

**TRIAQ**<sup>TM</sup>

CONTROLS

A Division of A-T Controls

**Pro-Gear**



# Q Series

- Housing
- Input Shaft
- Quadrant
- Worm
- Stroke Adjustment
- Indicator
- Coating



A-T Controls, Inc.

*The Pro-Gear Series "Q" quarter-turn gearboxes are rugged industrial grade products, manufactured with cast iron housing and components. All models in this series feature high performance bearings and a powder coated finish.*



## Applications

The Q Series is highly suitable for all general industrial applications as well as applications in chemical, power, HVAC and waterworks. Pro-Gear operators are intended for the operation of ball, plug and butterfly valves as well as power and process dampers. The usage of high grade materials provides a tough, reliable unit for the automation of today's high performance industrial valves. Several options can be added at the factory such as padlocking devices, limit switches, chainwheels, and low and high temperature seals and greases.

### Performance Specifications

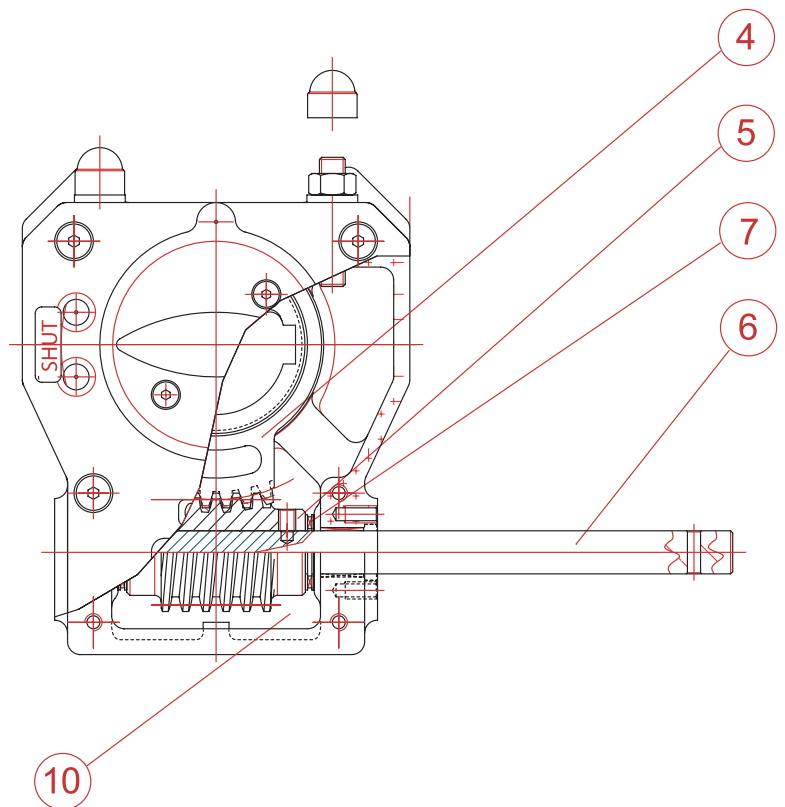
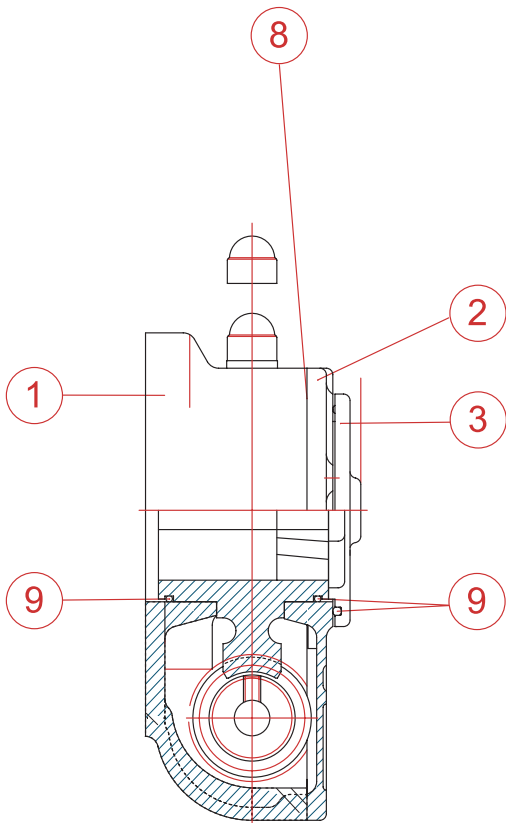
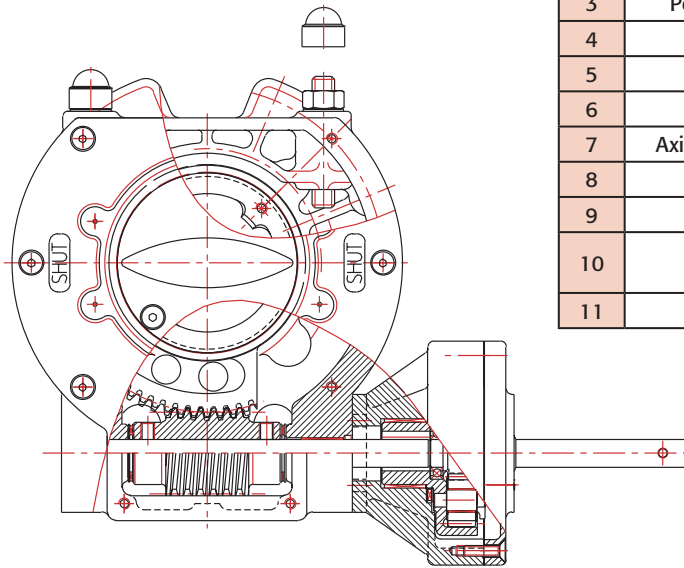
- Thirteen models
- Up to 620,000 In-Lbs torque range
- -5° to 95° stroke
- IP68 Sealing
- -25°C to 110°C (-13°F to 230°F) temperature range

### Features

- Stainless Steel input shaft
- Stainless Steel fasteners
- Standardized according to DIN/ISO 5211
- Axial needle bearings
- NBR 70 gasket material
- Sealed position indicator
- Powder coated finish
- Insert bush system for flexibility and reduced lead times
- Carefully chosen ratios for increased MA rates
- Blind-tapped PCD's

## MATERIAL LIST

NO.	DESCRIPTION	MATERIAL	SPECIFICATIONS/ STANDARDS
1	Body	Cast-iron	GG25 / ASTM A48
2	Coverplate	Cast-iron	GG25 / ASTM A48
3	Position Indicator	Cast-iron	GG25 / ASTM A48
4	Quadrant	Ductile-iron	GGG50 / ASTM A356
5	Worm	Carbon steel	C45-K
6	Shaft	Stainless steel	AISI 303
7	Axial needle bearing	100 Cr6	DIN 5405-2
8	Gasket	Nitrile / silicone	NBR-70° shore
9	O-rings	Nitrile	NBR-70° shore
10	Grease	Complex EP-0	DIN KGOG0.5N-30 ISO-L-XCDIB0.5
11	Fasteners	Stainless steel	AISI 316



# Q

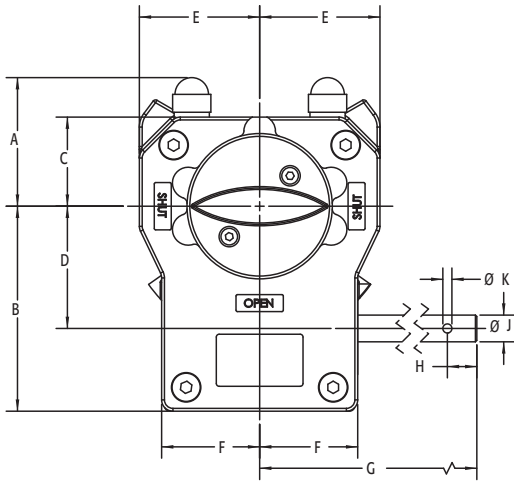
## Specifications

Model	Max Output (In-Lbs)	Output Torque @ 80 lbs. Rim Pull	M.A.	# Turn /90°	Handwheel Diameter	Handwheel Part No.	Chainwheel Assembly Part No.	Locking Device
Q-200-S	1,770	1,700	11.9	10	4"	Q-P100/12	TRUM367-2020-12	Q-LD-12
Q-400-S	3,540	2,050	12.8	11	4"	Q-P100/12	TRUM367-2020-12	Q-LD-12
Q-400-S	3,540	3,000	12.8	11	6"	Q-P160/12	TRUM367-2021-12	Q-LD-12
Q-400-S	3,540	3,500	12.8	11	8"	Q-W200/12	N/A	Q-LD-12
Q-800-S	7,080	4,250	13.3	10	8"	Q-W200/15	TRUM367-2022-15	Q-LD-15
Q-800-S	7,080	6,384	13.3	10	12"	Q-W300/15	TRUM367-2024-15	Q-LD-15
Q-800-S	7,080	7,000	13.3	10	16"	Q-W400/15	TRUM367-1878-15	Q-LD-15
Q-1500-S	13,275	6,000	12.2	10.5	12"	Q-W300/20	TRUM367-2024-20	Q-LD-20-1
Q-1500-S	13,275	7,800	12.2	10.5	16"	Q-W400/20	TRUM367-1878-20	Q-LD-20-1
Q-1500-S	13,275	9,760	12.2	10.5	20"	Q-W500/20	TRUM367-1879-20	Q-LD-20-1
Q-1500-S	13,275	13,100	12.2	10.5	28"	Q-W700/20	TRUM367-1881-20	Q-LD-20-1
Q-2000-S	17,700	9,800	15.3	12	16"	Q-W400/20	TRUM367-1878-20	Q-LD-20-1
Q-2000-S	17,700	12,250	15.3	12	20"	Q-W500/20	TRUM367-1879-20	Q-LD-20-1
Q-2000-S	17,700	16,500	15.3	12	28"	Q-W700/20	TRUM367-1881-20	Q-LD-20-1
Q-4000-S	35,400	13,800	21.6	18	16"	Q-W400/20	TRUM367-1878-20	Q-LD-20-2
Q-4000-S	35,400	17,280	21.6	18	20"	Q-W500/20	TRUM367-1879-20	Q-LD-20-2
Q-4000-S	35,400	24,190	21.6	18	28"	Q-W700/20	TRUM367-1881-20	Q-LD-20-2
Q-6500-S	57,500	43,775	68.4	67	16"	Q-W400/20	TRUM367-1878-20	Q-LD-20-2
Q-6500-S	57,500	54,720	68.4	67	20"	Q-W500/20	TRUM367-1879-20	Q-LD-20-2
Q-12000-S	106,200	57,000	71.2	67	20"	Q-W500/20	TRUM367-1879-20	Q-LD-20-2
Q-12000-S	106,200	76,900	71.2	67	28"	Q-W700/20	TRUM367-1881-20	Q-LD-20-2
Q-16000-S	141,600	106,000	133	162	20"	Q-W500/25	TRUM367-1879-25	Q-LD-25-2
Q-16000-S	141,600	141,000	133	162	28"	Q-W700/25	TRUM367-1881-25	Q-LD-25-2
Q-24000-S	212,400	137,000	171	180	20"	Q-W500/25	TRUM367-1879-25	Q-LD-25-2
Q-24000-S	212,400	185,112	171	180	28"	Q-W700/25	TRUM367-1881-25	Q-LD-25-2
Q-32000-S	283,200	246,240	228	240	28"	Q-W700/25	TRUM367-1881-25	Q-LD-25-2
Q-50000-S	442,500	360,000	333	240	28"	Q-W700/K8	TRUM367-1881-K8	CF
Q-70000-S	619,500	410,000	378	320	28"	Q-W700/K8	TRUM367-1881-K8	CF

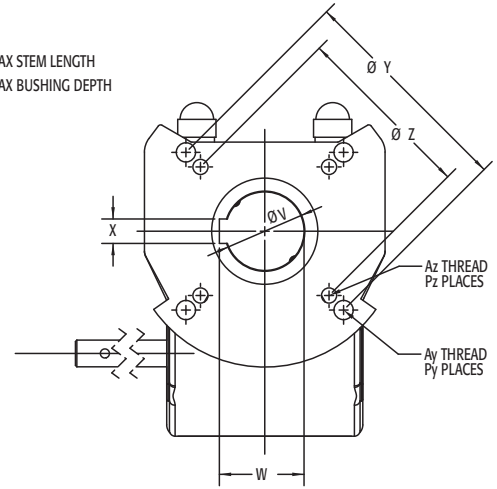
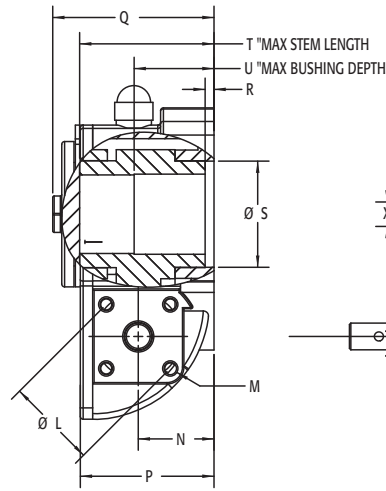
- Chainwheel Assembly contains the chainwheel, star adapter modified to fit gear, connecting link and hardware to assemble. Chain is not included in the Chainwheel Assembly; galvanized chain must be ordered by the foot.
- Consult Gear Sizing Chart on our website to select the proper gear for A-T Controls valves. This is required to insure that the chainwheel clears the valve and piping.

# Q-Series

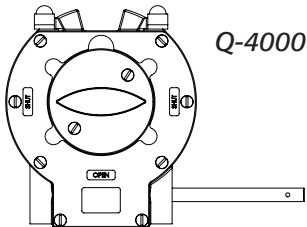
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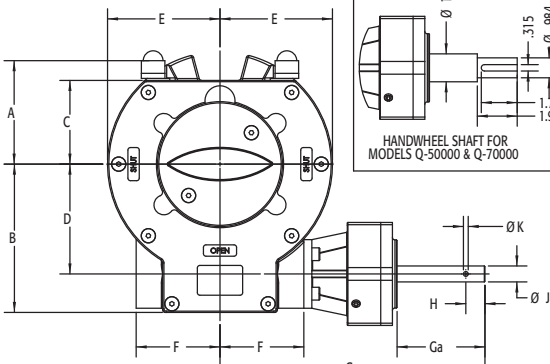
GEAR OPERATOR SHOWN IN THE FULL CLOCKWISE POSITION



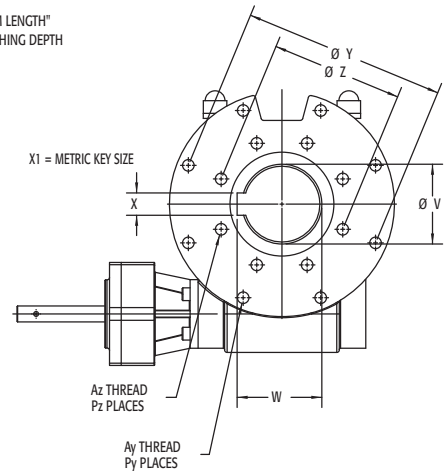
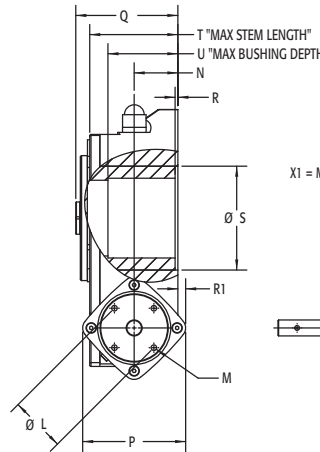
Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y	Z	Ay	Az	Py	Pz	ISO 5211	LBS
Q-200-S	1.80	2.66	1.18	1.71	1.65	1.38	4.65	0.59	0.47	0.16	N/A	N/A	1.12	2.07	2.52	0.18	1.38	2.05	1.20	0.94	1.05	0.24	2.76	1.97	M8	M6	4	4	F05/F07	4.4
Q-400-S	2.17	3.21	1.52	2.07	2.20	1.79	6.61	0.59	0.47	0.16	N/A	N/A	1.34	2.40	2.94	0.21	1.77	2.32	1.57	1.26	1.39	0.39	4.02	2.76	M10	M8	4	4	F07/F10	8.5
Q-800-S	2.85	4.53	1.97	2.71	2.66	2.17	8.39	0.59	0.59	0.20	1.97	M6	1.67	2.95	3.56	0.20	2.36	2.95	1.77	1.77	1.87	0.55	4.92	4.02	M12	M10	4	4	F10/F12	16.9
Q-1500-S	3.27	4.84	2.36	3.31	3.07	2.54	8.43	0.71	0.79	0.24	1.97	M6	1.77	3.19	3.82	0.20	3.35	3.19	2.40	2.56	2.71	0.71	5.51	N/A	M16	N/A	4	N/A	F14	29.8
Q-2000-S	3.60	5.67	2.60	3.80	3.54	2.95	8.90	0.71	0.79	0.24	1.97	M6	1.97	3.31	3.94	0.24	3.35	3.35	2.40	2.56	2.71	0.71	6.50	4.92	M20	M12	4	4	F12/F16	36



Q-4000



GEAR OPERATOR SHOWN IN THE FULL CLOCKWISE POSITION



# Q-Series

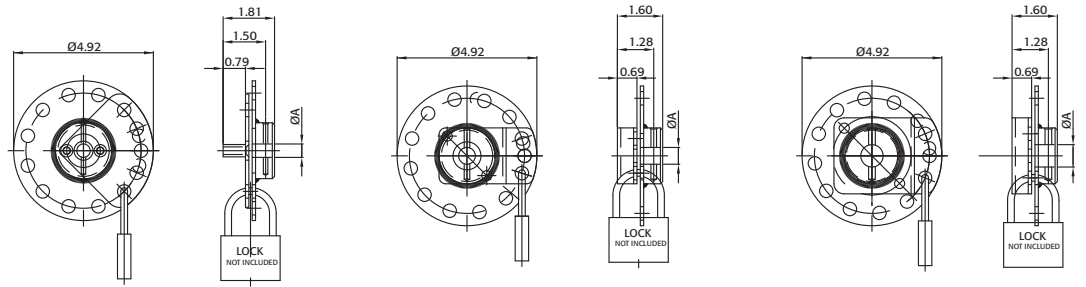
## Q4000 - Q70000

Model	A	B	C	D	E	F	G	Ga	H	J	K	L	M	N	P	Q	R	R1	S	T	U	V	V max	W	X	X1	Y	Z	Ay	Az	Py	Pz	ISO 5211	LBS
Q-4000-S	5.51	7.32	4.13	5.41	5.55	4.13	11.81	N/A	0.94	0.79	0.24	2.76	M8	2.15	4.35	5.04	0.14	N/A	5.12	4.33	3.29	3.94	3.94	4.18	1.10	28 x 16	10	6.50	M16	M20	8	4	F16/F25	69.5
Q-6500-S	5.51	7.32	4.13	5.41	5.55	4.13	13.07	4.33	0.94	0.79	0.24	2.76	M8	2.15	4.88	5.04	0.14	0.30	5.12	4.33	3.29	3.94	3.94	4.19	1.1	28 x 16	10	6.5	M16	M20	8	4	F16/F25	83
Q-12000-S	6.14	9.45	4.57	7.09	7.40	5.35	14.29	4.33	0.94	0.79	0.24	2.76	M8	2.50	4.88	5.31	0.24	N/A	6.69	4.65	4.00	5.12	5.12	5.41	1.26	32 x 18	11.73	10	M20	M16	8	8	F25/F30	125
Q-16000-S	6.14	9.45	4.57	7.09	7.40	5.35	16.85	3.03	0.79	0.98	0.31	2.76	M8	2.50	6.56	5.31	0.24	0.78	6.69	4.65	4.00	5.12	5.12	5.41	1.26	32 x 18	11.73	10	M20	M16	8	8	F25/F30	138
Q-24000-S	7.91	13.19	6.30	9.94	10.04	6.89	17.40	3.03	0.79	0.98	0.31	2.76	M8	3.35	6.56	7.42	0.20	0.07	7.87	6.61	CF	5.12	6.30	5.41	1.26	32 x 18	14.02	10	M30	M16	8	8	F25/F35	424
Q-32000-S	7.91	13.19	6.30	9.94	10.04	6.89	17.40	3.03	0.79	0.98	0.31	2.76	M8	3.35	6.56	7.42	0.20	0.07	7.87	6.61	CF	5.12	6.30	5.41	1.26	32 x 18	14.02	10	M30	M16	8	8	F25/F35	424
Q-50000-S	12.05	15.61	6.85	11.48	12.05	10.63	24.09	4.33	N/A	N/A	N/A	4.92	M12	5.43	10.49	10.33	0.35	0.20	10.63	9.33	CF	5.91	8.27	6.24	1.42	32 x 20	19.02	15.98	M36	M36	12	8	F40/F48	777
Q-70000-S	12.05	15.61	6.85	11.48	12.05	10.63	24.09	4.33	N/A	N/A	N/A	4.92	M12	5.43	10.49	10.33	0.35	0.20	10.63	9.33	CF	5.91	8.27	6.24	1.42	32 x 20	19.02	15.98	M36	M36	12	8	F40/F48	777

# Q

## Accessories

### Locking Devices

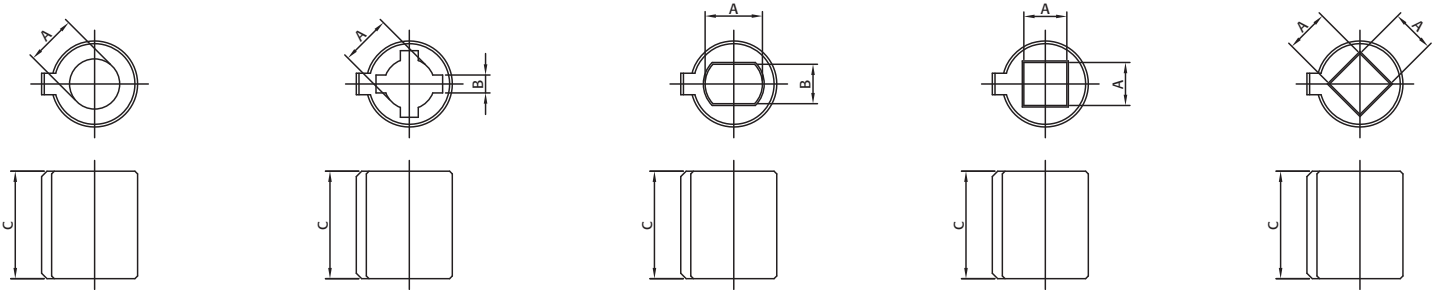


Model	A	Roll Pin
Q-LD-12	0.47	4 x 45
Q-LD-15	0.59	5 x 45

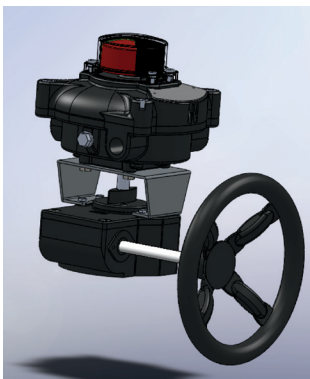
Model	A	Roll Pin
Q-LD-15-1	0.59	5 x 45
Q-LD-20-1	0.79	6 x 45

Model	A	Roll Pin
Q-LD-20-2	0.79	6 x 45
Q-LD-25-2	0.98	8 x 45

### Inserts



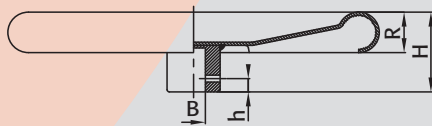
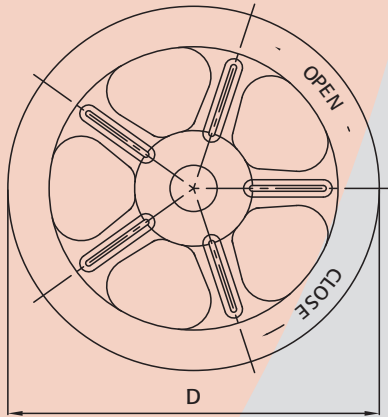
Model	A	B	C	Model	A	B	C	Model	A	B	C	Model	A	B	C	Model	A	B	C
Q-INS200B084P	0.33	N/A	1.18	Q-INS80025K8	0.98	0.315	1.73	Q-INS200DD10	0.55	0.394	1.18	Q-INS200V10R	0.394	N/A	1.18	Q-INS200V10H	0.394	N/A	1.18
Q-INS400B084P	0.33	N/A	1.54	Q-INS80032K10	1.26	0.394	1.73	Q-INS200DD11	0.63	0.433	1.18	Q-INS200V11R	0.433	N/A	1.18	Q-INS200V11H	0.433	N/A	1.18
Q-INS800168P	0.66	N/A	1.73	Q-INS200035K10	1.38	0.394	2.36	Q-INS200DD12	0.71	0.492	1.18	Q-INS200V12R	0.472	N/A	1.18	Q-INS200V12H	0.472	N/A	1.18
				Q-INS200040K12	1.57	0.472	2.36	Q-INS200DD14	0.71	0.551	1.18	Q-INS200V14R	0.551	N/A	1.18	Q-INS200V14H	0.551	N/A	1.18
				Q-INS200050K14	1.97	0.551	2.36	Q-INS400DD15	0.87	0.591	1.54	Q-INS400V14R	0.551	N/A	1.54	Q-INS400V12H	0.472	N/A	1.54
				Q-INS400050K14	1.97	0.551	3.25	Q-INS400DD17	0.94	0.669	1.54	Q-INS400V16R	0.63	N/A	1.54	Q-INS400V14H	0.551	N/A	1.54
				Q-INS400080K22	3.15	0.866	3.25	Q-INS400DD18	0.98	0.709	1.54	Q-INS400V17R	0.669	N/A	1.54	Q-INS400V16H	0.63	N/A	1.54
								Q-INS800DD22	1.26	0.866	1.73	Q-INS400V19R	0.748	N/A	1.54	Q-INS400V17H	0.669	N/A	1.54
								Q-INS800DD24	1.18	0.945	1.73	Q-INS400V22R	0.866	N/A	1.54	Q-INS400V19H	0.748	N/A	1.54
												Q-INS800V19R	0.748	N/A	1.73	Q-INS400V20H	0.787	N/A	1.54
												Q-INS800V22R	0.866	N/A	1.73	Q-INS400V22H	0.866	N/A	1.54
												Q-INS800V24R	0.945	N/A	1.73	Q-INS800V19H	0.748	N/A	1.73
												Q-INS800V27R	1.063	N/A	1.73	Q-INS800V22H	0.866	N/A	1.73
												Q-INS2000V30R	1.181	N/A	2.36	Q-INS800V27H	1.063	N/A	1.73
												Q-INS2000V36R	1.417	N/A	2.36	Q-INS2000V30H	1.181	N/A	2.36
												Q-INS2000V40R	1.575	N/A	2.36	Q-INS2000V36H	1.417	N/A	2.36
												Q-INS4000V46R	1.811	N/A	3.25	Q-INS4000V46H	1.811	N/A	3.25
												Q-INS4000V55R	2.165	N/A	3.25	Q-INS4000V55H	2.165	N/A	3.25



Top Mount  
Limit Switch

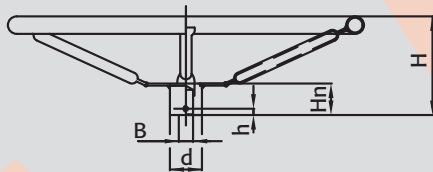
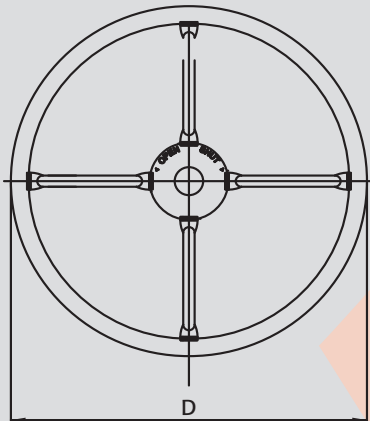
- Must specify Insert Model Number choice when ordering gears. (Included in list price of the gear)

# Handwheels



## Q-P Series

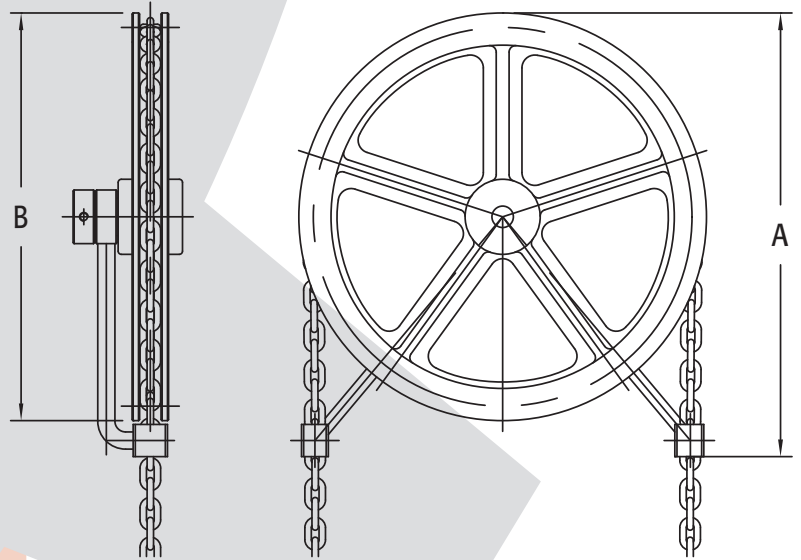
Model	ØD	ØB	H	h	Roll Pin	R
Q-P100/12	Ø4	Ø0.47	1.38	0.28	Ø4x17	0.55
Q-P160/12	Ø6	Ø0.47	1.54	0.28	Ø4x17	0.87



## Q-W Series

Model	D dia.	d dia.	B dia.	H	Hn	h	Roll Pin
Q-W200/12	8	1.38	0.47	2.66	1.1	0.22	Ø4 x 35
Q-W300/15	12	1.77	0.59	3.15	1.1	0.22	Ø5 x 45
Q-W300/20	12	1.77	0.79	4.02	1.77	0.35	Ø6 x 45
Q-W400/15	16	1.77	0.59	4.13	1.1	0.22	Ø5 x 45
Q-W400/20	16	1.77	0.79	4.8	1.77	0.35	Ø6 x 45
Q-W500/20	20	1.77	0.79	5.55	1.77	0.35	Ø6 x 45
Q-W500/25	20	1.77	0.98	5.55	1.77	0.35	Ø8 x 45
Q-W600/20	24	1.77	0.79	6.18	1.77	0.35	Ø6 x 45
Q-W700/20	28	1.77	0.79	7.09	1.77	0.35	Ø6 x 45
Q-W700/25	28	1.77	0.98	7.09	1.77	0.35	Ø8 x 45

# Chainwheels



CHAINWHEEL PART NO.	A	B	MATERIAL	LBS
TRUM367-2020	4.63	4.00	Aluminum	0.5
TRUM367-2021	6.60	5.75	Aluminum	1.5
TRUM367-2022	9.20	8.00	Aluminum	2.0
TRUM367-2024	12.93	11.25	Aluminum	5.0
TRUM367-1878	17.83	15.50	Ductile Iron	24.9
TRUM367-1879	21.85	19.00	Ductile Iron	32.4
TRUM367-1881	30.00	26.00	Ductile Iron	49.0

CHAIN PART NO.
TRUM172-1650
TRUM367-1894
TRUM367-1894
TRUM367-1895
TRUM367-1895
TRUM367-1895
TRUM367-1896

- Chainwheel Assembly contains the chainwheel, star adapter modified to fit gear, connecting link and hardware to assemble.
- Order galvanized chain by the foot. Chain is not included in the Chainwheel Assembly.

# Q

QSeries-20210913  
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LIT0016



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