 15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith.
32	Certifications of Chief Executive Officer and Chief Financial Officer Pursuant to Rule 13a-14(b) or Rule 15d-14(b) and 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	Furnished herewith.

Exhibit No.	Description	Method of Filing
101	The following materials from the Company's Annual Report on Form 10-K for the year ended December 31, 2014, formatted in XBRL (Extensible Business Reporting Language): (i) the Consolidated Statements of Comprehensive Income, (ii) the Consolidated Balance Sheets, (iii) the Consolidated Statements of Equity, (iv) the Consolidated Statements of Cash Flows, and (v) Notes to Consolidated Financial Statements.	Furnished herewith.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

INGERSOLL-RAND PLC
(Registrant)

By:	/s/ Michael W. Lamach
	Michael W. Lamach
	Chief Executive Officer
Date:	February 13, 2015

Pursuant to the requirement of the Securities Exchange Act of 1934, this report has been signed by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Michael W. Lamach (Michael W. Lamach)	Chairman of the Board, Chief Executive Officer and President (Principal Executive Officer)	February 13, 2015
/s/ Susan K. Carter (Susan K. Carter)	Senior Vice President and Chief Financial Officer (Principal Financial Officer)	February 13, 2015
/s/ Richard J. Weller (Richard J. Weller)	Vice President and Controller (Principal Accounting Officer)	February 13, 2015
/s/ Ann C. Berzin (Ann C. Berzin)	Director	February 13, 2015
/s/ John Bruton (John Bruton)	Director	February 13, 2015
/s/ Jared L. Cohon (Jared L. Cohon)	Director	February 13, 2015
/s/ Gary D. Forsee (Gary D. Forsee)	Director	February 13, 2015
/s/ Edward E. Hagenlocker (Edward E. Hagenlocker)	Director	February 13, 2015
/s/ Constance J. Horner (Constance J. Horner)	Director	February 13, 2015
/s/ Myles P. Lee (Myles P. Lee)	Director	February 13, 2015
/s/ Theodore E. Martin (Theodore E. Martin)	Director	February 13, 2015
/s/ John P. Surma (John P. Surma)	Director	February 13, 2015
/s/ Richard J. Swift (Richard J. Swift)	Director	February 13, 2015
/s/ Tony L. White (Tony L. White)	Director	February 13, 2015

INGERSOLL-RAND PLC
Index to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors of Ingersoll-Rand plc:

In our opinion, the Consolidated Financial Statements listed in the accompanying index present fairly, in all material respects, the financial position of Ingersoll-Rand plc and its subsidiaries (the "Company") at December 31, 2014 and 2013, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2014 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the accompanying index presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2014, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements and financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying "Management's Report on Internal Control over Financial Reporting." Our responsibility is to express opinions on these financial statements, on the financial statement schedule, and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP
Charlotte, North Carolina
February 13, 2015

Ingersoll-Rand plc
Consolidated Statements of Comprehensive Income
In millions, except per share amounts

For the years ended December 31,	2014	2013	2012
Net revenues	$ 12,891.4	$ 12,350.5	$ 11,988.3
Cost of goods sold	(8,982.8)	(8,722.3)	(8,533.5)
Selling and administrative expenses	(2,503.9)	(2,523.2)	(2,382.9)
Operating income	1,404.7	1,105.0	1,071.9
Interest expense	(225.3)	(278.8)	(252.0)
Other, net	30.0	3.4	28.1
Earnings before income taxes	1,209.4	829.6	848.0
Provision for income taxes	(293.7)	(189.0)	(56.0)
Earnings from continuing operations	915.7	640.6	792.0
Discontinued operations, net of tax	34.7	13.3	252.0
Net earnings	950.4	653.9	1,044.0
Less: Net earnings attributable to noncontrolling interests	(18.7)	(35.1)	(25.4)
Net earnings attributable to Ingersoll-Rand plc	$ 931.7	$ 618.8	$ 1,018.6
Amounts attributable to Ingersoll-Rand plc ordinary shareholders:			
Continuing operations	$ 897.0	$ 620.1	$ 772.4
Discontinued operations	34.7	(1.3)	246.2
Net earnings	$ 931.7	$ 618.8	$ 1,018.6
Earnings (loss) per share attributable to Ingersoll-Rand plc ordinary shareholders:			
Basic:			
Continuing operations	$ 3.32	$ 2.11	$ 2.54
Discontinued operations	0.12	—	0.81
Net earnings	$ 3.44	$ 2.11	$ 3.35
Diluted:			
Continuing operations	$ 3.27	$ 2.08	$ 2.49
Discontinued operations	0.13	(0.01)	0.79
Net earnings	$ 3.40	$ 2.07	$ 3.28

Ingersoll-Rand plc
Consolidated Statements of Comprehensive Income (continued)
In millions, except per share amounts

For the years ended December 31,	2014	2013	2012
Net earnings	$ 950.4	$ 653.9	$ 1,044.0
Other comprehensive income (loss)			
Currency translation	(450.2)	15.0	85.5
Cash flow hedges			
Unrealized net gains (losses) arising during period	(3.1)	7.8	(0.7)
Net (gains) losses reclassified into earnings	5.7	12.1	2.8
Tax (expense) benefit	0.1	(0.2)	1.0
Total cash flow hedges, net of tax	2.7	19.7	3.1
Pension and OPEB adjustments:			
Prior service gains (costs) for the period	(9.2)	(1.2)	58.8
Net actuarial gains (losses) for the period	(220.9)	358.9	(185.0)
Amortization reclassified into earnings	31.6	63.9	62.7
Settlements/curtailments reclassified to earnings	7.1	0.7	4.9
Currency translation and other	16.1	(5.4)	(9.6)
Tax (expense) benefit	73.0	(153.6)	(0.2)
Total pension and OPEB adjustments, net of tax	(102.3)	263.3	(68.4)
Other comprehensive income (loss), net of tax	(549.8)	298.0	20.2
Comprehensive income (loss), net of tax	$ 400.6	$ 951.9	$ 1,064.2
Less: Comprehensive (income) loss attributable to noncontrolling interests	(16.5)	(38.4)	(13.0)
Comprehensive income (loss) attributable to Ingersoll-Rand plc	$ 384.1	$ 913.5	$ 1,051.2

See accompanying notes to Consolidated Financial Statements.

Ingersoll-Rand plc
Consolidated Balance Sheets
In millions, except share amounts

December 31,		2014		2013
ASSETS				
Current assets:				
Cash and cash equivalents	$	1,705.2	$	1,937.2
Accounts and notes receivable, net		2,119.0		2,071.5
Inventories		1,358.9		1,166.1
Deferred taxes and current tax receivable		299.8		359.5
Other current assets		225.0		182.4
Total current assets		5,707.9		5,716.7
Property, plant and equipment, net		1,477.0		1,468.4
Goodwill		5,389.8		5,540.6
Intangible assets, net		3,783.9		3,922.0
Other noncurrent assets		939.9		1,010.4
Total assets	$	17,298.5	$	17,658.1
LIABILITIES AND EQUITY				
Current liabilities:				
Accounts payable	$	1,290.0	$	1,163.0
Accrued compensation and benefits		471.5		505.2
Accrued expenses and other current liabilities		1,421.9		1,372.7
Short-term borrowings and current maturities of long-term debt		482.7		367.7
Total current liabilities		3,666.1		3,408.6
Long-term debt		3,741.7		3,153.5
Postemployment and other benefit liabilities		1,438.0		1,287.8
Deferred and noncurrent income taxes		1,174.3		1,335.8
Other noncurrent liabilities		1,233.0		1,341.1
Total liabilities		11,253.1		10,526.8
Equity:				
Ingersoll-Rand plc shareholders' equity				
Ordinary shares, $1 par value (266,271,978 and 282,700,041 shares issued at December 31, 2014 and 2013, respectively)		266.3		282.7
Ordinary shares held in treasury, at cost (3,372,657 and 21,137 shares at December 31, 2014 and 2013, respectively)		(202.5)		(0.8)
Capital in excess of par value		97.1		159.2
Retained earnings		6,540.8		6,794.5
Accumulated other comprehensive income (loss)		(714.3)		(166.7)
Total Ingersoll-Rand plc shareholders' equity		5,987.4		7,068.9
Noncontrolling interest		58.0		62.4
Total equity		6,045.4		7,131.3
Total liabilities and equity	$	17,298.5	$	17,658.1

See accompanying notes to Consolidated Financial Statements.

Ingersoll-Rand plc
Consolidated Statements of Equity

In millions, except per share amounts	Total equity	Ingersoll-Rand plc shareholders' equity: Ordinary shares Amount	Ordinary shares Shares	Ordinary shares held in treasury, at cost	Capital in excess of par value	Retained earnings	Accumulated other comprehensive income (loss)	Noncontrolling Interest
Balance at December 31, 2011	$ 7,012.4	$ 297.1	297.1	$ (0.8)	$ 1,633.8	$ 5,547.8	$ (553.6)	$ 88.1
Net earnings	1,044.0	—	—	—	—	1,018.6	—	25.4
Other comprehensive income (loss)	20.2	—	—	—	—	—	32.6	(12.4)
Shares issued under incentive stock plans	172.5	6.1	6.1	—	166.4	—	—	—
Settlement of Exchangeable Senior Notes	(4.7)	10.8	10.8	—	(15.5)	—	—	
Repurchase of ordinary shares	(839.8)	(18.4)	(18.4)	—	(821.4)	—	—	—
Accretion of Exchangeable Senior Notes from Temporary Equity	3.3	—	—	—	3.3	—	—	—
Share-based compensation	49.8	—	—	—	49.8	—	—	—
Acquisition/divestiture of noncontrolling interest	(1.5)	—	—	—	(1.1)	—	—	(0.4)
Dividends declared to noncontrolling interest	(19.2)	—	—	—	—	—	—	(19.2)
Cash dividends, declared ($0.69 per share)	(207.7)	—	—	—	—	(207.7)	—	—
Balance at December 31, 2012	$ 7,229.3	$ 295.6	295.6	$ (0.8)	$ 1,015.3	$ 6,358.7	$ (521.0)	$ 81.5
Net earnings	653.9	—	—	—	—	618.8	—	35.1
Other comprehensive income (loss)	298.0	—	—	—	—	—	294.7	3.3
Shares issued under incentive stock plans	272.5	7.9	7.9	—	264.6	—	—	—
Repurchase of ordinary shares	(1,213.2)	(20.8)	(20.8)	—	(1,192.4)	—	—	—
Share-based compensation	71.8	—	—	—	71.8	—	—	—
Dividends declared to noncontrolling interest	(17.6)	—	—	—	—	—	—	(17.6)
Cash dividends declared ($0.63 per share)	(183.4)	—	—	—	—	(183.4)	—	—
Distribution of Allegion	18.5	—	—	—	—	0.5	59.1	(41.1)
Other	1.5	—	—	—	(0.1)	(0.1)	0.5	1.2
Balance at December 31, 2013	$ 7,131.3	$ 282.7	282.7	$ (0.8)	$ 159.2	$ 6,794.5	$ (166.7)	$ 62.4
Net earnings	950.4	—	—	—	—	931.7	—	18.7
Other comprehensive income (loss)	(549.8)	—	—	—	—	—	(547.6)	(2.2)
Shares issued under incentive stock plans	113.1	3.2	3.2	—	109.9	—	—	—
Repurchase of ordinary shares	(1,374.9)	(19.6)	(19.6)	(202.0)	(235.5)	(917.8)	—	—
Share-based compensation	63.8	—	—	—	63.8	—	—	—
Dividends declared to noncontrolling interest	(20.9)	—	—	—	—	—	—	(20.9)
Cash dividends declared ($1.00 per share)	(267.6)	—	—	—	—	(267.6)	—	—
Other	—	—	—	0.3	(0.3)	—	—	—
Balance at December 31, 2014	$ 6,045.4	$ 266.3	266.3	$ (202.5)	$ 97.1	$ 6,540.8	$ (714.3)	$ 58.0

See accompanying notes to Consolidated Financial Statements.

Ingersoll-Rand plc
Consolidated Statements of Cash Flows
In millions

For the years ended December 31,	2014	2013	2012
Cash flows from operating activities:			
Net earnings	$ 950.4	$ 653.9	$ 1,044.0
(Income) loss from discontinued operations, net of tax	(34.7)	(13.3)	(252.0)
Adjustments to arrive at net cash provided by (used in) operating activities:			
Depreciation and amortization	332.4	333.7	333.8
Other items	(35.1)	226.1	140.9
Changes in other assets and liabilities			
(Increase) decrease in:			
Accounts and notes receivable	(119.9)	(214.3)	(34.2)
Inventories	(230.0)	(39.4)	(25.3)
Other current and noncurrent assets	83.0	68.3	(68.7)
Increase (decrease) in:			
Accounts payable	157.2	141.0	(12.5)
Other current and noncurrent liabilities	(111.6)	(357.2)	(243.5)
Net cash (used in) provided by continuing operating activities	991.7	798.8	882.5
Net cash (used in) provided by discontinued operating activities	(18.5)	292.7	312.9
Net cash provided by (used in) operating activities	973.2	1,091.5	1,195.4
Cash flows from investing activities:			
Capital expenditures	(233.5)	(242.2)	(243.1)
Acquisition of businesses, net of cash acquired and liabilities assumed	(10.2)	—	—
Proceeds from sale of property, plant and equipment	14.4	24.3	17.9
Proceeds from business dispositions, net of cash sold	2.0	4.7	52.7
Dividends received from equity investments	30.3	—	44.3
Net cash (used in) provided by continuing investing activities	(197.0)	(213.2)	(128.2)
Net cash (used in) provided by discontinued investing activities	—	(2.2)	(18.3)
Net cash provided by (used in) investing activities	(197.0)	(215.4)	(146.5)

Ingersoll-Rand plc
Consolidated Statements of Cash Flows - (Continued)
In millions

For the years ended December 31,	2014	2013	2012
Cash flows from financing activities:			
Other short-term borrowings, net	99.6	8.9	5.5
Proceeds from long-term debt	1,108.6	1,547.8	—
Payments of long-term debt	(508.0)	(1,265.0)	(418.9)
Net proceeds (repayments) in debt	700.2	291.7	(413.4)
Debt issuance costs	(12.3)	(13.2)	(2.5)
Dividends paid to ordinary shareholders	(264.7)	(245.5)	(192.4)
Dividends paid to noncontrolling interests	(20.9)	(12.4)	(13.9)
Proceeds from shares issued under incentive plans	113.1	272.5	172.5
Repurchase of ordinary shares	(1,374.9)	(1,213.2)	(839.8)
Transfer from Allegion	—	1,274.2	—
Other, net	—	—	(6.2)
Net cash (used in) provided by continuing financing activities	(859.5)	354.1	(1,295.7)
Net cash (used in) provided by discontinued financing activities	—	(7.5)	(8.2)
Net cash (used in) provided by financing activities	(859.5)	346.6	(1,303.9)
Effect of exchange rate changes on cash and cash equivalents	(148.7)	6.1	(23.6)
Net increase (decrease) in cash and cash equivalents	(232.0)	1,228.8	(278.6)
Cash and cash equivalents – beginning of period	1,937.2	708.4	987.0
Cash and cash equivalents – end of period	$ 1,705.2	$ 1,937.2	$ 708.4
Cash paid during the year for:			
Interest, net of amounts capitalized	$ 193.5	$ 238.3	$ 223.7
Income taxes, net of refunds	$ 159.8	$ 162.3	$ 251.3

See accompanying notes to Consolidated Financial Statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1 – DESCRIPTION OF COMPANY

Ingersoll-Rand plc (IR-Ireland), a public limited company incorporated in Ireland in 2009, and its consolidated subsidiaries (collectively, we, our, the Company) is a diversified, global company that provides products, services and solutions to enhance the quality and comfort of air in homes and buildings, transport and protect food and perishables, and increase industrial productivity and efficiency. Our business segments consist of Climate and Industrial, each with strong brands and leading positions within their respective markets. We generate revenue and cash primarily through the design, manufacture, sale and service of a diverse portfolio of industrial and commercial products that include well-recognized, premium brand names such as Ingersoll-Rand®, Trane®, American Standard®, Thermo King® and Club Car®.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A summary of significant accounting policies used in the preparation of the accompanying Consolidated Financial Statements follows:

Basis of Presentation: The accompanying Consolidated Financial Statements reflect the consolidated operations of the Company and have been prepared in accordance with U.S. Generally Accepted Accounting Principles (GAAP) as defined by the Financial Accounting Standards Board (FASB) within the FASB Accounting Standards Codification (ASC).

Certain reclassifications of amounts reported in prior periods have been made to conform to the 2014 classification. The Company made certain changes in classification of global integrated supply chain costs within Operating income. This change in classification resulted in a $48.0 million increase to Cost of goods sold with a corresponding decrease to Selling and administrative expenses for the year ended 2013.

On January 1, 2015, the Company completed the previously announced acquisition of the assets of Cameron International Corporation's Centrifugal Compression division (the Division) for $850 million, funded through a combination of cash from operations and debt. The Division provides centrifugal compression equipment and aftermarket parts and services for global industrial applications, air separation, gas transmission and process gas. The assets acquired and the results of its operations will be reflected in our consolidated financial statements beginning in the first quarter of 2015.

The Consolidated Financial Statements include all majority-owned subsidiaries of the Company. A noncontrolling interest in a subsidiary is considered an ownership interest in a majority-owned subsidiary that is not attributable to the parent. The Company includes Noncontrolling interest as a component of Total equity in the Consolidated Balance Sheet and the Net earnings attributable to noncontrolling interests are presented as an adjustment from Net earnings used to arrive at Net earnings attributable to Ingersoll-Rand plc in the Consolidated Statement of Comprehensive Income.

Partially-owned equity affiliates represent 20-50% ownership interests in investments where we demonstrate significant influence, but do not have a controlling financial interest. Partially-owned equity affiliates are accounted for under the equity method. The Company is also required to consolidate variable interest entities in which it bears a majority of the risk to the entities' potential losses or stands to gain from a majority of the entities' expected returns. Intercompany accounts and transactions have been eliminated. The assets, liabilities, results of operations and cash flows of all discontinued operations have been separately reported as discontinued operations and held for spin-off for all periods presented.

The Company received cash dividends of $30.3 million and $44.3 million from its equity investment in Hussmann during 2014 and 2012, respectively. These dividends are classified in investing activities within the Consolidated Statement of Cash Flows due to the cumulative negative equity earnings to date from Hussmann Parent.

As previously disclosed in the notes to our Form 10-Q for the third quarter of 2014, the Company revised its consolidated statements of cash flows for the years ended December 31, 2013 and 2012 to correct errors in the calculation and classification of the effect of exchange rate changes on cash and cash equivalents. The impact of this error for the year ended December 31, 2013 was an overstatement of Net cash provided by continuing operating activities of $78.9 million with an offsetting understatement to the Effect of exchange rate changes on cash and cash equivalents. The impact of this error for the year ended December 31, 2012 was an understatement of Net cash provided by continuing operating activities of $14.4 million with an offsetting overstatement to the Effect of exchange rate changes on cash and cash equivalents. These adjustments were not considered to be material individually or in the aggregate to the previously issued financial statements. The adjustments had no impact on the total net increase (decrease) in cash and cash equivalents, or total cash and cash equivalents amounts in any period.

Use of Estimates: The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosures of contingent assets and liabilities at the date of the financial statements as well as the reported amounts of revenues and expenses during the reporting period. Estimates are based on several factors including the facts and circumstances available at the time the estimates are made, historical experience, risk of loss, general economic conditions and trends, and the assessment of the probable future outcome. Some of the more significant estimates include accounting for doubtful accounts, useful lives of property, plant and equipment and intangible assets, purchase price allocations of acquired businesses, valuation of assets including goodwill and other intangible assets, product warranties, sales allowances, pension plans, postretirement benefits other than pensions, taxes, environmental costs, product liability, asbestos matters and other contingencies. Actual results could differ from those estimates. Estimates and assumptions are reviewed periodically, and the effects of changes, if any, are reflected in the statement of operations in the period that they are determined.

Currency Translation: Assets and liabilities of non-U.S. subsidiaries, where the functional currency is not the U.S. dollar, have been translated at year-end exchange rates, and income and expense accounts have been translated using average exchange rates throughout the year. Adjustments resulting from the process of translating an entity's financial statements into the U.S. dollar have been recorded in the Equity section of the Consolidated Balance Sheet within Accumulated other comprehensive income (loss). Transactions that are denominated in a currency other than an entity's functional currency are subject to changes in exchange rates with the resulting gains and losses recorded within Net earnings.

Cash and Cash Equivalents: Cash and cash equivalents include cash on hand, demand deposits and all highly liquid investments with original maturities at the time of purchase of three months or less.

Inventories: Depending on the business, U.S. inventories are stated at the lower of cost or market using the last-in, first-out (LIFO) method or the lower of cost or market using the first-in, first-out (FIFO) method. Non-U.S. inventories are primarily stated at the lower of cost or market using the FIFO method. At December 31, 2014 and 2013, approximately 52% and 45%, respectively, of all inventory utilized the LIFO method.

Allowance for Doubtful Accounts: The Company maintains an allowance for doubtful accounts receivable which represents the best estimate of probable loss inherent in the Company's accounts receivable portfolio. This estimate is based upon a two-step policy that results in the total recorded allowance for doubtful accounts. The first step is to record a portfolio reserve based on the aging of the outstanding accounts receivable portfolio and the Company's historical experience with our end markets, customer base and products. The second step is to create a specific reserve for significant accounts as to which the customer's ability to satisfy their financial obligation to the Company is in doubt due to circumstances such as bankruptcy, deteriorating operating results or financial position. In these circumstances, management uses its judgment to record an allowance based on the best estimate of probable loss, factoring in such considerations as the market value of collateral, if applicable. Actual results could differ from those estimates. These estimates and assumptions are reviewed periodically, and the effects of changes, if any, are reflected in the Consolidated Statement of Comprehensive Income in the period that they are determined. The Company reserved $34.1 million and $35.4 million for doubtful accounts as of December 31, 2014 and 2013, respectively.

Property, Plant and Equipment: Property, plant and equipment are stated at cost, less accumulated depreciation. Assets placed in service are recorded at cost and depreciated using the straight-line method over the estimated useful life of the asset except for leasehold improvements, which are depreciated over the shorter of their economic useful life or their lease term. The range of useful lives used to depreciate property, plant and equipment is as follows:

Buildings	10	to	50	years
Machinery and equipment	2	to	12	years
Software	2	to	7	years

Repair and maintenance costs that do not extend the useful life of the asset are charged against earnings as incurred. Major replacements and significant improvements that increase asset values and extend useful lives are capitalized.

The Company assesses the recoverability of the carrying value of its property, plant and equipment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. Recoverability is measured by a comparison of the carrying amount of an asset to the future net undiscounted cash flows expected to be generated by the asset. If the undiscounted cash flows are less than the carrying amount of the asset, an impairment loss is recognized for the amount by which the carrying value of the asset exceeds the fair value of the assets.

Goodwill and Intangible Assets: The Company records as goodwill the excess of the purchase price over the fair value of the net assets acquired.

In accordance with GAAP, goodwill and other indefinite-lived intangible assets are tested and reviewed annually for impairment during the fourth quarter or whenever there is a significant change in events or circumstances that indicate that the fair value of the asset is more likely than not less than the carrying amount of the asset.

Recoverability of goodwill is measured at the reporting unit level and begins with a qualitative assessment to determine if it is more likely than not that the fair value of each reporting unit is less than its carrying amount as a basis for determining whether it is necessary to perform the two-step goodwill impairment test included in U.S. GAAP. For those reporting units where it is required, the first step compares the carrying amount of the reporting unit to its estimated fair value. If the estimated fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is not impaired and the second step of the impairment test is not necessary. To the extent that the carrying value of the reporting unit exceeds its estimated fair value, a second step is performed, wherein the reporting unit's carrying value of goodwill is compared to the implied fair value of goodwill. To the extent that the carrying value exceeds the implied fair value, impairment exists and must be recognized.

The calculation of estimated fair value is based on two valuation techniques, a discounted cash flow model (income approach) and a market adjusted multiple of earnings and revenues (market approach), with each method being equally weighted in the calculation. The implied fair value of goodwill is determined in the same manner as the amount of goodwill recognized in a business combination. The estimated fair value of the reporting unit is allocated to all of the assets and liabilities of the reporting unit (including any unrecognized intangible assets) as if the reporting unit had been acquired in a business combination and the fair value of the reporting unit, as determined in the first step of the goodwill impairment test, was the price paid to acquire that reporting unit.

Recoverability of other intangible assets with indefinite useful lives (i.e. Tradenames) is first assessed using a qualitative assessment to determine whether it is more likely than not that an indefinite-lived intangible asset is impaired. This assessment is used as a basis for determining whether it is necessary to calculate the fair value of an indefinite-lived intangible asset. For those indefinite-lived assets where it is required, a fair value is determined on a relief from royalty methodology (income approach) which is based on the implied royalty paid, at an appropriate discount rate, to license the use of an asset rather than owning the asset. The present value of the after-tax cost savings (i.e. royalty relief) indicates the estimated fair value of the asset. Any excess of the carrying value over the estimated fair value is recognized as an impairment loss equal to that excess.

Intangible assets such as patents, customer-related intangible assets and other intangible assets with finite useful lives are amortized on a straight-line basis over their estimated economic lives. The weighted-average useful lives approximate the following:

Customer relationships	20	years
Completed technology/patents	10	years
Other	20	years

Recoverability of intangible assets with finite useful lives is assessed in the same manner as property, plant and equipment as described above.

Income Taxes: Deferred tax assets and liabilities are determined based on temporary differences between financial reporting and tax bases of assets and liabilities, applying enacted tax rates expected to be in effect for the year in which the differences are expected to reverse. The Company recognizes future tax benefits, such as net operating losses and non-U.S. tax credits, to the extent that realizing these benefits is considered in its judgment to be more likely than not. The Company regularly reviews the recoverability of its deferred tax assets considering its historic profitability, projected future taxable income, timing of the reversals of existing temporary differences and the feasibility of its tax planning strategies. Where appropriate, the Company records a valuation allowance with respect to a future tax benefit.

Product Warranties: Standard product warranty accruals are recorded at the time of sale and are estimated based upon product warranty terms and historical experience. The Company assesses the adequacy of its liabilities and will make adjustments as necessary based on known or anticipated warranty claims, or as new information becomes available.

The Company's extended warranty liability represents the deferred revenue associated with its extended warranty contracts and is amortized into Revenue on a straight-line basis over the life of the contract, unless another method is more representative of the costs incurred. The Company assesses the adequacy of its liability by evaluating the expected costs under its existing contracts to ensure these expected costs do not exceed the extended warranty liability.

Treasury Stock: The Company, through one of its consolidated subsidiaries, has repurchased its common shares from time to time as authorized by the Board of Directors. These repurchases are at the discretion of management subject to market conditions, regulatory requirements and other considerations. Amounts are recorded at cost and included within the Equity section of the Consolidated Balance Sheet.

Revenue Recognition: Revenue is recognized and earned when all of the following criteria are satisfied: (a) persuasive evidence of a sales arrangement exists; (b) the price is fixed or determinable; (c) collectability is reasonably assured; and (d) delivery has occurred or service has been rendered. Delivery generally occurs when the title and the risks and rewards of ownership have substantially transferred to the customer. Both the persuasive evidence of a sales arrangement and fixed or determinable price criteria are deemed to be satisfied upon receipt of an executed and legally binding sales agreement or contract that clearly defines the terms and conditions of the transaction including the respective obligations of the parties. If the defined terms and conditions allow variability in all or a component of the price, revenue is not recognized until such time that the price becomes fixed or determinable. At the point of sale, the Company validates that existence of an enforceable claim that requires payment within a reasonable amount of time and assesses the collectability of that claim. If collectability is not deemed to be reasonably assured, then revenue recognition is deferred until such time that collectability becomes probable or cash is received. Delivery is not considered to have occurred until the customer has taken title and assumed the risks and rewards of ownership. Service and installation revenue are recognized when earned. In some instances, customer acceptance provisions are included in sales arrangements to give the buyer the ability to ensure the delivered product or service meets the criteria established in the order. In these instances, revenue recognition is deferred until the acceptance terms specified in the arrangement are fulfilled through customer acceptance or a demonstration that established criteria have been satisfied. If uncertainty exists about customer acceptance, revenue is not recognized until acceptance has occurred.

The Company offers various sales incentive programs to customers, dealers, and distributors. Sales incentive programs do not preclude revenue recognition, but do require an accrual for the Company's best estimate of expected activity. Examples of the sales incentives that are accrued for as a contra receivable and sales deduction at the point of sale include, but are not limited to, discounts (i.e. net 30 type), coupons, and rebates where the customer does not have to provide any additional requirements to receive the discount. Sales returns and customer disputes involving a question of quantity or price are also accounted for as a reduction in revenue and a contra receivable. At December 31, 2014 and 2013, the Company had a customer claim accrual (contra receivable) of $4.7 million and $1.7 million, respectively. All other incentives or incentive programs where the customer is required to reach a certain sales level, remain a customer for a certain period of time, provide a rebate form or is subject to additional requirements are accounted for as a reduction of revenue and establishment of a liability. At December 31, 2014 and 2013, the Company had a sales incentive accrual of $73.4 million and $80.1 million, respectively. Each of these accruals represents the best estimate the Company expects to pay related to previously sold units. These estimates are reviewed regularly for appropriateness. If updated information or actual amounts are different from previous estimates, the revisions are included in the results for the period in which they become known. Historically, the aggregate differences, if any, between our estimates and actual amounts in any year have not had a material impact on the Consolidated Financial Statements.

The Company enters into maintenance and extended warranty contracts with customers. Revenue related to these services is recognized on a straight-line basis over the life of the contract, unless sufficient historical evidence indicates that the cost of providing these services is incurred on an other than straight-line basis. In these circumstances, revenue is recognized over the contract period in proportion to the costs expected to be incurred in performing the service.

The Company, primarily through its Climate segment, provides equipment (e.g. HVAC, controls), integrated solutions, and installation designed to customer specifications through construction-type contracts. The term of these types of contracts is typically less than one year, but can be as long as three years. Revenues related to these contracts are recognized using the percentage-of-completion method in accordance with GAAP. This measure of progress toward completion, utilized to recognize sales and profits, is based on the proportion of actual cost incurred to date as compared to the total estimate of contract costs at completion. The timing of revenue recognition often differs from the invoicing schedule to the customer, with revenue recognition in advance of customer invoicing recorded to unbilled accounts receivable and invoicing in advance of revenue recognition recorded to deferred revenue. At December 31, 2014, all recorded receivables (billed and unbilled) are due within one year. The Company re-evaluates its contract estimates periodically and reflects changes in estimates in the current period using the cumulative catch-up method. These periodic reviews have not historically resulted in significant adjustments. If estimated contract costs are in excess of contract revenues, then the excess costs are accrued.

The Company enters into sales arrangements that contain multiple elements, such as equipment, installation and service revenue. For multiple element arrangements, each element is evaluated to determine the separate units of accounting. The total arrangement consideration is then allocated to the separate units of accounting based on their relative selling price at the inception of the arrangement. The relative selling price is determined using vendor specific objective evidence (VSOE) of selling price, if it exists; otherwise, third-party evidence (TPE) of selling price is used. If neither VSOE nor TPE of selling price exists for a deliverable, a best estimate of the selling price is developed for that deliverable. The Company primarily utilizes VSOE to determine its relative selling price. The Company recognizes revenue for delivered elements when the delivered item has stand-alone value to the customer, the basic revenue recognition criteria have been met, and only customary refund or return rights related to the delivered elements exist.

Environmental Costs: The Company is subject to laws and regulations relating to protecting the environment. Environmental expenditures relating to current operations are expensed or capitalized as appropriate. Expenditures relating to existing conditions caused by past operations, which do not contribute to current or future revenues, are expensed. Liabilities for remediation costs are recorded when they are probable and can be reasonably estimated, generally no later than the completion of feasibility studies or the Company's commitment to a plan of action. The assessment of this liability, which is calculated based on existing technology, does not reflect any offset for possible recoveries from insurance companies, and is not discounted. Refer to Note 17 for further details of environmental matters.

Asbestos Matters: Certain wholly-owned subsidiaries of the Company are named as defendants in asbestos-related lawsuits in state and federal courts. The Company records a liability for its actual and anticipated future claims as well as an asset for anticipated insurance settlements. Asbestos related defense costs are excluded from the asbestos claims liability and are recorded separately as services are incurred. Although the Company was neither a manufacturer nor producer of asbestos, some of its formerly manufactured components from third party suppliers utilized asbestos-related components. As a result, amounts related to asbestos are recorded within Discontinued operations, net of tax, except for amounts related to Trane U.S. Inc. asbestos liabilities, which are recorded in Earnings from continuing operations. Refer to Note 17 for further details of asbestos-related matters.

Research and Development Costs: The Company conducts research and development activities for the purpose of developing and improving new products and services. These expenditures are expensed when incurred. For the years ended December 31, 2014, 2013 and 2012, these expenditures amounted to approximately $212.3 million, $218.2 million and $235.4 million, respectively.

Software Costs: The Company capitalizes certain qualified internal-use software costs during the application development stage and subsequently amortizes those costs over the software's useful life, which ranges from 2 to 7 years. Refer to Note 4 for further details on software.

Employee Benefit Plans: The Company provides a range of benefits, including pensions, postretirement and postemployment benefits to eligible current and former employees. Determining the cost associated with such benefits is dependent on various actuarial assumptions, including discount rates, expected return on plan assets, compensation increases, employee mortality, turnover rates, and healthcare cost trend rates. Actuaries perform the required calculations to determine expense in accordance with GAAP. Actual results may differ from the actuarial assumptions and are generally accumulated into Accumulated other comprehensive income (loss) and amortized into Net earnings over future periods. The Company reviews its actuarial assumptions at each measurement date and makes modifications to the assumptions based on current rates and trends, if appropriate. Refer to Note 9 for further details on employee benefit plans.

Loss Contingencies: Liabilities are recorded for various contingencies arising in the normal course of business, including litigation and administrative proceedings, environmental matters, product liability, product warranty, worker's compensation and other claims. The Company has recorded reserves in the financial statements related to these matters, which are developed using input derived from actuarial estimates and historical and anticipated experience data depending on the nature of the reserve, and in certain instances with consultation of legal counsel, internal and external consultants and engineers. Subject to the uncertainties inherent in estimating future costs for these types of liabilities, the Company believes its estimated reserves are reasonable and does not believe the final determination of the liabilities with respect to these matters would have a material effect on the financial condition, results of operations, liquidity or cash flows of the Company for any year. Refer to Note 17 for further details on loss contingencies.

Derivative Instruments: The Company periodically enters into cash flow and other derivative transactions to specifically hedge exposure to various risks related to interest rates and currency rates. The Company recognizes all derivatives on the Consolidated Balance Sheet at their fair value as either assets or liabilities. For cash flow designated hedges, the effective portion of the changes in fair value of the derivative contract are recorded in Accumulated other comprehensive income (loss), net of taxes, and are recognized in Net earnings at the time earnings are affected by the hedged transaction. For other derivative transactions, the changes in the fair value of the derivative contract are immediately recognized in Net earnings. Refer to Note 8 for further details on derivative instruments.

Recent Accounting Pronouncements

Recently Adopted Accounting Pronouncements:

In February 2013, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2013-04, "Obligations Resulting from Joint and Several Liability Arrangements for Which the Total Amount of the Obligation Is Fixed at the Reporting Date." ASU 2013-04 provides guidance for the recognition, measurement, and disclosure of obligations resulting from joint and several liability arrangements where the total obligation is fixed at the reporting date, and for which no specific guidance currently exists. This new guidance became effective for annual reporting periods beginning on or after December 15, 2013 and subsequent interim periods. The revised requirements of ASU 2013-04 did not have an impact on the consolidated financial statements.

In March 2013, the FASB issued ASU 2013-05, "Parent's Accounting for the Cumulative Translation Adjustment upon Derecognition of Certain Subsidiaries or Groups of Assets within a Foreign Entity or of an Investment in a Foreign Entity." ASU 2013-05 clarifies the application of GAAP to the release of cumulative translation adjustments related to changes of ownership in or within foreign entities, including step acquisitions. This new guidance became effective for annual reporting periods beginning on or after December 15, 2013 and subsequent interim periods. The Company will apply the new guidance, as applicable, to future derecognitions of certain subsidiaries or groups of assets within a Foreign Entity or of an Investment in foreign entities.

In July 2013, the FASB issued ASU 2013-11, "Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists." ASU 2013-11 clarifies guidance and eliminates diversity in practice on the presentation of unrecognized tax benefits when a net operating loss carryforward, a similar tax loss, or a tax credit carryforward exists at the reporting date. This new guidance became effective for annual reporting periods beginning on or after December 15, 2013 and subsequent interim periods. The Company has applied the requirements of ASU 2013-11 prospectively in preparing the December 31, 2014 consolidated balance sheet, which resulted in a decrease to current and noncurrent deferred tax assets of $21.9 million and $10.0 million, respectively, an increase to noncurrent deferred tax liabilities of $114.8 million and a decrease to noncurrent reserves for uncertain tax positions of $146.7 million. Had the Company applied the requirements of ASU 2013-11 retrospectively to the December 31, 2013 consolidated balance sheet, the impact would have been a decrease to current and noncurrent deferred tax assets of $22.6 million and $20.7 million, respectively, an increase to noncurrent deferred tax liabilities of $128.9 million and a decrease to noncurrent reserves for uncertain tax positions of $172.2 million.

Recently Issued Accounting Pronouncements

In April 2014, the FASB issued ASU 2014-08, "Presentation of Financial Statements and Property, Plant, and Equipment - Reporting Discontinued Operations and Disclosures of Disposals of Components of an Entity." ASU 2014-08 provides new guidance related to the definition of a discontinued operation and requires new disclosures of both discontinued operations and certain other disposals that do not meet the definition of a discontinued operation. This new guidance is effective for annual periods beginning on or after December 15, 2014 and interim periods within those years. Beginning in 2015, the Company will apply the new guidance, as applicable, to future disposals of components or classifications as held for sale.

In May 2014, the FASB issued ASU 2014-09, "Revenue from Contracts with Customers." ASU 2014-09 provides new guidance related to how an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In addition, ASU 2014-08 specifies new accounting for costs associated with obtaining or fulfilling contracts with customers and expands the required disclosures related to revenue and cash flows from contracts with customers. This new guidance is effective for fiscal years, and interim periods within those years, beginning after December 15, 2016, and can be adopted either retrospectively to each prior reporting period presented or as a cumulative-effect adjustment as of the date of adoption, with early application not permitted. The Company is currently determining its implementation approach and assessing the impact on the consolidated financial statements.

In June 2014, the FASB issued ASU 2014-12 "Accounting for Share-Based Payments When the Terms of an Award Provide That a Performance Target Could Be Achieved after the Requisite Service Period." ASU 2014-12 requires that a performance target that affects vesting, and that could be achieved after the requisite service period, be treated as a performance condition. As such, the performance target should not be reflected in estimating the grant date fair value of the award. This update further clarifies that compensation cost should be recognized in the period in which it becomes probable that the performance target will be achieved and should represent the compensation cost attributable to the period(s) for which the requisite service has already been rendered. The new guidance is effective for annual and interim reporting periods beginning after December 15, 2015, including interim periods within that reporting period. Early application is permitted. Beginning in 2015, the Company will apply the new guidance to future share-based payment arrangements, as applicable, and is not expected to have a significant impact on the consolidated financial statements.

In August 2014, the FASB issued ASU 2014-15, "Presentation of Financial Statements - Going Concern - Disclosures of Uncertainties about an entity's Ability to Continue as a Going Concern." ASU 2014-15 provides new guidance related to management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern by incorporating and expanding upon certain principles that are currently in U.S. auditing standards and to provide related footnote disclosures. This new guidance is effective for the annual period ending after December 15, 2016, and for annual periods and interim periods thereafter. The requirements of ASU 2014-15 are not expected to have a significant impact on the consolidated financial statements.

NOTE 3 – INVENTORIES

At December 31, the major classes of inventory were as follows:

In millions	2014	2013
Raw materials	$ 487.9	$ 378.0
Work-in-process	118.2	100.7
Finished goods	823.1	760.2
	1,429.2	1,238.9
LIFO reserve	(70.3)	(72.8)
Total	$ 1,358.9	$ 1,166.1

NOTE 4 – PROPERTY, PLANT AND EQUIPMENT

At December 31, the major classes of property, plant and equipment were as follows:

In millions	2014	2013
Land	$ 62.9	$ 64.2
Buildings	674.8	654.8
Machinery and equipment	1,647.8	1,612.0
Software	618.7	511.3
	3,004.2	2,842.3
Accumulated depreciation	(1,527.2)	(1,373.9)
Total	$ 1,477.0	$ 1,468.4

Depreciation expense for the years ended December 31, 2014, 2013 and 2012 was $199.9 million, $199.5 million and $194.5 million, which include amounts for software amortization of $40.1 million, $44.3 million and $48.5 million, respectively.

NOTE 5 – GOODWILL

The changes in the carrying amount of Goodwill are as follows:

In millions	Climate	Industrial	Total
December 31, 2012 (gross)	$ 7,619.9	$ 368.7	$ 7,988.6
Acquisitions and adjustments	(1.1)	1.1	—
Currency translation	44.8	3.2	48.0
December 31, 2013 (gross)	7,663.6	373.0	8,036.6
Acquisitions and adjustments *	13.8	2.7	16.5
Currency translation	(158.5)	(8.8)	(167.3)
December 31, 2014 (gross)	7,518.9	366.9	7,885.8
Accumulated impairment **	(2,496.0)	—	(2,496.0)
Goodwill (net)	$ 5,022.9	$ 366.9	$ 5,389.8

* Increase is primarily related to a $15.0 million acquisition in March of 2014 within the Climate segment and a $3.0 million acquisition in August of 2014 within the Industrial segment.
** Accumulated impairment relates to a charge of $2,496.0 million recorded in the fourth quarter of 2008 as a result of the Company's annual impairment testing.

The Company records as goodwill the excess of the purchase price over the fair value of the net assets acquired.

In accordance with the Company's goodwill impairment testing policy outlined in Note 2, the Company performed its annual impairment test on goodwill in the fourth quarter of each 2014, 2013, and 2012. In each year, the Company determined that the fair values of all identified reporting units exceeded their respective carrying values. Therefore, no impairment charges were recorded during 2014, 2013, and 2012.

NOTE 6 – INTANGIBLE ASSETS

The following table sets forth the gross amount and related accumulated amortization of the Company's intangible assets at December 31:

In millions	2014 Gross carrying amount	2014 Accumulated amortization	2014 Net carrying amount	2013 Gross carrying amount	2013 Accumulated amortization	2013 Net carrying amount
Completed technologies/patents	$ 172.2	$ (146.8)	$ 25.4	$ 174.1	$ (128.7)	$ 45.4
Customer relationships	1,850.6	(699.8)	1,150.8	1,865.9	(599.5)	1,266.4
Other	55.9	(50.2)	5.7	60.4	(52.2)	8.2
Total finite-lived intangible assets	2,078.7	$ (896.8)	1,181.9	2,100.4	$ (780.4)	1,320.0
Trademarks (indefinite-lived)	2,602.0		2,602.0	2,602.0		2,602.0
Total	$ 4,680.7		$ 3,783.9	$ 4,702.4		$ 3,922.0

The Company amortizes intangible assets with finite useful lives on a straight-line basis over their estimated economic lives in accordance with GAAP. Indefinite-lived intangible assets are not subject to amortization, but instead, are tested for impairment at least annually (more frequently if certain indicators are present).

Intangible asset amortization expense for 2014, 2013 and 2012 was $128.3 million, $128.9 million and $129.2 million, respectively. Future estimated amortization expense on existing intangible assets in each of the next five years amounts to approximately $116 million for 2015, $101 million for 2016, $101 million for 2017, $100 million for 2018, and $99 million for 2019.

In accordance with the Company's indefinite-lived intangible asset impairment testing policy outlined in Note 2, the Company performed its annual impairment test in the fourth quarter of each 2014, 2013 and 2012. In each year, the Company determined the fair value of all indefinite-lived intangible assets to exceed their respective carrying values. Therefore, no impairment charges were recorded during 2014, 2013 and 2012.

NOTE 7 – DEBT AND CREDIT FACILITIES

At December 31, short-term borrowings and current maturities of long-term debt consisted of the following:

In millions	2014	2013
Debentures with put feature	$ 343.0	$ 343.0
Other current maturities of long-term debt	23.6	8.0
Short-term borrowings	116.1	16.7
Total	$ 482.7	$ 367.7

The weighted-average interest rate for total short-term borrowings and current maturities of long-term debt at December 31, 2014 and 2013 was 5.2% and 6.5%,respectively.

At December 31, long-term debt excluding current maturities consisted of:

In millions	2014	2013
5.500% Senior notes due 2015	$ —	$ 198.1
4.750% Senior notes due 2015	—	299.8
6.875% Senior notes due 2018	749.6	749.5
2.875% Senior notes due 2019	349.6	349.5
2.625% Senior notes due 2020	299.8	—
9.000% Debentures due 2021	125.0	125.0
4.250% Senior notes due 2023	698.9	698.8
7.200% Debentures due 2014-2025	75.0	82.5
3.550% Senior notes due 2024	497.2	—
6.48% Debentures due 2025	149.7	149.7
5.750% Senior notes due 2043	498.0	498.0
4.650% Senior notes due 2044	298.2	—
Other loans and notes, at end-of-year average interest rates of 1.08% in 2014 and 3.01% in 2013, maturing in various amounts to 2019	0.7	2.6
Total	$ 3,741.7	$ 3,153.5

At December 31, 2014, long-term debt retirements are as follows:

In millions	
2015	$ 366.6
2016	7.8
2017	7.7
2018	757.3
2019	357.2
Thereafter	2,611.7
Total	$ 4,108.3

Commercial Paper Program

The maximum aggregate amount of unsecured commercial paper notes available to be issued, on a private placement basis, under the commercial paper program is $2 billion as of December 31, 2014. Under the commercial paper program, the Company may issue notes from time to time through Ingersoll-Rand Global Holding Company Limited (IR-Global) or Ingersoll-Rand Luxembourg Finance S.A. (IR-Lux), and the proceeds of the financing will be used for general corporate purposes. Each of IR-Ireland, Ingersoll-Rand Company Limited (IR-Limited), Ingersoll-Rand International Holding Limited (IR-International), Ingersoll-Rand Global Holding Company Limited (IR- Global) and Ingersoll-Rand New Jersey (IR-New Jersey) provided irrevocable and unconditional guarantees for the notes issued under the commercial paper program. The Company had $100.0 million of commercial paper outstanding at December 31, 2014. No commercial paper was outstanding at December 31, 2013.

Debentures with Put Feature

At December 31, 2014 and December 31, 2013, the Company had outstanding $343.0 million of fixed rate debentures which only require early repayment at the option of the holder. These debentures contain a put feature that the holders may exercise on each anniversary of the issuance date. If exercised, the Company is obligated to repay in whole or in part, at the holder's option, the outstanding principal amount (plus accrued and unpaid interest) of the debentures held by the holder. If these options are not exercised, the final maturity dates would range between 2027 and 2028.

Holders of these debentures had the option to exercise the put feature on $37.2 million of the outstanding debentures in February 2014, subject to the notice requirement. No exercises were made. Holders of the remaining $305.8 million in outstanding debentures had the option to exercise the put feature, subject to the notice requirement, in November 2014. No material exercises were made.

Senior Notes due 2020, 2024, and 2044

In October 2014, we issued $1.1 billion principal amount of Senior Notes in three tranches through a newly-created wholly-owned subsidiary, Ingersoll-Rand Luxembourg Finance S.A. (IR-Lux). The tranches consist of $300 million of 2.625% Senior Notes due in 2020, $500 million of 3.55% Senior Notes due 2024, and $300 million of 4.65% Senior Notes due in 2044. The notes are fully and unconditionally guaranteed by each of IR-Ireland, Ingersoll-Rand Company Limited (IR-Limited), Ingersoll-Rand International Holding Limited (IR-International), Ingersoll-Rand New Jersey (IR-New Jersey) and Ingersoll-Rand Global Holding Company Limited (IR-Global). The Company has the option to redeem the notes in whole or in part at any time, prior to their stated maturity date at redemption prices set forth in the indenture agreement. The notes are subject to certain customary covenants, however, none of these covenants are considered restrictive to the Company's operations.

The proceeds from the notes were primarily used to (i) fund the October 2014 redemption of the $200 million of 5.50% Notes due 2015 and $300 million 4.75% Senior Notes due 2015, and (ii) fund the previously announced acquisition of Cameron International Corporation's Centrifugal compression division on January 1, 2015. Related to the redemption, the Company recognized $10.2 million of premium expense in Interest expense.

Senior Notes due 2019, 2023, and 2043

In June 2013, we issued $1.55 billion principal amount of Senior Notes in three tranches through our wholly-owned subsidiary, IR-Global pursuant to Rule 144A of the Securities Act. The tranches consist of $350 million of 2.875% Senior Notes due in 2019, $700 million of 4.250% Senior Notes due in 2023, and $500 million of 5.750% Senior Notes due in 2043. The notes are fully and unconditionally guaranteed by each of IR-Ireland, IR-Limited, IR-International and IR-Lux. Later in 2013, the notes were modified to include IR-New Jersey as co-obligor. Interest on the notes is paid twice a year in arrears. The Company has the option to redeem the notes in whole or in part at any time, prior to their stated maturity date at redemption prices set forth in the indenture agreement. The notes are subject to certain customary covenants, however, none of these covenants are considered restrictive to the Company's operations.

The proceeds from these notes were primarily used to fund the July 2013 redemption of $600 million of 6.000% Senior Notes due 2013 and $655 million of 9.500% Senior Notes due 2014 and to fund expenses related to the spin-off of the commercial and residential security businesses. The July 2013 redemption resulted in $45.6 million of premium expense, which was recorded in 2013 in Interest expense.

In connection with the issuance of each series of notes, IR-Global, the Guarantors and the initial purchasers of the notes entered into a Registration Rights Agreement. Each Registration Rights Agreement required IR-Global and the Guarantors to use their commercially reasonable efforts to execute an effective exchange offer registration statement with the SEC no later than 365 days after the closing date of the notes offering and to complete an exchange offer within 30 business days of such effective date. The Company filed its exchange offer in April 2014, and in June 2014, completed the exchange of the notes for registered notes having terms identical in all material respects to the private notes, except that the registered notes do not contain terms with respect to transfer restrictions, registration rights or additional interest for failure to observe certain obligations in the applicable registration rights agreement.

Other Credit Facilities

On March 20, 2014, the Company entered into an unsecured 5-year, $1.0 billion revolving credit facility through our wholly-owned subsidiary, IR-Global. The credit facility matures in March 2019. In connection with the entry into this credit facility, the Company's existing 4-year, $1.0 billion revolving credit facility, due to expire in May 2015, was terminated. The Company also has a 5-year, $1.0 billion revolving credit facility through IR-Global that matures in March 2017. During the fourth quarter of 2014, both credit agreements were amended to include IR-Lux as an additional borrower.

IR-Ireland, IR-Limited, IR-International, IR-New Jersey, IR-Global and IR-Lux have each provided irrevocable and unconditional guarantees for these credit facilities. The total committed revolving credit facilities of $2.0 billion are unused and provide support for the Company's commercial paper program, as well as other general corporate purposes.

The Company also has various non-U.S. lines of credit that provide aggregate borrowing capacity of $847.4 million, of which $610.2 million was unused at December 31, 2014. These lines provide support for bank guarantees, letters of credit and other general corporate purposes.

Fair Value of Debt

The carrying value of the Company's short-term borrowings is a reasonable estimate of fair value due to the short-term nature of the instruments. The Company measures the fair value of its long-term debt instruments based upon observable market prices quoted on public exchanges for similar assets. These fair value inputs are considered Level 2 within the fair value hierarchy discussed in Note 9. The methodologies used by the Company to determine the fair value of its long-term debt instruments at December 31, 2014 are the same as those used at December 31, 2013. There have been no transfers between levels of the fair value hierarchy. The fair value of the Company's debt instruments at December 31, 2014 and December 31, 2013 was $4,661.4 million and $3,803.8 million, respectively.

Guarantees

Along with IR-Ireland, certain of our 100% directly or indirectly owned subsidiaries have fully and unconditionally guaranteed, on a joint and several basis, public debt issued by other 100% directly or indirectly owned subsidiaries. Refer to Note 19 for our current guarantor structure.

NOTE 8 – FINANCIAL INSTRUMENTS

In the normal course of business, the Company may use various financial instruments, including derivative instruments, to manage the risks associated with interest rate and currency rate exposures. These financial instruments are not used for trading or speculative purposes.

On the date a derivative contract is entered into, the Company designates the derivative instrument as a cash flow hedge of a forecasted transaction or as an undesignated derivative. The Company formally documents its hedge relationships, including identification of the derivative instruments and the hedged items, as well as its risk management objectives and strategies for undertaking the hedge transaction. This process includes linking derivative instruments that are designated as hedges to specific assets, liabilities or forecasted transactions.

The fair market value of derivative instruments is determined through market-based valuations and may not be representative of the actual gains or losses that will be recorded when these instruments mature due to future fluctuations in the markets in which they are traded.

The Company assesses at inception and at least quarterly thereafter, whether the derivatives used in cash flow hedging transactions are highly effective in offsetting the changes in the cash flows of the hedged item. To the extent the derivative is deemed to be a highly effective hedge, the fair market value changes of the instrument are recorded to Accumulated other comprehensive income (AOCI).

Any ineffective portion of a derivative instrument's change in fair value is recorded in Net earnings in the period of change. If the hedging relationship ceases to be highly effective, or it becomes probable that a forecasted transaction is no longer expected to occur, the hedging relationship will be undesignated and any future gains and losses on the derivative instrument will be recorded in Net earnings.

Currency Hedging Instruments

The notional amount of the Company's currency derivatives was $776.7 million and $1,510.0 million at December 31, 2014 and 2013, respectively. At December 31, 2014 and 2013, a loss of $1.9 million and $3.1 million, net of tax, respectively, was included in AOCI related to the fair value of the Company's currency derivatives designated as accounting hedges. The amount expected to be reclassified into Net earnings over the next twelve months is a loss of $1.9 million. The actual amounts that will be reclassified to Net earnings may vary from this amount as a result of changes in market conditions. Gains and losses associated with the Company's currency derivatives not designated as hedges are recorded in Net earnings as changes in fair value occur. At December 31, 2014, the maximum term of the Company's currency derivatives was approximately 12 months.

Other Derivative Instruments

The Company has utilized forward-starting interest rate swaps and interest rate locks to manage interest rate exposure in periods prior to the anticipated issuance of fixed-rate debt. These instruments have been designated as cash flow hedges. Consequently, when the contracts were settled upon the issuance of the underlying debt, any realized gains or losses in the fair values of the instruments were initially deferred into Accumulated other comprehensive income. These deferred gains or losses are subsequently recognized into Interest expense over the term of the related notes. The net unrecognized gain in AOCI was $4.9 million and $2.7 million at December 31, 2014 and 2013. The deferred gain at December 31, 2014 will be amortized over the term of notes with maturities ranging from 2018 to 2044. The amount expected to be amortized over the next twelve months is $0.5 million. There were no forward-starting interest rate swaps or interest rate lock contracts outstanding at December 31, 2014 or 2013.

Fair Value Measurements

The Company measures the fair value of its derivative instruments on a recurring basis using a pricing model that employs spot rates and forward prices from actively quoted currency markets that are readily accessible and observable. These fair value inputs are considered Level 2 within the fair value hierarchy discussed in Note 9. The methodologies used by the Company to determine the fair value of its derivative instruments at December 31, 2014 are the same as those used at December 31, 2013. There have been no transfers between levels of the fair value hierarchy.

The fair values of derivative instruments included within the Consolidated Balance Sheet as of December 31 were as follows:

In millions	Asset derivatives 2014	Asset derivatives 2013	Liability derivatives 2014	Liability derivatives 2013
Derivatives designated as hedges:				
Currency derivatives	$ 0.3	$ 0.1	$ 3.2	$ 3.4
Derivatives not designated as hedges:				
Currency derivatives	1.3	3.1	10.1	13.6
Total derivatives	$ 1.6	$ 3.2	$ 13.3	$ 17.0

Asset and liability derivatives included in the table above are recorded within Other current assets and Accrued expenses and other current liabilities, respectively.

The amounts associated with derivatives designated as hedges affecting Net earnings and AOCI for the years ended December 31 were as follows:

In millions	Amount of gain (loss) recognized in AOCI 2014	2013	2012	Location of gain (loss) reclassified from AOCI and recognized into Net earnings	Amount of gain (loss) reclassified from AOCI and recognized into Net earnings 2014	2013	2012
Currency derivatives - continuing	$ (3.0)	$ (9.8)	$ (6.1)	Cost of goods sold	$ (3.4)	$ (10.8)	$ 0.4
Currency derivatives - discontinued	—	2.0	(1.1)	Discontinued operations	—	1.1	(0.2)
Interest rate swaps & locks	(0.1)	10.5	—	Interest expense	(2.3)	(2.4)	(3.0)
Total	$ (3.1)	$ 2.7	$ (7.2)		$ (5.7)	$ (12.1)	$ (2.8)

The amounts associated with derivatives not designated as hedges affecting Net earnings for the years ended December 31 were as follows:

In millions	Location of gain (loss) recognized in Net earnings	Amount of gain (loss) recognized in Net earnings 2014	2013	2012
Currency derivatives	Other, net	$ (31.5)	$ (42.2)	$ 28.5
Total		$ (31.5)	$ (42.2)	$ 28.5

The gains and losses associated with the Company’s undesignated currency derivatives are materially offset in Net earnings by changes in the fair value of the underlying transactions.

Concentration of Credit Risk

The counterparties to the Company’s forward contracts consist of a number of investment grade major international financial institutions. The Company could be exposed to losses in the event of nonperformance by the counterparties. However, the credit ratings and the concentration of risk in these financial institutions are monitored on a continuous basis and present no significant credit risk to the Company.

Fair Value of Other Financial Instruments

The carrying value of cash and cash equivalents, accounts receivable and accounts payable are a reasonable estimate of their fair value due to the short-term nature of these instruments. See Note 7 for a discussion of the fair value measurement of the Company's debt instruments and Note 9 for a discussion of the fair value measurement of the Company's pension assets and liabilities.

NOTE 9 – PENSIONS AND POSTRETIREMENT BENEFITS OTHER THAN PENSIONS

The Company sponsors several U.S. defined benefit and defined contribution plans covering substantially all of our U.S. employees. Additionally, the Company has many non-U.S. defined benefit and defined contribution plans covering eligible non-U.S. employees. Postretirement benefits, other than pensions, provide healthcare benefits, and in some instances, life insurance benefits for certain eligible employees.

Pension Plans

The noncontributory defined benefit pension plans covering non-collectively bargained U.S. employees provide benefits on a final average pay formula while plans for most collectively bargained U.S. employees provide benefits on a flat dollar benefit formula or a percentage of pay formula. The non-U.S. pension plans generally provide benefits based on earnings and years of service. The Company also maintains additional other supplemental plans for officers and other key or highly compensated employees.

In connection with the 2013 spin-off, the Company transferred its obligations for pension benefits for all current and former employees of the commercial and residential security businesses to Allegion. The transfer of these obligations reduced our pension liabilities by $631.1 million, pension assets by $543.5 million, and accumulated other comprehensive losses by $164.8 million.

On June 8, 2012, the Board of Directors approved amendments to the Company's retirement plans for certain U.S. and Puerto Rico non-bargained employees. Eligible non-bargained employees hired prior to July 1, 2012 were given a choice of remaining in their respective defined benefit plan until the plan freezes on December 31, 2022 or freezing their accrued benefits in their respective defined benefit plan as of December 31, 2012 and receiving an additional 2% non-matching Company contribution into the Company's applicable defined contribution plan. Eligible employees hired or rehired on or after July 1, 2012 will automatically receive the 2% non-matching Company contribution into the applicable defined contribution plan in lieu of participating in the defined benefit plan. Beginning January 1, 2023, all eligible employees will receive the 2% non-matching contribution into the applicable defined contribution plan . As a result of these changes, the Company's projected benefit obligations for the amended plans were remeasured as of June 8, 2012, which included updating the discount rate assumption to 4.00% from the 4.25% assumed at December 31, 2011. The amendments resulted in a 2012 curtailment loss of $4.0 million. The amendment and remeasurement resulted in an increase of $1.0 million to the projected benefit obligation, an increase of $29.4 million to the plan assets, an actuarial gain of $28.4 million and a credit of $4.0 million to prior service cost during 2012.

The following table details information regarding the Company’s pension plans at December 31:

In millions	2014	2013
Change in benefit obligations:		
Benefit obligation at beginning of year	$ 3,333.2	$ 4,228.6
Service cost	68.7	88.5
Interest cost	147.2	156.9
Employee contributions	1.2	1.5
Amendments	9.2	1.2
Actuarial (gains) losses	448.3	(314.4)
Benefits paid	(215.3)	(211.6)
Currency translation	(57.8)	19.5
Curtailments and settlements	(4.1)	(3.7)
Impact of spin-off	—	(631.1)
Other, including expenses paid	(11.0)	(2.2)
Benefit obligation at end of year	$ 3,719.6	$ 3,333.2
Change in plan assets:		
Fair value at beginning of year	$ 2,779.2	$ 3,310.2
Actual return on assets	395.2	98.9
Company contributions	116.5	109.7
Employee contributions	1.2	1.5
Benefits paid	(215.3)	(211.6)
Currency translation	(43.1)	17.7
Settlements	(4.1)	(1.6)
Impact of spin-off	—	(543.5)
Other, including expenses paid	(11.0)	(2.1)
Fair value of assets end of year	$ 3,018.6	$ 2,779.2
Net unfunded liability	$ (701.0)	$ (554.0)
Amounts included in the balance sheet:		
Other noncurrent assets	$ 11.5	$ 4.3
Accrued compensation and benefits	(11.3)	(30.8)
Postemployment and other benefit liabilities	(701.2)	(527.5)
Net amount recognized	$ (701.0)	$ (554.0)

It is the Company’s objective to contribute to the pension plans to ensure adequate funds, and no less than required by law, are available in the plans to make benefit payments to plan participants and beneficiaries when required. However, certain plans are not or cannot be funded due to either legal, accounting, or tax requirements in certain jurisdictions. As of December 31, 2014, approximately six percent of our projected benefit obligation relates to plans that cannot be funded.

The pretax amounts recognized in Accumulated other comprehensive income (loss) are as follows:

In millions	Prior service cost	Net actuarial losses	Total
December 31, 2013	$ (17.7)	$ (849.1)	$ (866.8)
Current year changes recorded to Accumulated other comprehensive income (loss)	(9.2)	(209.2)	(218.4)
Amortization reclassified to earnings	4.4	36.1	40.5
Settlements/curtailments reclassified to earnings	—	7.1	7.1
Currency translation and other	0.2	15.7	15.9
December 31, 2014	$ (22.3)	$ (999.4)	$ (1,021.7)

Weighted-average assumptions used to determine the benefit obligation at December 31 are as follows:

	2014	2013
Discount rate:		
U.S. plans	3.75%	4.75%
Non-U.S. plans	3.25%	4.25%
Rate of compensation increase:		
U.S. plans	4.00%	4.00%
Non-U.S. plans	4.00%	4.25%

The accumulated benefit obligation for all defined benefit pension plans was $3,568.5 million and $3,194.8 million at December 31, 2014 and 2013, respectively. The projected benefit obligation, accumulated benefit obligation, and fair value of plan assets for pension plans with accumulated benefit obligations more than plan assets were $3,244.3 million, $3,115.2 million and $2,536.2 million, respectively, as of December 31, 2014, and $3,291.3 million, $3,159.3 million and $2,735.5 million, respectively, as of December 31, 2013.

Pension benefit payments are expected to be paid as follows:

In millions	
2015	$ 207.8
2016	208.4
2017	212.4
2018	222.2
2019	222.4
2020 — 2024	1,164.6

The components of the Company's net periodic pension benefit costs for the years ended December 31 include the following:

In millions	2014	2013	2012
Service cost	$ 68.7	$ 88.5	$ 96.8
Interest cost	147.2	156.9	163.6
Expected return on plan assets	(156.1)	(166.3)	(173.6)
Net amortization of:			
Prior service costs	4.4	4.7	5.1
Plan net actuarial losses	36.1	63.0	60.6
Net periodic pension benefit cost	100.3	146.8	152.5
Net curtailment and settlement (gains) losses	7.1	0.7	4.9
Net periodic pension benefit cost after net curtailment and settlement (gains) losses	$ 107.4	$ 147.5	$ 157.4
Amounts recorded in continuing operations	$ 100.2	$ 119.2	$ 125.5
Amounts recorded in discontinued operations	7.2	28.3	31.9
Total	$ 107.4	$ 147.5	$ 157.4

The curtailment and settlement losses in 2014 are associated with lump sum distributions under supplemental benefit plans for officers and other key employees. The curtailment and settlement losses in 2012 are associated with the amendments to the pension plans and lump sum distributions under the supplemental benefit plans for officers and other key employees.

Pension expense for 2015 is projected to be approximately $113.5 million, utilizing the assumptions for calculating the pension benefit obligations at the end of 2014. The amounts expected to be recognized in net periodic pension cost during the year ended 2015 for prior service cost and plan net actuarial losses are $3.3 million and $62.1 million, respectively.

Weighted-average assumptions used to determine net periodic pension cost for the years ended December 31 are as follows:

	2014	2013	2012
Discount rate:			
U.S. plans			
For the period January 1 to June 7	4.75%	3.75%	4.25%
For the period June 8 to November 30	4.75%	3.75%	4.00%
For the period December 1 to December 31	4.75%	4.50%	4.00%
Non-U.S. plans	4.25%	4.25%	5.00%
Rate of compensation increase:			
U.S. plans	4.00%	4.00%	4.00%
Non-U.S. plans	4.25%	4.00%	4.00%
Expected return on plan assets:			
U.S. plans	6.00%	5.25%	5.75%
Non-U.S. plans	5.00%	5.00%	5.75%

The expected long-term rate of return on plan assets reflects the average rate of returns expected on the funds invested or to be invested to provide for the benefits included in the projected benefit obligation. The expected long-term rate of return on plan assets is based on what is achievable given the plan's investment policy, the types of assets held and target asset allocations. The expected long-term rate of return is determined as of the measurement date. The Company reviews each plan and its historical returns and target asset allocations to determine the appropriate expected long-term rate of return on plan assets to be used.

The Company's objective in managing its defined benefit plan assets is to ensure that all present and future benefit obligations are met as they come due. It seeks to achieve this goal while trying to mitigate volatility in plan funded status, contribution, and expense by better matching the characteristics of the plan assets to that of the plan liabilities. The Company utilizes a dynamic approach to asset allocation whereby a plan's allocation to fixed income assets increases as the plan's funded status improves. The Company monitors plan funded status and asset allocation regularly in addition to investment manager performance.

Fair Value Measurements

Fair value is defined as the exchange price that would be received to sell an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Fair value measurements are based on a framework that utilizes the inputs market participants use to determine the fair value of an asset or liability and establishes a fair value hierarchy to prioritize those inputs. The fair value hierarchy is comprised of three levels that are described below:

- Level 1 - Inputs based on quoted prices in active markets for identical assets or liabilities.
- Level 2 - Inputs other than Level 1 quoted prices, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the asset or liability.
- Level 3 - Unobservable inputs based on little or no market activity and that are significant to the fair value of the assets and liabilities.

The fair value hierarchy requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. Observable inputs are obtained from independent sources and can be validated by a third party, whereas unobservable inputs reflect assumptions regarding what a third party would use in pricing an asset or liability based on the best information available under the circumstances. A financial instrument's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

The fair values of the Company's pension plan assets at December 31, 2014 by asset category are as follows:

In millions	Fair value measurements Level 1	Level 2	Level 3	Total fair value
Cash and cash equivalents	$ 1.3	$ 27.3	$ —	$ 28.6
Equity investments:				
Registered mutual funds – equity specialty[a]	6.3	—	—	6.3
Commingled funds – equity specialty[a]	—	834.0	—	834.0
	6.3	834.0	—	840.3
Fixed income investments:				
U.S. government and agency obligations	—	784.9	—	784.9
Corporate and non-U.S. bonds[b]	—	823.9	—	823.9
Asset-backed and mortgage-backed securities	—	45.3	—	45.3
Registered mutual funds – fixed income specialty[c]	33.0	—	—	33.0
Commingled funds – fixed income specialty[c]	—	354.3	—	354.3
Other fixed income[d]	—	—	23.4	23.4
	33.0	2,008.4	23.4	2,064.8
Real estate[e]	—	—	16.4	16.4
Other[f]	—	—	62.8	62.8
Total assets at fair value	$ 40.6	$ 2,869.7	$ 102.6	$ 3,012.9
Receivables and payables, net				5.7
Net assets available for benefits				$ 3,018.6

(a) This class comprises commingled and registered mutual funds that focus on equity investments. It includes both indexed and actively managed funds.

(b) This class includes state and municipal bonds.

(c) This class comprises commingled and registered mutual funds that focus on fixed income securities.

(d) This class includes group annuity and guaranteed interest contracts.

(e) This class includes private equity funds that invest in real estate, including funds of funds.

(f) This investment comprises the Company's non-significant, non-U.S. pension plan assets. It mostly includes insurance contracts.

The fair values of the Company's pension plan assets at December 31, 2013 by asset category are as follows:

In millions	Fair value measurements Level 1	Level 2	Level 3	Total fair value
Cash and cash equivalents	$ 4.1	$ 37.9	$ —	$ 42.0
Equity investments:				
Registered mutual funds – equity specialty[(a)]	6.0	—	—	6.0
Commingled funds – equity specialty[(a)]	—	826.8	—	826.8
	6.0	826.8	—	832.8
Fixed income investments:				
U.S. government and agency obligations	—	702.9	—	702.9
Corporate and non-U.S. bonds[(b)]	—	748.4	—	748.4
Asset-backed and mortgage-backed securities	—	59.4	—	59.4
Registered mutual funds – fixed income specialty[(c)]	32.3	—	—	32.3
Commingled funds – fixed income specialty[(c)]	—	268.5	—	268.5
Other fixed income[(d)]	—	—	22.6	22.6
	32.3	1,779.2	22.6	1,834.1
Real estate[(e)]	—	—	19.3	19.3
Other[(f)]	—	—	58.1	58.1
Total assets at fair value	$ 42.4	$ 2,643.9	$ 100.0	$ 2,786.3
Receivables and payables, net[(g)]				(7.1)
Net assets available for benefits				$ 2,779.2

(a) This class comprises commingled and registered mutual funds that focus on equity investments. It includes both indexed and actively managed funds.

(b) This class includes state and municipal bonds.

(c) This class comprises commingled and registered mutual funds that focus on fixed income securities.

(d) This class includes group annuity and guaranteed interest contracts.

(e) This class includes private equity funds that invest in real estate, including funds of funds.

(f) This investment comprises the Company's non-significant, non-U.S. pension plan assets. It mostly includes insurance contracts.

(g) Includes an estimated $20.0 million payable to Allegion in accordance with the terms of the Employee Matters Agreement.

Cash equivalents are valued using a market approach with inputs including quoted market prices for either identical or similar instruments. Fixed income securities are valued through a market approach with inputs including, but not limited to, benchmark yields, reported trades, broker quotes and issuer spreads. Commingled funds are valued at their daily net asset value (NAV) per share or the equivalent. NAV per share or the equivalent is used for fair value purposes as a practical expedient. NAVs are calculated by the investment manager or sponsor of the fund. Private real estate fund values are reported by the fund manager and are based on valuation or appraisal of the underlying investments.

The methodologies used by the Company to determine the fair value of its financial assets and liabilities at December 31, 2014 are the same as those used at December 31, 2013. There have been no significant transfers between levels of the fair value hierarchy.

The Company made required and discretionary contributions to its pension plans of $116.5 million in 2014, $109.7 million in 2013, and $89.1 million in 2012. The Company currently projects that it will contribute approximately $59.9 million to its plans worldwide in 2015. The Company's policy allows it to fund an amount, which could be in excess of or less than the pension cost expensed, subject to the limitations imposed by current tax regulations. The Company anticipates funding the plans in 2015 in accordance with contributions required by funding regulations or the laws of each jurisdiction.

Most of the Company's U.S. employees are covered by defined contribution plans. Employer contributions are determined based on criteria specific to the individual plans and amounted to approximately $88.7 million, $89.0 million, and $76.8 million in 2014, 2013 and 2012, respectively. The Company's contributions relating to non-U.S. defined contribution plans and other non-U.S. benefit plans were $32.1 million, $33.8 million and $27.1 million in 2014, 2013 and 2012, respectively.

Multiemployer Pension Plans

The Company also participates in a number of multiemployer defined benefit pension plans related to collectively bargained U.S. employees of Trane. The Company's contributions, and the administration of the fixed retirement payments, are determined by the terms of the related collective-bargaining agreements. These multiemployer plans pose different risks to the Company than single-employer plans, including:

1. The Company's contributions to multiemployer plans may be used to provide benefits to all participating employees of the program, including employees of other employers.
2. In the event that another participating employer ceases contributions to a plan, the Company may be responsible for any unfunded obligations along with the remaining participating employers.
3. If the Company chooses to withdraw from any of the multiemployer plans, the Company may be required to pay a withdrawal liability, based on the underfunded status of the plan.

As of December 31, 2014, the Company does not participate in any plans that are individually significant, nor is the Company an individually significant participant to any of these plans. Total contributions to multiemployer plans for the years ended December 31 were as follows:

In millions	2014	2013	2012
Total contributions	$ 6.3	$ 5.4	$ 5.4

Contributions to these plans may increase in the event that any of these plans are underfunded.

Postretirement Benefits Other Than Pensions

The Company sponsors several postretirement plans that provide for healthcare benefits, and in some instances, life insurance benefits that cover certain eligible employees. These plans are unfunded and have no plan assets, but are instead funded by the Company on a pay-as-you-go basis in the form of direct benefit payments. Generally, postretirement health benefits are contributory with contributions adjusted annually. Life insurance plans for retirees are primarily noncontributory.

In connection with the 2013 spin-off, the Company transferred its obligations for post retirement benefits other than pension for all current and former employees of the commercial and residential security businesses to Allegion. The transfer of these obligations reduced our post retirement plan liabilities by $14.1 million, and increased our accumulated other comprehensive income by $5.6 million.

The Board of Directors approved amendments on February 1, 2012 to its postretirement medical plan with respect to post-65 retiree medical coverage. Effective January 1, 2013, the Company discontinued offering company-sponsored retiree medical coverage for certain individuals age 65 and older. The Company transitioned affected individuals to coverage through the individual Medicare market and will provide a tax-advantaged subsidy to those retirees eligible for subsidized company coverage that can be used toward reimbursing premiums and other qualified medical expenses for individual Medicare supplemental coverage that is purchased through our third-party Medicare coordinator. As a result of these changes, the Company's projected benefit obligations were remeasured as of February 1, 2012, which included updating the discount rate assumption to 3.75% from the 4.00% assumed at December 31, 2011. The remeasurement resulted in a decrease of $40.5 million to the projected benefit obligation, an actuarial loss of $21.3 million and a credit of $61.8 million to prior service cost.

The following table details changes in the Company's postretirement plan benefit obligations for the years ended December 31:

In millions	2014	2013
Benefit obligation at beginning of year	$ 713.3	$ 851.4
Service cost	5.1	6.6
Interest cost	28.1	26.0
Plan participants' contributions	11.4	11.2
Actuarial (gains) losses	11.7	(109.8)
Benefits paid, net of Medicare Part D subsidy *	(67.8)	(56.4)
Impact of spin-off	—	(14.1)
Other	(1.1)	(1.6)
Benefit obligations at end of year	$ 700.7	$ 713.3

* Amounts are net of Medicare Part D subsidy of $0.1 million and $12.8 million in 2014 and 2013, respectively

The benefit plan obligations are reflected in the Consolidated Balance Sheets as follows:

In millions	December 31, 2014	December 31, 2013
Accrued compensation and benefits	$ (58.5)	$ (65.2)
Postemployment and other benefit liabilities	(642.2)	(648.1)
Total	$ (700.7)	$ (713.3)

The pre-tax amounts recognized in Accumulated other comprehensive income (loss) were as follows:

In millions	Prior service gains	Net actuarial losses	Total
Balance at December 31, 2013	$ 39.4	$ (62.3)	$ (22.9)
Gain (loss) in current period	—	(11.7)	(11.7)
Amortization reclassified to earnings	(8.9)	—	(8.9)
Currency translation and other	—	0.2	0.2
Balance at December 31, 2014	$ 30.5	$ (73.8)	$ (43.3)

The components of net periodic postretirement benefit (income) cost for the years ended December 31 were as follows:

In millions	2014	2013	2012
Service cost	$ 5.1	$ 6.6	$ 7.3
Interest cost	28.1	26.0	30.8
Net amortization of:			
Prior service gains	(8.9)	(10.3)	(10.3)
Net actuarial losses	—	6.5	7.3
Net periodic postretirement benefit cost	$ 24.3	$ 28.8	$ 35.1
Amounts recorded in continuing operations	$ 16.2	$ 19.8	$ 22.2
Amounts recorded in discontinued operations	8.1	9.0	12.9
Total	$ 24.3	$ 28.8	$ 35.1

Postretirement cost for 2015 is projected to be $19.8 million. The amount expected to be recognized in net periodic postretirement benefits cost in 2015 for prior service gains is $8.9 million.

Weighted-average assumptions used to determine net periodic benefit cost for the years ended December 31 are as follows:

	2014	2013	2012
Discount rate:			
Benefit obligations at December 31	3.50%	4.25%	3.25%
Net periodic benefit cost			
For the period January 1 to January 31	4.25%	3.25%	4.00%
For the period February 1 to November 30	4.25%	3.25%	3.75%
For the period November 30 to December 31	4.25%	4.00%	3.75%
Assumed health-care cost trend rates at December 31:			
Current year medical inflation	7.25%	7.65%	8.05%
Ultimate inflation rate	5.00%	5.00%	5.00%
Year that the rate reaches the ultimate trend rate	2021	2021	2021

A 1% change in the assumed medical trend rate would have the following effects as of and for the year ended December 31, 2014:

In millions	1% Increase	1% Decrease
Effect on total of service and interest cost components of current year benefit cost	$ 1.1	$ (0.8)
Effect on benefit obligation at year-end	31.8	(27.4)

Benefit payments for postretirement benefits, which are net of expected plan participant contributions and Medicare Part D subsidy, are expected to be paid as follows:

In millions	
2015	$ 59.5
2016	58.4
2017	57.4
2018	55.9
2019	53.7
2020 — 2024	236.8

NOTE 10 – EQUITY

Ordinary Shares

The changes in ordinary shares and treasury shares for the year ended December 31, 2014 are as follows:

In millions	Ordinary shares issued	Ordinary shares held in treasury
December 31, 2013	282.7	—
Shares issued under incentive plans	3.2	—
Repurchase of ordinary shares	(19.6)	3.4
December 31, 2014	266.3	3.4

During 2014, the Company repurchased 23.0 million shares for $1.4 billion. Shares repurchased prior to October 2014 were canceled upon repurchase and accounted for as a reduction of Ordinary shares and Capital in excess of par value, or Retained earnings to the extent Capital in excess of par value was exhausted. Beginning in October 2014, repurchased shares were held in treasury and recognized at cost. Ordinary shares held in treasury are presented separately on the balance sheet as a reduction to Equity.

The authorized share capital of IR-Ireland is 1,185,040,000 shares, consisting of (1) 1,175,000,000 ordinary shares, par value $1.00 per share, (2) 40,000 ordinary shares, par value EUR 1.00 and (3) 10,000,000 preference shares, par value $0.001 per share. There were no Euro-denominated ordinary shares or preference shares outstanding at December 31, 2014 or 2013.

Other Comprehensive Income (Loss)

The changes in Accumulated other comprehensive income (loss) are as follows:

In millions	Cash flow hedges	Pension and OPEB Items	Foreign Currency Items	Total
December 31, 2012	$ (1.4)	$ (964.2)	$ 444.6	$ (521.0)
Other comprehensive income (loss) attributable to Ingersoll-Rand plc	19.7	263.3	11.7	294.7
Impact of spin-off and other activities	$ (17.9)	$ 138.1	$ (60.6)	$ 59.6
December 31, 2013	$ 0.4	$ (562.8)	$ 395.7	$ (166.7)
Other comprehensive income (loss) attributable to Ingersoll-Rand plc	2.7	(102.3)	(448.0)	(547.6)
December 31, 2014	$ 3.1	$ (665.1)	$ (52.3)	$ (714.3)

The amounts of Other comprehensive income (loss) attributable to noncontrolling interests are as follows:

In millions	2014	2013	2012
Pension and OPEB adjustments	$ —	$ —	$ (1.3)
Currency translation	(2.2)	3.3	(11.1)
Other comprehensive income (loss) attributable to noncontrolling interests	$ (2.2)	$ 3.3	$ (12.4)

NOTE 11 – SHARE-BASED COMPENSATION

The Company records share-based compensation awards using a fair value method and recognizes compensation expense for an amount equal to the fair value of the share-based payment issued in its financial statements. The Company's share-based compensation plans include programs for stock options, restricted stock units (RSUs), performance share units (PSUs), and deferred compensation.

In connection with the spin-off of the commercial and residential security businesses, the provisions of our existing compensation plans required adjustments to the number and terms of outstanding employee stock options, stock appreciation rights (SARs), RSUs and PSUs to preserve the intrinsic value of the awards immediately before and after the spin-off. The outstanding awards will continue to vest over the original vesting period, which is generally three years from the grant date.

The stock awards held as of December 1, 2013 were adjusted as follows:

- *Stock options and SARs*: Holders of Ingersoll Rand vested stock option and SARs awards received one stock option of Allegion for every three Ingersoll Rand vested and exercisable stock options held. The exercise price for each award was also adjusted to preserve the overall intrinsic value of the awards. Unvested stock options held at the time of the spin-off were converted into stock options of the holder's employer following the spin-off, with the number of underlying shares and the exercise price adjusted accordingly to preserve the overall intrinsic value of the awards.
- *Restricted stock units*: Ingersoll Rand restricted stock units were converted into restricted stock units of the holder's employer following the spin-off with adjustments to the number of underlying shares as appropriate to preserve the intrinsic value of such awards immediately prior to the spin-off.
- *Performance share units*: Participants with active and outstanding performance share units had the number of units held adjusted for the change in Ingersoll Rand stock price before and after the spin-off. A corresponding adjustment was made to the calculation of earnings per share and total shareholder return to appropriately reflect the spin-off.

Under the Company's incentive stock plan, the total number of ordinary shares authorized by the shareholders is 20.0 million, of which 16.3 million remains available as of December 31, 2014 for future incentive awards.

Compensation Expense

Share-based compensation expense related to continuing operations is included in Selling and administrative expenses. The following table summarizes the expenses recognized:

In millions	2014	2013	2012
Stock options	$ 16.4	$ 23.0	$ 5.7
RSUs	24.6	29.9	22.0
PSUs	24.2	20.2	22.5
Deferred compensation	1.9	1.9	0.1
Other	0.6	2.9	2.3
Pre-tax expense	67.7	77.9	52.6
Tax benefit	25.9	29.8	20.1
After-tax expense	$ 41.8	$ 48.1	$ 32.5
Amounts recorded in continuing operations	$ 41.8	$ 43.4	$ 28.6
Amounts recorded in discontinued operations	—	4.7	3.9
Total	$ 41.8	$ 48.1	$ 32.5

During 2012, the Company recorded a correcting adjustment resulting in the reversal of $13.5 million ($8.3 million after tax) of previously charged compensation expense related to the accounting for stock option forfeitures. The Company does not believe the correcting adjustment is material to 2012 or to any of its previously issued annual or interim financial statements.

Stock Options / RSUs

Eligible participants may receive (i) stock options, (ii) RSUs or (iii) a combination of both stock options and RSUs. The fair value of each of the Company's stock option and RSU awards is expensed on a straight-line basis over the required service period, which is generally the 3-year vesting period. However, for stock options and RSUs granted to retirement eligible employees, the Company recognizes expense for the fair value at the grant date.

The average fair value of the stock options granted for the year ended December 31, 2014 and 2013 was estimated to be $14.29 per share and $16.55 per share, respectively, using the Black-Scholes option-pricing model. The following assumptions were used:

	2014	2013
Dividend yield	1.67%	1.60%
Volatility	31.43%	42.15%
Risk-free rate of return	1.46%	0.85%
Expected life	4.9	5.1

Expected volatility -- The expected volatility is based on a weighted average of the Company's implied volatility and the most recent historical volatility of the Company's stock commensurate with the expected life.

Risk-free interest rate --The Company applies a yield curve of continuous risk-free rates based upon the published US Treasury spot rates on the grant date.

Expected life -- The expected life of the Company's stock option awards represents the weighted-average of the actual period since the grant date for all exercised or cancelled options and an expected period for all outstanding options.

Dividend yield -- The Company determines the dividend yield based upon the expected quarterly dividend payments as of the grant date and the current fair market value of the Company's stock.

Forfeiture Rate -- The Company analyzes historical data of forfeited options to develop a reasonable expectation of the number of options to forfeit prior to vesting per year. This expected forfeiture rate is applied to the Company's ongoing compensation expense; however, all expense is adjusted to reflect actual vestings and forfeitures.

For stock options granted prior to the spin-off, the weighted-average exercise prices in the table below reflect the historical exercise prices. Changes in options outstanding under the plans for the years 2014, 2013 and 2012 are as follows:

	Shares subject to option	Weighted-average exercise price	Aggregate intrinsic value (millions)	Weighted-average remaining life
December 31, 2011	18,615,276	$ 33.97		
Granted	1,463,352	40.67		
Exercised	(5,578,783)	28.87		
Cancelled	(408,883)	41.30		
December 31, 2012	14,090,962	36.47		
Granted	1,341,602	52.71		
Exercised	(6,994,024)	35.33		
Cancelled	(110,496)	44.57		
Impact of Spin-off	371,984	****		
December 31, 2013	8,700,028	31.87		
Granted	1,160,057	59.82		
Exercised	(2,253,094)	31.04		
Cancelled	(104,378)	47.85		
Outstanding December 31, 2014	7,502,613	$ 36.21	$ 203.9	5.5
Exercisable December 31, 2014	5,127,891	$ 30.47	$ 168.8	4.3

The following table summarizes information concerning currently outstanding and exercisable options as adjusted for the spin-off as discussed above:

			Options outstanding			Options exercisable		
Range of exercise price			Number outstanding at December 31, 2014	Weighted-average remaining life	Weighted-average exercise price	Number outstanding at December 31, 2014	Weighted-average remaining life	Weighted-average exercise price
10.01	—	20.00	610,934	2.7	15.03	610,934	2.7	15.03
20.01	—	30.00	1,303,401	4.4	25.60	1,302,062	4.4	25.60
30.01	—	40.00	3,164,061	4.6	33.98	2,746,192	4.2	34.22
40.01	—	50.00	1,306,079	7.4	41.95	460,016	6.3	41.88
50.01	—	60.00	1,118,138	9.1	59.79	8,687	3.5	59.83
$ 15.03	—	$ 59.83	7,502,613	5.5	$ 36.21	5,127,891	4.3	$ 30.47

At December 31, 2014, there was $12.7 million of total unrecognized compensation cost from stock option arrangements granted under the plan, which is primarily related to unvested shares of non-retirement eligible employees. The aggregate intrinsic value of options exercised during the year ended December 31, 2014 and 2013 was $67.4 million and $155.5 million, respectively. Generally, stock options expire ten years from their date of grant.

For restricted stock awarded prior to the spin-off, grant price information in the table below reflects historical market prices. The following table summarizes RSU activity for the years 2014, 2013 and 2012:

	RSUs	Weighted-average grant date fair value
Outstanding and unvested at December 31, 2011	1,307,173	$ 35.00
Granted	643,822	40.74
Vested	(575,214)	30.05
Cancelled	(91,089)	38.92
Outstanding and unvested at December 31, 2012	1,284,692	$ 39.81
Granted	685,441	53.78
Vested	(669,079)	38.44
Cancelled	(63,954)	43.98
Impact of Spin-off	103,882	****
Outstanding and unvested at December 31, 2013	1,340,982	$ 38.49
Granted	378,873	59.79
Vested	(630,185)	35.73
Cancelled	(41,921)	45.14
Outstanding and unvested at December 31, 2014	1,047,749	$ 47.60

At December 31, 2014, there was $19.4 million of total unrecognized compensation cost from RSU arrangements granted under the plan, which is related to unvested shares of non-retirement eligible employees.

Performance Shares

The Company has a Performance Share Program (PSP) for key employees. The program provides awards in the form of PSUs based on performance against pre-established objectives. The annual target award level is expressed as a number of the Company's ordinary shares. All PSUs are settled in the form of ordinary shares.

Awards granted prior to 2012 are earned based upon the Company's relative earnings-per-share (EPS) growth as compared to the industrial group of companies in the S&P 500 Index over the 3-year performance period.

Beginning with the 2012 grant year, PSU awards are earned based 50% upon a performance condition, measured at each reporting period by relative EPS growth to the industrial group of companies in the S&P 500 Index and the fair market value of the Company's stock on the date of grant, and 50% upon a market condition, measured by the Company's relative total shareholder return (TSR) as compared to the TSR of the industrial group of companies in the S&P 500 Index over the 3-year performance period. The fair value of the market condition is estimated using a Monte Carlo Simulation approach in a risk-neutral framework based upon historical volatility, risk-free rates and correlation matrix.

The grant price information for performance share units awarded prior to the spin-off reflects historical market prices which were not adjusted to reflect the spin-off. The following table summarizes PSU activity for the maximum number of shares that may be issued for the years 2014, 2013 and 2012:

	PSUs	Weighted-average grant date fair value
Outstanding and unvested at December 31, 2011	2,632,996	$ 27.76
Granted	649,668	50.75
Vested	—	—
Forfeited	(1,423,028)	18.68
Outstanding and unvested at December 31, 2012	1,859,636	$ 40.30
Granted	580,910	61.24
Vested	(718,040)	34.94
Forfeited	(150,636)	51.43
Impact of spin-off	380,780	****
Outstanding and unvested at December 31, 2013	1,952,650	$ 39.20
Granted	473,988	66.22
Vested	(604,649)	27.84
Forfeited	(36,991)	44.33
Outstanding and unvested at December 31, 2014	1,784,998	$ 50.12

At December 31, 2014, there was $16.8 million of total unrecognized compensation cost from the PSP based on current performance, which is related to unvested shares. This compensation will be recognized over the required service period, which is generally the three-year vesting period.

Deferred Compensation

The Company allows key employees to defer a portion of their eligible compensation into a number of investment choices, including its ordinary share equivalents. Any amounts invested in ordinary share equivalents will be settled in ordinary shares of the Company at the time of distribution.

Other Plans

The Company has not granted SARs since 2006 and does not anticipate additional grants in the future. As of December 31, 2014, there were 55,000 SARs outstanding, all of which are vested and expire 10 years from the date of grant. All SARs exercised are settled with the Company's ordinary shares.

NOTE 12 – RESTRUCTURING ACTIVITIES

Restructuring charges recorded during the years ended December 31 were as follows:

In millions	2014	2013	2012
Climate	$ 5.2	$ 47.5	$ 12.9
Industrial	4.0	14.5	7.6
Corporate and Other	3.3	20.3	2.8
Total	$ 12.5	$ 82.3	$ 23.3
Cost of goods sold	$ 2.7	$ 15.2	$ 10.3
Selling and administrative expenses	9.8	67.1	13.0
Total	$ 12.5	$ 82.3	$ 23.3

The changes in the restructuring reserve were as follows:

In millions	Climate	Industrial	Corporate and Other	Total
December 31, 2012	$ 4.7	$ 2.1	$ 1.9	$ 8.7
Additions, net of reversals	47.5	14.5	20.3	82.3
Cash paid	(34.2)	(7.1)	(17.2)	(58.5)
December 31, 2013	18.0	9.5	5.0	32.5
Additions, net of reversals	5.2	4.0	3.3	12.5
Cash paid	(20.3)	(12.6)	(7.7)	(40.6)
December 31, 2014	$ 2.9	$ 0.9	$ 0.6	$ 4.4

During 2014, 2013, and 2012, the Company incurred costs of $12.5 million, $82.3 million, and $23.3 million respectively, associated with ongoing restructuring actions. These actions included workforce reductions as well as the closure and consolidation of manufacturing facilities in an effort to improve the Company's cost structure. As of December 31, 2014, the Company had $4.4 million accrued for costs associated with its ongoing restructuring actions, of which a majority is expected to be paid within one year.

NOTE 13 – OTHER, NET

The components of Other, net for the years ended December 31, 2014, 2013 and 2012 are as follows:

In millions	2014	2013	2012
Interest income	$ 13.2	$ 12.8	$ 16.3
Exchange gain (loss)	(0.1)	(14.0)	0.2
Earnings (loss) from equity investments	7.8	(2.6)	(5.9)
Other	9.1	7.2	17.5
Other, net	$ 30.0	$ 3.4	$ 28.1

Exchange gain (loss) for the year ended December 31, 2013 includes a loss of approximately $3.8 million related to the devaluation of the Venezuela Bolivar.

For the years ended December 31, 2014, 2013 and 2012, we recognized equity earnings (loss) of $7.8 million, $(2.6) million and $(5.9) million, respectively, from our 37.2% ownership interest in Hussmann, a refrigeration display case business.

Other activity for the year ended December 31, 2014 includes a $6.0 million gain on the sale of an investment. Other activity in 2012 includes adjustments to insurance receivables as a result of favorable settlements.

NOTE 14 – INCOME TAXES

Earnings before income taxes for the years ended December 31 were taxed within the following jurisdictions:

In millions	2014	2013	2012
United States	$ 276.5	$ (147.4)	$ (49.3)
Non-U.S.	932.9	977.0	897.3
Total	$ 1,209.4	$ 829.6	$ 848.0

The components of the Provision for income taxes for the years ended December 31 were as follows:

In millions	2014	2013	2012
Current tax expense (benefit):			
United States	$ 168.4	$ 2.1	$ (70.1)
Non-U.S.	148.7	157.5	174.0
Total:	317.1	159.6	103.9
Deferred tax expense (benefit):			
United States	(21.4)	19.2	116.9
Non-U.S.	(2.0)	10.2	(164.8)
Total:	(23.4)	29.4	(47.9)
Total tax expense (benefit):			
United States	147.0	21.3	46.8
Non-U.S.	146.7	167.7	9.2
Total	$ 293.7	$ 189.0	$ 56.0

The Provision for income taxes differs from the amount of income taxes determined by applying the applicable U.S. statutory income tax rate to pretax income, as a result of the following differences:

	Percent of pretax income		
	2014	2013	2012
Statutory U.S. rate	35.0%	35.0%	35.0%
Increase (decrease) in rates resulting from:			
Non-U.S. tax rate differential	(14.8)	(26.8)	(22.5)
Tax on U.S. subsidiaries on non-U.S. earnings	1.7	2.0	4.1
State and local income taxes (1)	1.6	6.3	0.3
Valuation allowances	(1.0)	2.5	(16.6)
Change in permanent reinvestment assertion (2)	0.9	6.2	—
Reserves for uncertain tax positions	0.3	(2.9)	2.4
Impact of change in taxation of retiree drugs subsidy	—	—	1.9
Provision to return and other true-up adjustments	0.1	(0.7)	(0.1)
Other adjustments	0.5	1.2	2.1
Effective tax rate	24.3%	22.8%	6.6%

(1) Net of changes in valuation allowances
(2) Net of foreign tax credits

Tax incentives, in the form of tax holidays, have been granted to the Company in certain jurisdictions to encourage industrial development. The expiration of these tax holidays varies by country. The tax holidays are conditional on the Company meeting certain employment and investment thresholds. The most significant tax holidays relate to the Company's qualifying locations in China, Puerto Rico, and Belgium. The benefit for the tax holidays for the years ended December 31, 2014, 2013 and 2012 was $24.7 million, $25.3 million and $13.7 million, respectively.

A summary of the deferred tax accounts at December 31 are as follows:

In millions	2014	2013
Deferred tax assets:		
Inventory and accounts receivable	$ 19.2	$ 19.7
Fixed assets and intangibles	8.6	3.3
Postemployment and other benefit liabilities	702.5	643.1
Product liability	191.0	221.7
Other reserves and accruals	190.5	198.5
Net operating losses and credit carryforwards	505.9	707.1
Other	77.3	59.2
Gross deferred tax assets	1,695.0	1,852.6
Less: deferred tax valuation allowances	(210.7)	(218.5)
Deferred tax assets net of valuation allowances	$ 1,484.3	$ 1,634.1
Deferred tax liabilities:		
Inventory and accounts receivable	$ (42.8)	$ (46.8)
Fixed assets and intangibles	(1,999.6)	(2,046.8)
Postemployment and other benefit liabilities	(3.3)	(3.3)
Other reserves and accruals	(14.1)	(6.0)
Other	(20.3)	(49.1)
Gross deferred tax liabilities	(2,080.1)	(2,152.0)
Net deferred tax assets (liabilities)	$ (595.8)	$ (517.9)

At December 31, 2014, no deferred taxes have been provided for any portion of the approximately $11.1 billion of undistributed earnings of the Company's subsidiaries, since these earnings have been, and under current plans will continue to be, permanently reinvested in these subsidiaries. Due to the number of legal entities and jurisdictions involved and the complexity of the legal entity structure of the Company, the complexity of the tax laws in the relevant jurisdictions, including, but not limited to the rules pertaining to the utilization of foreign tax credits in the United States and the impact of projections of income for future years to any calculations, the Company believes it is not practicable to estimate, within any reasonable range, the amount of additional taxes which may be payable upon distribution of these earnings.

As a result of the Allegion spin-off and certain internal restructurings, the Company believed it to be advantageous to fully repay an intercompany debt obligation between two of its subsidiaries. In order to facilitate the repayment of this intercompany debt, in the fourth quarter of 2013, the Company decided to change its permanent reinvestment assertion as it relates to approximately $740 million of earnings primarily related to subsidiaries in Hong Kong, Australia and Canada. The Company recorded the tax effects of this change in the fourth quarter of 2013, which resulted in a charge of approximately $51 million.

At December 31, 2014, the Company had the following operating loss and tax credit carryforwards available to offset taxable income in prior and future years:

In millions	Amount	Expiration Period
U.S. Federal net operating loss carryforwards	$ 696.3	2022-2034
U.S. Federal credit carryforwards	45.2	2024-Unlimited
U.S. State net operating loss carryforwards	2,966.8	2015-2034
U.S. State credit carryforwards	36.6	2015-Unlimited
Non-U.S. net operating loss carryforwards	867.8	2015-Unlimited
Non-U.S. credit carryforwards	2.2	Unlimited

The amount of net operating loss carryforwards for which a benefit would be recorded in additional paid in capital when realized is $38.2 million.

The U.S. state net operating loss carryforwards were incurred in various jurisdictions. The non-U.S. net operating loss carryforwards were incurred in various jurisdictions, predominantly in Belgium, Brazil, Ireland, India, Luxembourg, Spain, and the United Kingdom.

Activity associated with the Company's valuation allowance is as follows:

In millions	2014	2013	2012
Beginning balance	$ 218.5	$ 156.2	$ 308.4
Increase to valuation allowance	35.2	89.3	44.5
Decrease to valuation allowance	(38.8)	(26.3)	(192.4)
Accumulated other comprehensive income (loss)	(4.2)	(0.7)	(4.3)
Ending balance	$ 210.7	$ 218.5	$ 156.2

The Company has total unrecognized tax benefits of $343.8 million and $363.3 million as of December 31, 2014, and December 31, 2013, respectively. The amount of unrecognized tax benefits that, if recognized, would affect the continuing operations effective tax rate are $266.5 million as of December 31, 2014. A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

In millions	2014	2013	2012
Beginning balance	$ 363.3	$ 497.5	$ 503.4
Additions based on tax positions related to the current year	6.7	19.9	8.5
Additions based on tax positions related to prior years	49.8	152.9	88.2
Reductions based on tax positions related to prior years	(52.4)	(215.3)	(24.1)
Reductions related to settlements with tax authorities	(8.0)	(84.7)	(50.6)
Reductions related to lapses of statute of limitations	(7.1)	(8.4)	(29.5)
Translation (gain) loss	(8.5)	1.4	1.6
Ending balance	$ 343.8	$ 363.3	$ 497.5

In connection with the Company's spin-off of Allegion, the Company and Allegion entered into a tax sharing agreement for the allocation of taxes. Of the total unrecognized tax benefit of $343.8 million at December 31, 2014, Allegion has agreed to indemnify Ingersoll Rand for $1.9 million, which is reflected in an other long-term receivable account. Additionally, included in this other long-term receivable account is an indemnity receivable from Allegion in the amount of $58.2 million related to a filing for competent authority relief in connection with an unrecognized tax benefit included in the table above. The $58.2 million is exclusive of interest and penalties in the amount of $9.7 million. The Company also has an indemnity payable to Allegion in the amount of $7.0 million of tax and interest primarily related to competent authority relief filings.

The Company records interest and penalties associated with the uncertain tax positions within its Provision for income taxes. The Company had reserves associated with interest and penalties, net of tax, of $69.7 million and $71.9 million at December 31, 2014 and December 31, 2013, respectively. For the year ended December 31, 2014 and December 31, 2013, the Company recognized $2.5 million and $(5.9) million, respectively, in interest and penalties net of tax in continuing operations related to these uncertain tax positions.

The total amount of unrecognized tax benefits relating to the Company's tax positions is subject to change based on future events including, but not limited to, the settlements of ongoing audits and/or the expiration of applicable statutes of limitations. Although the outcomes and timing of such events are highly uncertain, it is reasonably possible that the balance of gross unrecognized tax benefits, excluding interest and penalties, could potentially be reduced by up to approximately $5.9 million during the next 12 months.

The provision for income taxes involves a significant amount of management judgment regarding interpretation of relevant facts and laws in the jurisdictions in which the Company operates. Future changes in applicable laws, projected levels of taxable income and tax planning could change the effective tax rate and tax balances recorded by the Company. In addition, tax authorities periodically review income tax returns filed by the Company and can raise issues regarding its filing positions, timing and amount of income or deductions, and the allocation of income among the jurisdictions in which the Company operates. A significant period of time may elapse between the filing of an income tax return and the ultimate resolution of an issue raised by a revenue authority with respect to that return. In the normal course of business the Company is subject to examination by taxing authorities throughout the world, including such major jurisdictions as Brazil, Canada, China, France, Germany, Ireland, Italy, Mexico, Switzerland, the Netherlands and the United States. In general, the examination of the Company's material tax returns is complete for the years prior to 2001, with certain matters being resolved through appeals and litigation.

In 2007, the Company received a notice from the IRS containing proposed adjustments to the Company's tax filings in connection with an audit of the 2001 and 2002 tax years. The IRS did not contest the validity of the Company's reincorporation in Bermuda. The IRS proposed to ignore the entities that hold the intercompany debt incurred in connection with the Company's reincorporation in Bermuda (2001 Debt) and to which the interest was paid and impose 30% withholding tax on a portion of the interest payments as if they were made directly to a company that was not eligible for reduced U.S. withholding tax under a U.S. income tax treaty. The IRS asserted that the Company owed additional taxes with respect to 2002 of approximately $84 million plus interest. In 2010, the Company received an amended notice from the IRS assessing penalties of 30% on the asserted underpayment of tax described above.

The Company has so far been unsuccessful in resolving this dispute, and in 2013, received a Notice of Deficiency from the IRS for 2002. The Company filed a petition in the United States Tax Court in November 2013 contesting this deficiency. In its January 2014 answer to the Company's petition, the IRS asserted that the Company also owes 30% withholding tax on the portion of 2002 interest payments made on the 2001 Debt upon which it did not previously assert withholding tax. This increases the total tax liability proposed for 2002 to $109.0 million ($84 million referred to in the paragraph above plus an additional $25.0 million) plus 30% penalties and interest.

In 2013, the Company received notices from the IRS containing proposed adjustments to the Company's tax filings in connection with an audit of the 2003-2006 tax years. In these notices, the IRS asserts that the Company owes a total of approximately $665.0 million of additional taxes, as described more fully in the two paragraphs below, in connection with the Company's interest payments on the 2001 Debt for the 2003-2006 period, plus penalties and interest on these unpaid taxes.

The IRS continues to take the position on the 2001 Debt, which was retired at the end of 2011, that it previously took for the Company's 2002 tax year and which is described above. As a result of this recharacterization, the IRS asserts that the Company owes approximately $455.0 million of withholding tax for 2003-2006 plus 30% penalties.

The IRS also proposes to extend its position further and to treat all of the interest income from the 2001 Debt as creating earnings and profits at IR-Limited and, as a result, recharacterize the distributions made by IR-Limited during the 2002-2006 tax years as taxable dividends instead of as a return of capital. Consequently the IRS asserts that the Company owes approximately $210.0 million of income tax on these dividends plus penalties of 20%. The Company strongly disagrees with the view of the IRS and filed a protest in January 2014 for the 2003-2006 tax years.

Furthermore, a substantial amount of information has been provided to the IRS in connection with its audit of our 2007-2011 tax years. We expect the IRS to propose similar adjustments with respect to the 2001 Debt, although the Company does not know how the IRS will apply its position to the different facts presented in these years or whether the IRS will take a similar position with respect to intercompany debt instruments not outstanding in prior years.

The Company has vigorously contested all of these proposed adjustments and intends to continue to do so. Although the outcome of these matters cannot be predicted with certainty, based upon an analysis of the merits of the Company's position, the Company believes that it is adequately reserved under the applicable accounting standards for these matters and does not expect that the ultimate resolution will have a material adverse impact on its future results of operations, financial condition, or cash flows. As the Company moves forward to resolve these matters with the IRS, the reserves established may be adjusted. Although the Company continues to contest the IRS's position, there can be no assurance that it will be successful. If the IRS's position with respect to the 2002-2006 tax years is ultimately sustained, the Company would be required to record additional charges and the resulting liability would have a material adverse impact on its future results of operations, financial condition and cash flows.

The Company believes that it has adequately provided for any reasonably foreseeable resolution of any tax disputes, but will adjust its reserves if events so dictate in accordance with GAAP. To the extent that the ultimate results differ from the original or adjusted estimates of the Company, the effect will be recorded in the Provision for income taxes.

During 2013, the Company recorded to continuing operations a tax charge of approximately $74.3 million as result of increases to its deferred tax asset valuation allowance for non-U.S. and U.S. state and local net operating losses and other net deferred tax assets. During 2013, the Company also recorded to continuing operations a net tax benefit of $36.0 million related to its liability for unrecognized tax benefits primarily driven by a tax benefit of $75.0 million as a result of the settlement of an audit in a major tax jurisdiction, partially offset by an increase in our liability for unrecognized tax benefits in non-U.S. tax jurisdictions.

During 2012 the Company recorded to continuing operations a tax benefit of approximately $140.0 million as a result of reducing its deferred tax asset valuation allowance for state net operating losses.

NOTE 15 – DISCONTINUED OPERATIONS

The components of discontinued operations for the years ended December 31 are as follows:

In millions	2014	2013	2012
Net revenues	$ —	$ 1,889.9	$ 2,046.6
Pre-tax earnings (loss) from operations	$ 41.2	$ 84.7	$ 379.5
Pre-tax gain (loss) on sale	—	—	2.3
Tax benefit (expense)	(6.5)	(71.4)	(129.8)
Discontinued operations, net of tax	$ 34.7	$ 13.3	$ 252.0

Discontinued operations by business for the years ended December 31 are as follows:

In millions	2014	2013	2012
Allegion, net of tax	$ 15.0	$ 12.4	$ 254.2
Other discontinued operations, net of tax	19.7	0.9	(2.2)
Discontinued operations, net of tax	$ 34.7	$ 13.3	$ 252.0

Allegion Spin-Off

On December 1, 2013, the Company completed the previously announced separation of its commercial and residential security businesses by distributing the related ordinary shares of Allegion, on a pro rata basis, to the Company's shareholders of record as of November 22, 2013. Allegion is now an independently traded publicly company.

The results of the commercial and residential security businesses prior to the spin-off are presented as a discontinued operation on the Consolidated Statement of Comprehensive Income and Consolidated Statement of Cash Flows for all periods presented.

In connection with the spin-off, the Company and Allegion entered into several agreements covering administrative and tax matters to provide or obtain services on a transitional basis, as needed, for varying periods after the spin-off. As of December 31, 2014, all services provided under these agreements were substantially complete.

Net revenues and after-tax earnings of Allegion for the year ended December 31 are as follows:

In millions	2014	2013	2012
Net revenues	$ —	$ 1,889.9	$ 2,046.6
Discontinued operations, net of tax	$ 15.0	$ 12.4	$ 254.2

After-tax earnings from Allegion for the year ended December 31, 2014 primarily represent adjustments for certain tax matters. After-tax earnings from Allegion for the years ended December 31, 2013 and 2012 include spin costs of $128.0 million and $5.7 million, respectively. Also, the 2013 results include non-cash goodwill charges and tax of $111.4 million and $148.2 million, respectively. See below for further discussion of the impairment.

During the third quarter of 2013, prior to the spin-off, the Company recorded a non-cash, pre-tax goodwill impairment charge of $111.4 million ($106.2 million after-tax) related to Europe, Middle East, India and Africa (EMEIA) reporting unit of Allegion. This charge is reflected within Discontinue operations, net of tax, for the year ended December 31, 2013.

Other Discontinued Operations

The components of other discontinued operations for the years ended December 31 are as follows:

In millions	2014	2013	2012
Retained costs, net of tax	$ 19.7	$ 0.9	$ (16.2)
Net gain (loss) on disposals, net of tax	—	—	14.0
Discontinued operations, net of tax	$ 19.7	$ 0.9	$ (2.2)

Other discontinued operations, net of tax for the years ended December 31, 2014 and 2013 is mainly related to postretirement benefits, product liability, worker's compensation, and legal costs (mostly asbestos-related) from previously sold businesses and tax effects of post-closing purchase price adjustments.

Retained costs recognized in 2012 are primarily related to the settlement of post-closing matters with Doosan Infracore related to its 2007 acquisition of our Bobcat Utility Equipment and Attachments business in 2007.

NOTE 16 – EARNINGS PER SHARE (EPS)

Basic EPS is calculated by dividing Net earnings attributable to Ingersoll-Rand plc by the weighted-average number of ordinary shares outstanding for the applicable period. Diluted EPS is calculated after adjusting the denominator of the basic EPS calculation for the effect of all potentially dilutive ordinary shares, which in the Company's case, includes shares issuable under share-based compensation plans and the effects of the Exchangeable Senior Notes settled in 2012. The following table summarizes the weighted-average number of ordinary shares outstanding for basic and diluted earnings per share calculations:

In millions	2014	2013	2012
Weighted-average number of basic shares outstanding	270.5	294.1	303.9
Shares issuable under incentive stock plans	3.8	4.2	3.7
Exchangeable Senior Notes	—	—	3.0
Weighted-average number of diluted shares outstanding	274.3	298.3	310.6
Anti-dilutive shares	1.1	19.1	5.2

NOTE 17 – COMMITMENTS AND CONTINGENCIES

The Company is involved in various litigations, claims and administrative proceedings, including those related to environmental, asbestos, and product liability matters. Amounts recorded for identified contingent liabilities are estimates, which are reviewed periodically and adjusted to reflect additional information when it becomes available. Subject to the uncertainties inherent in estimating future costs for contingent liabilities, except as expressly set forth in this note, management believes that any liability which may result from these legal matters would not have a material adverse effect on the financial condition, results of operations, liquidity or cash flows of the Company.

Environmental Matters

The Company continues to be dedicated to an environmental program to reduce the utilization and generation of hazardous materials during the manufacturing process and to remediate identified environmental concerns. As to the latter, the Company is currently engaged in site investigations and remediation activities to address environmental cleanup from past operations at current and former manufacturing facilities.

The Company is sometimes a party to environmental lawsuits and claims and has received notices of potential violations of environmental laws and regulations from the Environmental Protection Agency and similar state authorities. It has also been identified as a potentially responsible party (PRP) for cleanup costs associated with off-site waste disposal at federal Superfund and state remediation sites. For all such sites, there are other PRPs and, in most instances, the Company's involvement is minimal.

In estimating its liability, the Company has assumed it will not bear the entire cost of remediation of any site to the exclusion of other PRPs who may be jointly and severally liable. The ability of other PRPs to participate has been taken into account, based on our understanding of the parties' financial condition and probable contributions on a per site basis. Additional lawsuits and claims involving environmental matters are likely to arise from time to time in the future.

The Company incurred \$5.2 million, \$(0.5) million, and \$3.1 million of expenses during the years ended December 31, 2014, 2013 and 2012, respectively, for environmental remediation at sites presently or formerly owned or leased by us. As of December 31, 2014 and 2013, the Company has recorded reserves for environmental matters of \$45.2 million and \$47.9 million, respectively. Of these amounts \$36.3 million and \$42.1 million, respectively, relate to remediation of sites previously disposed by the Company. Environmental reserves are classified as Accrued expenses and other current liabilities, or Other noncurrent liabilities based on their expected term. The Company's total current environmental reserve at December 31, 2014 and 2013 was \$17.1 million and \$13.5 million, respectively. Given the evolving nature of environmental laws, regulations and technology, the ultimate cost of future compliance is uncertain.

Asbestos-Related Matters

Certain wholly-owned subsidiaries of the Company are named as defendants in asbestos-related lawsuits in state and federal courts. In virtually all of the suits, a large number of other companies have also been named as defendants. The vast majority of those claims have been filed against either Ingersoll-Rand Company (IR-New Jersey) or Trane U.S. Inc. (Trane) and generally allege injury caused by exposure to asbestos contained in certain historical products sold by IR-New Jersey or Trane, primarily pumps, boilers and railroad brake shoes. Neither IR-New Jersey nor Trane was a producer or manufacturer of asbestos, however, some formerly manufactured products utilized asbestos-containing components such as gaskets and packings purchased from third-party suppliers.

The Company engages an outside expert to assist in calculating an estimate of the Company's total liability for pending and unasserted future asbestos-related claims and annually performs a detailed analysis with the assistance of an outside expert to update its estimated asbestos-related assets and liabilities. The methodology used to project the Company's total liability for pending and unasserted potential future asbestos-related claims relied upon and included the following factors, among others:

- the outside expert's interpretation of a widely accepted forecast of the population likely to have been occupationally exposed to asbestos;
- epidemiological studies estimating the number of people likely to develop asbestos-related diseases such as mesothelioma and lung cancer;
- the Company's historical experience with the filing of non-malignancy claims and claims alleging other types of malignant diseases filed against the Company relative to the number of lung cancer claims filed against the Company;
- the outside expert's analysis of the number of people likely to file an asbestos-related personal injury claim against the Company based on such epidemiological and historical data and the Company's most recent three-year claims history;
- an analysis of the Company's pending cases, by type of disease claimed and by year filed;
- an analysis of the Company's most recent three-year history to determine the average settlement and resolution value of claims, by type of disease claimed;
- an adjustment for inflation in the future average settlement value of claims, at a 2.5% annual inflation rate, adjusted downward to 1.5% to take account of the declining value of claims resulting from the aging of the claimant population; and
- an analysis of the period over which the Company has and is likely to resolve asbestos-related claims against it in the future.

At December 31, 2014, over 80 percent of the open claims against the Company are non-malignancy or unspecified disease claims, many of which have been placed on inactive or deferral dockets and the vast majority of which have little or no settlement value against the Company, particularly in light of recent changes in the legal and judicial treatment of such claims.

The Company's liability for asbestos-related matters and the asset for probable asbestos-related insurance recoveries are included in the following balance sheet accounts:

In millions		December 31, 2014		December 31, 2013
Accrued expenses and other current liabilities	$	67.6	$	69.1
Other noncurrent liabilities		709.0		777.1
Total asbestos-related liabilities	$	776.6	$	846.2
Other current assets	$	57.2	$	22.3
Other noncurrent assets		278.5		299.5
Total asset for probable asbestos-related insurance recoveries	$	335.7	$	321.8

The Company's asbestos insurance receivable related to IR-New Jersey and Trane was $176.8 million and $158.9 million at December 31, 2014, and $137.4 million and $184.4 million at December 31, 2013, respectively.

The (costs) income associated with the settlement and defense of asbestos-related claims after insurance recoveries, for the years ended December 31, were as follows:

In millions		2014		2013		2012
Continuing operations	$	1.7	$	(0.4)	$	10.1
Discontinued operations		63.2		(55.8)		(17.9)
Total	$	64.9	$	(56.2)	$	(7.8)

Income and expense associated with IR-New Jersey's asbestos liabilities and corresponding insurance recoveries are recorded within discontinued operations, as they relate to previously divested businesses, primarily Ingersoll-Dresser Pump, which was sold in 2000. Income and expenses associated with Trane's asbestos liabilities and corresponding insurance recoveries are recorded within continuing operations.

Trane has now settled claims regarding asbestos coverage with most of its insurers. The settlements collectively account for approximately 95% of its recorded asbestos-related insurance receivable as of December 31, 2014. Most of Trane's settlement agreements constitute "coverage-in-place" arrangements, in which the insurer signatories agree to reimburse Trane for specified portions of its costs for asbestos bodily injury claims and Trane agrees to certain claims-handling protocols and grants to the insurer signatories certain releases and indemnifications. Trane remains in litigation in an action that Trane filed in November 2010 in the Circuit Court for La Crosse County, Wisconsin, relating to claims for insurance coverage for a subset of Trane's historical asbestos-related liabilities.

On January 12, 2012, IR-New Jersey filed an action in the Superior Court of New Jersey, Middlesex County, seeking a declaratory judgment and other relief regarding the Company's rights to defense and indemnity for asbestos claims. The defendants are several dozen solvent insurance companies, including companies that have been paying a portion of IR-New Jersey's asbestos claim defense and indemnity costs. The action involves certain of IR-New Jersey's unexhausted insurance policies applicable to the asbestos claims that are not subject to any settlement agreement. The responding defendants generally challenged the Company's right to recovery, and raised various coverage defenses. In December 2013, IR-New Jersey filed a similar action in the same court against an insurer that was not a party to the 2012 action.

The Company continually monitors the status of pending litigation that could impact the allocation of asbestos claims against the Company's various insurance policies. The Company has concluded that its IR-New Jersey insurance receivable is probable of recovery because of the following factors:

- in the fourth quarter of 2014, IR-New Jersey reached favorable settlements regarding asbestos coverage claims for the majority of its recorded asbestos-related insurance receivable at December 31, 2014;
- a review of other companies in circumstances comparable to IR-New Jersey, including Trane, and the success of other companies in recovering under their insurance policies, including Trane's favorable settlement discussed above;
- the Company's confidence in its right to recovery under the terms of its policies and pursuant to applicable law; and
- the Company's history of receiving payments under the IR-New Jersey insurance program, including under policies that had been the subject of prior litigation.

The amounts recorded by the Company for asbestos-related liabilities and insurance-related assets are based on currently available information. The Company’s actual liabilities or insurance recoveries could be significantly higher or lower than those recorded if assumptions used in the calculations vary significantly from actual results. Key variables in these assumptions include the number and type of new claims to be filed each year, the average cost of resolution of each such new claim, the resolution of coverage issues with insurance carriers, and the solvency risk with respect to the Company’s insurance carriers. Furthermore, predictions with respect to these variables are subject to greater uncertainty as the projection period lengthens. Other factors that may affect the Company’s liability include uncertainties surrounding the litigation process from jurisdiction to jurisdiction and from case to case, reforms that may be made by state and federal courts, and the passage of state or federal tort reform legislation.

The aggregate amount of the stated limits in insurance policies available to the Company for asbestos-related claims acquired over many years and from many different carriers, is substantial. However, limitations in that coverage, primarily due to the considerations described above, are expected to result in the projected total liability to claimants substantially exceeding the probable insurance recovery.

Warranty Liability

Standard product warranty accruals are recorded at the time of sale and are estimated based upon product warranty terms and historical experience. The Company assesses the adequacy of its liabilities and will make adjustments as necessary based on known or anticipated warranty claims, or as new information becomes available.

The changes in the standard product warranty liability for the year ended December 31, were as follows:

In millions	**2014**	**2013**
Balance at beginning of period	$ 246.9	$ 253.4
Reductions for payments	(146.6)	(156.7)
Accruals for warranties issued during the current period	168.0	153.9
Changes to accruals related to preexisting warranties	(9.8)	(4.3)
Translation	(4.9)	0.6
Balance at end of period	$ 253.6	$ 246.9

Standard product warranty liabilities are classified as Accrued expenses and other current liabilities, or Other noncurrent liabilities based on their expected term. The Company's total current standard product warranty reserve at December 31, 2014 and December 31, 2013 was $147.8 million and $127.9 million, respectively.

The Company's extended warranty liability represents the deferred revenue associated with its extended warranty contracts and is amortized into Revenue on a straight-line basis over the life of the contract, unless another method is more representative of the costs incurred. The Company assesses the adequacy of its liability by evaluating the expected costs under its existing contracts to ensure these expected costs do not exceed the extended warranty liability.

The changes in the extended warranty liability for the year ended December 31, were as follows:

In millions	2014	2013
Balance at beginning of period	$ 357.9	$ 375.1
Amortization of deferred revenue for the period	(104.8)	(105.6)
Additions for extended warranties issued during the period	81.5	87.1
Changes to accruals related to preexisting warranties	(2.6)	1.8
Translation	(1.9)	(0.5)
Balance at end of period	$ 330.1	$ 357.9

The extended warranty liability is classified as Accrued expenses and other current liabilities or Other noncurrent liabilities based on the timing of when the deferred revenue is expected to be amortized into Revenue. The Company's total current extended warranty liability at December 31, 2014 and December 31, 2013 was $97.2 million. For the years ended December 31, 2014 and 2013, the Company incurred costs of $63.5 million and $61.6 million, respectively, related to extended warranties.

Other Commitments and Contingencies

Certain office and warehouse facilities, transportation vehicles and data processing equipment are leased by the Company. Total rental expense was $171.6 million in 2014, $165.0 million in 2013 and $167.0 million in 2012. Minimum lease payments required under non-cancelable operating leases with terms in excess of one year for the next five years are as follows: $114.8 million in 2015, $91.0 million in 2016, $70.4 million in 2017, $50.0 million in 2018, and $38.3 million in 2019.

Trane has commitments and performance guarantees, including energy savings guarantees, totaling $426.3 million extending from 2014-2032. These guarantees are provided under long-term service and maintenance contracts related to its air conditioning equipment and system controls. Through 2014, the Company has experienced no significant losses under such arrangements and considers the probability of any significant future losses to be remote.

NOTE 18 – BUSINESS SEGMENT INFORMATION

The accounting policies of the operating segments are the same as those described in the summary of significant accounting policies except that the operating segments' results are prepared on a management basis that is consistent with the manner in which the Company prepares financial information for internal review and decision making. The Company largely evaluates performance based on Segment operating income and Segment operating margins. Intercompany sales between segments are considered immaterial.

Our Climate segment delivers energy-efficient solutions globally and includes Trane® and American Standard® Heating & Air Conditioning which provide heating, ventilation and air conditioning (HVAC) systems, and commercial and residential building services, parts, support and controls; and Thermo King® transport temperature control solutions.

Our Industrial segment delivers products and services that enhance energy efficiency, productivity and operations. It includes Ingersoll Rand® compressed air systems and services, power tools, material handling systems, ARO® fluid management equipment, as well as Club Car® golf, utility and rough terrain vehicles.

Segment operating income is the measure of profit and loss that the Company's chief operating decision maker uses to evaluate the financial performance of the business and as the basis for performance reviews, compensation and resource allocation. For these reasons, the Company believes that Segment operating income represents the most relevant measure of segment profit and loss. The Company may exclude certain charges or gains from Operating income to arrive at a Segment operating income that is a more meaningful measure of profit and loss upon which to base its operating decisions.

A summary of operations by reportable segments for the years ended December 31 were as follows:

Dollar amounts in millions	2014	2013	2012
Climate			
Net revenues	$ 9,879.7	$ 9,414.0	$ 9,042.5
Segment operating income	1,195.6	936.0	817.6
Segment operating income as a percentage of revenues	12.1%	9.9%	9.0%
Depreciation and amortization	247.1	252.8	257.0
Capital expenditures	107.8	129.4	105.1
Industrial			
Net revenues	3,011.7	2,936.5	2,945.8
Segment operating income	443.0	450.3	455.8
Segment operating income as a percentage of revenues	14.7%	15.3%	15.5%
Depreciation and amortization	44.2	43.9	42.9
Capital expenditures	33.1	44.0	62.6
Total net revenues	$ 12,891.4	$ 12,350.5	$ 11,988.3
Reconciliation to Operating Income			
Segment operating income from reportable segments	1,638.6	1,386.3	1,273.4
Gain (loss) on sale/asset impairment	—	—	4.5
Unallocated corporate expense	(233.9)	(281.3)	(206.0)
Total operating income	$ 1,404.7	$ 1,105.0	$ 1,071.9
Total operating income as a percentage of revenues	10.9%	8.9%	8.9%
Depreciation and amortization from reportable segments	291.3	296.7	299.9
Unallocated depreciation and amortization	41.1	37.0	33.9
Total depreciation and amortization	$ 332.4	$ 333.7	$ 333.8
Capital expenditures from reportable segments	140.9	173.4	167.7
Corporate capital expenditures	92.6	68.8	75.4
Total capital expenditures	$ 233.5	$ 242.2	$ 243.1

A summary of Net revenues by destination and by major product/solution for the years ended December 31 were as follows:

In millions	2014	2013	2012
United States	$ 7,693.0	$ 7,298.0	$ 7,039.0
Non-U.S.	5,198.4	5,052.5	4,949.3
Total	$ 12,891.4	$ 12,350.5	$ 11,988.3

In millions	2014	2013	2012
Commercial HVAC	$ 6,049.8	$ 5,874.7	$ 5,608.5
Transport Refrigeration	2,089.2	1,895.0	1,792.2
Residential HVAC	1,740.7	1,644.3	1,641.8
Compressed Air Systems & Services	1,812.3	1,762.0	1,782.6
Other Industrial	1,199.4	1,174.5	1,163.2
Total	$ 12,891.4	$ 12,350.5	$ 11,988.3

At December 31, summary of long-lived assets by geographic area were as follows:

In millions	2014	2013
United States	$ 2,121.2	$ 2,216.8
Non-U.S.	537.7	571.6
Total	$ 2,658.9	$ 2,788.4

NOTE 19 – GUARANTOR FINANCIAL INFORMATION

Ingersoll-Rand plc (IR-Ireland), a public limited company incorporated in Ireland in 2009, is the successor to Ingersoll-Rand Company Limited, a Bermuda company (IR-Limited), following a corporate reorganization that became effective on July 1, 2009 (the Ireland Reorganization). IR-Limited is the successor to Ingersoll-Rand Company, a New Jersey corporation (IR-New Jersey), following a corporate reorganization that occurred on December 31, 2001 (the Bermuda Reorganization).

As part of the Bermuda Reorganization, IR-Limited fully and unconditionally guaranteed all of the issued public debt securities of IR-New Jersey. IR-New Jersey unconditionally guaranteed IR-Limited's 4.75% Senior Notes due in 2015 in the aggregate principal amount of $300 million. See Note 7 for a discussion of the 2014 financing activities that included the repayment of these 2015 Senior Notes. The guarantee was unsecured and provided on an unsubordinated basis. The guarantee ranked equally in right of payment with all of the existing and future unsecured and unsubordinated debt of IR-New Jersey.

As part of the Ireland Reorganization, IR-Ireland became the ultimate parent company and Ingersoll-Rand International Holding Limited (IR-International) became its stand-alone subsidiary. In addition, (i) IR-International assumed the obligations of IR-Limited as issuer or guarantor, as the case may be, and (ii) IR-Ireland and IR-Limited fully and unconditionally guaranteed the obligations under the various indentures covering the currently outstanding public debt of IR-International, Ingersoll-Rand Global Holding Company Limited (IR-Global), and IR-New Jersey. Also as part of the Ireland Reorganization, IR-Limited transferred all the shares of IR-Global to IR-International in exchange for a note payable that initially approximated $15 billion, which was then immediately reduced by the settlement of net intercompany payables of $4.1 billion. In the fourth quarter of 2013, this note payable was fully repaid by IR-International.

In the fourth quarter of 2013, Class B common shares issued by IR-Limited to IR-New Jersey as part of the Bermuda Reorganization were redeemed. Also in 2013, the public outstanding indentures of IR-Global and IR-International were modified to include IR-New Jersey as a co-obligor.

In the fourth quarter of 2014, the Company issued $1.1 billion of public debt through a newly incorporated, wholly-owned subsidiary, Ingersoll-Rand Luxembourg Finance S.A.. This debt was guaranteed fully and unconditionally by each of the existing guarantors (IR-Ireland, IR-Limited, IR-International and IR-New Jersey) as well as IR-Global. Also in 2014, the public indentures of IR-Global and IR-New Jersey were modified to include IR-Lux as a guarantor.

Our current guarantor structure is as follows:

- IR-Ireland, IR-Limited, IR-International and IR-Lux fully and unconditionally guarantee the outstanding public debt of IR-Global and IR-New Jersey;
- IR-Ireland, IR-Limited, IR-International, IR-Global and IR-New Jersey fully and unconditionally guarantee the outstanding public debt of IR-Lux;
- IR-Ireland, IR-Limited, IR-International and IR-New Jersey fully and unconditionally guarantee the revolving credit facilities of IR-Global and IR-Lux (as an additional borrower), and each of IR-Global and IR-Lux guarantee any revolving credit facility borrowings of the other;
- IR-Ireland, IR-Limited, IR-International and IR-New Jersey fully and unconditionally guarantee any commercial paper borrowings of IR-Global or IR-Lux, and IR-Global guarantees any such borrowings of IR-Lux;
- IR-New Jersey is a co-obligor of the outstanding public debt issued by IR-Global.

See Note 7 for a further discussion of public debt issuances and related guarantees.

The Condensed Consolidating Financial Statements present the investments of IR-Ireland, IR-Limited, IR-Global, IR-International, IR-New Jersey and IR-Lux and their subsidiaries using the equity method of accounting. Intercompany investments in the non-voting Class B common shares were accounted for on the cost method and are reduced by intercompany dividends. In accordance with generally accepted accounting principles, the amounts related to the issuance of the Class B shares were recorded as a reduction of Total equity. The Notes payable affiliate continues to be reflected on the Condensed Consolidating Balance Sheet of IR-International and is enforceable in accordance with their terms.

The following condensed consolidating financial information for IR-Ireland, IR-Limited, IR-Global, IR-International, IR-New Jersey, IR-Lux, and all their other subsidiaries is included so that separate financial statements of IR-Ireland, IR-Limited, IR-Global, IR-International, IR-New Jersey, and IR-Lux are not required to be filed with the U.S. Securities and Exchange Commission. IR-Ireland's subsidiary debt issuers and guarantors are directly or indirectly 100% owned by IR-Ireland and the guarantees are full and unconditional and joint and several.

As discussed in Note 2, the Company revised its December 31, 2013 and 2012 Consolidated Statements of Cash Flows to correct errors in the calculation of the effect of exchange rate changes on cash and cash equivalents. The revisions impacted only the Other Subsidiaries column of the Condensed Consolidating Statement of Cash Flows for each of the periods noted above. These adjustments were not considered to be material individually or in the aggregate to the previously issued financial statements. The adjustments had no impact on the total net increase (decrease) in cash and cash equivalents, or total cash and cash equivalents amounts in any period.

During the first quarter of 2014 the Company revised its Condensed Consolidating Financial Statements to correct the presentation of certain subsidiaries and tax obligations between the IR-New Jersey and Other Subsidiaries columns of the Condensed Consolidating Balance Sheet as of December 31, 2013 and the Condensed Consolidating Statements of Comprehensive Income and Cash Flows for the year ended December 31, 2013. The changes had no impact on the Consolidated Financial Statements as of and for the year ended December 31, 2013 and were not material to the previously issued Condensed Consolidating Financial Statements.

Condensed Consolidating Statement of Comprehensive Income
For the year ended December 31, 2014

In millions	IR Ireland	IR Limited	IR International	IR Global	IR New Jersey	IR Lux	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Net revenues	$ —	$ —	$ —	$ —	$ 984.6	$ —	$ 11,906.8	$ —	$ 12,891.4
Cost of goods sold	—	—	—	—	(619.1)	—	(8,363.7)	—	(8,982.8)
Selling and administrative expenses	(26.1)	—	—	(0.6)	(422.4)	—	(2,054.8)	—	(2,503.9)
Operating income (loss)	(26.1)	—	—	(0.6)	(56.9)	—	1,488.3	—	1,404.7
Equity earnings (loss) in affiliates, net of tax	985.9	907.1	927.3	369.2	472.0	50.7	1,271.2	(4,983.4)	—
Interest expense	—	—	(21.6)	(127.9)	(48.9)	(7.1)	(19.8)	—	(225.3)
Intercompany interest and fees	(18.2)	(3.5)	(10.0)	(2.5)	(208.4)	(0.6)	243.2	—	—
Other, net	(7.9)	—	3.3	—	116.5	—	(81.9)	—	30.0
Earnings (loss) before income taxes	933.7	903.6	899.0	238.2	274.3	43.0	2,901.0	(4,983.4)	1,209.4
Benefit (provision) for income taxes	0.2	(0.1)	—	44.6	58.5	—	(396.9)	—	(293.7)
Earnings (loss) from continuing operations	933.9	903.5	899.0	282.8	332.8	43.0	2,504.1	(4,983.4)	915.7
Discontinued operations, net of tax	(2.2)	—	—	—	37.2	—	(0.3)	—	34.7
Net earnings (loss)	931.7	903.5	899.0	282.8	370.0	43.0	2,503.8	(4,983.4)	950.4
Less: Net (earnings) loss attributable to noncontrolling interests	—	—	—	—	—	—	(71.5)	52.8	(18.7)
Net earnings (loss) attributable to Ingersoll-Rand plc	$ 931.7	$ 903.5	$ 899.0	$ 282.8	$ 370.0	$ 43.0	$ 2,432.3	$ (4,930.6)	$ 931.7
Comprehensive income (loss), net of tax	384.1	363.2	900.9	283.4	333.6	42.9	1,916.7	(3,824.2)	400.6
Less: Comprehensive (income) loss attributable to noncontrolling interests	—	—	—	—	—	—	(69.3)	52.8	(16.5)
Comprehensive income (loss) attributable to Ingersoll-Rand plc	$ 384.1	$ 363.2	$ 900.9	$ 283.4	$ 333.6	$ 42.9	$ 1,847.4	$ (3,771.4)	$ 384.1

Condensed Consolidating Statement of Comprehensive Income
For the year ended December 31, 2013

In millions	IR Ireland	IR Limited	IR International	IR Global	IR New Jersey	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Net revenues	$ —	$ —	$ —	$ —	$ 922.1	$ 11,428.4	$ —	$ 12,350.5
Cost of goods sold	0.7	—	—	—	(564.9)	(8,158.1)	—	(8,722.3)
Selling and administrative expenses	(60.0)	(0.1)	—	(1.1)	(355.9)	(2,106.1)	—	(2,523.2)
Operating income (loss)	(59.3)	(0.1)	—	(1.1)	1.3	1,164.2	—	1,105.0
Equity earnings (loss) in affiliates, net of tax	696.2	696.7	791.0	1,008.0	152.4	743.9	(4,088.2)	—
Interest expense	—	—	(15.8)	(196.4)	(76.2)	9.6	—	(278.8)
Intercompany interest and fees	(14.1)	(0.4)	(33.8)	(34.0)	(13.7)	96.0	—	—
Other, net	(3.9)	—	1.6	0.8	137.4	(129.4)	(3.1)	3.4
Earnings (loss) before income taxes	618.9	696.2	743.0	777.3	201.2	1,884.3	(4,091.3)	829.6
Benefit (provision) for income taxes	(0.3)	—	—	—	(1.3)	(187.4)	—	(189.0)
Earnings (loss) from continuing operations	618.6	696.2	743.0	777.3	199.9	1,696.9	(4,091.3)	640.6
Discontinued operations, net of tax	0.2	—	—	—	(198.9)	212.0	—	13.3
Net earnings (loss)	618.8	696.2	743.0	777.3	1.0	1,908.9	(4,091.3)	653.9
Less: Net (earnings) loss attributable to noncontrolling interests	—	—	—	—	—	(38.1)	3.0	(35.1)
Net earnings (loss) attributable to Ingersoll-Rand plc	$ 618.8	$ 696.2	$ 743.0	$ 777.3	$ 1.0	$ 1,870.8	$ (4,088.3)	$ 618.8
Comprehensive income (loss), net of tax	913.5	1,050.3	744.2	789.0	399.6	1,855.2	(4,799.9)	951.9
Less: Comprehensive (income) loss attributable to noncontrolling interests	—	0.4	—	—	—	(41.8)	3.0	(38.4)
Comprehensive income (loss) attributable to Ingersoll-Rand plc	$ 913.5	$ 1,050.7	$ 744.2	$ 789.0	$ 399.6	$ 1,813.4	$ (4,796.9)	$ 913.5

Condensed Consolidating Statement of Comprehensive Income
For the year ended December 31, 2012

In millions	IR Ireland	IR Limited	IR International	IR Global Holding	IR New Jersey	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Net revenues	$ —	$ —	$ —	$ —	$ 932.7	$ 11,055.6	$ —	$ 11,988.3
Cost of goods sold	—	—	—	—	(613.7)	(7,919.8)	—	(8,533.5)
Selling and administrative expenses	(14.9)	(0.3)	—	(0.6)	(327.6)	(2,039.5)	—	(2,382.9)
Operating income (loss)	(14.9)	(0.3)	—	(0.6)	(8.6)	1,096.3	—	1,071.9
Equity earnings (loss) in affiliates, net of tax	1,048.8	848.3	919.1	1,339.9	198.3	979.3	(5,333.7)	—
Interest expense	—	(0.1)	(15.8)	(168.3)	(50.0)	(17.8)	—	(252.0)
Intercompany interest and fees	(10.5)	—	(44.3)	(48.8)	0.6	103.0	—	—
Other, net	(4.8)	—	0.7	(200.6)	53.9	1.2	177.7	28.1
Earnings (loss) before income taxes	1,018.6	847.9	859.7	921.6	194.2	2,162.0	(5,156.0)	848.0
Benefit (provision) for income taxes	(0.3)	—	—	—	(56.2)	0.5	—	(56.0)
Earnings (loss) from continuing operations	1,018.3	847.9	859.7	921.6	138.0	2,162.5	(5,156.0)	792.0
Discontinued operations, net of tax	0.3	—	—	—	(18.3)	270.0	—	252.0
Net earnings (loss)	1,018.6	847.9	859.7	921.6	119.7	2,432.5	(5,156.0)	1,044.0
Less: Net (earnings) loss attributable to noncontrolling interests	—	—	—	—	—	(48.7)	23.3	(25.4)
Net earnings (loss) attributable to Ingersoll-Rand plc	$ 1,018.6	$ 847.9	$ 859.7	$ 921.6	$ 119.7	$ 2,383.8	$ (5,132.7)	$ 1,018.6
Comprehensive income (loss), net of tax	1,051.2	880.6	860.9	922.0	185.4	2,386.0	(5,221.9)	1,064.2
Less: Comprehensive (income) loss attributable to noncontrolling interests	—	—	—	—	—	(36.3)	23.3	(13.0)
Comprehensive income (loss) attributable to Ingersoll-Rand plc	$ 1,051.2	$ 880.6	$ 860.9	$ 922.0	$ 185.4	$ 2,349.7	$ (5,198.6)	$ 1,051.2

Condensed Consolidating Balance Sheet
December 31, 2014

In millions	IR Ireland	IR Limited	IR International	IR Global	IR New Jersey	IR Lux	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Current assets:									
Cash and cash equivalents	$ —	$ —	$ —	$ —	$ 425.4	$ —	$ 1,279.8	$ —	$ 1,705.2
Accounts and notes receivable, net	—	—	—	—	147.0	—	1,972.0	—	2,119.0
Inventories	—	—	—	—	106.1	—	1,252.8	—	1,358.9
Other current assets	0.1	—	—	31.0	126.9	—	366.8	—	524.8
Accounts and notes receivable affiliates	48.6	309.5	8,227.0	306.0	4,788.2	50.7	21,832.6	(35,562.6)	—
Total current assets	48.7	309.5	8,227.0	337.0	5,593.6	50.7	26,704.0	(35,562.6)	5,707.9
Investment in affiliates	9,738.8	12,913.2	4,011.0	9,333.0	15,028.4	1,699.9	8,645.5	(61,369.8)	—
Property, plant and equipment, net	—	—	—	—	324.7	—	1,152.3	—	1,477.0
Goodwill and other intangible assets, net	—	—	—	—	66.6	—	9,107.1	—	9,173.7
Other noncurrent assets	0.2	—	—	176.7	731.7	9.6	595.4	(573.7)	939.9
Total assets	$ 9,787.7	$13,222.7	$ 12,238.0	$ 9,846.7	$21,745.0	$ 1,760.2	$ 46,204.3	$ (97,506.1)	$ 17,298.5
Current liabilities:									
Accounts payable and accruals	$ 7.9	$ —	$ —	$ 26.6	$ 495.8	$ 8.1	$ 2,645.0	$ —	$ 3,183.4
Short-term borrowings and current maturities of long-term debt	—	—	—	—	350.5	100.0	32.2	—	482.7
Accounts and notes payable affiliates	3,792.4	749.2	966.4	441.3	14,779.8	514.1	14,319.5	(35,562.7)	—
Total current liabilities	3,800.3	749.2	966.4	467.9	15,626.1	622.2	16,996.7	(35,562.7)	3,666.1
Long-term debt	—	—	—	2,296.1	349.6	1,095.1	0.9	—	3,741.7
Other noncurrent liabilities	—	—	3.8	2.7	1,471.6	—	2,940.9	(573.7)	3,845.3
Total liabilities	3,800.3	749.2	970.2	2,766.7	17,447.3	1,717.3	19,938.5	(36,136.4)	11,253.1
Equity:									
Total equity	5,987.4	12,473.5	11,267.8	7,080.0	4,297.7	42.9	26,265.8	(61,369.7)	6,045.4
Total liabilities and equity	$ 9,787.7	$13,222.7	$ 12,238.0	$ 9,846.7	$21,745.0	$ 1,760.2	$ 46,204.3	$ (97,506.1)	$ 17,298.5

Condensed Consolidating Balance Sheet
December 31, 2013

In millions	IR Ireland	IR Limited	IR International	IR Global	IR New Jersey	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Current assets:								
Cash and cash equivalents	$ —	$ —	$ —	$ 975.3	$ 59.6	$ 902.3	$ —	$ 1,937.2
Accounts and notes receivable, net	—	—	—	—	149.4	1,922.1	—	2,071.5
Inventories	—	—	—	—	70.5	1,095.6	—	1,166.1
Other current assets	0.1	—	—	0.2	127.6	414.0	—	541.9
Accounts and notes receivable affiliates	1,086.9	309.6	2.3	1,496.6	11,683.7	27,616.6	(42,195.7)	—
Total current assets	1,087.0	309.6	2.3	2,472.1	12,090.8	31,950.6	(42,195.7)	5,716.7
Investment in affiliates	8,697.8	13,696.0	11,339.0	7,144.5	15,923.4	42,714.1	(99,514.8)	—
Property, plant and equipment, net	—	—	—	—	293.3	1,175.1	—	1,468.4
Goodwill and other intangible assets, net	—	—	—	—	85.7	9,376.9	—	9,462.6
Other noncurrent assets	—	(4.3)	0.3	18.8	298.2	697.4	—	1,010.4
Total assets	$ 9,784.8	$ 14,001.3	$ 11,341.6	$ 9,635.4	$ 28,691.4	$ 85,914.1	$ (141,710.5)	$ 17,658.1
Current liabilities:								
Accounts payable and accruals	$ 30.6	$ —	$ 12.1	$ 27.5	$ 440.8	$ 2,529.9	$ —	$ 3,040.9
Short-term borrowings and current maturities of long-term debt	—	—	—	—	350.5	17.2	—	367.7
Accounts and notes payable affiliates	2,685.3	3,780.6	4,803.3	5,982.2	16,217.4	8,809.0	(42,277.8)	—
Total current liabilities	2,715.9	3,780.6	4,815.4	6,009.7	17,008.7	11,356.1	(42,277.8)	3,408.6
Long-term debt	—	—	299.8	2,295.7	357.2	200.8	—	3,153.5
Note payable affiliate	—	—	—	—	—	—	—	—
Other noncurrent liabilities	—	—	3.8	—	877.3	3,083.6	—	3,964.7
Total liabilities	2,715.9	3,780.6	5,119.0	8,305.4	18,243.2	14,640.5	(42,277.8)	10,526.8
Equity:								
Total equity	7,068.9	10,220.7	6,222.6	1,330.0	10,448.2	71,273.6	(99,432.7)	7,131.3
Total liabilities and equity	$ 9,784.8	$ 14,001.3	$ 11,341.6	$ 9,635.4	$ 28,691.4	$ 85,914.1	$ (141,710.5)	$ 17,658.1

Condensed Consolidating Statement of Cash Flows
For the year ended December 31, 2014

In millions	IR Ireland	IR Limited	IR International	IR Global	IR New Jersey	IR Lux	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Net cash provided by (used in) continuing operating activities	$ (34.0)	$ —	$ (18.3)	$ (128.5)	$ 173.4	$ (7.1)	$ 2,058.5	$ (1,052.3)	$ 991.7
Net cash provided by (used in) discontinued operating activities	(2.2)	—	—	—	(2.4)	—	(13.9)	—	(18.5)
Net cash provided by (used in) operating activities	(36.2)	—	(18.3)	(128.5)	171.0	(7.1)	2,044.6	(1,052.3)	973.2
Cash flows from investing activities:						—			—
Capital expenditures	—	—	—	—	(87.7)	—	(145.8)	—	(233.5)
Acquisition of businesses, net of cash acquired	—	—	—	—	—	—	(10.2)	—	(10.2)
Proceeds from sale of property, plant and equipment	—	—	—	—	1.3	—	13.1	—	14.4
Proceeds from business disposition, net of cash sold	—	—	—	—	—	—	2.0	—	2.0
Dividends received from equity investments	—	—	—	—	—	—	30.3	—	30.3
Net cash provided by (used in) continuing investing activities	—	—	—	—	(86.4)	—	(110.6)	—	(197.0)
Net cash provided by (used in) discontinued investing activities	—	—	—	—	—	—	—	—	—
Net cash provided by (used in) investing activities	—	—	—	—	(86.4)	—	(110.6)	—	(197.0)
Cash flows from financing activities:						—			—
Net proceeds (repayments) in debt	—	—	(300.0)	—	(7.6)	1,195.1	(187.3)	—	700.2
Debt issuance costs	—	—	—	(2.5)	—	(9.8)	—	—	(12.3)
Net inter-company proceeds (payments)	1,562.7	—	318.3	(844.3)	1,022.9	(1,178.2)	(881.4)	—	—
Dividends paid to ordinary shareholders	(264.7)	—	—	—	(734.1)	—	(318.2)	1,052.3	(264.7)
Dividends paid to noncontrolling interests	—	—	—	—	—	—	(20.9)	—	(20.9)
Proceeds from shares issued under incentive plans	113.1	—	—	—	—	—	—	—	113.1
Repurchase of ordinary shares	(1,374.9)	—	—	—	—	—	—	—	(1,374.9)
Net cash provided by (used in) continuing financing activities	36.2	—	18.3	(846.8)	281.2	7.1	(1,407.8)	1,052.3	(859.5)
Net cash provided by (used in) discontinued financing activities	—	—	—	—	—	—	—	—	—
Net cash provided by (used in) financing activities	36.2	—	18.3	(846.8)	281.2	7.1	(1,407.8)	1,052.3	(859.5)
Effect of exchange rate changes on cash and cash equivalents	—	—	—	—	—	—	(148.7)	—	(148.7)
Net increase (decrease) in cash and cash equivalents	—	—	—	(975.3)	365.8	—	377.5	—	(232.0)
Cash and cash equivalents - beginning of period	—	—	—	975.3	59.6	—	902.3	—	1,937.2
Cash and cash equivalents - end of period	$ —	$ —	$ —	$ —	$ 425.4	$ —	$ 1,279.8	$ —	$ 1,705.2

Condensed Consolidating Statement of Cash Flows
For the year ended December 31, 2013

In millions	IR Ireland	IR Limited	IR International	IR Global	IR New Jersey	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Net cash provided by (used in) continuing operating activities	$ (63.2)	$ (0.1)	$ (14.2)	$ (196.7)	$ (170.5)	$ 4,483.5	$ (3,240.0)	$ 798.8
Net cash provided by (used in) discontinued operating activities	—	—	—	—	(112.2)	404.9	—	292.7
Net cash provided by (used in) operating activities	(63.2)	(0.1)	(14.2)	(196.7)	(282.7)	4,888.4	(3,240.0)	1,091.5
Cash flows from investing activities:								
Capital expenditures	—	—	—	—	(80.1)	(162.1)	—	(242.2)
Proceeds from sale of property, plant and equipment	—	—	—	—	1.9	22.4	—	24.3
Proceeds from business disposition, net of cash sold	—	—	—	—	—	4.7	—	4.7
Net cash provided by (used in) continuing investing activities	—	—	—	—	(78.2)	(135.0)	—	(213.2)
Net cash provided by (used in) discontinued investing activities	—	—	—	—	—	(2.2)	—	(2.2)
Net cash provided by (used in) investing activities	—	—	—	—	(78.2)	(137.2)	—	(215.4)
Cash flows from financing activities:								
Net proceeds (repayments) in debt	—	—	—	291.2	(6.7)	7.2	—	291.7
Debt issuance costs	—	—	—	(13.2)	—	—	—	(13.2)
Net inter-company proceeds (payments)	(24.8)	1,274.3	699.7	2,106.3	368.1	(4,423.6)	—	—
Dividends paid to ordinary shareholders	(245.5)	(1,274.2)	(685.5)	(1,274.2)	—	(1.2)	3,235.1	(245.5)
Dividends paid to noncontrolling interests	—	—	—	—	—	(12.4)	—	(12.4)
Proceeds from shares issued under incentive plans	272.5	—	—	—	—	—	—	272.5
Repurchase of ordinary shares	(1,213.2)	—	—	—	—	—	—	(1,213.2)
Transfer from Allegion	1,274.2	—	—	—	—	—	—	1,274.2
Net cash provided by (used in) continuing financing activities	63.2	0.1	14.2	1,110.1	361.4	(4,430.0)	3,235.1	354.1
Net cash provided by (used in) discontinued financing activities	—	—	—	—	—	(12.4)	4.9	(7.5)
Net cash provided by (used in) financing activities	63.2	0.1	14.2	1,110.1	361.4	(4,442.4)	3,240.0	346.6
Effect of exchange rate changes on cash and cash equivalents	—	—	—	—	—	6.1	—	6.1
Net increase (decrease) in cash and cash equivalents	—	—	—	913.4	0.5	314.9	—	1,228.8
Cash and cash equivalents - beginning of period	—	—	—	61.9	59.1	587.4	—	708.4
Cash and cash equivalents - end of period	$ —	$ —	$ —	$ 975.3	$ 59.6	$ 902.3	$ —	$ 1,937.2

Condensed Consolidating Statement of Cash Flows
For the year ended December 31, 2012

In millions	IR Ireland	IR Limited	IR International	IR Global	IR New Jersey	Other Subsidiaries	Consolidating Adjustments	IR Ireland Consolidated
Net cash provided by (used in) continuing operating activities	$ (19.7)	$ (0.4)	$ (15.1)	$ (570.5)	$ (103.5)	$ 1,911.2	$ (319.5)	$ 882.5
Net cash provided by (used in) discontinued operating activities	—	—	—	—	(18.3)	331.2	—	312.9
Net cash provided by (used in) operating activities	(19.7)	(0.4)	(15.1)	(570.5)	(121.8)	2,242.4	(319.5)	1,195.4
Cash flows from investing activities:								
Capital expenditures	—	—	—	—	(74.9)	(168.2)	—	(243.1)
Proceeds from sale of property, plant and equipment	—	—	—	—	3.1	14.8	—	17.9
Proceeds from business disposition, net of cash sold	—	—	—	—	—	52.7	—	52.7
Dividends received from equity investments	—	—	—	—	—	44.3	—	44.3
Net cash provided by (used in) continuing investing activities	—	—	—	—	(71.8)	(56.4)	—	(128.2)
Net cash provided by (used in) discontinued investing activities	—	—	—	—	—	(18.3)	—	(18.3)
Net cash provided by (used in) investing activities	—	—	—	—	(71.8)	(74.7)	—	(146.5)
Cash flows from financing activities:								
Net proceeds (repayments) in debt	—	—	—	(344.5)	(9.2)	(59.7)	—	(413.4)
Debt issuance costs	—	—	—	(2.5)	—	—	—	(2.5)
Net inter-company proceeds (payments)	884.5	0.4	15.1	737.6	184.1	(1,821.7)	—	—
Dividends paid to ordinary shareholders	(192.4)	—	—	—	—	(314.0)	314.0	(192.4)
Dividends paid to noncontrolling interests	—	—	—	—	—	(13.9)	—	(13.9)
Proceeds from shares issued under incentive plans	172.5	—	—	—	—	—	—	172.5
Repurchase of ordinary shares	(839.8)	—	—	—	—	—	—	(839.8)
Other, net	(5.1)	—	—	—	—	(1.1)	—	(6.2)
Net cash provided by (used in) continuing financing activities	19.7	0.4	15.1	390.6	174.9	(2,210.4)	314.0	(1,295.7)
Net cash provided by (used in) discontinued financing activities	—	—	—	—	—	(13.7)	5.5	(8.2)
Net cash provided by (used in) financing activities	19.7	0.4	15.1	390.6	174.9	(2,224.1)	319.5	(1,303.9)
Effect of exchange rate changes on cash and cash equivalents	—	—	—	—	—	(23.6)	—	(23.6)
Net increase (decrease) in cash and cash equivalents	—	—	—	(179.9)	(18.7)	(80.0)	—	(278.6)
Cash and cash equivalents - beginning of period	—	—	—	241.8	77.8	667.4	—	987.0
Cash and cash equivalents - end of period	$ —	$ —	$ —	$ 61.9	$ 59.1	$ 587.4	$ —	$ 708.4

SCHEDULE II

INGERSOLL-RAND PLC
VALUATION AND QUALIFYING ACCOUNTS
FOR THE YEARS ENDED December 31, 2014, 2013 AND 2012
(Amounts in millions)

Allowances for Doubtful Accounts:

Balance December 31, 2011	$ 23.7
Additions charged to costs and expenses	13.7
Deductions*	(12.8)
Currency translation	(0.6)
Other	0.8
Balance December 31, 2012	24.8
Additions charged to costs and expenses	20.8
Deductions*	(9.7)
Business acquisitions and divestitures, net	(7.2)
Currency translation	(0.5)
Other	7.2
Balance December 31, 2013	35.4
Additions charged to costs and expenses	7.4
Deductions*	(7.5)
Business acquisitions and divestitures, net	0.1
Currency translation	(1.3)
Balance December 31, 2014	$ 34.1

(*) "Deductions" include accounts and advances written off, less recoveries.

Enterprise Leadership Team

From Left to Right: **Allen W. Ge**, President, HVAC and Transport, Asia Pacific and India; **Robert G. Zafari**, Executive Vice President, Industrial Segment; **Susan K. Carter**, Senior Vice President and Chief Financial Officer; **M. Stephen Hagood**, Vice President and Chief Information Officer; **Michael W. Lamach**, Chairman and Chief Executive Officer; **Paul A. Camuti**, Senior Vice President, Innovation and Chief Technology Officer; **Marcia J. Avedon**, Senior Vice President, Human Resources, Communications and Corporate Affairs; **Didier P. M. Teirlinck**, Executive Vice President, Climate Segment; **Raymond D. Pittard**, President, Transport, North America and EMEA; **Todd D. Wyman**, Senior Vice President, Global Operations and Integrated Supply Chain; **Manlio Valdés**, President, Compressed Air Systems and Services; **Robert L. Katz**, Senior Vice President and General Counsel; **David S. Regnery**, President, Commercial HVAC, North America and EMEA; **Gary S. Michel**, Senior Vice President and President, Residential HVAC

Directors

Ann C. Berzin
Former Chairman and Chief Executive Officer
Financial Guaranty Insurance Company

John Bruton
Former Prime Minister of the Republic of Ireland
and Former European Union Commission
Head of Delegation to the United States

Jared L. Cohon
President Emeritus of Carnegie Mellon University,
Professor of Civil and Environment Engineering and
of Engineering and Public Policy, and Director of
Scott Institute for Energy Innovation

Gary D. Forsee
Former President of University of Missouri System and
Former Chairman of the Board and Chief Executive Officer
of Sprint Nextel Corporation

Edward E. Hagenlocker
Former Vice Chairman
Ford Motor Company

Constance J. Horner
Former Commissioner of U.S. Commission on Civil Rights

Michael W. Lamach
Chairman and Chief Executive Officer of the Company

Myles P. Lee
Former Director and CEO of CRH plc

Theodore E. Martin
Retired President and Chief Executive Officer
Barnes Group, Inc.

John P. Surma
Former Chairman and Chief Executive Officer
United States Steel Corporation

Richard J. Swift
Former Chairman of Financial Accounting Standards
Advisory Council and Former Chairman
President and Chief Executive Officer, Foster Wheeler Ltd.

Tony L. White
Retired Chairman
President and Chief Executive Officer,
Applied Biosystems Inc.

Enterprise Leadership Team

Michael W. Lamach
Chairman and Chief Executive Officer

Marcia J. Avedon
Senior Vice President, Human Resources
Communications and Corporate Affairs

Paul A. Camuti
Senior Vice President,
Innovation and Chief Technology Officer

Susan K. Carter
Senior Vice President and Chief Financial Officer

Allen W. Ge
President, HVAC and Transport, Asia Pacific and India

M. Stephen Hagood
Vice President and Chief Information Officer

Robert L. Katz
Senior Vice President and General Counsel

Gary S. Michel
Senior Vice President and President,
Residential HVAC

Raymond D. Pittard
President, Transport, North America and EMEA

David S. Regnery
President, Commercial HVAC, North America and EMEA

Didier P.M. Teirlinck
Executive Vice President, Climate Segment

Manlio Valdés
President, Compressed Air Systems and Services

Todd D. Wyman
Senior Vice President, Global Operations and Integrated
Supply Chain

Robert G. Zafari
Executive Vice President, Industrial Segment

Other Senior Leaders

Lawrence R. Kurland
Vice President, Tax

Evan M. Turtz
Secretary

Janet C. M. Pfeffer
Treasurer and Vice President, Treasury and Investor Relations

Corporate Data

Shareholder Information Services
The company's 2014 Annual Report on Form 10-K as filed with the United States Securities and Exchange Commission, and other company information, is available through Ingersoll Rand's website, www.ingersollrand.com. Securities analysts, portfolio managers and representatives of institutional investors seeking information about the company should contact:

Joe Fimbianti
Director, Investor Relations
704-655-4721

Annual General Meeting
June 4, 2015, 2:30 p.m.

Carton House Hotel
Maynooth, Co. Kildare
Ireland

New York Stock Exchange

IR
LISTED
NYSE

Transfer Agent and Registrar
Computershare
Telephone Inquiries: 866-229-8405
Website: www.computershare.com/Investor

Address shareholder inquiries with standard priority:
Computershare
P.O. Box 43006
Providence, RI 02940-3006

Address shareholder inquiries with overnight priority:
Computershare
250 Royall Street
Canton, MA 02021

Ingersoll Rand®

Ingersoll Rand (NYSE:IR) advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands—including Club Car®, Ingersoll Rand®, Thermo King® and Trane®—work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency. We are a $13 billion global business committed to a world of sustainable progress and enduring results.

Club Car® Ingersoll Rand® THERMO KING TRANE®

ingersollrand.com

We are committed to using environmentally conscious print practices.

HARSH-1 OP ID: DT

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 09/19/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Robert H. Clarkson Agency, LLC
P.O. Box 70129
Louisville, KY 40270
Brad Cook

CONTACT NAME:
PHONE (A/C, No, Ext): FAX (A/C, No):
E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Grange Insurance	14060
INSURER B : Kentucky Employer's Mutual Ins	
INSURER C : Houston Casualty Company	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
W. Frank Harshaw & Associates
dba Harshaw Trane
12700 Plantside Drive
Louisville, KY 40299

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	GENERAL LIABILITY						EACH OCCURRENCE	$ 1,000,000
A	X COMMERCIAL GENERAL LIABILITY			CPP2296271-09	01/01/2014	01/01/2015	DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 100,000
	CLAIMS-MADE X OCCUR						MED EXP (Any one person)	$ 5,000
C	X PROF $1,000,000.			HCC1463269	04/18/2014	04/18/2015	PERSONAL & ADV INJURY	$ 1,000,000
A	X POLLUTION EXCL.						GENERAL AGGREGATE	$ 2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	$ 2,000,000
	POLICY X PRO-JECT LOC						Emp Ben.	$ 1M/3M
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
A	X ANY AUTO			CPP2296271-09	01/01/2014	01/01/2015	BODILY INJURY (Per person)	$
	ALL OWNED AUTOS SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS X NON-OWNED AUTOS						PROPERTY DAMAGE (PER ACCIDENT)	$
	X COMP: $250 X COLL: $500							$
	X UMBRELLA LIAB X OCCUR						EACH OCCURRENCE	$ 10,000,000
A	EXCESS LIAB CLAIMS-MADE			CUP 2296273-09	01/01/2014	01/01/2015	AGGREGATE	$ 10,000,000
	DED X RETENTION $ 0							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N						X WC STATU-TORY LIMITS OTH-ER	
B	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	N / A		395945	01/01/2014	01/01/2015	E.L. EACH ACCIDENT	$ 2,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 2,000,000
							E.L. DISEASE - POLICY LIMIT	$ 2,000,000
A	PROPERTY			SPECIAL FORM/RC	01/01/2014	01/01/2015	EQUIPMENT	650,000
A	EQUIPMENT FLOATER			SPECIAL FORM/2500 DED.	01/01/2014	01/01/2015	RENT/LEAS	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER

TRANEUS

Trane U.S. Inc
1400 Valwood Parkway
Carrollton, TX 75006

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Bradley C Cook

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

OP ID RT
SKILL-1

DATE (MM/DD/YYYY): 07/22/10

PRODUCER
William Gammon Insurance
1615 Guadalupe
Austin TX 78701
Phone: 512-477-6745

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED
Skilled Craftsmen, Inc.
Mr. Jerry Templeton
9193 Winkler Drive, Suite H
Houston TX 77017

INSURERS AFFORDING COVERAGE		NAIC #
INSURER A:	National Union Fire Ins. Co.	
INSURER B:	Texas Mutual Insurance Company	
INSURER C:	Granite State Ins. Co	
INSURER D:	Hallmark Specialty Insurance	
INSURER E:		

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADD'L INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
C		**GENERAL LIABILITY** X COMMERCIAL GENERAL LIABILITY CLAIMS MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY PRO-JECT LOC	O2LX0089942114	08/22/09	08/22/10	EACH OCCURRENCE	$ 1,000,000
						DAMAGE TO RENTED PREMISES (Ea occurence)	$ 100,000
						MED EXP (Any one person)	$ 5,000
						PERSONAL & ADV INJURY	$ 1,000,000
						GENERAL AGGREGATE	$ 2,000,000
						PRODUCTS - COMP/OP AGG	$ 2,000,000
						Emp Ben.	1,000,000*
D		**AUTOMOBILE LIABILITY** ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS	TXH600853	08/22/09	08/22/10	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
						BODILY INJURY (Per person)	$
						BODILY INJURY (Per accident)	$
						PROPERTY DAMAGE (Per accident)	$
		GARAGE LIABILITY ANY AUTO				AUTO ONLY - EA ACCIDENT	$
						OTHER THAN AUTO ONLY: EA ACC	$
						AGG	$
A		**EXCESS/UMBRELLA LIABILITY** X OCCUR CLAIMS MADE DEDUCTIBLE X RETENTION $ 10,000	BE5383749	08/22/09	08/22/10	EACH OCCURRENCE	$ 1,000,000
						AGGREGATE	$ 1,000,000
							$
							$
							$
B		**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below	TSF0001087020	03/21/10	03/21/11	X WC STATU-TORY LIMITS / OTH-ER	
						E.L. EACH ACCIDENT	$ 1000000
						E.L. DISEASE - EA EMPLOYEE	$ 1000000
						E.L. DISEASE - POLICY LIMIT	$ 1000000
C		**OTHER** Property Section	O2LX0089942114	08/22/09	08/22/10		

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS
Fax No.: 713-429-1203, ATTN: Bill McGlinchey

CERTIFICATE HOLDER

AIRCL-3

Air Cleaning Solutions
2323 Clear Lake City Blvd.
Suite 180-198
Houston TX 77062

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 10 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE
William Gammon III

IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

DISCLAIMER

The Certificate of Insurance on the reverse side of this form does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

RE: Trane U.S. Inc.-Surety Bond Capacity

To Whom It May Concern:

This letter serves to confirm that Travelers Casualty and Surety Company of America, handles the bonding needs of Trane U.S. Inc and their subsidiaries. Please be advised that Trane U.S. Inc. and their subsidiaries have been pre-qualified by Travelers Casualty and Surety Company of America for performance and payment bonds in excess of $50,000,000.00 single bonding capacity and $300,000,000.00 of aggregate bonding capacity, of which $200,000,000.00 remains unused.

It is understood that any arrangement for performance bonds is a matter between Travelers Casualty and Surety Company of America and Trane U.S. Inc. and their subsidiaries and we assume no liability to the third parties or to you if for any reason we do not execute said bonds. We do not hesitate in our strong recommendation of Trane U.S. Inc. and their subsidiaries, their ability, and professionalism.

A.M. Best Company has assigned Travelers Casualty and Surety Company of America an "A+" rating and Travelers Casualty and Surety Company of America is Treasury Listed with the U.S. Department of Treasury.

Sincerely,

Travelers Casualty and Surety Company of America

Jessica Iannotta, Attorney-in-Fact

Zone 1 - Houston

ACORD®

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 4/24/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

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PRODUCER
Bowen, Miclette & Britt Insurance Agency, LLC
1111 North Loop West
Suite 400
Houston TX 77008

CONTACT NAME: Shanae Roberts
PHONE (A/C, No, Ext): 713-880-7100
FAX (A/C, No): 713-880-7166
E-MAIL ADDRESS: certificates@bmbinc.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Amerisure Insurance Company	19488
INSURER B : North River Insurance Co.	21105
INSURER C : Amerisure Partners Insurance CO.	11050
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
The Hunton Group
(See Below for Complete Named Insured)
10555 Westpark Dr.
Houston TX 77042-5232

COVERAGES CERTIFICATE NUMBER: 2049562213 REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY	Y	Y	CPP1328668	12/31/2014	12/31/2015	EACH OCCURRENCE	$1,000,000
	CLAIMS-MADE [X] OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$100,000
							MED EXP (Any one person)	$5,000
							PERSONAL & ADV INJURY	$1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$2,000,000
	POLICY [X] PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$2,000,000
	OTHER:							$
A	AUTOMOBILE LIABILITY	Y	Y	CA13286671601	12/31/2014	12/31/2015	COMBINED SINGLE LIMIT (Ea accident)	$1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS / X NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
B	X UMBRELLA LIAB / X OCCUR	N	Y	5811038136	12/31/2014	12/31/2015	EACH OCCURRENCE	$20,000,000
	EXCESS LIAB / CLAIMS-MADE						AGGREGATE	$20,000,000
	DED RETENTION $							$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY		Y	WC132867016	12/31/2014	12/31/2015	X PER STATUTE / OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N: Y	N / A					E.L. EACH ACCIDENT	$1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$1,000,000
							E.L. DISEASE - POLICY LIMIT	$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

The following policy provisions and/or endorsements form part of the policies of insurance represented by this certificate of insurance. The terms contained in the policies and/or endorsements supersede the representations made herein. Electronic copies of the policy provisions and/or endorsements listed below are available by emailing: certificates@bmbinc.com

General Liability:
Blanket additional insured Ongoing and Completed Operations per form #CG 70 85 05 10
See Attached...

CERTIFICATE HOLDER

"Specimen"

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

ACORD 25 (2014/01)

AGENCY CUSTOMER ID: ______________________
LOC #: ____________

ACORD®

ADDITIONAL REMARKS SCHEDULE

Page 1 of 1

AGENCY Bowen, Miclette & Britt Insurance Agency, LLC	NAMED INSURED The Hunton Group (See Below for Complete Named Insured) 10555 Westpark Dr. Houston TX 77042-5232
POLICY NUMBER	
CARRIER / NAIC CODE	EFFECTIVE DATE:

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: 25 **FORM TITLE:** CERTIFICATE OF LIABILITY INSURANCE

Blanket waiver of subrogation per form #CG 70 63 07 12
Blanket primary/non-contributory per form #CG 00 01 04 13

Automobile:
Blanket additional insured per form #CA 71 15 11 09
Blanket waiver of subrogation per form #CA CA 71 15 11 09
Blanket primary/non-contributory per form #CA CA 71 65 10 07

Worker's Compensation:
Blanket waiver of subrogation per form #WC 00 03 13

Umbrella:
Blanket waiver of subrogation per form #FM 101.0.1108 08 05

Complete Named Insured Should Read: The Hunton Group, Hunton Trane, Hunton Trane Services, Hunton Specialty Products, Hunton Distribution Group, HVAC Mechanical Services of Texas, LTD. dba Hunton Services

FOR INFORMATION AND/OR BID PURPOSES ONLY

ACORD 101 (2008/01)

Zone 7 - Arkansas

License No. 0023710415 **ID #3746**

State of Arkansas

Contractors Licensing Board

WILLIAM A. HARRISON, INC., D/B/A HARRISON ENERGY PARTNERS
1501 WESTPARK DR #9
LITTLE ROCK, AR 72204

This is to Certify That WILLIAM A. HARRISON, INC., D/B/A HARRISON ENERGY PARTNERS

is duly licensed under the provisions of Act 150 of the 1965 Acts as amended and is entitled to practice Contracting in the State of Arkansas within the following classification:

ELECTRICAL
MECHANICAL

with the following suggested bid limit Unlimited

from May 23, 2014 **until** April 30, 2015

when this Certificate expires.

GREAT SEAL OF THE STATE OF ARKANSAS

Witness our hands of the Board, dated at North Little Rock, Arkansas:

CHAIRMAN

SECRETARY

May 23, 2014 - mi

Zone 7 - Arkansas

ACORD CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 04/21/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

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PRODUCER
MARSH USA INC.
ONE TOWNE SQUARE, SUITE 1100
SOUTHFIELD, MI 48076

00426-00426-RAFF-15/16

CONTACT NAME:
PHONE (A/C, No, Ext): FAX (A/C, No):
E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Zurich American Insurance Co	16535
INSURER B : N/A	N/A
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
Harrison Energy Partners
Attn: Tracy Hancock
2499 S Maestri Rd
Springdale, AR 72762

COVERAGES CERTIFICATE NUMBER: CHI-004427222-03 REVISION NUMBER: 5

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY			GLO4637464	04/01/2015	04/01/2016	EACH OCCURRENCE	$ 1,000,000
	X COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 500,000
	CLAIMS-MADE X OCCUR						MED EXP (Any one person)	$ 10,000
							PERSONAL & ADV INJURY	$ 1,000,000
							GENERAL AGGREGATE	$ 2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
								$
A	AUTOMOBILE LIABILITY			BAP4637463	04/01/2015	04/01/2016	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS / NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB / OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB / CLAIMS-MADE						AGGREGATE	$
	DED / RETENTION $							$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N			WC4637462	04/01/2015	04/01/2016	X WC STATU-TORY LIMITS / OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y	N / A					E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
WORKERS' COMPENSATION DOES NOT APPLY TO MONOPOLISTIC STATES (ND, OH, WA, AND WY), PUERTO RICO OR THE VIRGIN ISLANDS.

CERTIFICATE HOLDER
Harrison Energy Partners
2499 S. Maestri Rd.
Springdale, AR 72762

CANCELLATION
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
of Marsh USA Inc.
John C Hurley

ACORD 25 (2010/05) The ACORD name and logo are registered marks of ACORD

Zone 14 - Portland

Client#: 325008 TRANEORE

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 12/17/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
USI Northwest
700 NE Multnomah, Suite 1300
Portland, OR 97232
503 224-8390

CONTACT NAME: Cindy Porter
PHONE (A/C, No, Ext): 503-295-6358 FAX (A/C, No):
E-MAIL ADDRESS: cindy.porter@usi.biz

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Hanover American Insurance Comp	36064
INSURER B : Hanover Insurance Company	22292
INSURER C : SAIF Corporation	36196
INSURER D : Allmerica Financial Benefit Ins	41840
INSURER E :	
INSURER F :	

INSURED
Robert G. Davis & Associates Inc.
dba Trane Oregon
P O Box 23579
Portland, OR 97281

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR NO DEDUCTIBLE GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT LOC			ZZ2930129103	10/01/2014	10/01/2015	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$1,000,000 $500,000 $10,000 $1,000,000 $2,000,000 $2,000,000 $
D	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS			AW2930087103	10/01/2014	10/01/2015	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$1,000,000 $ $ $ $
B	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE X DED X RETENTION $0			UH2922483703	10/01/2014	10/01/2015	EACH OCCURRENCE AGGREGATE	$10,000,000 $10,000,000 $0
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		812918	10/01/2014	10/01/2015	X WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $1,000,000 $1,000,000 $1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
RE: Collaborative Life Sciences Building & Skourtes Tower.
The General Liability policy includes an automatic Additional Insured endorsement that provides Additional Insured status to the Certificate Holder only when there is a written contract that requires such status, and only with regard to work performed on behalf of the named insured. The General Liability policy contains a special endorsement with Primary and Non-contributory wording, when required by written
(See Attached Descriptions)

CERTIFICATE HOLDER

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

ACORD 25 (2010/05) 1 of 2 The ACORD name and logo are registered marks of ACORD
#S13912975/M13333139 VZSZP

Zone 19 - Des Moine

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 1/27/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Arthur J. Gallagher Risk Management Services, Inc. 604 Locust St # 800 Des Moines IA 50309	CONTACT NAME: Lauri Meneough PHONE (A/C, No, Ext): 515-309-6200 FAX (A/C, No): 515-309-6225 E-MAIL ADDRESS: lauri_meneough@ajg.com
INSURED Halvorson Trane Service Co. 2220 NW 108th Street Clive, IA 50325	

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : EMCASCO Insurance Company	21407
INSURER B : Employers Mutual Casualty Company	21415
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** 199672576 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY	Y		9D5085915	1/27/2015	1/27/2016	EACH OCCURRENCE	$1,000,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$100,000
	X Contractural Lia						MED EXP (Any one person)	$5,000
	X XCU Included						PERSONAL & ADV INJURY	$1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$2,000,000
	X POLICY PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$2,000,000
	OTHER:							$
B	AUTOMOBILE LIABILITY			9E50859	1/27/2015	1/27/2016	COMBINED SINGLE LIMIT (Ea accident)	$1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS X NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
	X Comp Ded X $250						Coll Ded	$500
B	X UMBRELLA LIAB X OCCUR			9J5085915	1/27/2015	1/27/2016	EACH OCCURRENCE	$7,000,000
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$7,000,000
	DED X RETENTION $ 10,000							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			9H5085915	1/27/2015	1/27/2016	X PER STATUTE OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y / N: N	N / A					E.L. EACH ACCIDENT	$500,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$500,000
							E.L. DISEASE - POLICY LIMIT	$500,000
B	Rental Equipment			9C5085915	1/27/2015	1/27/2016	Ded $250	25000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Trane, a division of American Standard Inc. and Trane National Service and their officers, directors, employees, and agents are named as additional insureds under the above-listed policies to the extent of Subcontractor's contractual liability obligations. CG7174.2(1-08)

CERTIFICATE HOLDER	CANCELLATION
Trane National Service 2300 Citygate, Suite 250 Columbus OH 43219 USA	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE

Zone 22 - Greensboro, NC

BRADY-7 OP ID: AO

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 04/08/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Scott Ins (Greensboro)
628 Green Valley Road Ste. 306
Greensboro, NC 27408
Bret Grieves-Greensboro

CONTACT NAME: Alison Morris
PHONE (A/C, No, Ext): 336-273-6599 FAX (A/C, No): 336-273-5915
E-MAIL ADDRESS: amorris@scottins.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Zurich American Ins Co (A+)	16535
INSURER B : CINCINNATI INS CO (A+)	10677
INSURER C : St. Paul Fire & Marine (A++)	24767
INSURER D : Houston Casualty Company (A+)	42374
INSURER E :	
INSURER F :	

INSURED
Brady Trane Service Inc, Brady Services Inc, Brady Sales & Services Inc, Brady Parts Inc
J Brady Contracting Inc &
Access Control Consultants
PO Box 13587
Greensboro, NC 27415

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			GLO3433329	10/01/2014	10/01/2015	EACH OCCURRENCE	$ 1,000,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 1,000,000
							MED EXP (Any one person)	$ 10,000
							PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	POLICY X PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:							$
A	AUTOMOBILE LIABILITY			BAP3433330	10/01/2014	10/01/2015	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS X SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
B	X UMBRELLA LIAB X OCCUR			EPP0172859	10/01/2014	10/01/2015	EACH OCCURRENCE	$ 10,000,000
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$ 10,000,000
	DED X RETENTION $ 0							$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N			WC3433328	10/01/2014	10/01/2015	X PER STATUTE OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	N/A					E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
C	Excess Liability			ZUP-15P66119-13-NF	10/01/2014	10/01/2015	Excess	3,000,000
D	Professional Liab			HCC1362928 DED 35000	10/01/2014	10/01/2015	Limit	1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

For Info Only

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
Bret Grieves-Greensboro

Zone 24 - Flint Michigan

ACORD

NELTR01 OP ID: ST

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 04/21/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

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PRODUCER Security First Insurance G-3526 Miller Road P. O. Box 321070 Flint, MI 48532 Thomas E. Cowan, CAWC, CPCU	CONTACT NAME: Thomas E. Cowan, CAWC, CPCU PHONE (A/C, No, Ext): 810-732-5800 FAX (A/C, No): 810-732-4154 E-MAIL ADDRESS:
	INSURER(S) AFFORDING COVERAGE — NAIC #
	INSURER A : Cincinnati Insurance Company — 10677
INSURED Jay N. Nelson Inc dba Nelson Trane 5335 Hill 23 Drive Flint, MI 48507	INSURER B : Safety National Casualty Corp.
	INSURER C :
	INSURER D :
	INSURER E :
	INSURER F :

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$ 1,000,000
	CLAIMS-MADE X OCCUR			EPP0046985	11/01/2014	11/01/2015	DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 500,000
	X Per Loc & constru						MED EXP (Any one person)	$ 10,000
							PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	POLICY PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:						Emp Ben.	$ 1,000,000
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
A	X ANY AUTO			EPP0046985	11/01/2014	11/01/2015	BODILY INJURY (Per person)	$
	ALL OWNED AUTOS / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS / X NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
	X UMBRELLA LIAB X OCCUR						EACH OCCURRENCE	$ 6,000,000
A	EXCESS LIAB CLAIMS-MADE			EPP0046985	11/01/2014	11/01/2015	AGGREGATE	$ 6,000,000
	DED X RETENTION $ 0							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N						X PER STATUTE OTH-ER	
B	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	N / A		NELSO-C	05/01/2014	04/30/2015	E.L. EACH ACCIDENT	$ 1,000,000
B	If yes, describe under DESCRIPTION OF OPERATIONS below			NELSO-C	05/01/2015	04/30/2016	E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER	CANCELLATION
TRAN814 Trane Americas (CS) 1400 Valwood Parkway, Suite 10 Carrollton, TX 75006	**SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.** AUTHORIZED REPRESENTATIVE Thomas E. Cowan

Zone 37 - Washington, DC

ANNE ARUNDEL COUNTY MARYLAND

ISSUED BY

NUMBER: D1 5857

ANNE ARUNDEL COUNTY

MASTER HVAC MECHANICAL

****
****

This is to Certify, That a License has been granted to:

GERALD L. TAYLOR
BOLAND TRANE SERVICES, INC.
30 W. WATKINS MILL ROAD
GAITHERSBURG, MD 20875

to operate in Anne Arundel County, Maryland as defined in
ARTICLE 13

The said license shall remain valid until expiration, provided the said license is not sooner revoked by Anne Arundel County for violation of its rules as provided in the Anne Arundel County Codes.

ISSUED 02/26/2015

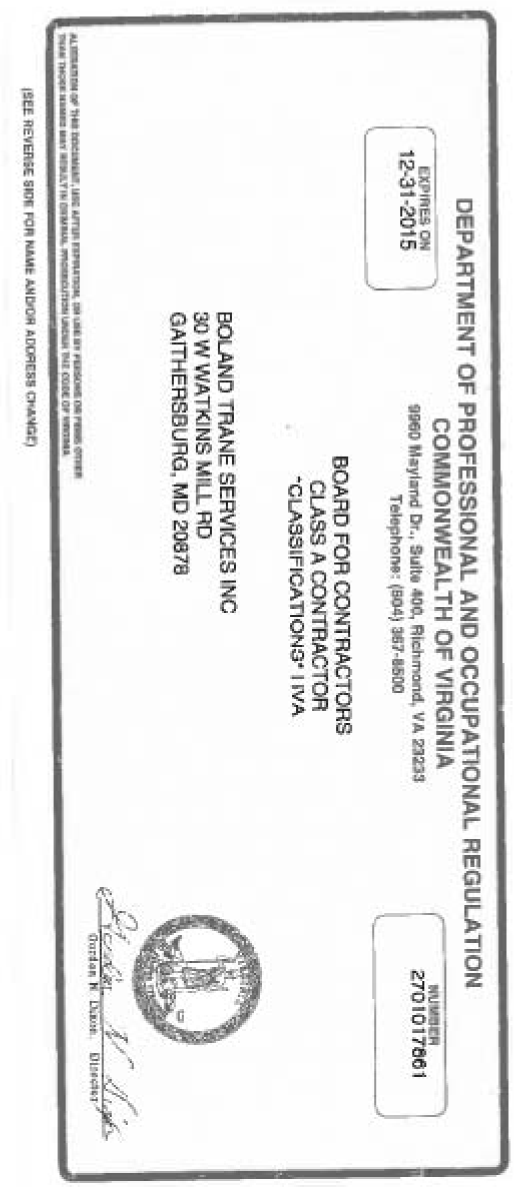
EXPIRATION 02/28/2016

Director, Permit Application Center

00000117208
117208

THIS LICENSE MUST BE CONSPICUOUSLY DISPLAYED

Zone 37 - Washington, DC



DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA
9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON 12-31-2015

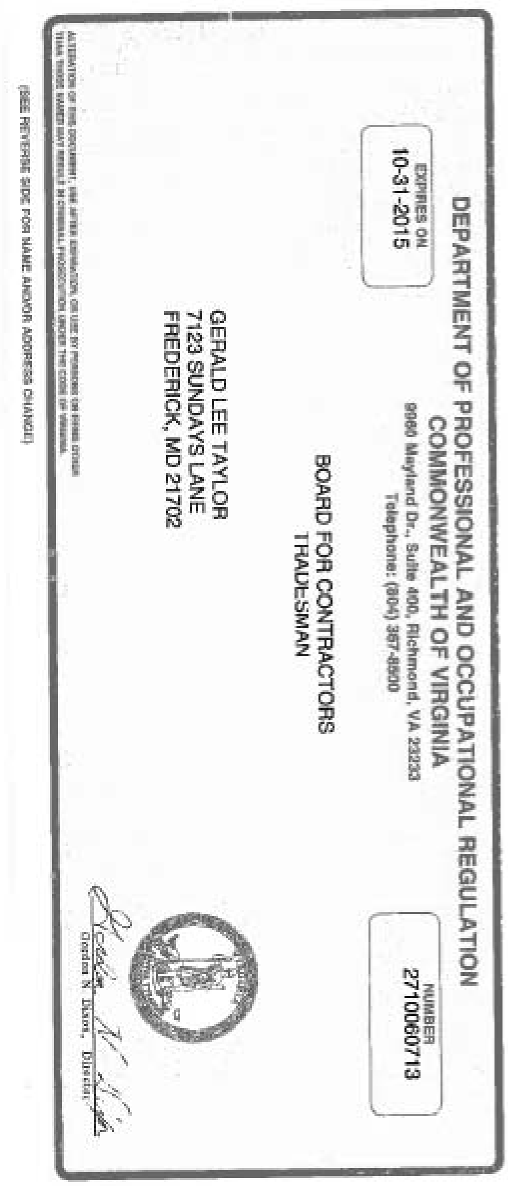
NUMBER 2701017861

BOARD FOR CONTRACTORS
CLASS A CONTRACTOR
"CLASSIFICATIONS" IVA

BOLAND TRANE SERVICES INC
30 W WATKINS MILL RD
GAITHERSBURG, MD 20878

Gordon N. Dixon, Director

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)



DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA
9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON 10-31-2015

NUMBER 2710060713

BOARD FOR CONTRACTORS
TRADESMAN

GERALD LEE TAYLOR
7123 SUNDAYS LANE
FREDERICK, MD 21702

Gordon N. Dixon, Director

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)

Zone 37 - Washington, DC

WEST VIRGINIA
STATE TAX DEPARTMENT

BUSINESS REGISTRATION CERTIFICATE

ISSUED TO:
BOLAND TRANE SERVICES INC
30 W WATKINS MILL RD
GAITHERSBURG, MD 20878-4004

BUSINESS REGISTRATION ACCOUNT NUMBER: **1030-7677**

This certificate is issued on: 06/30/2010

This certificate is issued by
the West Virginia State Tax Commissioner
in accordance with W.Va. Code § 11-12.

The person or organization identified on this certificate is registered
to conduct business in the State of West Virginia at the location above.

This certificate is not transferrable and must be displayed at the location for which issued.

This certificate shall be permanent until cessation of the business for which the certificate of registration was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

Change in name or change of location shall be considered a cessation of the business and a new certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them.
CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of this certificate displayed at every job site within West Virginia.

atL006 v.1
L1353480960

Zone 37 - Washington, DC

ARLINGTON COUNTY, VIRGINIA
2100 Clarendon Boulevard, Suite 200, Arlington, VA 22201

Business License Tax Certificate

BOLAND TRANE SERVICES INC

Account #: BLC-1000008266-02

2015

Trade Name:
BOLAND

Location Address:
30 W WATKINS MILL RD
GAITHERSBURG, MD 20878-4004

Classification:
64, Contractors

Ingrid H. Morroy
COMMISSIONER OF REVENUE

Carla de la Pava
TREASURER

Zone 37 - Washington, DC

GOVERNMENT
OF THE
DISTRICT OF COLUMBIA

DEPARTMENT OF CONSUMER AND REGULATORY AFFAIRS
OCCUPATIONAL AND PROFESSIONAL LICENSING ADMINISTRATION
BOARD OF INDUSTRIAL TRADES

certifies that

BOLAND TRANE SERVICES, INC
30 W. WATKINS MILL ROAD
GAITHERSBURG MD 20878

has met all requirements prescribed by law and regulations and is hereby licensed as a(n):

Ref/Ac Contractor
License Number: RC231

ISSUE DATE: 10/01/2014
EXPIRATION DATE: 09/30/2016

Acting Director
Department of Consumer and Regulator Affairs

Sequence Number: 1

Zone 37 - Washington, DC

★★★ GOVERNMENT
OF THE
DISTRICT OF COLUMBIA

DEPARTMENT OF CONSUMER AND REGULATORY AFFAIRS
OCCUPATIONAL AND PROFESSIONAL LICENSING ADMINISTRATION
BOARD OF INDUSTRIAL TRADES
certifies that

GERALD L. TAYLOR
BOLAND TRANE SERVICES, INC
30 W. WATKINS MILL ROAD
GAITHERSBURG MD 20878

has met all requirements prescribed by law and regulations and is hereby licensed as a(n):

Desig Master Ref/Ac Mechanic
License Number: DRM902056
ISSUE DATE: 10/01/2014
EXPIRATION DATE: 09/30/2016

Acting Director
Department of Consumer and Regulator Affairs

Sequence Number: 17

Zone 37 - Washington DC

FAIRFAX COUNTY DEPARTMENT OF TAX ADMINISTRATION
2015 BUSINESS, PROFESSIONAL AND OCCUPATIONAL LICENSE
(BPOL) FOR ORDINANCE 47224-00 : CONTRACTOR & CONTRACTING

THIS LICENSE HAS BEEN ISSUED BY THE FAIRFAX COUNTY DEPARTMENT OF TAX ADMINISTRATION (DTA) AND IS GRANTED TO:

535681

BOLAND TRANE SERVICES INC
BOLAND TRANE SERVICES INC
30 WEST WATKINS MILL RD
GAITHERSBURG MD 20878-4010

THIS LICENSE IS VALID THRU
03/01/2016

Dept. Tax Administration, Suite 223
12000 Government Center Parkway
Fairfax, Va. 22035, Phone: 703-222-8234
Website: www.fairfaxcounty.gov/dta.

Zone 37 - Washington, DC

State of Maryland
License

90 Gaithersburg

15858651
15764697
01631230

14

BOLAND TRANE SERVICES INC
BOLAND TRANE SERVICE AGENCY
30 WEST WATKINS MILL
GAITHERSBURG MD 20878

BOLAND TRANE SERVICES INC
BOLAND TRANE SERVICE AGENCY
30 WEST WATKINS MILL
GAITHERSBURG MD 20878

CODE	UNIT	TYPE OF LICENSE	NO OF LIC	COST
77	015	CONSTRUCTION FIRM	1	15.00
71	751	TRADER'S LICENSE	1	800.00
		ISSUING FEES		4.00
		TOTAL		819.00

DATE OF ISSUE MO DAY YR
04/08/2014

MONTHS PAID
12

AMOUNT PAID
819.00

THIS LICENSE MUST BE PUBLICLY DISPLAYED
AND EXPIRES ON APRIL 30, 2015

ISSUED BY
LORETTA E. KNIGHT CLERK OF CIRCUIT COURT
50 MARYLAND AVENUE, ROOM 111
ROCKVILLE, MARYLAND 20850 (240)777-9460

STZ

State of Maryland
License

90 County

16868849
16272558
13295378

14

BOLAND TRANE SERVICES INC
ATTN: DINA
30 WEST WATKINS MILL ROAD
GAITHERSBURG MD 20878

BOLAND TRANE SERVICES INC
BOLAND
9475 LOTTSFORD ROAD NO 160
UPPER MARLBORO MD 20774

CODE	UNIT	TYPE OF LICENSE	NO OF LIC	COST
71	500	TRADER'S LICENSE	1	600.00
01	002	CHAIN STORE	1	5.00
		ISSUING FEES		4.00
		TOTAL		609.00

DATE OF ISSUE MO DAY YR
04/24/2014

MONTHS PAID
12

AMOUNT PAID
609.00

THIS LICENSE MUST BE PUBLICLY DISPLAYED
AND EXPIRES ON APRIL 30, 2015

ISSUED BY
MARILYNN M BLAND, CLERK OF CIRCUIT COURT

Zone 37 - Washington, DC

DLLR
Department of Labor, Licensing and Regulation

LICENSE * REGISTRATION * CERTIFICATION * PERMIT

STATE OF MARYLAND

DEPARTMENT OF LABOR, LICENSING AND REGULATION

Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor
Leonard J. Howie, III, Secretary

STATE BOARD OF HVACR CONTRACTORS

CERTIFIES THAT:
GERALD LEE TAYLOR

INSURED TO CONTRACT WORK
7123 SUNDAYS LANE

FREDERICK MD 21702

IS AN AUTHORIZED: **01 - MASTER LICENSE**

LIC/REG/CERT	EXPIRATION	EFFECTIVE	CONTROL NO
1884	11-03-2015	N/A	4517874

Signature of Bearer

Secretary DLLR

WHERE REQUIRED BY LAW THIS MUST BE CONSPICUOUSLY DISPLAYED IN OFFICE TO WHICH IT APPLIES

Zone 43 - Norfolk, VA

DAMUSER-01 POOJARIVD

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 6/3/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Willis of Virginia, Inc.
c/o 26 Century Blvd
P.O. Box 305191
Nashville, TN 37230-5191

CONTACT NAME:
PHONE (A/C, No, Ext): (877) 945-7378 FAX (A/C, No): (888) 467-2378
E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Westfield Insurance Company	24112
INSURER B :	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
Damuth Services Inc.
Bill Mitchell
1100 Cavalier Boulevard
Chesapeake, VA 23323

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$ 1,000,000
	CLAIMS-MADE X OCCUR			CMM3883527	5/31/2014	5/31/2015	DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 500,000
							MED EXP (Any one person)	$ 15,000
	X PD Ded $500						PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	POLICY X PRO-JECT X LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
A	X ANY AUTO			CMM3883527	5/31/2014	5/31/2015	BODILY INJURY (Per person)	$
	ALL OWNED AUTOS / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS / NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
	X UMBRELLA LIAB X OCCUR						EACH OCCURRENCE	$ 10,000,000
A	EXCESS LIAB CLAIMS-MADE			CMM3883527	5/31/2014	5/31/2015	AGGREGATE	$ 10,000,000
	DED RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N						PER STATUTE / OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	N / A					E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

For Informational Purposes Only

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

ACORD 25 (2014/01)

Zone 43 - Norfolk, VA

ACORD

DAMUT-2 OP ID: 9C

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 01/15/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

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PRODUCER
Scott Insurance (Rich)
1700 Bayberry Court Ste. 200
Richmond, VA 23226
Nancy Ahrens-Richmond

CONTACT NAME: Cherice Tracy
PHONE (A/C, No, Ext): 804-545-2200 FAX (A/C, No): 804-545-2201
E-MAIL ADDRESS: ctracy@scottins.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : SAFETY NAT'L CASUALTY CORP|A	15105
INSURER B :	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
Damuth Services, Inc.
Bill Mitchell, CFO
1100 Cavalier Blvd.
Chesapeake, VA 23323

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$
	CLAIMS-MADE / OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
							MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$
	POLICY / PRO-JECT / LOC						PRODUCTS - COMP/OP AGG	$
	OTHER:							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS / NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB / OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB / CLAIMS-MADE						AGGREGATE	$
	DED / RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N						X PER STATUTE / OTH-ER	
A	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	N/A		603/043	01/01/2015	01/01/2016	E.L. EACH ACCIDENT	$ 1,000,000
							E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

EVIDENC

EVIDENCE OF INSURANCE ONLY

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
Horace W Hall

ACORD 25 (2014/01) The ACORD name and logo are registered marks of ACORD

Zone 44 - Cleveland, OH

Client#: 22345 GARDINER

ACORD. CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 11/07/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

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PRODUCER
Althans Insurance Agency, Inc.
543 East Washington St.
P.O.Box 570
Chagrin Falls, OH 44022

CONTACT NAME: Cynthia A. Simcox
PHONE (A/C, No, Ext): 440-247-6422 FAX (A/C, No): 440-247-2394
E-MAIL ADDRESS: casimcox@althans.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Westfield Insurance Co.	24112
INSURER B : Columbia Casualty Company	31127
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
Gardiner Service Co., Inc. DBA Gardiner
31200 Bainbridge Rd.
P.O. Box 39280
Solon, OH 44139

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR X PD Ded:1,000 GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT X LOC			CMM1932833	11/30/2014	11/30/2015	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$2,000,000 $300,000 $10,000 $2,000,000 $2,000,000 $2,000,000 $
A	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS HIRED AUTOS NON-OWNED AUTOS			CMM1932833	11/30/2014	11/30/2015	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$1,000,000 $ $ $ $
A	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED X RETENTION $0			CMM1932833	11/30/2014	11/30/2015	EACH OCCURRENCE AGGREGATE	$10,000,000 $10,000,000 $
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		CMM1932833 Ohio Stop Gap	11/30/2014	11/30/2015	WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $1,000,000 $1,000,000 $1,000,000
B	Professional Liability			CEO288300704	03/01/2014	03/01/2015	$2,000,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER

For Evidence of Coverage Only

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

ACORD 25 (2010/05) 1 of 1 #S466520/M466349 The ACORD name and logo are registered marks of ACORD CS1

Zone 51 - Great Falls, MN

Client#: 68074 | 25ARMTRAN

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 4/21/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

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PRODUCER
Hub Int'l. Mountain States Ltd
100 Park Drive South
Great Falls, MT 59401
406 453-1464

CONTACT NAME: Becky Selley
PHONE (A/C, No, Ext): 406-771-9943 | FAX (A/C, No): 866-801-0495
E-MAIL ADDRESS: becky.selley@hubinternational.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : United Fire & Casualty Company	13021
INSURER B :	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
RL Armacost Inc dba: Armacost Trane
Service Co & Trane Equipment Sales Co
PO Box 2642
Great Falls, MT 59403-2462

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR X PD Ded:500 GEN'L AGGREGATE LIMIT APPLIES PER: POLICY PRO-JECT LOC			60409462	12/01/2014	12/01/2015	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$1,000,000 $100,000 $5,000 $1,000,000 $2,000,000 $2,000,000 $
A	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS			60409462	12/01/2014	12/01/2015	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$1,000,000 $ $ $ $
A	UMBRELLA LIAB OCCUR EXCESS LIAB CLAIMS-MADE DED X RETENTION $10000			60409462	12/01/2014	12/01/2015	EACH OCCURRENCE AGGREGATE	$3,000,000 $3,000,000 $
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A					WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ $ $

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER

Trane Building Advantage
Attn:Greg Spencer TCPN Strategic
Program Leader, Trane Americas
1400 Valwood Pkwy Suite 100
Carrollton, TX 75006

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

ACORD 25 (2010/05) 1 of 1 #S762377/M683045

BSE

Zone 51 - Great Falls, MN

Client#: 68074 25ARMTRAN

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 4/21/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

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PRODUCER Hub Int'l. Mountain States Ltd 100 Park Drive South Great Falls, MT 59401 406 453-1464	CONTACT NAME: Becky Selley PHONE (A/C, No, Ext): 406-771-9943 FAX (A/C, No): 866-801-0495 E-MAIL ADDRESS: becky.selley@hubinternational.com
INSURED RL Armacost Inc dba: Armacost Trane Service Co & Trane Equipment Sales Co PO Box 2642 Great Falls, MT 59403-2462	

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Rochdale Insurance Company	12491
INSURER B :	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

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INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	GENERAL LIABILITY COMMERCIAL GENERAL LIABILITY CLAIMS-MADE OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY PRO-JECT LOC						EACH OCCURRENCE	$
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$
							MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
							GENERAL AGGREGATE	$
							PRODUCTS - COMP/OP AGG	$
								$
	AUTOMOBILE LIABILITY ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS HIRED AUTOS NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident)	$
							BODILY INJURY (Per person)	$
							BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION $						EACH OCCURRENCE	$
							AGGREGATE	$
								$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		RWC3332127	07/01/2014	07/01/2015	X WC STATU-TORY LIMITS OTH-ER	
							E.L. EACH ACCIDENT	$1,000,000
							E.L. DISEASE - EA EMPLOYEE	$1,000,000
							E.L. DISEASE - POLICY LIMIT	$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
** Workers Comp Information **
Proprietors/Partners/Executive Officers/Members Excluded:
Armacost,Rollie, Presiden
Armacost,Darlen, Sec'y

CERTIFICATE HOLDER	CANCELLATION
Trane Building Advantage Attn:Greg Spencer TCPN Strategic Program Leader, Trane Americas 1400 Valwood Pkwy Suite 100 Carrollton, TX 75006	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Rene Selley

ACORD 25 (2010/05) 1 of 1 The ACORD name and logo are registered marks of ACORD
#S762380/M605979 BSE

Zone 51 - Great Falls, MN

Form **W-9**
(Rev. January 2011)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give Form to the requester. Do not send to the IRS.

Print or type
See Specific Instructions on page 2.

Name (as shown on your income tax return)
R.L. Armacost, Inc.

Business name/disregarded entity name, if different from above
Armacost Trane Service Co. & Trane Equipment Sales

Check appropriate box for federal tax classification (required): ☐ Individual/sole proprietor ☑ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶

☐ Exempt payee

☐ Other (see instructions) ▶

Address (number, street, and apt. or suite no.)
PO Box 2642

Requester's name and address (optional)

City, state, and ZIP code
Great Falls, MT 59403

List account number(s) here (optional)

Part I **Taxpayer Identification Number (TIN)**

Enter your TIN in the appropriate box. The TIN provided must match the name given on the "Name" line to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number
___ - __ - ____

Employer identification number
8 1 - 0 4 6 2 6 7 0

Part II **Certification**

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here | Signature of U.S. person ▶ [signature] | Date ▶ 3-4-15

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),

2. Certify that you are not subject to backup withholding, or

3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

Cat. No. 10231X Form **W-9** (Rev. 1-2011)

Zone 51 - Great Falls, MN

MONTANA DEPARTMENT OF LABOR & INDUSTRY
CONSTRUCTION CONTRACTOR
REGISTRATION PROGRAM

STATE OF MONTANA
DEPARTMENT OF LABOR & INDUSTRY
CONSTRUCTION CONTRACTOR REGISTRATION UNIT

CERTIFICATE OF CONTRACTOR REGISTRATION

REGISTRATION NO. 12813

R L ARMACOST INC DBA ARMACOST TRANE SERVICE COMPANY

PO BOX 2642
GREAT FALLS, MT 59403-2642

Effective Date: Feb 13, 2014
Expiration Date: Feb 12, 2016

Employer

Additional information on back.

Please notify this agency of any changes within 10 days.

TYPES OF CONTRACTOR REGISTRATION CERTIFICATES

Below are the definitions of the four types of contractor registration certificates. The definitions show the extent to which certificate holders can work in the construction trade and whether the certificate covers employees. General contractors can check the certificate type to ensure the subcontractors they hire are working in the capacity in which they are registered. Customers can check contractors' certificates for the same reason.

NO EMPLOYEES, MAY HIRE EXEMPT WORKERS ONLY

This means the contractor does not carry workers' compensation coverage on any employees.

EMPLOYEES ONLY

This means the contractor carries workers' compensation coverage on employees. The certificate holder is registered to have employees.

LEASED EMPLOYEES

This means the contractor uses employees from an employee-leasing firm. These employees are presumably covered with workers' compensation and unemployment insurance through the leasing company.

BID ONLY

This means the contractor is registered only to bid construction work in Montana and cannot perform actual work. To work the contractor must upgrade the certificate to one of the above.

FOR MORE INFORMATION CALL (406) 444-7734

Zone 53 - Louisville, KY

HARSH-1 OP ID: DT

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 12/18/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Robert H. Clarkson Agency, LLC
P.O. Box 70129
Louisville, KY 40270
Brad Cook

CONTACT NAME: Brad Cook
PHONE (A/C, No, Ext): 502-585-3600 FAX (A/C, No): 502-585-8819
E-MAIL ADDRESS: bcook@rhcgroup.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Grange Insurance	14060
INSURER B : Kentucky Employer's Mutual Ins	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
W. Frank Harshaw & Associates
12700 Plantside Drive
Louisville, KY 40299

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY; CLAIMS-MADE, X OCCUR; X POLLUTION EXCLUSI; GEN'L AGGREGATE LIMIT APPLIES PER: POLICY, X PRO-JECT, LOC; OTHER:			CPP2296271	01/01/2015	01/01/2016	EACH OCCURRENCE	$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 100,000
							MED EXP (Any one person)	$ 5,000
							PERSONAL & ADV INJURY	$ 1,000,000
							GENERAL AGGREGATE	$ 2,000,000
							PRODUCTS - COMP/OP AGG	$ 2,000,000
							Emp Ben.	$ 1M/3M
A	AUTOMOBILE LIABILITY; X ANY AUTO; ALL OWNED AUTOS; SCHEDULED AUTOS; X HIRED AUTOS; X NON-OWNED AUTOS; COMP $250; cOLL $500			CPP2296271	01/01/2015	01/01/2016	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
							BODILY INJURY (Per person)	$
							BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
								$
A	X UMBRELLA LIAB, X OCCUR; EXCESS LIAB, CLAIMS-MADE; DED X RETENTION $ 0			CUP2296273	01/01/2015	01/01/2016	EACH OCCURRENCE	$ 10,000,000
							AGGREGATE	$ 10,000,000
								$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N; ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH); If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		395945	01/01/2015	01/01/2016	X PER STATUTE; OTH-ER	
							E.L. EACH ACCIDENT	$ 2,000,000
							E.L. DISEASE - EA EMPLOYEE	$ 2,000,000
							E.L. DISEASE - POLICY LIMIT	$ 2,000,000
A	EQUIPMENT FLOATER; SPECIAL FORM/2500			CPP2296271	01/01/2015	01/01/2016	EQUIPMENT LEASE/REN	650,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

TRANEUS

Trane U.S. Inc
1400 Valwood Parkway
Carrollton, TX 75006

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Bradley C Cook

ACORD 25 (2014/01)

Zone 55 - Peoria

WinAA Document Version 4.00

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 4/22/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Chapin Davis Insurance
8512 N Knoxville Avenue
Peoria, IL 61615

CONTACT NAME: Mark Friedrich
PHONE (A/C, No, Ext): 855-616-2661 FAX (A/C, No): 309-282-0404
E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : MIDWEST Family Mutual	
INSURER B : MIDWEST Family Mutual	
INSURER C :	
INSURER D : MIDWEST Family Mutual	
INSURER E : MIDWEST Family Mutual	
INSURER F :	

INSURED
Hunzeker Service Agency
8720 N University
Peoria, IL 61615

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY ✓ COMMERCIAL GENERAL LIABILITY CLAIMS-MADE ✓ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY / PRO-JECT / LOC			ACIL0560101193	06/01/14	06/01/	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1000000 $ 100000 $ $ $ 2000000 $ $
B	AUTOMOBILE LIABILITY ✓ ANY AUTO ALL OWNED AUTOS / SCHEDULED AUTOS ✓ HIRED AUTOS / ✓ NON-OWNED AUTOS			CAIL050101194	06/01/14	06/01/	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1000000 $ $ $ $
D	✓ UMBRELLA LIAB ✓ OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION $			CUIL0560101196	06/01/14	06/01/	EACH OCCURRENCE AGGREGATE	$ $ 6000000 $
E	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N: n If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		WCIL0560101195	06/01/14	06/01/	WC STATU-TORY LIMITS / OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 5000000 $ 5000000 $ 5000000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER
Trane, US Inc.

CANCELLATION
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
Sheila Beck

ACORD 25 (2010/05)

Note: Additional licenses are available upon contract award. Attached licenses are an example for the depth and capability of the Trane Company and Franchise Sales Offices.

STATE OF ALABAMA

BID LIMIT: U

AMOUNT: UNLIMITED

LICENSE NO.: 20760

TYPE: RENEWAL

State Licensing Board for General Contractors

THIS IS TO CERTIFY THAT

TRANE U S INC

BIRMINGHAM, AL 35211

is hereby licensed a General Contractor in the State of Alabama and is authorized to perform the following type(s) of work:

BC: BUILDING CONSTRUCTION

until **July 31, 2011** when this Certificate expires.

Witness our hands and seal of the Board, dated Montgomery, Ala., **1st** day of **July, 2010**

61278

SECRETARY-TREASURER

CHAIRMAN

STATE OF ALABAMA BOARD OF
Heating, Air Conditioning & Refrigeration Contractors

REFRIGERATION

50570

Jimmy Moore
Trane
1030 London Drive #100
Birmingham, AL 35211

2010

0469

EFFECTIVE UNTIL DECEMBER 31, 2010

STATE OF ALABAMA BOARD OF
Heating, Air Conditioning & Refrigeration Contractors

HEATING & AIR CONDITIONING

95010

Jimmy Moore
Trane
1030 LONDON DRIVE #100
BIRMINGHAM, AL 35211

2010

1945

EFFECTIVE UNTIL DECEMBER 31, 2010

STATE OF ALABAMA BOARD OF

Heating, Air Conditioning & Refrigeration Contractors

50570

REFRIGERATION

Jimmy Moore

Trane

1030 London Drive #100

Birmingham, AL 35211

2010

0469

EFFECTIVE UNTIL DECEMBER 31, 2010

Consumer Affairs

State Of California
CONTRACTORS STATE LICENSE BOARD
ACTIVE LICENSE

License Number **561796**

Entity CORP

Business Name TRANE U S INC DBA TRANE

Classification(s) C20 B C36 C10 C-2 C38 C-4

Expiration Date 03/31/2012

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD (850) 487-1395
1940 NORTH MONROE STREET
TALLAHASSEE FL 32399-0783

STEPHENS, HAROLD M
HUSSMANN SERVICES CORPORATION
530 ELMWOOD PARK BLVD
HARAHAN LA 70123

Congratulations! With this license you become one of the nearly one million Floridians licensed by the Department of Business and Professional Regulation. Our professionals and businesses range from architects to yacht brokers, from boxers to barbeque restaurants, and they keep Florida's economy strong.

Every day we work to improve the way we do business in order to serve you better. For information about our services, please log onto **www.myfloridalicense.com**. There you can find more information about our divisions and the regulations that impact you, subscribe to department newsletters and learn more about the Department's initiatives.

Our mission at the Department is: License Efficiently, Regulate Fairly. We constantly strive to serve you better so that you can serve your customers. Thank you for doing business in Florida, and congratulations on your new license!

STATE OF FLORIDA AC# 4993766
DEPARTMENT OF BUSINESS AND
PROFESSIONAL REGULATION

CAC053815 06/14/10 097059956

CERTIFIED AIR COND CONTR
STEPHENS, HAROLD M
HUSSMANN SERVICES CORPORATION

IS CERTIFIED under the provisions of Ch 489 FS
Expiration date: AUG 31, 2012 L10061400475

DETACH HERE

AC# 4993766

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

SEQ# L10061400475

DATE	BATCH NUMBER	LICENSE NBR
06/14/2010	097059956	CAC053815

The CLASS A AIR CONDITIONING CONTRACTOR
Named below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2012

STEPHENS, HAROLD M
HUSSMANN SERVICES CORPORATION
530 ELMWOOD PARK BLVD
HARAHAN LA 70123

CHARLIE CRIST
GOVERNOR

CHARLIE LIEM
INTERIM SECRETARY

DISPLAY AS REQUIRED BY LAW

STATE OF GEORGIA
BRIAN P. KEMP, Secretary of State
State Licensing Board for Residential/General Contractor
General Contractor Qualifying Agent

LICENSE NO. GCQA002169
Rafael Antonio Garibay
2677 Buford Highway NE
Atlanta GA 30324

EXP DATE - 06/30/2012
Status: Active

1872583

Above is your license issued by the Georgia State Board of Residential and General Contractors. A pocket-sized license card is below. **Please make note of the expiration date on your license. It is your responsibility to renew your license before it expires.** License renewals may be completed prior to the expiration date via the Board's website or by obtaining a paper renewal from the Board office.

Reminder: It is your responsibility to keep your insurance current. Please provide the Board with a copy of your Certificate of Insurance each time your insurance is renewed. The Board does receive copies of cancellation notices which will affect the status of your license.

It is the licensee's responsibility to notify the board office immediately of any change of name or address. You may update your address online at the board's website at www.sos.ga.gov/plb/contractors/ .

You may contact the Board at:
GEORGIA STATE BOARD FOR RESIDENTIAL & GENERAL CONTRACTORS
237 COLISEUM DRIVE, MACON, GEORGIA 31217-3858
478-207-2440 (phone) website: www.sos.ga.gov/plb/contractors/

Rafael Antonio Garibay
2677 Buford Highway NE
Atlanta GA 30324

STATE OF GEORGIA
BRIAN P. KEMP, Secretary of State
State Licensing Board for Residential/General Contractor
General Contractor Qualifying Agent

LICENSE NO. GCQA002169
Rafael Antonio Garibay
2677 Buford Highway NE
Atlanta GA 30324
EXP DATE - 06/30/2012
Status: Active

STATE OF GEORGIA
BRIAN P. KEMP, Secretary of State
State Licensing Board for Residential/General Contractor
General Contractor Company

LICENSE NO. GCCO002155

Trane Comfort Solutions Inc
2677 Buford Highway NE
Atlanta GA 30324
Qualifying Agent: Rafael Antonio Garibay
Qualifying Agent License NO: GCQA002169

EXPIRATION DATE - 06/30/2012
Active

1872140

Above is your license issued by the Georgia State Board of Residential and General Contractors. A pocket-sized license card is below. **Please make note of the expiration date on your license. It is your responsibility to renew your license before it expires.** License renewals may be completed prior to the expiration date via the Board's website or by obtaining a paper renewal from the Board office.

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You may contact the Board at:
GEORGIA STATE BOARD FOR RESIDENTIAL & GENERAL CONTRACTORS
237 COLISEUM DRIVE, MACON, GEORGIA 31217-3858
478-207-2440 (phone) website: www.sos.ga.gov/plb/contractors/

Trane Comfort Solutions Inc
2677 Buford Highway NE
Atlanta GA 30324

STATE OF GEORGIA
BRIAN P. KEMP, Secretary of State
State Licensing Board for Residential/General Contractor
General Contractor Company

LICENSE NO. GCCO002155

Trane Comfort Solutions Inc
2677 Buford Highway NE
Atlanta GA 30324
Qualifying Agent: Rafael Antonio Garibay
Qualifying Agent License NO: GCQA002169

EXPIRATION DATE - 06/30/2012
Active

STATE OF IDAHO

BUREAU OF OCCUPATIONAL LICENSES

Owyhee Plaza
1109 Main St., Suite 220
Boise, Idaho 83702-5642
(208) 334-3233
FAX (208) 334-3945
E-Mail ibol@ibol.idaho.gov
Website www.ibol.idaho.gov

April 7, 2010

TRANE US INC DBA TRANE
DAVID REGNERY, ET AL
445 BRYANT ST #5
DENVER CO 80204

RE: Registration Notification

Congratulations!

The IDAHO CONTRACTORS BOARD has reviewed your application for registration as a CONTRACTING business in Idaho. Based on documentation that you have met the requirements for said registration, the Board has approved your application and authorized me to issue registration number **RCE-29788** for your entity. This Registration authorizes the named entity to practice as a CONTRACTING BUSINESS in Idaho. Please note: Public Works, HVAC, Plumbing, Construction Manager, Electrical and contractors are required to be licensed with the Division of Building Safety and need only register with the Idaho State Contractors Board if doing work outside of that license.

Your registration cards are attached below and will expire **04/06/2011**. This registration is subject to renewal each year **before** the anniversary date of issue. A renewal notice will be mailed approximately 6 weeks before the expiration date.

Please notify this office immediately of any necessary corrections or changes to your name or address.

Sincerely,

Tana Cory

Tana Cory
Bureau Chief

* RCE - 29788 *

Bureau of Occupational Licenses
Department of Self Governing Agencies
The person named has met the requirements for registration and is entitled under the laws and rules of the State of Idaho to operate as a(n)
CONTRACTING BUSINESS

TRANE US INC DBA TRANE
DAVID REGNERY, ET AL
445 BRYANT ST #5
DENVER CO 80204

Tana Cory

Tana Cory	RCE-29788	04/06/2011
Chief, B.O.L.	Number	Expires

STATE
OF
IDAHO

THE IDAHO CONTRACTORS BOARD

Certifies That

TRANE US INC DBA TRANE

Registration No: RCE-29788
Subject to Annual Renewal

having fulfilled all the requirements of the Laws of Idaho and possessing the prescribed qualifications, is hereby authorized to practice as a

Contracting Business
Within the State of Idaho

STATE OF IDAHO CONTRACTORS BOARD

Bureau of Occupational Licenses
Department of Self Governing Agencies
The person named has met the requirements for registration and is entitled under the laws and rules of the State of Idaho to operate as a(n)
CONTRACTING BUSINESS

TRANE US INC DBA TRANE
DAVID REGNERY, ET AL
445 BRYANT ST #5
DENVER CO 80204

Tana Cory *Tana Cory* Chief, B.O.L.	RCE-29788 Number	04/06/2011 Expires

IN TESTIMONY WHEREOF, I have here unto put my hand and affixed the Official Seal of the Bureau of Occupational Licenses at Boise, Idaho, this *6th* day of *April*, A.D. *2010*

Tana Cory
CHIEF, BUREAU OF
OCCUPATIONAL LICENSES

STATE OF MISSISSIPPI

Certificate of Responsibility
No. 16634-SC
Which Expires Apr. 13, 2011

State Board of Contractors

THIS IS TO CERTIFY THAT
INGERSOLL-RAND INDUSTRIAL REFRIGERATION, INC.
ATTN: LEGAL DEPT 4833 WHITE BEAR PKWY.
ST. PAUL, MN 55110

is duly registered and entitled to practice
REFRIGERATION

Witness our hands and Seal of the Board,
dated Jackson, MS 22 day of Apr., 2010

Thomas H. Kline
CHAIRMAN OF THE BOARD

John M. Sullivan II
EXECUTIVE SECRETARY

Southern Nevada Office
2310 Corporate Circle, Suite 200
Henderson, Nevada 89074
(702) 486-1100

Northern Nevada Office
9670 Gateway Drive, Suite 100
Reno, Nevada 89521
(775) 688-1141

STATE CONTRACTORS BOARD

The Nevada State Contractors Board certifies that

TRANE

Licensed since November 14, 2007

License No. **0069808**

Is duly licensed as a contractor in the following classification(s):

B GENERAL BUILDING

PRINCIPALS:

DAVID LEE BATES, Assistant Secretary
TYLER KEITH CLEMMER, Employee, Qualified Ind.
JAMES SANDBORN PAPE, President

LIMIT: Unlimited
EXPIRES: 11/30/2011

Chairman, Nevada State Contractors Board

License Number
13097

North Carolina
State Board of Examiners of Plumbing, Heating & Fire Sprinkler Contractors

State License No. 13097

Expiration Date

December 31, 2010

This is to Certify that:

Trane Comfort Solutions, Inc.
PO Box 240605
Charlotte NC, 28224

Rafael Antonio Garibay, FTE, H-1,H-2,H-3-Class I
Sammy Lynn Morris, FTE H-2,H-3-Class I

Is duly registered, licensed and authorized to engage in the business of

Heating Contracting, Group 1, Group 2, Group 3

Within the State of North Carolina until December 31st, 2010, when this license expires. This authority is granted in accordance with the provisions of Chapter 87, Article 2 of the General Statutes of North Carolina.

Witness my hand and seal of the Board.

Issued 1st day of January 2010

Chairman

***PLEASE CHECK YOUR CARD & CERTIFICATE'S ADDRESS, CLASSIFICATION(S), AND CONTRACT LIMIT FOR ACCURA

See **"New License information for GENERAL Contractors"** on our website at **www.llr.state.sc.us/pol/contractors*

State of South Carolina
Department of Labor, Licensing and Regulation
Contractors' Licensing Board

Certifies

TRANE US INC
288 FAIRFOREST WAY
GREENVILLE SC 29607
as a
GENERAL CONTRACTOR

License Number: **G116030**
Date of Issue: **08/20/2010**
Expiration Date: **10/31/2012**
First Issuance Date: **08/20/2010**

State of South Carolina
Department of Labor, Licensing and Regulation
Contractors' Licensing Board

Licensed in the classification(s) of

BD5

(See back of card for Classification Abbreviations and Dollar Limit Per Contract)

DO NOT PEEL CARD FROM A CORNER

To remove card from backing

- Bend form back from the outside edge
- Pull card off backing

South Carolina Labor, Licensing and Regulation
Contractors' Licensing Board

CERTIFICATE

This certifies that: **TRANE US INC**
288 FAIRFOREST WAY
GREENVILLE SC 29607

Has given satisfactory evidence of the necessary qualifications required by the laws of the State of South Carolina an is duly qualified and entitled to practice as a:

GENERAL CONTRACTOR

For the classification(s) and limitation(s) shown below as listed on the license card:

BD5

Mike Anderson, Administrator

License Number: **G116030**
Date of Issue: **08/20/2010**
Expiration Date: **10/31/2012**
First Issuance Date: **08/20/2010**

***PLEASE CHECK YOUR CARD & CERTIFICATE'S ADDRESS, CLASSIFICATION(S), AND CONTRACT LIMIT FOR ACCURA(

***See **"New License information for MECHANICAL Contractors"** on our website at **www.llr.state.sc.us/pol/contractors**

State of South Carolina
Department of Labor, Licensing and Regulation
Contractors' Licensing Board

Certifies

TRANE US INC
288 FAIRFOREST WAY
GREENVILLE SC 29607
as a
MECHANICAL CONTRACTOR

License Number: **M111417**
Effective Date: **08/20/2010**
Expiration Date: **10/31/2011**
First Issuance Date: **08/20/2010**

State of South Carolina
Department of Labor, Licensing and Regulation
Contractors' Licensing Board

Licensed in the classification(s) of

AC5

(See back of card for Classification Abbreviations and Dollar Limit Per Contract)

DO NOT PEEL CARD FROM A CORNER

To remove card from backing

- Bend form back from the outside edge
- Pull card off backing

South Carolina Labor, Licensing and Regulation
Contractors' Licensing Board

CERTIFICATE

This certifies that: **TRANE US INC**
288 FAIRFOREST WAY
GREENVILLE SC 29607

Has given satisfactory evidence of the necessary qualifications required by the laws of the State of South Carolina and i duly qualified and entitled to practice as a:

MECHANICAL CONTRACTOR

For the classification(s) and limitation(s) shown below as listed on the license card:

AC5

Mike Anderson, Administrator

License Number: **M111417**
Date of Issue: **08/20/2010**
Expiration Date: **10/31/2011**
First Issuance Date: **08/20/2010**

STATE OF TENNESSEE
DEPARTMENT OF
COMMERCE AND INSURANCE

ID NUMBER: 00023034
LIC STATUS: ACTIVE
EXPIRATION DATE: 01/31/2012

CONTRACTORS
CONTRACTOR
TRANE U.S. INC. DBA TRANE

THIS IS TO CERTIFY THAT ALL REQUIREMENTS
OF THE STATE OF TENNESSEE HAVE BEEN MET.

TRANE U.S. INC. DBA TRANE
601 GRASSMERE PARK DR., SUITE 10
NASHVILLE TN 37211-3681

6984317

251345

State of Tennessee

BOARD FOR LICENSING CONTRACTORS

CONTRACTOR

TRANE U.S. INC. DBA TRANE

This is to certify that all requirements of the State of Tennessee have been met.

ID NUMBER: 00023034
LIC STATUS: ACTIVE
EXPIRATION DATE: 01/31/2012

CMC; CE; BC-B.C;

UNLIMITED

IN-1313
DEPARTMENT OF
COMMERCE AND INSURANCE

CEF001

TEXAS DEPARTMENT OF LICENSING AND REGULATION

P.O. Box 13489 Austin, TX 78711

ROBERTO ESCUDERO
11500 LAKE ERIE DR
EL PASO, TX 79936-3965

The Mission of Texas State Government

Texas state government must be limited, efficient, and completely accountable.

It should foster opportunity and economic prosperity, focus on critical priorities, and support the creation of strong family environments for our children.

The stewards of the public trust must be men and women who administer state government in a fair, just, and responsible manner.

To honor the public trust, state officials must seek new and innovative ways to meet State Government priorities in a fiscally responsible manner.

Visit us on the web at:
http://www.license.state.tx.us

The Texas Department of Licensing and Regulation's vision is to be the model state agency, setting the standard for customer service, cost effectiveness, staff efficiency and public trust. This new thermal card is an example of TDLR's commitment to provide you, our customers, with better service. The card's new look is in response to our licensees' feedback as well as a recent increase in postal rates. They requested a card that is easier to read. With approximately 150,000 license cards issued annually, we sought to offset the postage increase with a cost-wise card. This has provided a "win-win" answer, a more durable, easier to read license with lower production costs that allows the agency to stay within its budget.

The thermal wallet card attached below is your license effective through the specified expiration date. We welcome your comments about the new card.

Sincerely,

William H. Kuntz, Jr.
Executive Director

For assistance contact Customer Service

customer.service@license.state.tx.us

(512) 463-6599

(800) 803-9202 (statewide toll free)

STATE OF TEXAS
ROBERTO ESCUDERO

AIR CONDITIONING &
REFRIGERATION CONTRACTOR

TRANE U S INC DBA TRANE

LIC.# TACLA27340C
EXPIRES 09/19/2011

TEXAS DEPARTMENT OF LICENSING AND REGULATION

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
01-31-2011

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: 1 (804) 367-8500

NUMBER
2705 047272A

BOARD FOR CONTRACTORS
CLASS A CONTRACTORS LICENSE

TRANE U S INC
TRANE
2343 HIGHLAND FARM ROAD

ROANOKE VA 24014

CLASSIFICATIONS BLD HVA REF

Jay W. DeBoer
Jay W. DeBoer, Director

ALTERATION OF THIS DOCUMENT, USE AFTER EXPIRATION, OR USE BY PERSONS OR FIRMS OTHER THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)

(POCKET CARD)

COMMONWEALTH OF VIRGINIA

BOARD FOR CONTRACTORS - CLASS A
CONTRACTOR LICENSE - CLASSIFICATIONS: BLD
HVA REF

NUMBER: 2705 047272A EXPIRES: 01-31-2011
TRANE U S INC
TRANE
2343 HIGHLAND FARM ROAD

ROANOKE VA 24014

(FOLD)

(DETACH HERE)

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
9960 Mayland Dr., Suite 400, Richmond, VA 23233

ALTERATION OF THIS DOCUMENT, USE AFTER EXPIRATION, OR USE BY PERSONS OR FIRMS OTHER THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.

DEPARTMENT OF LABOR AND INDUSTRIES

REGISTERED AS PROVIDED BY LAW AS
CONST CONT GENERAL

REGIST. # EXP. DATE
CC01 TRANE**934RE 4/23/2011
EFFECTIVE DATE 12/5/2007

TRANE
2021 152ND AVE NE
REDMOND WA 98052

625-052-000 (8/97)

Detach And Display Certificate

REGISTERED AS PROVIDED BY LAW AS
CONST CONT GENERAL
REGIST. # EXP. DATE
CC01 TRANE**934RE 4/23/2011
EFFECTIVE DATE 12/5/2007

TRANE
2021 152ND AVE NE
REDMOND WA 98052

Signature ______________________
Issued by DEPARTMENT OF LABOR AND INDUSTRIES

Please Remove And Sign Identification Card Before Placing In Billfold

WEST VIRGINIA CONTRACTOR LICENSING BOARD

CONTRACTOR LICENSE

Authorized by the

West Virginia Contractor Licensing Board

Number: WV026978

Classification:

GENERAL BUILDING
HEATING, VENTILATING & COOLING

TRANE U S INC
DBA TRANE
400 BUSINESS CENTER DR
PITTSBURGH, PA 15205-1332

Date Issued	Expiration Date
MAY 16, 2010	MAY 16, 2011

Authorized Company Signature

Michael A. Carl
Chair, West Virginia Contractor Licensing Board

This license, or a copy thereof, must be posted in a conspicuous place at every construction site where work is being performed. This license number must appear in all advertisements, on all bid submissions and on all fully executed and binding contracts. This license cannot be assigned or transferred by licensee. Issued under provisions of West Virginia Code, Chapter 21, Article 11.

STATE OF TEXAS

RICHARD OLIVER HUNTON

AIR CONDITIONING &
REFRIGERATION CONTRACTOR

HVAC MECHANICAL SERVICES OF TE

LIC.# TACLA9290C
EXPIRES 09/10/2011

TEXAS DEPARTMENT OF LICENSING AND REGULATION

The person named on this card may perform the duties within the scope of work authorized by applicable law through the expiration date shown on the front of the card.

William H. Kuntz, Jr.
Executive Director
Texas Department of Licensing and Regulation

www.license.state.tx.us

State of Louisiana

State Licensing Board for Contractors

This is to Certify that: STORER HVAC MANAGEMENT CORP.
P.O. Box 6761
Shreveport, LA 71106

is duly licensed and entitled to practice the following classifications

MECHANICAL WORK (STATEWIDE); SPECIALTY: AUTOMATIC CONTROL SYSTEMS; SPECIALTY: HEAT, AIR CONDITIONING, VENTILATION DUCT WORK AND REFRIGERATION

Witness our hand and seal of the Board dated,
Baton Rouge, LA 9th day of February 2010

Director

Chairman

Secretary-Treasurer

Expiration Date: February 08, 2011

License No: 16802

This License Is Not Transferrable

STATE OF TEXAS
CRAIG H STORER

AIR CONDITIONING &
REFRIGERATION CONTRACTOR

STORER EQUIPMENT COMPANY LTD

LIC.# TACLA29157C
EXPIRES 10/15/2010

TEXAS DEPARTMENT OF LICENSING AND REGULATION

The person named on this card may perform the duties within the scope of work authorized by applicable law through the expiration date shown on the front of the card.

THE STATE OF TEXAS

William H. Kuntz

William H. Kuntz, Jr.
Executive Director
Texas Department of Licensing and Regulation

www.license.state.tx.us

License No. 0023710411

State of Arkansas

Contractors Licensing Board

WILLIAM A. HARRISON, INC. & DIVISION
1501 WESTPARK DR #9
LITTLE ROCK, AR 72204

This is to Certify That WILLIAM A. HARRISON, INC. & DIVISION

is duly licensed under the provisions of Act 150 of the 1965 Acts as amended and is entitled to practice Contracting in the State of Arkansas within the following classification:

ELECTRICAL

MECHANICAL

with the following suggested bid limit Unlimited

from May 14, 2010 **until** April 30, 2011

when this Certificate expires.

Witness our hands of the Board, dated at North Little Rock, Arkansas:

GREAT SEAL OF THE STATE OF ARKANSAS

CHAIRMAN

SECRETARY

May 14, 2010

CITY OF WICHITA LICENSE

License No: 1684

Certificate No:	Issued Date:	Renewal Date:	License Expires:
2291	11/30/2009	11/30/2009	12/31/2010

Qualified Person: JOHN F KNIPP

License Category: AIRHTG

IVRS #: 3597

Business Name: KS TRANE SERV, SALES, PA
P O BOX 595
WICHITA KS 67201-0595

Phone: (316)265-9655

Fee Description		Amount Due	Amount Paid	Receip
Mechanical AC license		$100.00	$100.00	)000000004:
	Totals:	**$100.00**	**$100.00**	

CITY OF
WICHITA

10/30/01

Taxpayer Identification# **232-097-522/000**

Dear Business Representative:

Congratulations! You are now registered with the New Jersey Division of Revenue.

Use the Taxpayer Identification Number listed above on all correspondence with the Divisions of Revenue and Taxation, as well as with the Department of Labor (if the business is subject to unemployment withholdings). Your tax returns and payments will be filed under this number, and you will be able to access information about your account by referencing it.

Additionally, please note that State law (Public Law 2001, c.134) requires all contractors and subcontractors with State, county and municipal agencies to provide proof of their registration with the Division of Revenue. The law also amended Section 92 of the Casino Control Act, which deals with the casino service industry.

We have attached a Proof of Registration Certificate for your use. To comply with the law, if you are currently under contract or entering into a contract with a State, county or municipal agency, you must provide a copy of the certificate to the contracting agency.

If you have any questions or require more information, feel free to call our Registration Hotline at (609) 292-1730.

I wish you continued success in your business endeavors.

Sincerely,

Patricia A. Chiacchio

Patricia A. Chiacchio
Director, Division of Revenue

STATE OF NEW JERSEY
BUSINESS REGISTRATION CERTIFICATE
FOR STATE AGENCY AND CASINO SERVICE CONTRACTORS

DEPARTMENT OF TREASURY/
DIVISION OF REVENUE
PO BOX 252
TRENTON, N J 08646-0252

TAXPAYER NAME:
TOZOUR ENERGY SYSTEMS INC.

TAXPAYER IDENTIFICATION#
232-097-522/000

ADDRESS
741 FIRST AVENUE
KING OF PRUSSIA PA 19406

EFFECTIVE DATE:
02/11/85

TRADE NAME:
TOZOUR-TRANE

CONTRACTOR CERTIFICATION#
0105588

ISSUANCE DATE:
10/30/01

Patricia A. Chiacchio
Director, Division of Revenue

FORM-BRC(08-01)

This Certificate is NOT assignable or transferable. It must be conspicuously displayed at above address.

STATE OF OREGON

CONSTRUCTION CONTRACTORS BOARD

LICENSE CERTIFICATE

LICENSE NUMBER: 64452

This document certifies that:

ROBERT G DAVIS & ASSOC INC
PO BOX 23579
TIGARD OR 97281-3579

is licensed in accordance with Oregon Law as a Commercial General Contractor Level 2.

License Details:

EXPIRATION DATE: 03/23/2011
ENTITY TYPE: Corporation
INDEP. CONT. STATUS: NONEXEMPT
RESIDENTIAL BOND: NONE
COMMERCIAL BOND: $20,000
INSURANCE: $1,000,000 / $2,000,000
RMI: ROBERT G DAVIS
HOME INSPECTOR CERTIFIED: NO
LEAD BASED PAINT LICENSED: NO

LICENSE NO. 1994103695 DORBL

POST CONSPICUOUSLY

STATE OF DELAWARE
DIVISION OF REVENUE

VALID
01/01/10 - 12/31/12
NOT TRANSFERABLE

BUSINESS CODE 331 LICENSED ACTIVITY CONTRACTOR-RESIDENT
GROUP CODE

DLN: 09 53254 78

DATE ISSUED: 11/25/09

LICENSE FEE: $ 225.00

VALIDATED

2012

BUSINESS LICENSE

MAILING ADDRESS
#BWNKHPS
#18FU L9A0 3LM1 XZO6#
JOHN R SEIBERLICH INC
SEIBERLICH TRANE
66 SOUTHGATE BLVD
NEW CASTLE DE 19720-2068

BUSINESS LOCATION
SEIBERLICH TRANE
66 SOUTHGATE BLVD
NEW CASTLE DE 19720-2068

IS HEREBY LICENSED TO PRACTICE, CONDUCT OR ENGAGE IN THE OCCUPATION OR BUSINESS ACTIVITY INDICATED ABOVE IN ACCORDANCE WITH THE LICENSE APPLICATION DULY FILED PURSUANT TO TITLE 30, DEL CODE.

PATRICK T. CARTER
DIRECTOR OF REVENUE

933418

LICENSE NO. 1993108142 DORBL

POST CONSPICUOUSLY

STATE OF DELAWARE
DIVISION OF REVENUE

VALID
01/01/10 - 12/31/12
NOT TRANSFERABLE

BUSINESS CODE 045 LICENSED ACTIVITY MANUFACTURER'S AGENT OR REPRESENTATIVE
GROUP CODE

DLN: 10 50105 40

E ISSUED: 01/08/10

LICENSE FEE: $ 225.00

VALIDATED

2012

BUSINESS LICENSE

MAILING ADDRESS
#BWNKHPS
#18FU L9A0 1LM1 XZO0#
JOHN R SEIBERLICH INC
SEIBERLICH TRANE
66 SOUTHGATE BLVD
NEW CASTLE DE 19720-2068

BUSINESS LOCATION
SEIBERLICH TRANE
66 SOUTHGATE BLVD
NEW CASTLE DE 19720-2068

S HEREBY LICENSED TO PRACTICE, CONDUCT OR ENGAGE IN THE OCCUPATION
)R BUSINESS ACTIVITY INDICATED ABOVE IN ACCORDANCE WITH THE LICENSE
\PPLICATION DULY FILED PURSUANT TO TITLE 30, DEL CODE.

PATRICK T. CARTER
DIRECTOR OF REVENUE

973813

LICENSE NO. 1993108143 DORBL

POST CONSPICUOUSLY

STATE OF DELAWARE
DIVISION OF REVENUE

VALID
01/01/10 - 12/31/12
NOT TRANSFERABLE

BUSINESS CODE 150 LICENSED ACTIVITY PERSONAL SERVICES-GENERAL REPAIRPERSON
GROUP CODE 007 PROFESSIONAL AND/OR PERSONAL SERVICES

DLN: 10 50105 53

DATE ISSUED 01/08/10

LICENSE FEE: $ 225.00

VALIDATED

2012

BUSINESS LICENSE

MAILING ADDRESS
#BWNKHPS
#18FU L9A0 2LM1 XZO8#
JOHN R SEIBERLICH INC
SEIBERLICH TRANE
66 SOUTHGATE BLVD
NEW CASTLE DE 19720-2068

BUSINESS LOCATION
SEIBERLICH TRANE
66 SOUTHGATE BLVD
NEW CASTLE DE 19720-2068

LICENSE NO. T1-0010503

STATE OF DELAWARE
DIVISION OF PROFESSIONAL REGULATION
861 Silver Lake Blvd.
Cannon Building, Suite 203
Dover, DE 19904-2467

NOT TRANSFERABLE

PROFESSION: Master Electrician

EXPIRATION DATE: 06/30/2012

ISSUED TO: William A. Buchanan

MAILING ADDRESS
William A. Buchanan
16 Debra Dr.
Bear DE 19701

PROFESSIONAL LICENSE

THIS CERTIFIES THAT THE PERSON NAMED IS HEREBY LICENSED TO CONDUCT OR ENGAGE IN THE PROFESSION INDICATED ABOVE. THIS DOCUMENT IS DULY ISSUED UNDER THE LAWS OF THE STATE OF DELAWARE.

William A. Buchanan
LICENSEE SIGNATURE

249245

LICENSE NO. HM-0000309

STATE OF DELAWARE
DIVISION OF PROFESSIONAL REGULATION
861 Silver Lake Blvd.
Cannon Building, Suite 203
Dover, DE 19904-2467

NOT TRANSFERABLE

PROFESSION: Master HVACR

EXPIRATION DATE: 10/31/2012

UED TO: William A. Buchanan

MAILING ADDRESS
William A. Buchanan
16 Debra Dr.
Bear DE 19701

PROFESSIONAL LICENSE

THIS CERTIFIES THAT THE PERSON NAMED IS HEREBY LICENSED TO CONDUCT OR ENGAGE IN THE PROFESSION INDICATED ABOVE. THIS DOCUMENT IS DULY ISSUED UNDER THE LAWS OF THE STATE OF DELAWARE.

William A Buchanan
LICENSEE SIGNATURE

244790

CITY OF WILMINGTON – PLUMBING & MECHANICAL LICENSE

SEQUENCE NO.	LICENSE NO.	CODE
000663	910273	HVAC HEATING/AC

FEE PAID
50.00

Expires Dec. 31, 2010

BUCHANAN WILLIAM
16 DEBRA DR
BEAR, DE 19701-1762

BUCHANAN WILLIAM
16 DEBRA DR
BEAR, DE 19701-1762

THE CITY OF WILMINGTON DELAWARE

ISSUED BY

Jeffrey J. Starkey

COMMISSIONER
DEPARTMENT OF LICENSES & INSPECTIONS

THIS PERMIT MUST BE DISPLAYED IN A PROMINENT PLACE

REVK-100 (05-05) REV00K32

BUREAU OF BUSINESS TRUST FUND TAXES
PO BOX 280406
HARRISBURG PA 17128-0406

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF REVENUE

CERTIFICATE OF REGISTRATION
SALES TAX LICENSE

JOHN R SEIBERLICH INC
18 BOULDEN CIR STE 14
NEW CASTLE DE 19720-3494

Account ID:.................99631937
Notice Date:................April 22, 2006
Notice Number:..........834-349-306-041
Expiration Date:..........May 31, 2011

THIS LICENSE MUST BE PROMINENTLY DISPLAYED

This license authorizes the holder to collect Local and/or State Sales, Use and Hotel Occupancy Tax.
Always refer to the **Account ID** in correspondence.

This license is non-assignable and non-transferable.

New Castle County

Department of Land Use - Licensing Division

87 Reads Way
New Castle, DE 19720

This certifies that the company named is licensed as a contractor under the laws of New Castle County.

New Castle County 1673 Delaware

Issued To: WILLIAM A BUCHANAN
SEIBERLICH TRANE

License Expires December 31, 2010

License No. STRANE

CONTRACTOR LICENSE WITH PERMIT ENDORSEMENT

This license holder has obtained a permit contractor endorsement in the category of Utility Contractor to perform work where a permit may be required.

CITY OF WILMINGTON – BUSINESS LICENSE

SEQUENCE NO.	LICENSE NO.	CODE	FEE PAID
284551	017722	1000 AIR CONDITIONING CONTRACTOR	120.00

EXPIRES DEC. 31, 2010

JOHN R SEIBERLICH INC
WILLIAM A BUCHANAN TRADE L
18 BOULDEN CIR 14

NEW CASTLE, DE 19720-3494

JOHN R SEIBERLICH INC
WILLIAM A BUCHANAN TRADE L
18 BOULDEN CIR 14
2010
NEW CASTLE, DE 19720-3494

ISSUED BY

COMMISSIONER
DEPARTMENT OF LICENSES & INSPECTIONS

NEWARK DELAWARE
Committed to Service Excellence

City of Newark **Building Department**

Contractor Registration

220 Elkton Rd / PO Box 1194 / Newark, DE 19715-1194 / 302-366-7075 / Fax 302-366-7160

Type: Electrical Registration Number: 3600 Expiration Date: 07/15/2011

SEIBERLICH, JOHN R, INC.
SEIBERLICH TRANE
66 SOUTHGATE BLVD
NEW CASTLE DE 19720

Roy H. Lopata
DIRECTOR OF BUILDING

CITY OF WILMINGTON – PLUMBING & MECHANICAL LICENSE

SEQUENCE NO.	LICENSE NO.	CODE	FEE PAID
000782	910273	HVAC HEATING/AC	50.00

Expires Dec. 31, 2010

BUCHANAN WILLIAM
16 DEBRA DR
BEAR, DE 19701-1762

SEAL OF THE CITY OF WILMINGTON DELAWARE

BUCHANAN WILLIAM
16 DEBRA DR
BEAR, DE 19701-1762

ISSUED BY
Jeffrey J. Starkey
COMMISSIONER
DEPARTMENT OF LICENSES & INSPECTIONS

THIS PERMIT MUST BE DISPLAYED IN A PROMINENT PLACE

MARYLAND SALES & USE TAX LICENSE

07023578
Sales and Use Tax Registration Number

07/29/2008
Issue Date

Peter Franchot
Peter Franchot
Comptroller

JOHN R SEIBERLICH INC
SEIBERLICH TRANE
66 SOUTHGATE BLVD
NEW CASTLE, DE 19720

COMPTROLLER of MARYLAND
Serving the People
Revenue Administration Division
110 Carroll Street • Annapolis, MD 21411

This license must be displayed prominently. A separate license is required for each place of business.

TOWN OF DAGSBORO

BUSINESS LICENSE

Seiberlich Trane
66 Southgate Blvd.

New Castle DE 19720

License Number	06-378
Issue Date	12/17/09
Expiration	12/31/2010
Account Number	378

THIS CERTIFIES THAT: Seiberlich Trane

HAS BEEN DULY LICENSED AT THE BUSINESS LICENSE OFFICE OF THE TOWN OF DAGSBORO DELAWARE AND IS HEREBY ENTITLED TO CARRY ON THE FOLLOWING TRADE, PURSUIT, OR OCCUPATION.

Contractor

Type	Description
OC	Contractor - Local or from outside of Dagsboro

TOWN OF DAGSBORO

BUSINESS LICENSE

Seiberlich Trane
66 Southgate Blvd.

New Castle DE 19720

License Number	06-378
Issue Date	07/07/09
Expiration	12/31/2009
Account Number	378

THIS CERTIFIES THAT: Seiberlich Trane

HAS BEEN DULY LICENSED AT THE BUSINESS LICENSE OFFICE OF THE TOWN OF DAGSBORO DELAWARE AND IS HEREBY ENTITLED TO CARRY ON THE FOLLOWING TRADE, PURSUIT, OR OCCUPATION.

Contractor

Type	Description
OC	Contractor - Local or from outside of Dagsboro

CALN TOWNSHIP

DEPARTMENT OF CODE ENFORCEMENT

Andrew F. Reczek, Director of Code Enforcement
Stephen L. Miller, Code Official/Fire Marshal
Raymond Stackhouse, Code Official/Deputy Fire Marshal
Joseph Arvay, Property Maintenance/Housing Inspector

www.calntownship.org
610-384-0600 fax: 610-384-0689 Email: andyr@calntownship.org
253 Municipal Drive, P.O. Box 72149 Thorndale, Pa. 19372-0149

TO: CINDY
302-395-0700

FROM: Janet – Code Enforcement

DATE: January 4, 2008

PAGES: 4 INCLUDING COVER

SUBJECT: CONTRACTOR APPLICATION

license fee. The coupon booklets you must use to pay these taxes are mailed December through

NSE NO. 2009103931 DORBL

OST CONSPICUOUSLY

STATE OF DELAWARE
DIVISION OF REVENUE

VALID
01/01/10 - 12/31/12
NOT TRANSFERABLE

BUSINESS CODE 377
GROUP CODE
LICENSED ACTIVITY WHOLESALER-ANY PRODUCTS

LN: 10 50912 22

ATE ISSUED: 03/19/10

CENSE FEE: $ 225.00

VALIDATED

2012

BUSINESS LICENSE

MAILING ADDRESS
#BWNKHPS
#18FU L9A0 4LM1 XZO4#
JOHN R SEIBERLICH INC
SEIBERLICH TRANE
66 SOUTHGATE BLVD
NEW CASTLE DE 19720-2068

BUSINESS LOCATION
SEIBERLICH TRANE
66 SOUTHGATE BLVD
NEW CASTLE DE 19720-2068

REBY LICENSED TO PRACTICE, CONDUCT OR ENGAGE IN THE OCCUPATION
USINESS ACTIVITY INDICATED ABOVE IN ACCORDANCE WITH THE LICENSE
ICATION DULY FILED PURSUANT TO TITLE 30, DEL CODE.

PATRICK T. CARTER
DIRECTOR OF REVENUE

976826

IOWA WORKFORCE DEVELOPMENT

CONTRACTOR REGISTRATION CERTIFICATE

STATE OF IOWA

IOWA WORKFORCE DEVELOPMENT
DIVISION OF LABOR SERVICES
CONTRACTOR REGISTRATION

1000 East Grand Ave.
Des Moines, IA 50319-0209
Phone (515) 242 – 5871

DATE ISSUED: 12/4/2009

DATE EXPIRES: 12/4/2010

REGISTRATION NUMBER: C087441

HALVORSON TRANE SERVICE CO
2220 NW 108TH ST
CLIVE, IA 50325

David Neil

David Neil, Commissioner

License Year 2008

License No. 63159

North Carolina

Licensing Board for General Contractors

This is to Certify That:

J. Brady Contracting, Inc.
Greensboro, NC

is duly registered and entitled to practice

General Contracting

Limitation: Unlimited
Classification: Building

until

December 31, 2008

when this Certificate expires.
Witness our hands and seal of the Board.
Dated, Raleigh, N.C.
January 1, 2008
This certificate may not be altered.

Carl Wesley
Chairman

Secretary-Treasurer

LICENSE NUMBER

20455-U

EXPIRATION DATE

08/31/2010

STATE OF NORTH CAROLINA

BOARD OF EXAMINERS OF ELECTRICAL CONTRACTORS

This is to Certify that:

Brady Trane Service Inc

Qualifiers: Jeffrey Allen Pitts

is duly registered and entitled to practice Electrical Contracting in the
Unlimited Classification

Limitation: Any project regardless of value

Witness our hands and seal of the Board

Brady Trane Service Inc
Jeffrey Allen Pitts
1915 N. Church Street
Greensboro, NC 27405

Gray Bryant
Chairman

Robert L Brooks Jr
Secretary - Treasurer

License Number
20378

North Carolina
State Board of Examiners of Plumbing, Heating & Fire Sprinkler Contractors

State License No. 20378

Expiration Date
December 31, 2010

This is to Certify that:

Brady Trane Service, Inc.
PO Box 13587
Greensboro NC, 27415

James Edward Brady, Vice President, H-1,H-2,H-3-Class I
Richard Allen Wells, FTE H-2-Class I

Is duly registered, licensed and authorized to engage in the business of

Heating Contracting, Group 1, Group 2, Group 3

Within the State of North Carolina until December 31st, 2010, when this license expires. This authority is granted in accordance with the provisions of Chapter 87, Article 2 of the General Statutes of North Carolina.

STATE BOARD OF EXAMINERS OF PLUMBING, HEATING & FIRE SPRINKLER CONTRACTORS
MAY 20, 1775
APRIL 12, 1776

Witness my hand and seal of the Board.

Issued 1st day of January 2010

Chairman

JENNIFER M. GRANHOLM
GOVERNOR

MICHIGAN DEPARTMENT OF ENERGY, LABOR & ECONOMIC GROWTH
BUREAU OF CONSTRUCTION CODES

BOILER INSTALLER'S LICENSE

WHITEHOUSE ROBERT P
NELSON TRANE
5335 HILL 23 DRIVE
FLINT MI 48507

LICENSE NO.	EXPIRATION DATE
314484 **2B**	12/31/2010

THIS DOCUMENT IS DULY ISSUED UNDER THE LAWS OF THE STATE OF MICHIGAN

BCC-873 (1/09)

JENNIFER M. GRANHOLM
GOVERNOR

MICHIGAN DEPARTMENT OF ENERGY, LABOR & ECONOMIC GROWTH
BUREAU OF CONSTRUCTION CODES

MECHANICAL CONTRACTOR LICENSE
ISSUED BY
THE BOARD OF MECHANICAL RULES

CONTRACTOR OF RECORD
PARSONS, ROBERT C

CLASSIFICATIONS

1 HYD HTG/COOLING/PROC PIP
2 HVAC EQUIPMENT
6 UNLIMITED HEATING SRV
8 UNLIMITED REF/AC SRV

NELSON TRANE
5335 HILL 23 DRIVE
FLINT MI 48507

BCC-868 (2/09)

LICENSE NO.
7108810

EXPIRATION DATE
08/31/2013

THIS DOCUMENT IS DULY ISSUED UNDER THE LAWS OF THE STATE OF MICHIGAN

Areas of Expertise:
Equipment Sales
Turnkey Solutions
Building Automation
Comprehensive Solutions
Customer Fulfillment
Management Team Leadership
Product Positioning

Years of Experience
30 Years

Education
- BS/Mechanical Engineering /Texas Tech University
- GTP Program/Trane
- Trane Leadership Development Program/Trane

Projects: Partial List

Odessa ISD, Scenic Mountain Medical Center, Hardin Simmons University, Shannon Medical Center, 3M Company.

Professional Activities:
ASHRAE member, America Society of Mechanical Engineers (ASME), TX Tech University Engineering Advisory Council.

Greg Spencer

TCPN Strategic Program Leader

Overview

Greg is a Professional Engineer with over 35 years of experience in the HVAC industry focusing on Mechanical Design and Solutions Development. For the past 30 years he has been contributing to the knowledge base of Texas Trane helping clients such as Cannon AFB and Covenant Medical Group optimize their buildings by applying Trane's Comfort Solutions.

Mr. Spencer is a proven leader; He has served in many leadership positions, most recently as the TCPN Strategic Program Leader, North America. He understands every facet of HVAC technologies having served in sales, service, and leadership capacities.

Project Specific Experience:

- General Sales Leader, Texas – Working with systems, services and solutions business streams in the Dallas District, National Account teams and Comprehensive Solutions development programs. Provided expertise with customers such as Western Container Corporation, Midland Independent School District and Brownfield Regional Medial Center.
- Area Manager – Lead manager of service, contracting and sales teams in the West Texas area. Developed and maintained client relationships through presentations, negotiations and communications. Led organization to 20% growth over 5 years.
- Sales Engineer – Worked with customers from markets across the board, including education, municipality, military and industrial sectors. Developed client/company relationships to ensure long-term, mutual benefits and high levels of customer satisfaction. Introduced technical sales and solutions development practices within local and global market penetration efforts, with emphasis on turnkey solutions.

Appendix D:

GENERAL TERMS & CONDITIONS ACCEPTANCE FORM

Signature on Vendor Contract Signature form certifies complete acceptance of the General Terms and Conditions in this solicitation, except as noted below (additional pages may be attached, if necessary).

Check one of the following responses to the General Terms and Conditions:

- ☐ We take no exceptions/deviations to the general terms and conditions

  (*Note: If none are listed below, it is understood that no exceptions/deviations are taken.)*

- ✓ We take the following exceptions/deviations to the general terms and conditions. All exceptions/deviations must be clearly explained. Reference the corresponding general terms and conditions that you are taking exceptions/deviations to. Clearly state if you are adding additions terms and conditions to the general terms and conditions. Provide details on your exceptions/deviations below:

  (*Note: Unacceptable exceptions shall remove your proposal from consideration for award. Region 4 ESC shall be the sole judge on the acceptance of exceptions/deviations and the decision shall be final*)

1. Certified Proposal Numbers (Page 6)

Proposal # 15-05

Dear Valued TCPN Member/User:

Thank you for your consideration in accessing and potentially using a TCPN-awarded contract. As you are aware, we take each and every awarded vendor through a very transparent and competitive process. Nonetheless, we continue to look for methods to better serve our customers. Most recently, we have implemented a new proposal registration program to provide consistency and faster service for our members. The process will require Facility Contract holders to register and receive a Certified TCPN Proposal Number that must be prominently displayed on each proposal(s) that you receive. This new system will track Facility transactions from the initial proposal stage to the completion of each project. TCPN has assembled an experienced Facilities Management Team that stands ready and willing to assist its vendors in providing quality services to your organization. We support and encourage you to call our TCPN Team to verify the Certified TCPN Proposal Number and ask further questions. Failure to receive the Certified TCPN Proposal Number can result in potential delays to your services. Please see our website at www.tcpn.org to contact our team members in serving your needs.

Thank you for your potential business and remember to only accept proposals with a Certified TCPN Proposal Number.

Sincerely,

The TCPN Facilities Management Team

TCPN®

The Cooperative Purchasing Network

TCPN Certified Proposal Number Process

Fill out the form on the Facilities page at www.TCPN.org

(Direct link is http://www.tcpn.org/Pages/Facilities.aspx)

***Click on TCPN Logo in center of page and a form will pop up.**

*** Fill out and submit.**

- All proposal numbers requests must be submitted ***and*** a proposal number received ***before*** you present it to your potential customer.
- You will have a response with a Certified TCPN Proposal Number within 24 hours.
- If you have an emergency and need a proposal number sooner, call any member of the Facility Management team and we will help you.
- Include the proposal number and TCPN Official Contract Holder seal of approval on all proposals. Feel free to use the attached form for your convenience.

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FACILITY SOLUTIONS SPECIAL TERMS & CONDITIONS

VENDOR ACCEPTANCE FORM

This document acknowledges that you have received and agree to the details, directions and expectations of the Certified TCPN Proposal Number process.

Date: July 14, 2015

RFP Number: 15-05

Company Name: Trane U.S. Inc.

Printed Name: Greg Spencer

Signature:

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Vendor Orientation

Respondent companies must commit to attending a vendor orientation meeting at TCPN's offices should they be awarded a contract with Region 4 ESC through this RFP. Vendor orientation meetings are meant to establish a good relationship with awarded vendors and help to ensure compliance and effective administration over the life of the contract.

Respondents should indicate below what date they would like to have their vendor orientation and who the participants will be. TCPN highly recommends that the individuals who will handle contract management, reporting and accounting, and marketing all come to the vendor orientation.

Vendor orientations for this RFP will be held between ___TBT_______ and ___TBD________.

If awarded, our company will plan to attend vendor orientation on:

Trane will coordinate the orientation meeting with TCPN at a time that is acceptable to all.

Pat Archambault

Greg Spencer

Jeremy Lee

Chris Teller

Amanda Dawson

Sonia Luna

Signature:______________________________ Date: 7-14-15________

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Trane Certified Proposal Numbering System

We, at Trane, would propose the assigning and distribution of a Certified Proposal System that would be outside the scope and responsibility of TCPN. Trane utilizes an Oracle database and has the capacity of assigning and distributing a unique TCPN proposal number based on customer location, sales office location and proposal type. Once established in the database, this unique number is automatically tracked from the inception of the proposal through project completion.

An example of this unique system is shown below. We assign this unique Certified number based on the following criteria:

Zone # - Physical location of the project and customer.

Customer ID # - The 5 or 6 digit numerical number system that is unique and specific to the individual customer.

Year # – This indicates the year a Certified Proposal was generated in the Oracle database.

Sequence # - This number represents the numerical quote sequence given to the individual customer or entity.

XX -	XXXXX -	XX -	XXX
Zone	**Customer ID**	**Year**	**Sequence**

XX -	XXXXXX -	XX -	XXX
Zone	**Customer ID**	**Year**	**Sequence**

This above listed Certified Proposal Numbering system allows Trane to provide quote generation reports, project booking reports and revenue tracking reports. This system can provide contact information that would allow TCPN to establish a satisfaction surveying matrix.

Greg Spencer
TCPN Strategic Program Leader