

## **QUICKAIRE** Belt Drive Air Handling Units

When it comes to building Air Handling Units for any application Coil Company has the capability to meet your requirements. If you need a Belt Drive Air Handling Unit, Coil Company can build it for you. We build units for almost any commercial application that you might run across. Do you have a shopping mall where you need a variety of units in a hurry? Or a restaurant that needs a DX Unit by next week? How about a Chilled Water Unit for a hotel, school, dormitory or small office building? There are a huge number of applications where your Air Handling Unit needs to be reliable and of good construction, but it doesn't have to be 'state-of-the-art' technology either. You need a unit next week and certainly can't wait 8 to 10 weeks. You want to pay the right amount of money for the proper unit, but the job doesn't qualify for the best unit in the HVAC industry. Coil Company offers Belt drive Units that give you an economical, well-constructed, efficient alternative to a large Central Station Unit or a less expensive Fan/Coil Unit.

#### **Quick Ships Available**

Coil Company builds Horizontal Units in 11 sizes up to 30 tons and Vertical Units in 11 sizes up to 30 tons. We can provide a Chilled Water Unit or a DX Unit. We can also add Hot Water Coils to any unit, as well as Discharge Grilles, Mixing Boxes and assorted other accessories. We offer you a great unit at an economical price and Quick Ship in 7 to 10 days.

#### Coil Company is responsive to small jobs

We all know that the 'big companies' are not exactly responsive to customers on small jobs. The HVAC Industry seems to get more 'production oriented' every year. Unless you have a big job, the big companies don't exactly go out of their way to help you out. At Coil Company we get our business from lots of small jobs. We cater to companies that do small jobs and have developed a line of units designed specifically for all the small commercial applications that you might see. We try to blend quality, economics and service into our Belt Drive Air Handling Units. Perhaps you can buy another unit for a few dollars less, but how does that help you if you can't get it for 3 months? Maybe there are units with slightly better quality, but can you afford to spend megabucks to buy the unit? Maybe you can find another unit in stock, but will it do what you want it to do?

Coil Company is set up to meet the demands of the HVAC Industry and there is a large demand for our Belt Drive Air Handling Units. We hope you will call Coil Company at your earliest opportunity!





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Coil Company, LLC reserves the right to change dimensional, construction, performance or any other criteria shown in this publication without notice to its customers.

Acceptance of orders. Purchase orders are subject to acceptance and approval by Coil Company, LLC (seller). No Terms or Conditions appearing on purchase orders of other related documents that are contrary to our Standard Terms and Conditions shall be binding unless specifically agreed to beforehand by the Seller in writing.

**Cancellation of orders.** The Purchaser can cancel or modify an order upon written notice and Purchaser shall

pay all costs (cancellation or modification) and charges as determined in an equitable way by seller.

**Quotations.** Any quotation in writing by Coil Company, LLC may or may not include freight charges within the quoted price(s). Regardless, all equipment is sent F.O.B. Factory and it is the Purchaser's responsibility to make claim for loss or damage with transportation (delivering) carrier.

Warranty. Contact Coil Company.

### HORIZONTAL & VERTICAL DESCRIPTION & FEATURES Shipment Options

### 11 Horizontal & 11 Vertical Units with 3 Shipment Options





Horizontal water unit . 2 thru 30 tons 800 thru 12,000 CFM

> Vertical water unit. 2 thru 30 tons 800 thru 12000 CFM

#### 7-10 WORK DAY SHIPMENT - ALL SIZES

Coil Company builds 11 different sizes of horizontal and vertical units available to ship in 7-10 days. Almost all options are available under this program. There is a premium to ship using this program and often is for emergencies or replacement jobs.

#### 4 WEEK SHIPMENT (20 WORK DAY)

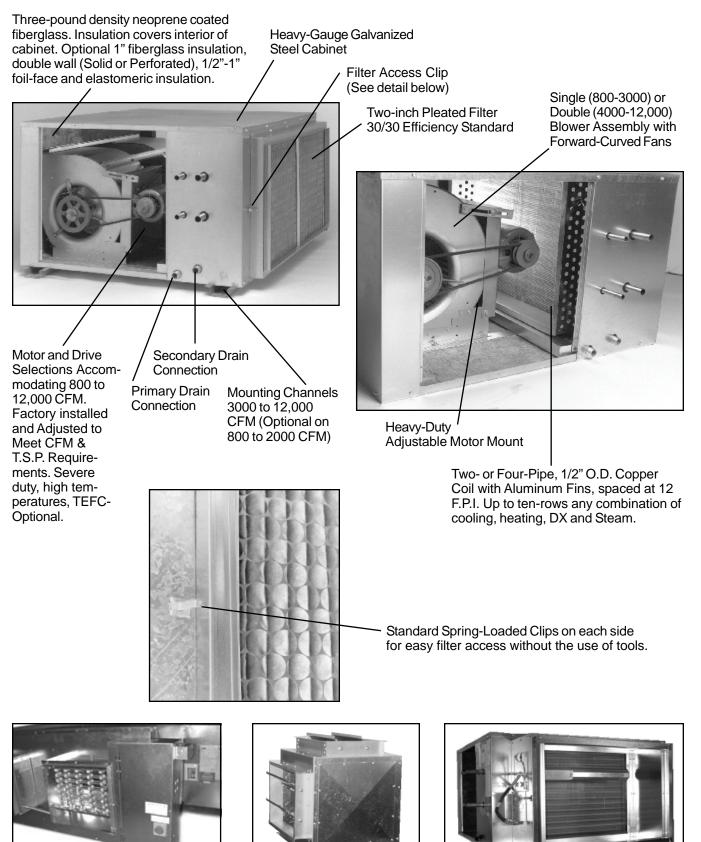
Coil Company also ships the same equipment under a 4 week ship program. The premium for this is less than the 7-10 work day program. This option is often used for design/build jobs where there is some urgency, but immediate shipment is not required.

### **STANDARD SHIPMENT (7-8 WEEKS NORMAL)**

Coil Company offers this schedule for the lowest pricing where quick shipment is not required.

# Specification guide

#### **SPECIFICATION GUIDE**



### **Description & Features**

#### STANDARD FEATURES

Cabinet – Heavy-gauge galvanized steel insulated with 1/2" thick, over three pound density, neoprene coated fiberglass.

Coils – 1/2° OD copper tube with aluminum fins (12 FPI) equipped with manual-air vent. Coils are 100% underwater pressure tested at 350 PSI with a 300 PSI working pressure.

Drain Pan – Galvanized and powder coated epoxy with a 1/4" thick closed-cell insulation and has primary and secondary drain connections.

Blower & Assembly – Belt-driven draw-through design with forward-curved and dynamically balanced blowers. Adjustable, variable-pitch drive sheave and cast-iron pulley keyed to motor shaft.

Deluxe, Weatherproof, Deluxe-Weatherproof, Double-Wall (Solid or Perforates) and Top or Bottom Supply.

Drain Pans - Stainless steel and double-wall.

Coils – Copper fins, phenolic coated, stainless-steel end plates. All options are available on one to ten rows.

Insulation – fiberglass, foil-faced, elastomeric and double-wall (solid or perforated) in 1/2" and 1" thickness.

Systems – Two or Four-pipe, Hydronic cooling/heating, Steam, Direct-expansion (DX) and/or Electric Heat. Controls – Controls and motors are factory-wired and terminated in a junction box for single-point power supply.

Filter – Two-inch thick, 30/30 pleated filter, flatly mounted, with spring loaded clips on each side of the access door for easy maintenance without the use of tools.

Added Features – Each unit is tagged and crated as scheduled for installation.

Certification - UL and cUL approved.

Controls – Unlimited selection of factory-mounted valves, controls and enclosures.

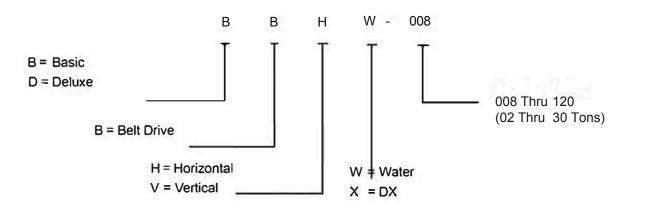
Motors - severe-duty, high temperature, ODP, TEFC; 115, 208, 230, 277, 460, 575 voltages.

Filters – Two-inch thick throwaway, washable and V-Bank.

Electric Heat - Electric Resistance Heaters from 1 to 65 kW

Mixing Boxes - With dampers, modulating and threeposition economizers.

#### NOMENCLATURE



### **Cooling Capacities**

#### COOLING CAPACITIES - ALL HORIZONTAL & VERTICAL UNITS - EWT: 40°F & 42°F

			COOLIN	IG CAP	ACITIES	FOR	WATEF	RTEM	PERAT	URE R	ISE 10° -	- 80°F [	DB/67°I	F WB			
				EN	TERING	S WATE	ER TEN	/IPERA	TURE	40°	EN	TERINO	g wate	ER TEN	/IPERA	TURE 4	42°
SIZE	ROWS	CIR.	CFM	TOTAL BTU	SENS BTU	GPM	WPD	APD	GPM/ CIR.	TUBE VEL.	TOTAL BTU	SENS BTU	GPM	WPD	APD	GPM/ CIR.	TUBE VEL.
	4	3	800	37.5	24.6	7.9	9.6	0.631	2.6	4.5	33.8	23.1	7.1	7.8	0.615	2.4	4.0
008	6	7	800	41.0	26.7	8.6	2.2	09.22	1.2	2.1	37.3	25.3	7.9	1.8	0.906	1.1	1.9
	8	7	800	48.6	30.4	10.1	3.6	1.248	1.4	2.5	44.5	28.6	9.3	3.1	1.231	1.3	2.3
	4	7	1200	48.9	33.9	10.3	2.6	0.658	1.5	2.5	44.1	32.2	9.3	2.1	0.641	1.3	2.3
012	6	7	1200	65.9	42.2	13.9	5.0	1.012	2.0	3.4	59.9	39.6	12.5	4.1	0.994	1.8	3.0
	8	7	1200	76.0	46.9	16.0	8.2	1361	2.3	3.9	70.1	44.2	14.8	7.1	1.346	2.1	3.6
	4	7	1600	72.8	48.7	15.4	5.0	0.626	2.2	3.7	65.5	45.1	13.7	4.0	0.610	2.0	3.3
016	6	7	1600	93.7	58.5	19.6	10.8	0.951	2.8	4.7	85.8	55.1	18.1	9.2	0.937	2.6	4.4
	8	7	1600	105.9	64.9	22.1	16.4	1.275	3.2	5.4	97.8	61.1	20.5	14.9	1.260	2.9	5.0
	4	8	2000	87.6	58.7	18.3	5.6	0.715	2.3	3.9	79.4	55.7	16.7	4.7	0.699	2.1	3.5
020	6	16	2000	100.1	65.9	21.1	2.7	1.057	1.3	2.2	91.0	61.9	19.2	2.3	1.037	1.2	2.0
	8	16	2000	119.0	74.6	24.9	3.2	1.431	1.6	2.6	109.3	70.2	23.0	2.8	1.412	1.4	2.4
	4	10	3000	142.2	93.5	30.0	9.8	0.654	3.0	5.1	129.4	87.7	27.4	8.3	0.640	2.7	4.6
030	6	15	3000	171.0	107.6	36.0	6.3	0.977	2.4	4.1	156.4	101.2	33.0	5.4	0.961	2.2	3.7
	8	15	3000	194.7	119.5	40.9	9.6	1.310	2.7	4.6	179.8	112.5	37.9	8.3	1.295	2.5	4.3
	4	20	4000	170.9	115.9	35.9	2.7	0.658	1.8	3.0	154.3	110.1	32.6	2.2	0.642	1.6	2.8
040	6	30	4000	208.3	136.2	43.7	2.4	0.989	1.5	2.5	189.7	128.0	39.9	2.0	0.972	1.3	2.3
	8	30	4000	246.4	153.6	52.2	3.7	1.338	1.7	2.9	224.8	143.1	47.1	3.1	1.318	1.6	2.7
	4	20	5000	227.2	150.3	48.1	5.2	0.664	2.4	4.1	204.5	141.1	42.9	4.2	0.648	2.1	3.6
050	6	30	5000	274.8	175.7	58.1	3.4	0.994	1.9	3.3	249.4	165.2	52.2	3.6	0.976	1.7	2.9
	8	30	5000	316.9	195.6	66.9	5.3	1.337	2.2	3.8	292.2	184.1	61.9	4.6	1.322	2.1	3.5
	4	20	6000	282.4	184.7	59.7	7.5	0.667	3.0	5.1	257.1	175.5	54.4	6.3	0.653	2.7	4.6
060	6	30	6000	339.6	215.2	71.5	5.6	0.997	2.4	4.0	311.2	202.3	65.8	4.8	0.982	2.2	3.7
	8	30	6000	388.3	239.1	81.5	8.5	1.339	2.7	4.6	358.6	225.0	75.6	7.3	1.323	2.5	4.3
	4	26	8000	379.3	249.2	79.9	8.6	0.666	3.1	5.2	344.6	234.0	73.0	7.3	0.652	2.8	4.8
080	6	39	8000	455.2	286.9	95.8	5.8	0.994	2.5	4.2	417.3	269.8	88.0	5.0	0.979	2.3	3.8
	8	52	8000	504.0	313.0	106.3	4.6	1.325	2.0	3.5	463.2	291.8	98.3	4.0	1.308	1.9	3.2
	4	26	10000	493.1	318.8	103.5	15.0	0.664	4.0	6.7	448.5	299.4	94.6	12.6	0.650	3.6	6.2
100	6	52	10000	565.0	358.6	119.0	5.3	0.980	2.3	3.9	517.6	337.2	109.5	4.5	0.965	2.1	3.6
	8	52	10000	646.0	398.4	135.8	8.3	1.315	2.6	4.4	596.9	375.1	125.9	7.2	1.301	2.4	4.1
	4	52	12000	512.0	347.7	107.5	3.6	0.726	2.1	3.5	463.2	330.3	97.6	3.0	0.709	1.9	3.2
120	6	52	12000	674.9	426.0	142.2	7.8	1.110	2.7	4.6	618.7	404.7	130.9	6.7	1.093	2.5	4.3
	8	52	12000	772.7	473.8	162.3	12.3	1.491	3.1	5.3	713.2	446.0	150.4	10.6	1.473	2.9	4.9

SYMBOLS:

GPM: Gallons of water per minute

WPD: Water pressure drop in feet of water

APD: Air Pressure Drop

## **Cooling Capacities**

#### COOLING CAPACITIES - ALL HORIZONTAL & VERTICAL UNITS - EWT: 45°F & 50°F

			COOLIN	IG CAPA	ACITIES	FOR	WATER	R TEM	PERATI	URE R	SE 10° -	80°F [	DB/67°	F WB			
				EN	TERING	G WATE	ER TEN	/IPERA	TURE 4	45°	EN	TERINO	g wate	ER TEN	/IPERA	TURE \$	50°
SIZE	ROWS	CIR.	CFM	TOTAL BTU	SENS BTU	GPM	WPD	APD	GPM/ CIR.	TUBE VEL.	TOTAL BTU	SENS BTU	GPM	WPD	APD	GPM/ CIR.	TUBE VEL.
	4	3	800	28.7	21.3	6.0	5.8	0.590	2.0	3.4	20.8	18.3	4.4	3.6	0.533	1.5	2.5
008	6	7	800	31.5	22.8	6.6	1.3	0.872	0.9	1.6	22.8	19.6	4.8	1.1	0.795	0.7	1.2
	8	7	800	38.3	25.9	8.1	2.3	1.199	1.2	2.0	27.9	21.7	5.9	1.3	1.114	0.8	1.4
	4	7	1200	36.8	29.3	7.7	1.5	0.609	1.1	1.9	25.7	25.7	5.5	0.8	0.467	0.8	1.3
012	6	7	1200	51.2	35.8	10.8	3.6	0.962	1.5	2.6	37.1	30.6	7.8	1.9	0.882	1.1	1.9
	8	7	1200	60.5	40.3	12.7	5.3	1.312	1.8	3.1	44.7	33.9	9.5	3.5	1.228	1.4	2.3
	4	7	1600	55.5	41.6	11.7	3.0	0.584	1.7	2.8	40.2	35.6	8.5	2.0	0.526	1.2	2.1
016	6	7	1600	74.0	50.2	15.7	7.0	0.910	2.2	3.8	53.9	42.6	11.4	3.9	0.841	1.6	2.8
	8	7	1600	85.3	55.8	18.0	11.7	1.232	2.6	4.4	63.3	46.5	13.3	6.7	1.159	1.9	3.2
	4	8	2000	67.2	50.7	14.2	3.5	0.668	1.8	3.0	44.9	44.9	9.5	2.1	0.497	1.2	2.0
020	6	16	2000	76.7	56.4	16.1	1.6	0.998	1.0	1.7	55.7	48.9	11.8	0.9	0.909	0.7	1.2
	8	16	2000	93.9	64.0	19.9	2.8	1.374	1.2	2.1	68.4	54.3	14.4	1.5	1.275	0.9	1.5
	4	10	3000	109.1	79.9	22.9	5.9	0.612	2.3	3.9	79.3	68.5	16.8	3.8	0.554	1.7	2.8
030	6	15	3000	133.7	92.2	28.0	4.7	0.931	1.9	3.2	97.7	78.2	20.7	3.4	0.859	1.4	2.3
	8	15	3000	156.5	102.7	33.2	6.5	1.266	2.2	3.8	115.6	86.4	24.5	4.3	1.188	1.6	2.8
	4	20	4000	130.4	100.2	27.7	2.5	0.613	1.4	2.3	88.7	88.7	19.1	1.8	0.462	1.0	1.6
040	6	30	4000	161.5	116.6	34.2	1.5	0.938	1.1	1.9	116.5	100.0	24.6	1.4	0.855	0.8	1.4
	8	30	4000	194.1	130.6	40.9	2.4	1.284	1.4	2.3	141.7	109.8	29.8	2.2	1.196	1.0	1.7
	4	20	5000	173.2	129.9	36.5	3.1	0.620	1.8	3.1	114.7	114.7	24.4	2.1	0.458	1.2	2.1
050	6	30	5000	213.2	149.0	44.9	2.7	0.945	1.5	2.5	154.5	127.7	32.4	1.5	0.867	1.1	1.8
	8	30	5000	251.9	168.0	52.8	4.2	1.287	1.8	3.0	184.9	141.3	38.7	2.3	1.204	1.3	2.2
	4	20	6000	216.5	159.7	45.5	5.1	0.625	2.3	3.9	157.5	136.9	33.4	2.9	0.565	1.7	2.8
060	6	30	6000	265.7	182.6	55.7	3.5	0.949	1.9	3.1	194.2	156.5	41.2	2.5	0.877	1.4	2.3
	8	30	6000	309.8	203.5	64.8	5.5	1.290	2.2	3.7	230.0	171.1	48.7	3.9	1.212	1.6	2.8
	4	26	8000	291.0	213.0	61.1	5.2	0.624	2.4	4.0	211.3	182.6	44.8	3.5	0.564	1.7	2.9
080	6	39	8000	356.1	245.9	74.7	4.2	0.947	1.9	3.2	260.8	208.6	55.3	2.4	0.875	1.4	2.4
	8	52	8000	398.8	266.2	83.8	3.7	1.274	1.6	2.7	292.5	221.7	61.3	2.0	1.190	1.2	2.0
	4	26	10000	382.7	272.6	81.3	10.2	0.625	3.1	5.3	276.5	233.6	58.4	5.5	0.566	2.2	3.8
100	6	52	10000	441.9	304.3	92.6	3.3	0.933	1.8	3.0	322.8	260.8	68.5	2.4	0.861	1.3	2.2
	8	52	10000	518.7	342.3	110.3	5.6	1.271	2.1	3.6	382.5	285.2	81.0	3.8	1.190	1.6	2.6
	4	52	12000	391.3	300.5	83.0	2.9	0.677	1.6	2.7	265.9	265.9	57.3	1.4	0.508	1.1	1.9
120	6	52	12000	528.7	365.1	110.8	4.9	1.058	2.1	3.6	387.4	313.0	82.1	3.5	0.976	1.6	2.7
	8	52	12000	617.1	407.0	129.1	7.9	1.436	2.5	4.2	459.1	342.3	97.0	4.6	1.348	1.9	3.2

SYMBOLS:

GPM: Gallons of water per minute APD: Air Pressure Drop WPD: Water pressure drop in feet of water

### **Cooling Capacities**

#### **COOLING CAPACITIES - DX- ALL HORIZONTAL & VERTICAL UNITS**

		DX	COOLIN	NG CAP	ACITIES	3 - EN	TERIN	G AIR 8	0°F DB/6	67°F W	В		
				SUCT	ION TE	MPER	ATURE	42°F	SUCT	ION TE	MPER	ATURE	45°F
SIZE	ROWS	CIR.	CFM	TOTAL BTU	SENS BTU	LDB	LWB	APD	TOTAL BTU	SENS BTU	LDB	LWB	APD
	4	3	800	32.8	22.7	54.1	53.8	0.641	28.2	20.9	56.1	55.9	0.641
008	6	7	800	36.4	24.9	51.5	51.5	0.962	30.7	23.0	53.8	53.8	0.937
	8	7	800	44.1	28.9	47.0	47.0	1.282	38.1	26.1	50.2	50.2	1.274
	4	7	1200	42.2	30.6	56.7	55.9	0.692	35.1	28.2	58.5	58.0	0.674
012	6	7	1200	59.0	39.1	50.2	50.2	1.037	50.7	36.0	52.6	52.6	1.037
	8	7	1200	69.5	44.2	46.3	46.3	1.383	60.6	40.7	49.0	49.0	1.383
	4	7	1600	63.6	44.2	54.7	54.3	0.641	54.3	40.7	56.7	56.4	0.641
016	6	7	1600	84.1	55.5	48.3	48.3	0.962	73.3	50.1	51.4	51.4	0.962
	8	7	1600	96.2	61.2	45.0	45.0	1.282	85.2	56.4	47.8	47.8	1.282
	4	8	2000	76.9	53.8	55.4	54.8	0.737	65.3	49.6	57.3	56.8	0.737
020	6	16	2000	88.4	62.3	51.5	51.5	1.105	74.2	54.8	54.9	54.9	1.074
	8	16	2000	108.7	70.8	47.6	47.6	1.474	92.8	65.2	50.2	50.2	1.463
	4	10	3000	124.6	85.0	54.1	53.6	0.662	107.7	78.3	56.1	55.7	0.662
030	6	15	3000	154.0	102.0	48.9	48.9	0.993	133.4	93.9	51.4	51.4	0.993
	8	15	3000	178.3	114.7	45.0	45.0	1.324	157.4	103.7	48.4	48.4	1.324
	4	20	4000	224.1	144.5	47.0	47.0	1.368	195.0	130.5	50.2	50.2	1.368
040	6	30	4000	186.0	127.5	50.9	50.9	1.026	157.7	114.8	53.8	53.8	1.012
	8	30	4000	224.1	144.5	47.0	47.0	1.368	195.0	130.5	50.2	50.2	1.368
	4	20	5000	199.2	138.1	54.7	54.2	0.680	170.2	127.2	56.7	56.3	0.680
050	6	30	5000	246.9	162.9	50.2	50.2	1.019	211.1	150.0	52.6	52.6	1.019
	8	30	5000	291.9	187.7	45.7	45.7	1.359	254.5	169.6	49.0	49.0	1.359
	4	20	6000	248.7	170.0	54.1	53.6	0.677	214.3	156.6	56.1	55.7	0.677
060	6	30	6000	306.9	204.0	48.9	48.9	1.015	265.2	187.9	51.4	51.4	1.015
	8	30	6000	357.6	229.5	45.0	45.0	1.353	311.0	207.4	48.4	48.4	1.353
	4	26	8000	333.7	226.6	54.1	53.6	0.674	287.4	208.7	56.1	55.7	0.677
080	6	39	8000	409.7	272.0	48.9	48.9	1.011	356.0	250.5	51.4	51.4	1.011
	8	52	8000	460.1	294.6	46.3	46.3	1.348	401.5	271.4	49.0	49.0	1.348
100	4	26	10000	431.4	290.4	53.4	53.0	0.665	375.0	267.5	55.5	55.1	0.665
100	6	52	10000	510.3	340.0	48.9	48.9	0.998	440.5	313.1	51.4	51.4	0.998
	8	52	10000	594.5	382.4	45.0	45.0	1.331	519.6	345.7	48.4	48.4	1.331
100	4	52	12000	447.8	314.5	56.0	55.2	0.752	378.6	289.6	57.9	57.2	0.752
120	6	52	12000	605.8	399.4	49.6	49.6	1.129	525.7	367.9	52.0	52.0	1.129
	8	52	12000	702.7	450.4	45.7	45.7	1.505	620.6	414.9	48.4	48.4	1.505

SYMBOLS:

LDB: Leaving Dry Bulb APD: Air Pressure Drop LWB: Leaving Wet Bulb

### Heating Capacities

#### HEATING CAPACITIES FOR HORIZONTAL & VERTICAL UNITS 2 THRU 30 TONS

#### **HOT WATER**

	ENTER	ring (	CONDIT	IONS: 7	0°F DE	3 AIR/1	80°F E	WT	
				Т	EMPE	RATUR	E DRO	DP 20°F	-
MODEL BBHW	ROWS	CIR.	CFM	TOTAL BTU	GPM	WPD	APD	GPM/ CIR.	TUBE VEL.
009	1	2	800	31.1	3.3	1.4	0.106	1.6	2.8
008	2	3	800	54.2	5.7	2.1	0.212	1.9	3.2
010	1	2	1200	47.6	5.0	3.5	0.114	2.5	4.3
012	2	3	1200	82.2	8.7	5.3	0.229	2.9	4.9
016	1	3	1600	64.4	6.8	2.1	0.106	2.3	3.9
016	2	3	1600	112.9	11.5	9.6	0.212	3.8	6.5
020	1	4	2000	76.0	8.0	1.8	0.122	2.0	3.4
020	2	4	2000	136.6	14.5	8.1	0.244	3.6	6.1
020	1	5	3000	120.7	12.8	2.9	0.110	2.6	4.3
030	2	10	3000	203.8	21.7	3.2	0.219	2.2	3.7
040	1	10	4000	152.0	16.1	1.4	0.113	1.6	2.7
040	2	10	4000	274.8	29.2	4.8	0.226	2.9	4.9
050	1	10	5000	195.5	20.6	2.5	0.112	2.1	3.5
050	2	10	5000	348.5	37.0	7.1	0.225	3.7	6.3
060	1	10	6000	239.6	25.4	2.9	0.112	2.5	4.3
060	2	10	6000	420.2	42.9	10.4	0.224	4.3	7.3
080	1	13	8000	320.6	34.0	2.7	0.111	2.6	4.4
080	2	19	8000	553.5	58.8	3.6	0.223	3.1	5.2
100	1	13	10000	409.6	43.4	4.8	0.110	3.3	5.7
100	2	19	10000	702.4	74.5	6.3	0.220	3.9	6.6
120	1	13	12000	476.7	100.9	6.7	0.124	7.8	13.1
120	2	26	12000	811.3	86.3	5.5	0.249	3.3	5.6

SYMBOLS:

LDB: Leaving dry bulb temperature in F° WPD: Water pressure drop in feet of water GPM: Gallons of water per minute

#### STEAM

F	HEATING CAPACITIES - STEAM: 5 PSI												
			EN	ITERINO	G AIR 70	°F							
MODEL BBHW	ROWS	CFM	TOTAL BTU	LDB	#'S COND	APD							
000	1	800	58.2	136.5	60.6	0.144							
008	2	800	88.5	171.1	92.1	0.287							
010	1	1200	85.4	135.1	88.9	0.156							
012	2	1200	130.7	169.6	136.0	0.312							
016	1	1600	116.4	136.5	121.2	0.144							
010	2	1600	176.9	171.1	184.2	0.287							
020	1	2000	139.7	133.9	145.5	0.167							
020	2	2000	215.0	168.3	223.8	0.335							
030	1	3000	216.2	135.9	225.1	0.149							
000	2	3000	329.6	170.5	343.1	0.298							
040	1	4000	285.6	135.3	297.3	0.154							
040	2	4000	436.5	169.8	454.5	0.308							
050	1	5000	357.7	135.4	372.4	0.153							
000	2	5000	546.4	169.9	568.8	0.306							
060	1	6000	429.7	135.5	447.4	0.152							
000	2	6000	656.3	170.0	683.2	0.305							
080	1	8000	573.6	135.6	597.2	0.152							
000	2	8000	875.7	170.1	911.7	0.303							
100	1	10000	719.7	135.8	749.2	0.150							
.00	2	10000	1097.5	170.4	1142.5	0.299							
120	1	12000	833.3	133.5	867.6	0.171							
.20	2	12000	1284.1	167.9	1336.8	0.343							

## Sound Power Levels

	SOUND POWER	LEVELS - OCTAVE BAN		POWERI	EVEL dB	RE: 10 12	WATTS			
MODEL	POINT OF OPERATION	LOCATION	63	125	250	500	1000	2000	4000	8000
	600 CFM AT 0.79" 1100 RPM	INLET	60	61	59	55	49	45	37	26
		OUTLET	71	76	69	67	67	65	61	55
	800 CFM AT 0.53" 1100 RPM	INLET	60	64	59	55	50	46	38	27
008		OUTLET	71	77	69	68	68	65	62	57
	900 CFM AT 0.35" 1100 RPM	INLET	60	65	59	55	51.5	47	40	31
		OUTLET	69	77	70	68	68	66	63	58
	900 CFM AT 0.87" 1216 RPM	INLET	73	70	64	58	52	48	41	28
		OUTLET	79	81	75.5	72	72	69	66	62
	1200 CFM AT 0.52" 1216 RPM	INLET	73	69	64	59	53.5	49	41	30
012		OUTLET	79	82	75.5	72	72.5	70	67	62
	1500 CFM AT 0.28" 1216 RPM	INLET	72	66	63	59	54	50	43	32
		OUTLET	75	76	76	72	73	70	68	58
	1201 CFM AT 0.68" 1134 RPM	INLET	75	70	66	64	55	50	42	32
		OUTLET	77	80	75	71.5	72	69	66	60
016	1604 CFM AT 0.52" 1126 RPM	INLET	75	70	66	64	58	53	44	35
010		OUTLET	78	80	76	72.5	74	71	69	64
	1972 CFM AT 0.20" 1117 RPM	INLET	74	71	66	66	57	54	46	38
		OUTLET	76	79	76	74	76	73	72	67
	1600 CFM AT 0.75" 1035 RPM	INLET	68	75	67	62	56	52	47	33.5
		OUTLET	76	82	78	75	73.5	71	69	63
020	2000 CFM AT 0.62" 1027 RPM	INLET	68	77	68	63	57	55	48	34.5
020		OUTLET	77	83	78	76	74	72	70	64
	2400 CFM AT 0.30" 1016 RPM	INLET	68	76	67	65	59	54	49	37
		OUTLET	78	84	79	77	76	73	71.5	66
	2250 CFM AT 0.28" 631 RPM	INLET	65	66	61	57	55	47	38.5	35
		OUTLET	79	72	70	69	66.5	65	61	53
030	3000 CFM AT 0.51" 820 RPM	INLET	73	73	64	64	63	54	46.5	36
		OUTLET	82	79	77	76	73	71	69	62
	3750 CFM AT 0.80" 1200 RPM	INLET	76	77	67	71	64	59	51.5	41
		OUTLET	84	83	81	80	80	76	75	69
	3000 CFM AT 0.66" 790 RPM	INLET	70.5	69	66	61	61	51.5	44	34.5
		OUTLET	79	77	76	74	74	69	67	59
040	4000 CFM AT 0.70" 1052 RPM	INLET	76	76	68	67	67	58	52	41
		OUTLET	85	84	83	81.5	81.5	76.5	75	69
	4670 CFM AT 0.88" 1200 RPM	INLET	77	79	72	70	70	65	56	45.5
		OUTLET	87	88	85.5	84	84	80	78	72.6
	3750 CFM AT 0.34" 783 RPM	INLET	72	70	64	66	66	53	43	37
	5000 CFM AT 0.70" 1048 RPM	OUTLET	83 75	77 76	75	75	74	70	69	61 43.3
	5000 CFM AT 0.70 T048 RPM	OUTLET	83	83	70 82	73.5 80	65 80	60 77	53.5	43.3
050	5357 CFM AT 0.70" 1084 RPM	INLET	76.5	76	71	73	67.5	61	76 55	45
	5557 CT M AT 0.70 1004 RFM	OUTLET	84	83.5	83	81	81	76	78	43 72
	6250 CFM AT 0.90" 1237 RPM	INLET	79	79	74	70	77	65	58	49
	3200 01 MIAT 0.00 1207 NPM	OUTLET	87	86	86	84	85.5	82	81	49 76
	4500 CFM AT 0.39" 683 RPM	INLET	74	72	63	68	62	55	48	41
		OUTLET	81	72	75	76	74	71	70.5	61
	6000 CFM AT 0.70" 890 RPM	INLET	81	78	70	71	68	61	54	44
060		OUTLET	88	85	82	82	81	78	76	70
	7500 CFM AT 1.07" 1106 RPM	INLET	83.5	82	73	75	81	67	60	50
		OUTLET	92	90	87	87	89	84	82	77
	6000 CFM AT 0.38" 684 RPM	INLET	75	72	64	63	62	57	48.5	38
		OUTLET	84	79	77	77	74	72	70	63
	8000 CFM AT 0.70" 890 RPM	INLET	78	78	69.5	69	70	63.5	56	44
080		OUTLET	87	86	83	82	83	79	77.5	71.5
	10000 CFM AT 1.02" 1092 RPM	INLET	81	81	74	73	74.5	69	61.5	50
		OUTLET	90	89	88.5	87	87.5	84.5	83	78
	8000 CFM AT 0.40" 688 RPM	INLET	76	72	65	64	62	56	48	40
		OUTLET	84	79	77	77	73	71	71	63
105	10000 CFM AT 0.7" 890 RPM	INLET	79	78	70	69	71	64	56	44.5
100		OUTLET	88	86	83	82	84	80	78	72
	11500 CEM AT 1 OF! 1100 DDM	INLET	82	83	74	74	76	70	62	50
	11500 CFM AT 1.05" 1100 RPM									
	11500 CFM AT 1.05 1100 RPM	OUTLET	92	90	89	88	88	84	83	78
120	10000 CFM AT 045" 700 RPM		92 75.5	90 73	89 66	88 64	88 62	84 57	83 49	78 41

### Motors

#### MOTOR SPECIFICATION GUIDE

Motors may be custom selected to meet job requirements.

- Factory installed motors on heavy-duty steel mounts
  Mounts designed to maintain precise alignment and
- simplify belt adjustment
- Set midpoint to meet the specified CFM and total static pressure

• Motor full load amps listed refer to NEC amps. Actual motor nameplate amps may vary.

• Belt Drive motors are open drip-proof, ball-bearing,

single speed, rated at continuous duty, ambient, with reversible rotation.

• Standard single-phase motors are resilient base, capacitor start and include built-in thermal overload protection.

• Standard three-phase motors are rigid base and have no overload protection.

• High efficiency motors E-plus meet the requirements of the latest Epact standards, also E-plus 3 motors exceed the requirements of the Epact are available.

HORSEPOWER	60 HERT	Z THREE-PHA	SE MOTORS (	1800RPM)	60 HERTZ	Z SINGLE-PHA	SE MOTORS (	1800RPM)
HURSEFUWER	115V	208V	230V	460V	208V	230V	460V	575V
1/3	6.6	3.6	3.3	-	1.8	1.6	0.8	-
1/2	9.0	4.9	4.5	-	3.3	3.0	1.5	0.9
3/4	11.0	6.0	5.5	-	3.8	3.4	1.7	1.0
1	12.6	6.9	6.3	-	3.0	2.7	1.4	1.4
1 1/2	15.0	8.2	7.5	-	4.3	3.9	2.0	2.0
2	20.4	11.2	10.2	-	5.7	5.2	2.6	2.4
3	31.0	-	15.5	-	9.5	8.6	4.3	3.6
5	25.0	-	12.5	-	14.1	12.8	6.4	5.1
7 1/2	-	-	32.0	16.0	21.2	19.2	9.6	7.8
10	-	-	38.0	19.0	29.6	26.8	13.4	10.3

#### ALL CHARTS SHOW FULL LOAD AMPS

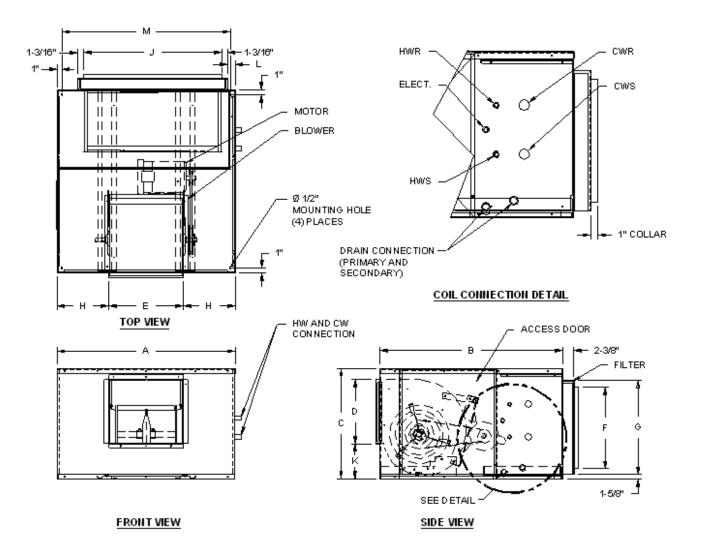
HORSEPOWER		-SPEED THREE-F 900 RPM) ONE W		60 HERTZ TWO-SPEED THREE-PHASE MOTORS (1800/1200 RPM) TWO WINDING					
	115V	208V	230V	208V	230V	460V			
1/2	-	-	-	1.8/1.1	1.9/1.2	0.95/.6			
3/4	-	-	-	2.5/1.5	2.7/1.6	1.35/0.82			
1	3.5/1.5	3.4/1.6	1.8/.75	3.2/1.8	3.4/2.2	1.7/1.1			
1 1/2	5.0/2.1	4.8/2.7	2.25/0.95	5.0/2.9	4.9/2.8	2.4/1.4			
2	6.2/2.6	6.4/2.7	3.0/1.3	6.1/3.5	5.9/3.8	3.0/2.0			
3	9.1/3.3	8.3/3.3	4.5/1.8	9.0/4.8	8.4/4.8	4.6/2.6			
5	14.7/5.2	13.4/5.1	7.0/2.7	16.9/9.7	15.5/10.2	7.1/4.8			
7 1/2	24.5/10.0	24.5/11.0	10.5/4.2	22.0/12.3	19.5/12.3	10.0/6.0			
10	29.5/11.3	30.0/12.4	13.0/5.5	30.0/17.5	28.0/17.5	13.5/7.5			

	60 HERTZ		ERTZ		
HORSEPOWER	THREE-PHASE MOTORS		SE MOTORS		
HORSEPOWER	(1725 RPM)	(1500	RPM)		
	277V	190V	380V		
1/3	2.2	1.6	0.8		
1/2	3.0	2.2	1.1		
3/4	4.3	2.6	1.3		
1	5.4	3.8	1.9		
1 1/2	6.2	5.4	2.7		
2	-	7.2	3.6		
3	-	9.6	4.8		
5	-	15.6	7.8		
7 1/2	-	23	11.5		
10	-	30	15.0		

60 HER		SINGLE-PHASE N 1) TWO WINDING	NOTORS									
HORSEPOWER 208V 230V 460V												
1/3	1/3 5.0/3.0											
1/2	6.8/3.8	-	-									
3/4	10.0/4.0	5.0/2.5	4.6/2.3									
1	11.9/6.9	6.3/3.0	6.0-3.6									

## Horizontal Drawings - 2 thru 5 tons

#### BASIC/DELUXE HORIZONTAL 800 THRU 2000 CFM (2 THRU 5 TONS)



	DIMENSIONS - HORIZONTAL AIR HANDLER 800 THRU 2000 CFM													
MODEL	А	В	С	D	E	F	G	Н	J	К	L	М	Ν	FILTER SIZE
008	24 1/8	39 1/8	20 1/2	11 11/16	8 9/16	17 1/2	20	7 3/4	18	6 5/8	1	22 1/8	26	(1) 20x20x2
012	30 1/8	39 1/8	20 1/2	11 11/16	13 1/2	17 1/2	20	8 5/16	23	6 5/8	1	28 1/8	32	(1) 20x25x2
016	38 1/16	39 1/8	20 1/2	11 11/16	13 1/2	17 1/2	20	12 1/4	29 5/8	6 5/8	1 3/8	36 1/16	40	(2) 16x20x2
020	38 1/16	39 1/8	23 11/16	13 13/16	15 15/16	17 1/2	20	11 1/16	29 5/8	7 9/16	1 3/8	36 1/16	40	(2) 16x20x2

Model BBHW & BBHX-008 thru 020 / DBHW & DBHX-08 thru 020 (B=Basic, D=Deluxe)

• Right-hand unit shown, left-hand unit opposite.

• Coil connections determined by facing the supply-air opening.

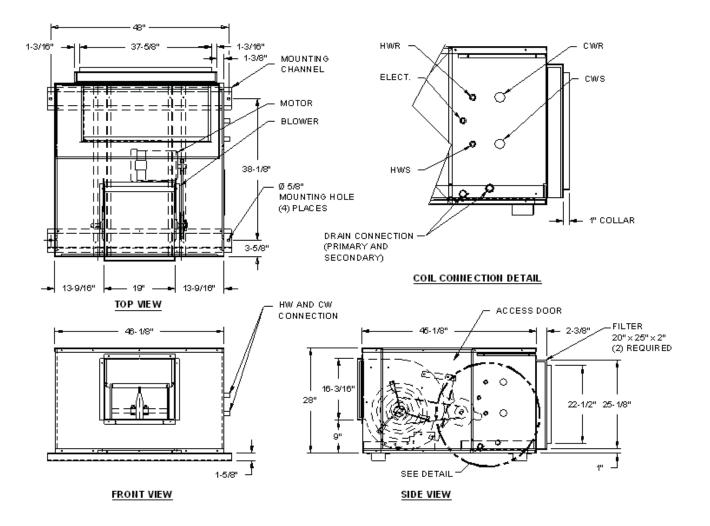
• Electrical junction box is located on the same side as the coil connections.

• Drain pan is powder-coated epoxy with a 1/4" thick closed-cell insulation and has 3/4" to 1" NPT primary and secondary drain connections.

### DIMENSIONAL DRAWINGS

## lorizontal Drawings - 7 1/2 tons

#### **BASIC/DELUXE HORIZONTAL 3000 CFM (7.5 TONS)**

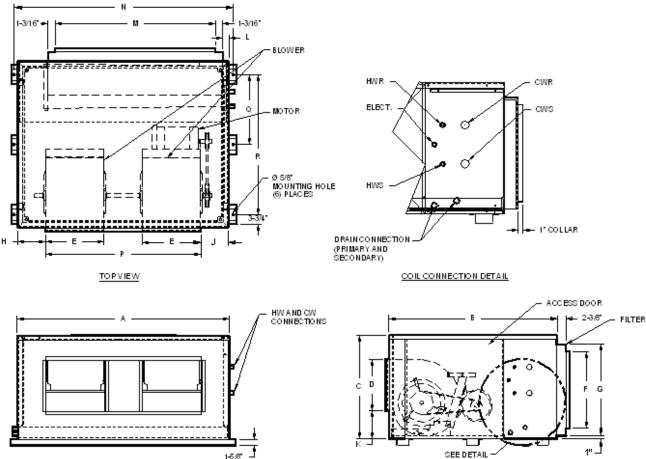


Model BBHW & BBHX-030 / DBHW & DBHX-030 (B=Basic, D=Deluxe)

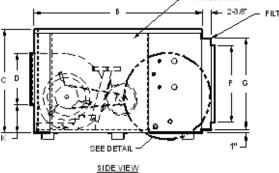
- Right-hand unit shown, left-hand unit opposite.
- Coil connections determined by facing the supply-air opening.
- Electrical junction box is located on the same side as the coil connections.
- Drain pan is powder-coated epoxy with a 1/4" thick closed-cell insulation and has 3/4" to 1" NPT primary and secondary drain connections.

## lorizontal Drawings - 10 thru 30 tons

#### BASIC/DELUXE HORIZONTAL 4000 THRU 12,000 CFM (10 THRU 30 TONS)



FRONTVIEW



	DIMENSIONS - HORIZONTAL AIR HANDLER 4000 THRU 12,000 CFM																
MODEL	А	В	С	D	E	F	G	н	J	к	L	М	Ν	Р	Q	R	FILTER SIZE
040	57 1/8	45 3/16	27 15/16	13 13/16	15 15/16	22 9/16	25 1/8	6 1/8	6 1/8	7 1/2	1 7/16	48 3/16	59	44 13/16	N/A	37 11/16	(2) 25x25x2
050	71 1/8	45 3/16	27 15/16	13 13/16	15 15/16	22 9/16	25 1/8	16 1/8	10 1/8	7 1/2	1 7/16	62 3/16	73	44 13/16	N/A	37 11/16	(4) 16x25x2
060	85 1/8	45 3/16	27 15/16	16 3/16	18 15/16	22 9/16	25 1/8	18 1/8	12 1/8	9	1 3/8	72 11/16	87	54 13/16	18 3/16	37 11/16	(3) 25x25x2
080	85 1/8	45 3/16	35 3/16	16 3/16	18 15/16	29 13/16	32 3/16	18 1/8	12 1/8	9	7/16	76 11/16	87	54 13/16	18 3/16	37 11/16	(8) 16x20x2
100	105 3/8	45 3/16	35 3/16	16 3/16	18 7/8	30 9/16	32 5/16	30 1/4	20 3/8	9	7/16	103 1/16	107	54 3/4	18 7/8	37 11/16	(8) 16x20x2 (2) 16x25x2
120	116 5/16	55 1/4	35 3/16	16 3/16	18 7/8	30 9/16	32 5/16	30 13/16	30 3/4	9	7/16	104 1/2	118 1/2	54 3/4	23 7/8	47 3/4	(8) 16x25x2 (2) 16x25x2

Model BBHW & BBHX-040 thru 120 / DBHW & DBHX-040 thru 120 (B=Basic, D=Deluxe)

1-5/8\*

• Right-hand unit shown, left-hand unit opposite.

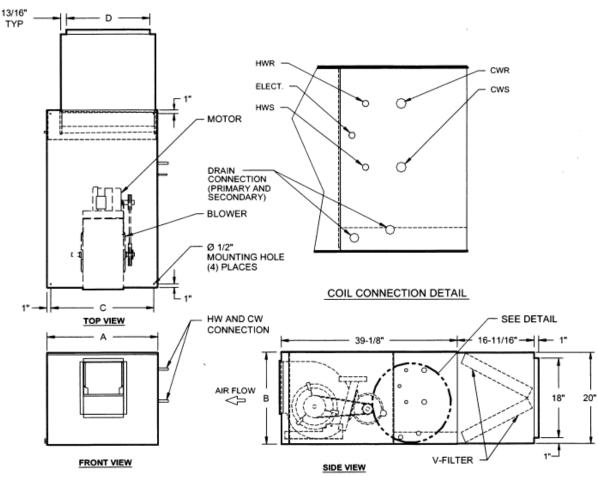
· Coil connections determined by facing the supply-air opening.

• Electrical junction box is located on the same side as the coil connections.

• Drain pan is powder-coated epoxy with a 1/4" thick closed-cell insulation and has 1" to 1 1/2" NPT primary and secondary drain connections.

# Angular Filter Section Option

#### HORIZONTAL UNIT WITH ANGULAR FILTER SECTION OPTION - 800 TO 2,000 CFM



	HORIZONTAL	with V-Bank F	FILTER - 800 TH	IRU 2000 CFM	
MODEL	А	В	С	D	FILTER SIZE
008	24 1/8	20 1/2	22 1/8	17 7/8	(2) 16x20x2
012	30 1/16	20 1/2	28 1/16	22 7/8	(2) 16x25x2
016	38 1/16	20 1/2	36 1/16	29 7/8	(2) 16x20x2
020	38 1/16	23 11/16	36 1/16	30 1/8	(4) 16x20x2

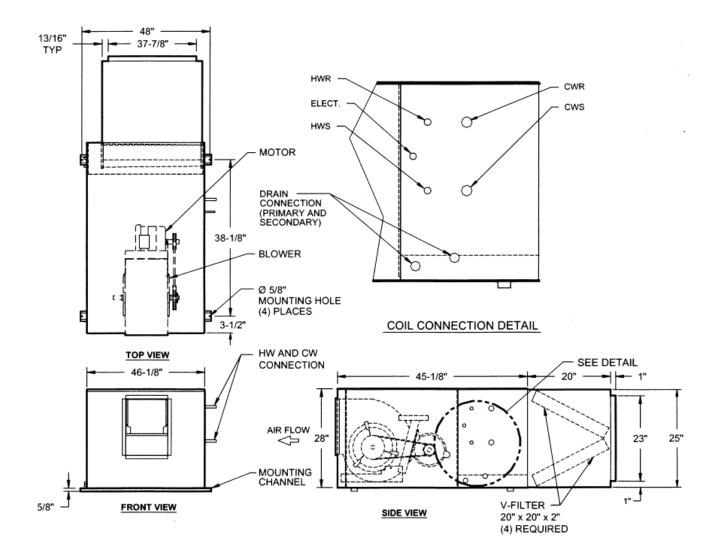
Model BBHW & BBHX-008 thru 020 / DBHW & DBHX-08 thru 020 (B=Basic, D=Deluxe)

- Right-hand unit shown, left-hand unit opposite.
- Coil connections determined by facing the supply-air opening.
- Electrical junction box is located on the same side as the coil connections.
- Drain pan is powder-coated epoxy with a 1/4" thick closed-cell insulation and has 3/4" to 1" NPT primary and secondary drain connections.

#### DIMENSIONAL DRAWINGS

### Angular Filter Section Option

#### HORIZONTAL UNIT WITH ANGULAR FILTER SECTION OPTION - 3,000 CFM

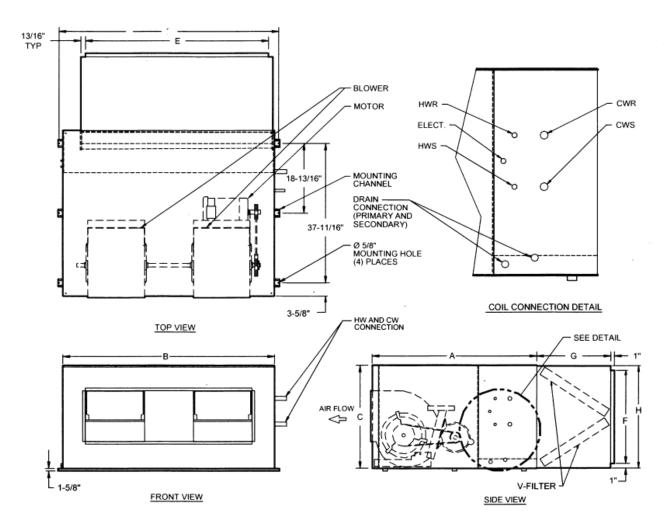


Model BBHW & BBHX-030 / DBHW & DBHX-030 (B=Basic, D=Deluxe)

- Right-hand unit shown, left-hand unit opposite.
- Coil connections determined by facing the supply-air opening.
- Electrical junction box is located on the same side as the coil connections.
- Drain pan is powder-coated epoxy with a 1/4" thick closed-cell insulation and has 3/4" to 1" NPT primary and secondary drain connections.

### Angular Filter Section Option

#### HORIZONTAL UNIT WITH ANGULAR FILTER SECTION OPTION - 4,000 TO 12,000 CFM



	HORIZONTAL WITH ANGULAR FILTER 4,000 TO 12,000 CFM												
MODEL	А	В	С	D	E	F	G	н	FILTER SECTION				
040	45 3/16	57 1/8	27 15/16	59	47 7/8	23	20	25	(4) 20X25X2				
050	45 3/16	71 1/8	27 15/16	73	62 7/8	23	20	25	(6) 20X20X2				
060	45 3/16	85 1/8	27 15/16	87	77 7/8	23	20	25	(8) 20X20X2				
080	45 3/16	85 1/8	35 3/16	87	77 7/8	30	23 11/16	32	(8) 20X25X2				
100	45 3/16	105 3/8	35 3/16	107	97 7/8	30	23 11/16	32	(8) 20X25X2				
120	55 1/4	116 5/16	35 3/16	118 1/2	104 3/8	30	23 11/16	32	(8) 20X25X2				

Model BBHW & BBHX-040 thru 120 / DBHW & DBHX-040 thru 120 (B=Basic, D=Deluxe)

• Right-hand unit shown, left-hand unit opposite.

• Coil connections determined by facing the supply-air opening.

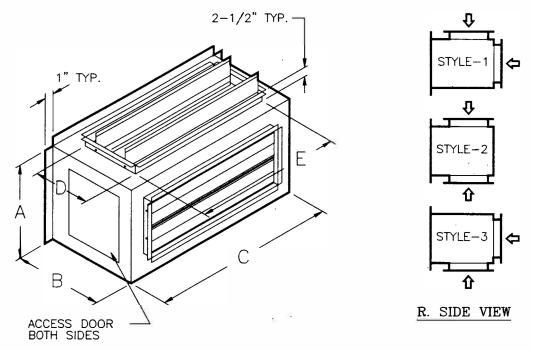
• Electrical junction box is located on the same side as the coil connections.

• Drain pan is powder-coated epoxy with a 1/4" thick closed-cell insulation and has 1" to 1 1/2" NPT primary and secondary drain connections.

#### DIMENSIONAL DRAWINGS

### Mixing Boxes

#### **MIXING BOXES**



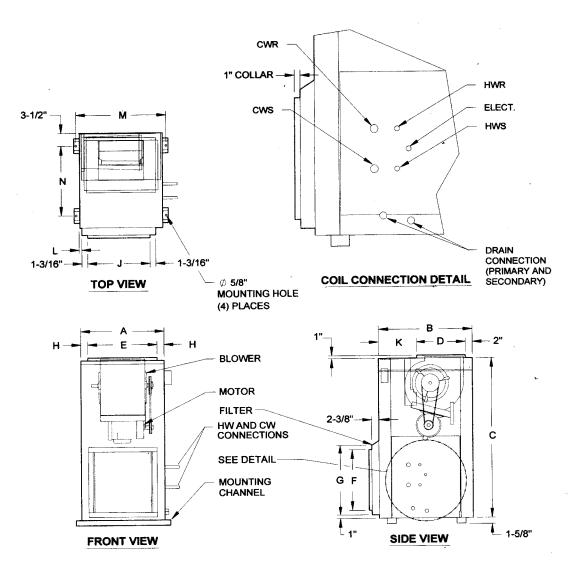
	TWO-POS	ITION ECON	OMIZER MO	DULATING	
MODEL	A	В	с	D	E
008	17 1/2	18	18	12	14
012	17 1/2	18	23	12	18
016	17 1/2	18	29 11/16	12	24
020	17 1/2	18	29 11/16	12	24
030	22 9/16	18	37 11/16	14	32
040	22 9/16	22	49 3/16	18	45
050	22 9/16	22	62 3/16	18	58
060	22 9/16	22	72 11/16	18	68
080	29 9/16	22	76 11/16	18	72
100	30 9/16	22	103 1/16	18	99
120	30 9/16	22	104 3/4	18	99

- Heavy-gauge galvanized steel construction.
- Internally insulated with one-half inch, over three-pound density fiberglass.
- One-inch duct flange on damper openings.
- Dampers are centered in panel.
- Single, horizontal blade dampers with air seals on edge for positive closing, except double horizontal blade dampers.
- Furnished with crank arms and linkage rod for damper connection.
- Access doors on both sides.
- Connections may be made on either side (Linkage hardware motor and controls not included).
- Box attaches to return-air and outside-air duct flanges.
- Shipped separately for field installation.

#### DIMENSIONAL DRAWINGS

### Vertical Drawings - 2 thru 7 1/2 tons

#### BASIC/DELUXE VERTICAL 800 TO 3000 CFM (2 THRU 7.5 TONS)



	DIMENSIONS - VERTICAL AIR HANDLER 800 THRU 3000 CFM FOR MODELS BBVW, BBVX													
MODEL	А	В	С	D	Е	F	G	н	J	к	L	М	N	FILTER SIZE
008	24 1/16	27 1/8	46	14	20	17 1/2	20	2 1/32	18	11 1/8	1	26	20 1/8	(1) 20x20x2
012	30 1/16	27 1/8	46	14	20	17 1/2	20	5 1/32	23	11 1/8	1	32	20 1/8	(1) 20x25x2
016	38 1/16	27 1/8	46	16	22	17 1/2	20	8 1/32	29 5/8	9 1/8	1 3/8	40	20 1/8	(2) 16x20x2
020	38 1/16	27 1/8	54	18	24	17 1/2	20	7 1/16	29 5/8	7 1/8	1 3/8	40	20 1/8	(2) 16x20x2
030	46 1/8	27 1/8	60	20	30	22 1/2	25 1/8	8 1/8	37 5/8	5 1/4	1 3/8	48	20 1/4	(2) 20x25x2

Model BBVW & BBVX-008 thru 030 / DBVW & DBVX-008 thru 030 (B=Basic, D=Deluxe)

• Right-hand unit shown, left-hand unit opposite.

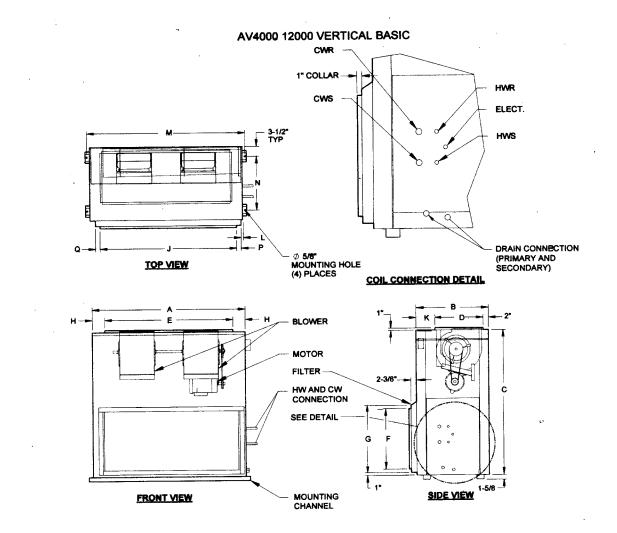
• Coil connections determined by facing the supply-air opening.

• Electrical junction box is located on the same side as the coil connections.

• Drain pan is powder-coated epoxy with a 1/4" thick closed-cell insulation and has 3/4" to 1" NPT primary and secondary drain connections.

# Vertical Drawings - 10 thru 30 tons

#### BASIC/DELUXE VERTICAL 4000 THRU 12,000 CFM (10 THRU 30 TONS)



	BASIC VERTICAL - 4000 THRU 12,000 CFM															
MODEL	А	В	С	D	Е	F	G	н	J	к	L	М	Ν	Р	Q	FILTER SIZE
040	57 1/4	27 1/4	54	18	48	22 9/16	25 1/8	4 5/8	48 1/8	7 1/4	1 3/8	59	19 5/8	1 3/8	1 3/16	(2) 25x25x2
050	71 1/4	27 1/4	54	20	54	22 9/16	25 1/8	8 5/8	62 1/8	5 1/4	2 1/2	73	19 5/8	1 1/2	1 3/16	(4) 16x25x2
060	85 1/4	27 1/4	60	20	60	22 9/16	25 1/8	12 11/16	72 5/8	5 1/4	1 3/8	87	19 5/8	1 1/2	1 3/16	(3) 25x25x2
080	85 1/4	27 1/4	67	24	72	30 1/8	32 1/8	6 5/8	76 1/2	1 1/4	0	87	19 5/8	1 1/2	1 7/8	(8) 16x20x2
100	105 1/4	27 1/4	67	24	90	30 1/8	32 1/8	7 5/8	102 7/8	1 1/4	0	107 1/4	19 5/8	1 1/2	1 7/8	(8) 16x20x2 (2) 16x25x2
120	116 1/4	34 1/4	83	28	90	30	40	13 1/8	104 3/8	4 1/4	0	118 1/4	26 5/8	1 1/2	1 7/8	(8) 20x25x2 (2) 16x25x2

Model BBVW & BBVX-040 thru 120 / DBVW & DBVX-040 thru 120 (B=Basic, D=Deluxe)

• Right-hand unit shown, left-hand unit opposite.

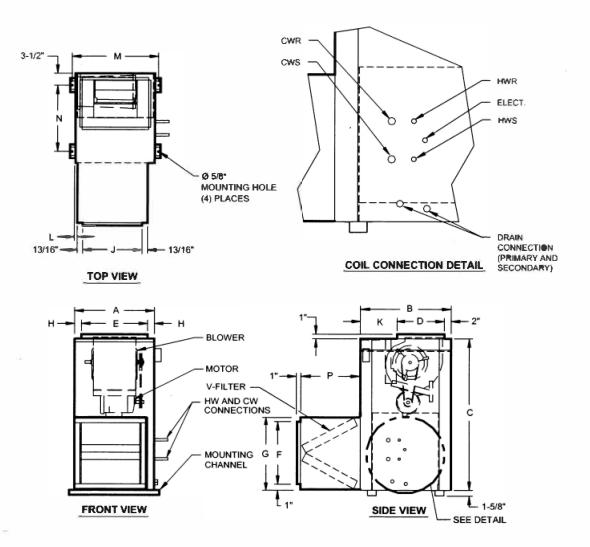
• Coil connections determined by facing the supply-air opening.

• Electrical junction box is located on the same side as the coil connections.

• Drain pan is powder-coated epoxy with a 1/4" thick closed-cell insulation and has 1" to 1 1/2" NPT primary and secondary drain connections.

### **Angular Filter Section Option**

#### VERTICAL UNIT WITH ANGULAR FILTER SECTION OPTION - 800 TO 3,000 CFM



	VERTICAL WITH ANGULAR FILTER 800 TO 3,000 CFM														
MODEL	А	В	С	D	Е	F	G	н	J	к	L	М	N	Р	FILTER SIZE
008	24 1/16	27 1/8	46	14	20	18	20	2 1/32	17 7/8	11 1/8	1	26	20 1/8	16 11/16	(2) 16X20X2
012	30 1/16	27 1/8	46	14	20	18	20	5 1/32	22 7/8	11 1/8	1	32	20 1/8	16 1/16	(2) 16X25X2
016	38 1/16	27 1/8	46	16	22	18	20	8 1/32	29 7/8	9 1/8	1 3/8	40	20 1/8	16 1/16	(4) 16X16X2
020	38 1/16	27 1/8	54	18	24	18	20	7 1/16	30 1/8	7 1/8	1 3/8	40	20 1/8	16 1/16	(4) 16X16X2
030	46 1/8	27 1/4	60	20	30	23	25	8 1/8	37 7/8	5 1/4	1 3/8	48	20 1/4	20	(4) 20X20X2

Model BBVW & BBVX-008 thru 030/ DBVW & DBVX-008 thru 030 (B=Basic, D=Deluxe)

• Right-hand unit shown, left-hand unit opposite.

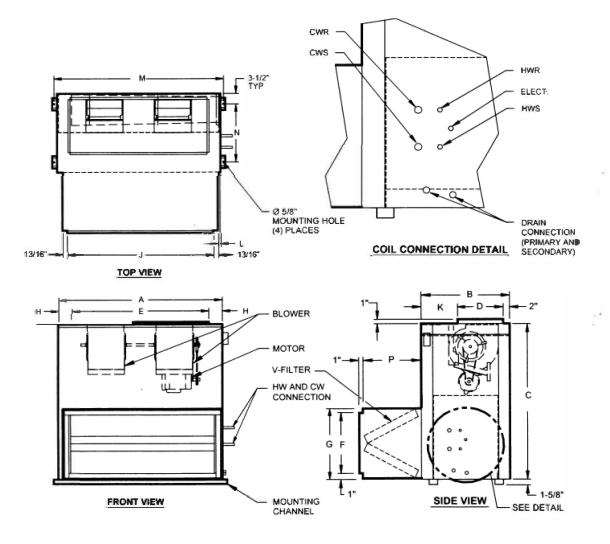
· Coil connections determined by facing the supply-air opening.

• Electrical junction box is located on the same side as the coil connections.

• Drain pan is powder-coated epoxy with a 1/4" thick closed-cell insulation and has 3/4" to 1" NPT primary and secondary drain connections.

# Angular Filter Section Option

#### VERTICAL UNIT WITH ANGULAR FILTER SECTION OPTION - 4,000 TO 12,000 CFM



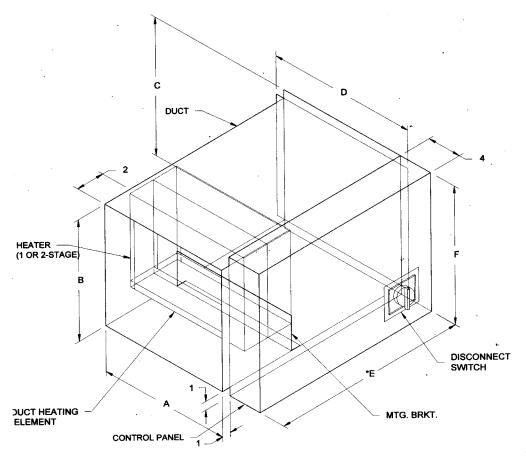
	VERTICAL WITH ANGULAR FILTER 4,000 TO 12,000 CFM													
MODEL	А	В	С	D	Е	F	G	н	J	к	L	М	Р	FILTER SIZE
040	57 1/4	27 1/4	54	18	48	22 9/16	25 1/8	4 5/8	48 1/8	7 1/4	1 3/8	59	1 3/16	(4) 20X25X2
050	71 1/4	27 1/4	54	20	54	22 9/16	25 1/8	8 5/8	62 1/8	5 1/4	2 1/2	73	1 3/16	(6) 20X20X2
060	85 1/4	27 1/4	60	20	60	22 9/16	25 1/8	12 11/16	72 5/8	5 1/4	1 3/8	87	1 3/16	(8) 20X20X2
080	85 1/4	27 1/4	67	24	72	30 9/16	30 1/8	6 5/8	76 1/2	1 1/4	1 3/8	87	1 7/8	(8) 20X25X2
100	105 1/4	27 1/4	67	24	90	30 9/16	30 1/8	7 5/8	102 7/8	1 1/4	1 3/8	107 1/4	1 7/8	(8) 20X25X2
120	116 1/4	34 1/4	83	28	90	30 9/16	30 1/8	13 1/8	104 3/8	4 1/4	1 3/8	118 1/4	1 7/8	(8) 20X25X2

Model BBVW & BBVX-040 thru 120 / DBVW & DBVX-040 thru 120 (B=Basic, D=Deluxe)

- Right-hand unit shown, left-hand unit opposite.
- · Coil connections determined by facing the supply-air opening.
- Electrical junction box is located on the same side as the coil connections.
- Drain pan is powder-coated epoxy with a 1/4" thick closed-cell insulation and has 1" to 1 1/2" NPT primary and secondary drain connections.

### Duct Heater Integral - 2 thru 7 1/2 tons

#### HORIZONTAL INTEGRAL HEATER 800 TO 3000 CFM (2 THRU 7.5 TONS)



RIGHT HAND	
INTEGRAL HEATER	

	HORIZONTAL INTEGRAL HEATER - 800 THRU 3000 CFM										
MODEL	А	В	С	D	E (MINMAX.)	F					
008	9	12	13 7/8	10 7/8	18-28	14					
012	14	12	13 7/8	15 7/8	18-28	14					
016	14	12	13 7/8	15 7/8	18-28	14					
020	16 1/4	14	15 7/8	18 1/8	16-26	16					
030	19 1/4	16 1/2	18 3/8	21 1/8	18-22	18 1/2					

• Right hand integral heater shown. Left hand integral heater opposite.

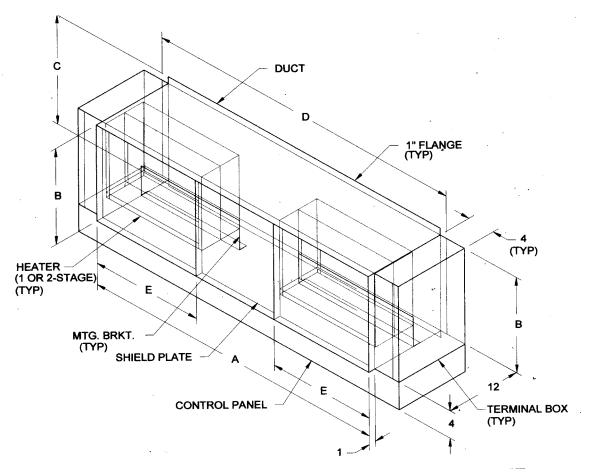
• "E" dimension varies based on electric heater ratings.

• "C" & "D" dimensions include flanges.

#### DIMENSIONAL DRAWINGS

## Duct Heater Integral - 10 thru 30 tons

#### HORIZONTAL INTEGRAL HEATER 4000 TO 12,000 CFM (10 THRU 30 TONS)



HOF	HORIZONTAL DUCT HEATER - 4000 THRU 12,000 CFM									
MODEL	А	В	С	D	E					
040	45	14	15 7/8	46 7/8	16					
050	45	14	15 7/8	46 7/8	16					
060	55	16 1/2	18 3/8	56 7/8	19					
080	55	16 1/2	18 3/8	56 7/8	19					
100	55	16 1/2	18 3/8	56 7/8	19					
120	55	16 1/2	18 3/8	56 7/8	19					

• Right hand integral heater shown. Left hand integral heater opposite.

• "C" & "D" dimensions include flanges.

## Weights & Measures

#### **HORIZONTAL - BASIC & DELUXE**

		UNIT MEASUR	ES and WEIGH	ITS - HORIZONT	AL BASIC & DE	ELUXE MODEL					
HORIZONTAL		DIMENSION	IS - INCHES		DIMENSIONS - MILLIMETERS						
MODEL	HEIGHT	WIDTH	DEPTH	POUNDS	HEIGHT	WIDTH	DEPTH	KILOGRAMS			
008	21	25	42	190	533	635	1067	86			
012	21	31	42	200	533	787	1067	91			
016	21	39	42	280	533	991	1067	127			
020	24	39	42	300	610	991	1067	136			
030	30	47	48	440	762	1194	1219	200			
040	30	58	48	500	762	1473	1219	227			
050	30	72	48	680	762	1829	1219	310			
060	30	86	48	840	762	2184	1219	382			
080	37	86	48	1080	940	2184	1219	490			
100	37	105	48	1650	940	2667	1219	749			
120	37	117	61	1990	940	2972	1549	905			

#### **VERTICAL - BASIC & DELUXE**

UNIT MEASURES and WEIGHTS - VERTICAL BASIC & DELUXE MODEL											
VERTICAL MODEL		DIMENSION	IS - INCHES		DIMENSIONS - MILLIMETERS						
	HEIGHT	WIDTH	DEPTH	POUNDS	HEIGHT	WIDTH	DEPTH	KILOGRAMS			
008	48	25	30	260	1219	635	762	118			
012	48	31	30	290	1219	787	762	132			
016	48	39	30	370	1219	991	762	168			
020	56	39	30	380	1422	991	762	173			
030	62	47	30	600	1575	1194	762	273			
040	56	58	30	620	1422	1473	762	282			
050	56	72	30	850	1422	1829	762	386			
060	62	86	30	1090	1575	2184	762	496			
080	69	86	30	1360	1753	2184	762	619			
100	69	106	30	1730	1753	2692	762	785			
120	85	117	37	2076	2159	2972	940	944			

#### **MIXING BOXES**

UNIT MEASURES and WEIGHTS - VERTICAL AND HORIZONTAL MIXING BOXES										
VERTICAL MODEL	DIMENSIONS - INCHES				DIMENSIONS - MILLIMETERS					
	HEIGHT	WIDTH	DEPTH	POUNDS	HEIGHT	WIDTH	DEPTH	KILOGRAMS		
008	17 19/32	18 3/32	18	40	447	460	457	18		
012	17 19/32	23 3/32	18	45	447	587	457	20		
016	17 19/32	29 25/32	18	51	447	756	457	23		
020	17 19/32	29 25/32	18	51	447	756	457	23		
030	22 21/32	37 3/4	18	65	575	959	457	30		
040	22 11/16	49 5/16	22	115	576	1253	559	52		
050	22 11/16	62 5/16	22	140	576	1583	559	64		
060	22 3/4	72 7/8	22	160	576	1851	559	73		
080	30	76 7/8	22	175	762	1953	559	80		
100	30 3/4	103 1/4	22	240	781	2623	559	109		
120	30 3/4	104	22	260	781	2661	559	119		

NOTE: Consult product catalog for certified dimensional data. Weights and measures are based on air handlers units only add approximately 20% for packaging /crating.

### **Piping Instructions**

#### CHILLED AND HOT WATER PIPING INSTRUCTIONS

**Purpose:** This data is intended to explain piping arrangements for chilled and hot water coils to the correct inlet and outlet locations.

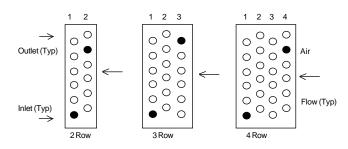
**Two-Pipe Coils**: have one inlet and outlet. Air Handlers may have one to ten rows on each unit. The coil may be 100% chilled water, 100% hot water, or with the addition of a pipe sensor changeover control, it may use chilled water when the chiller is operating or hot water when the boiler is operating. A two-pipe system allows for the chiller or boiler to operate independently, one at a time. The pipe sensor must be clamped onto the supply water line as close to the incoming water source as possible. The purpose of the pipe sensor is to sense the water temperature at its' set point of approximately 88°F. The pipe sensor will change the thermostat control from the cooling mode to the heating mode and vice versa.

The inlet is always at the bottom of the coil and the outlet is always at the top of the coil. All coils are piped so that the inlet is always on the row farthest down-stream from the incoming air (See diagram 1).

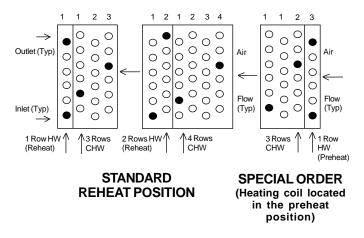
All coils have one or more circuits. Circuits are added to reduce the water pressure drop to an acceptable level (usually 10-ft. H<sup>2</sup>O pressure drop or less). Due to the various circuit options available, the inlet and outlet may change position, making the inlet and outlet locations vary.

Four-Pipe Coils: have a dedicated, chilled-water coil, and a dedicated hot-water coil; each with its' own inlet and outlet, equaling four pipes. Coil Company coils use a common tube sheet for four-pipe coils. Example: A fourrow, chilled-water coil and a one-row, hot-water coil would use a five-row coil with four rows for chilled-water and one row for hot-water. Normally the one-row, hotwater coil is in the reheat position or downstream from the cooling coil. The hot-water coil may also be ordered in the preheat position or upstream from the chilled-water coil. The controls are wired so that either the chilledwater coil is operating or the hot-water coil is operating, but not both at the same time. When the conditioned space thermostat is satisfied, both the chilled and hotwater control valves are deactivated. The same rule applies for inlet and outlet locations as explained above in "Two-Pipe Coils". (See diagram 2.) Each chilled and hot-water coil is controlled individually so a pipe sensor is not required.

**Two-Pipe Coil Diagrams 1** (Two) Pipe Coils (Right Hand Shown, Left Hand Opposite)



### Four-Pipe Coil Diagrams 2 (Four) Pipe Coils (Right Hand Shown, Left Hand Opposite)



Because of the variations of the circuiting available, the location of the inlet and outlet connections may vary up and down. However, always use the following rule to be correct. The inlet is always the lower connection and the farthest away from the entering-air-side. The outlet connection is always the higher connection the closest to the entering-air-side.

**Coil Company Manufacturers:** 

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- Fluid Coolers & Air-Cooled Condensers
  - Air Handlers
    - Coils



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