

DVG AUTOMATION

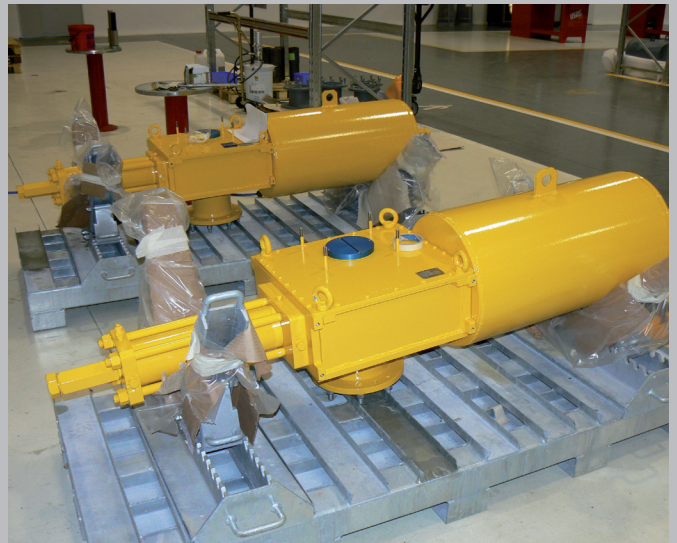
the excellence in flow control automation

"QT" SERIES
Hydraulic ACTUATORS

INTRODUCTION

The DVG Automation “QT” Scotch Yoke Series incorporates several new design features to provide higher efficiency and cost effective solutions. These actuators are compact in design but above all introduce a new generation of patented mechanism which minimizes wearing effect on all loaded & sliding parts, thus extending overall lifespan.

These features boost our QT Series for all modulating as well as heavy-duty services suitable for any quarter turn (90 deg) application.



OPERATING RANGE

The DVG Automation Double-acting QT Series Actuators are available with individual test and guaranteed minimum output torque ranging from 1,800 Nm (15,900 lb-in) to 180,000 Nm (1,593,000 lb-in).

Our Single Acting QT series Actuators deliver a spring ending torque ranging from 1,350 Nm (11,950 lb-in) to 75,700 Nm (670,000 lb-in). Higher output torques are available on request.

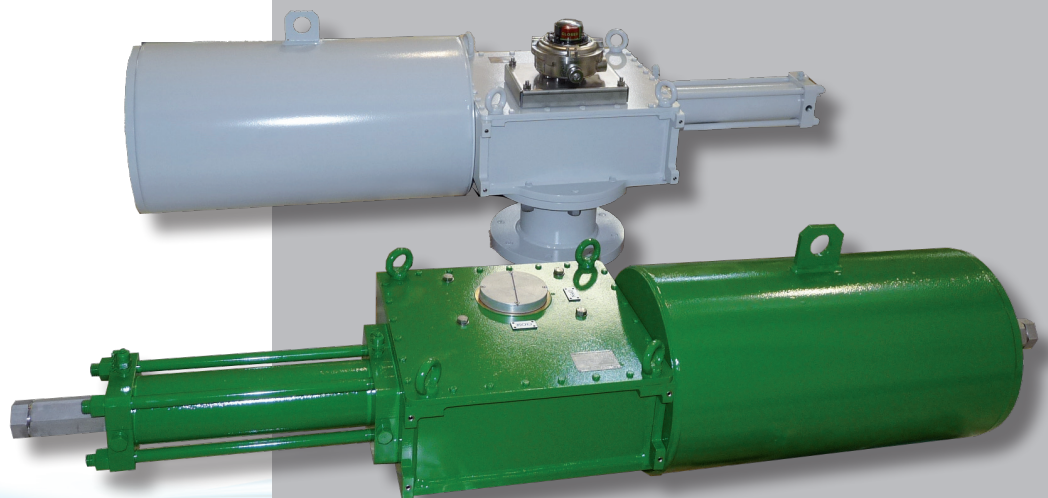
The Hydraulic operating pressure for the QT Series ranges between 20 barg (290 psig) to 350 barg (5,000 psig).

Standard design construction allows operating temperature from -30 degC (-22 degF) to +93 degC (+199 degF).

Low temperature option extends operating range down to -60 degC (-76 degF).

Supply medium:

Hydraulic oil mineral based (standard). Special versions are available for fire-resistant or water based fluids.



KEY DESIGN FEATURES & ADVANTAGES

Scotch Yoke:

PATENTED mechanism introduces three main features:

Quad Guide Bars Design

Piston Rod-Guide Block New Design Connection

Closed Drive Yoke Wings for all housing sizes

Mechanism Guide System:

PATENTED Quad Guide Bar hard chromium plated minimizing guide block swing extending piston rod lifespan under heavy load &/or continuous modulating duty and avoiding any side load on valve stem.

Excellent surface finish and self lubricated bearings accomplish higher overall efficiency.

External Tie Rod:

External tie-rods, zinc based chemical coating which resists 500 – 1000 hours of salt fog, maintain cylinder integrity.

Symmetric or canted yoke:

QT Series is available with either symmetric or canted yoke design to cover as closely as possible valve resistive torque profile.

Water ingress protection:

Totally enclosed and weather-proof actuator is engineered to meet IP66, IP67 IP67M and NEMA 4 & 4X Specifications for submerged and high pressure water deluge applications.

Materials:

Cylinder Tube & all structural parts are manufactured in carbon steel material:

no cast/grey iron or aluminium parts are used.

All pressure containing parts are supplied with 3.1 Certificate according to EN10204.

DVG Automation guarantees, where applicable, that actuators are designed and manufactured according to PED (97/23 CE) Directive.

Corrosion Prevention:

Cylinder tube is internally nickel-plated lined (minimum 25µm). Nickel-plating layer can be increased upon request.

External coating provides higher reliability in harsh environmental conditions as per ISO 12944 (Expected Durability) and in compliance with NORSOK M-CR-501 requirements.

Seal:

Teflon ring with internal charging O-ring and external sealing O-ring prevents sticking phenomena after prolonged “stand still” and ensures reduced hysteresis and high sensitivity.

Bearing:

Dual piston PTFE sliding guide, yoke and guide block are mounted with steel bronze Teflon coated bushing to minimize wearing effect and obtain higher sensitivity.

ISO Valve Mounting:

The QT Series valve interface responds to ISO 5211 dimensional requirements according to specific torque range. Different arrangements can be evaluated to meet specific need (i.e. MSS SP-101, etc.); direct mounting is feasible if available space permits.

Labelling:

316 Stainless Steel embossed name plate ensures long lasting information preservation, thus guaranteeing lifetime traceability.

Travel stops:

External travel stops with protective cap ensure precise angular stroke adjustment 90 -5deg/+5deg.

Versatility & Modularity: key features for a successful design

The QT series has been designed with modular concept in mind so to have field repairable housing, power, spring and override modules available as individual sub-assemblies to optimize spare parts inventory. Each module can be removed, serviced &/or replaced while actuator is still assembled onto the valve, without interrupting the process.

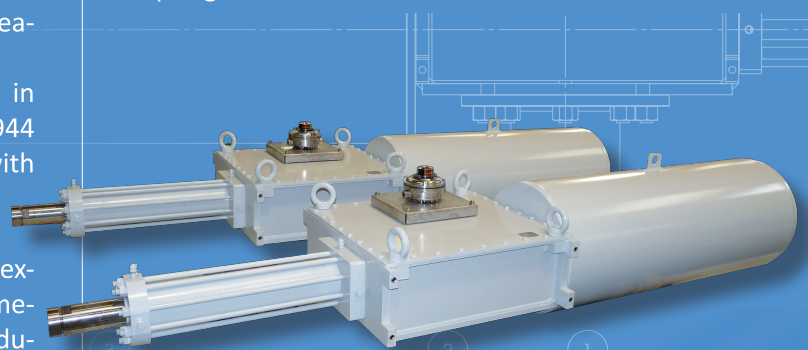
Specifically power module is designed and constructed to allow pressure testing independently from the housing.

Power and spring modules can be easily swapped allowing fast fail safe action reversal.

Safety:

Lifting point by means of DIN certified eyelet located on actuator housing.

Fully welded o-ring sealed spring canister module is inherently safe; the DVG Automation adopted system allows safe assembly/disassembly without any risk for the personnel due to residual spring force.



OPTIONAL FEATURES

Mounting pad:

Accessory mounting pad allows dual side mounting & does not require any fixing modification in case of rear side assembly.

Manual Override Option:

DVG Automation provides hydraulic manual override (MH) to operate the valve in absence of power supply. Hydraulic manual override is mounted directly on actuator cylinder and includes:

hand-pump, directional control valve, oil tank, relief valve & check valve (for single acting units).

Remote hydraulic power units are available: contact factory.

Additional ancillary control equipment can be provided upon request.

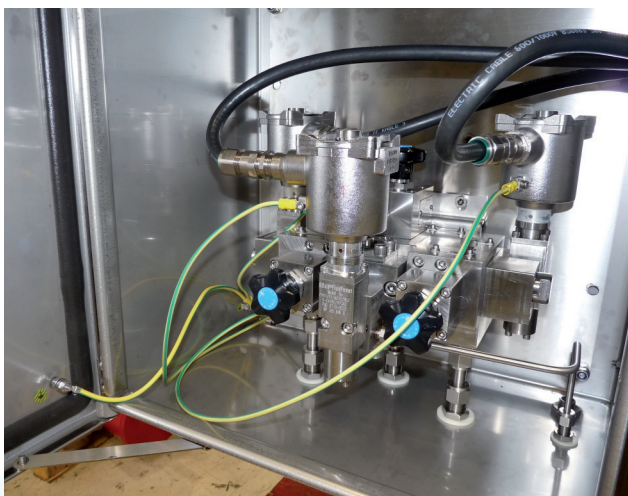
An additional alternative cost effective jackscrew is available for the DVG Automation QT Series where torque demand permits. Travel stop is separate from the jackscrew to avoid incorrect positioning of the of the valve / actuator.

Jackscrew develops required torque in case of hydraulic supply failure;

Available with declutch-able and locking devices to avoid spurious actuator operation.

Mechanical locking device

This device is wafer-mounted between the actuator and the valve, normally integrated in valve mounting hardware. It offers basic partial stroke testing for Emergency Shutdown Valve automated package and it can be used for other safety process applications. The locking device mechanically limits the valve/actuator assembly travel to 20deg (or as per specific Customer request) clockwise or counter-clockwise. Once disengaged, the complete assembly is free to travel for the entire stroke with no interference.



CONTROL SYSTEM

Actuator Control Systems are integral part of any automated valve package. Our QT Series Actuators can be equipped with an extensive range of auxiliary components specifically engineered and integrated to meet the largest variety of Customers' requests either for ON/OFF or modulating duty.

Our Control Systems can be housed within cabinet or onto a stainless steel (SS 316) back-plate with upper portion folded over to form a sunshade, and assembled on actuator or at remote location.

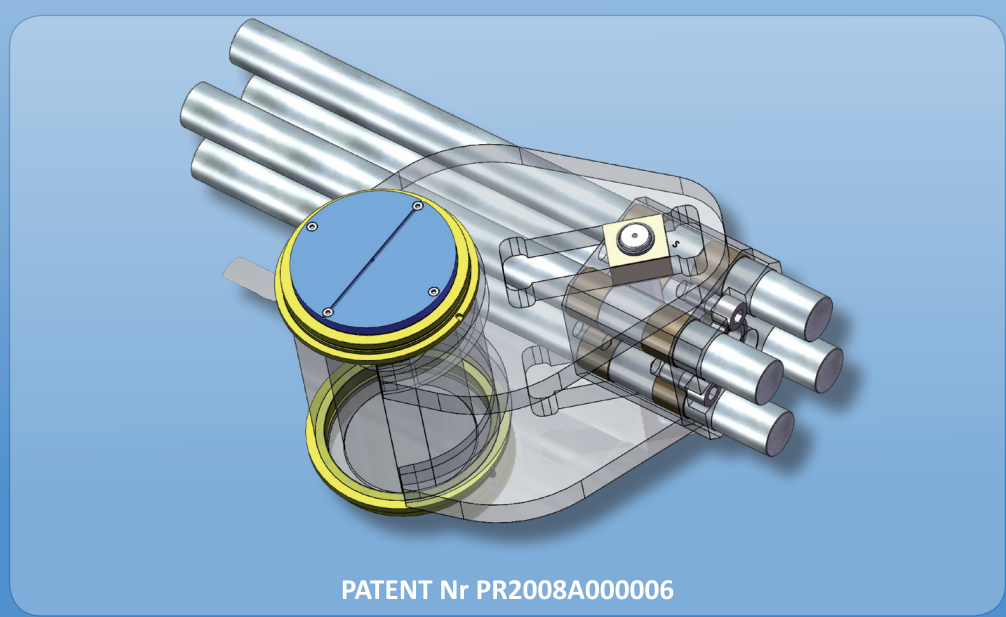
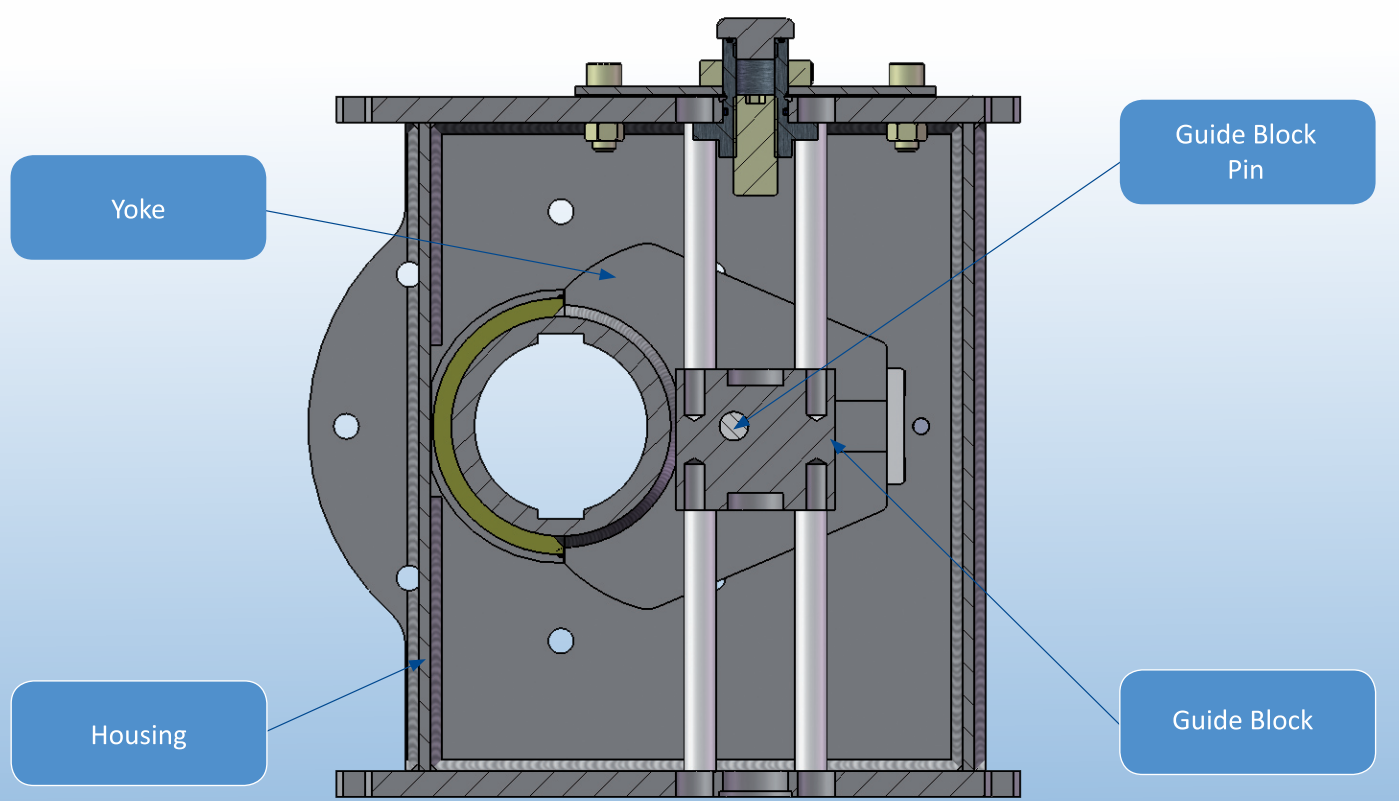
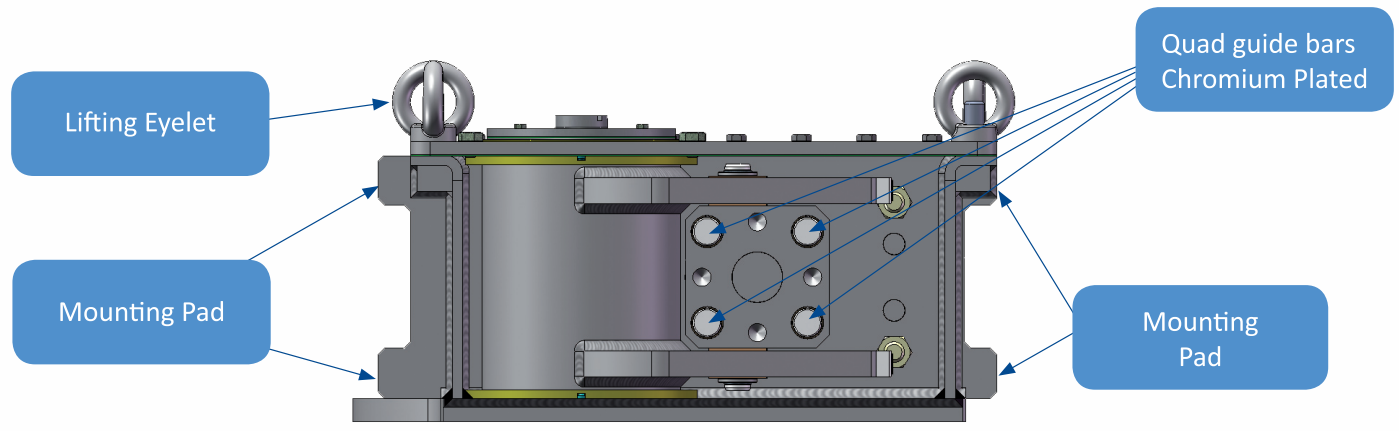
DVG Automation has already pre-engineered different solutions to meet the most commonly required control systems. These solutions, based on standard components, offer reduced lead time, simplified purchasing, commissioning and start-up activities. Please contact factory for any additional detail.

Position Monitor Device:

All positioning monitor devices can be assembled on top of our QT Series actuators, responding to any kind of technical requirement.



SCOTCH YOKE



PATENT Nr PR2008A000006

QT SERIES double acting torque

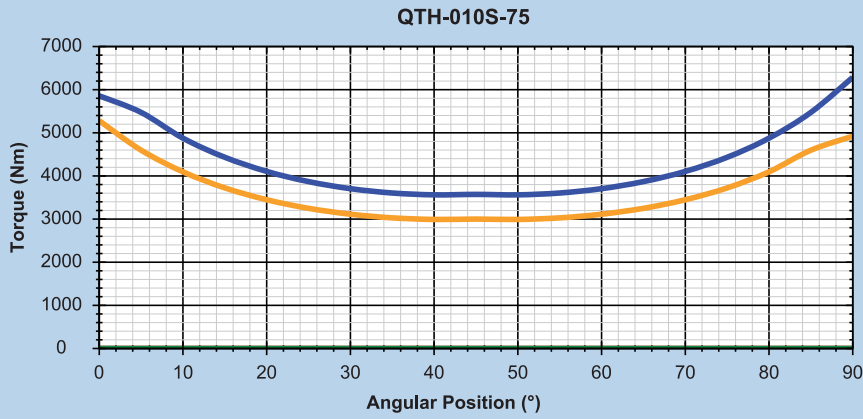
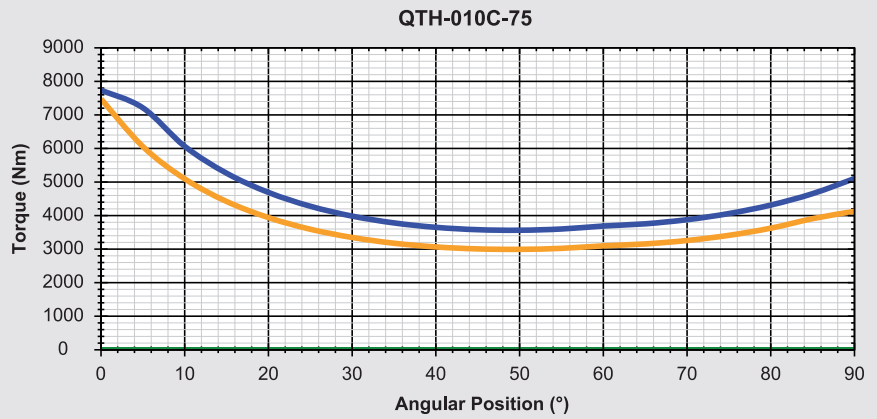


FIGURE 1
Torque for symmetric double acting QT

FIGURE 2
Torque for canted double acting QT



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QT SERIES single acting torque

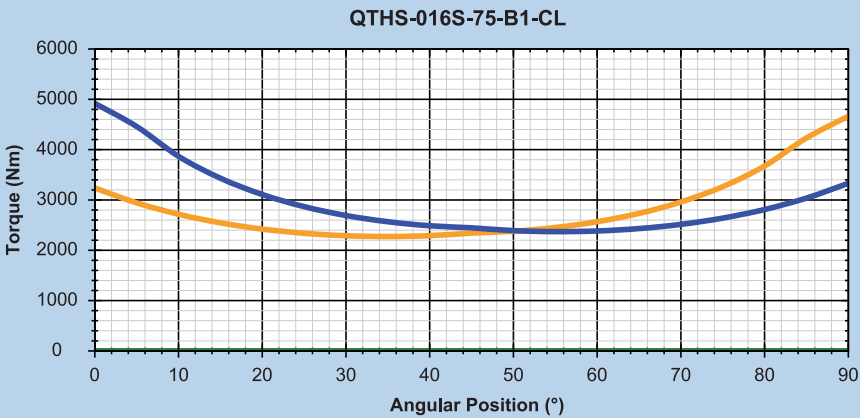
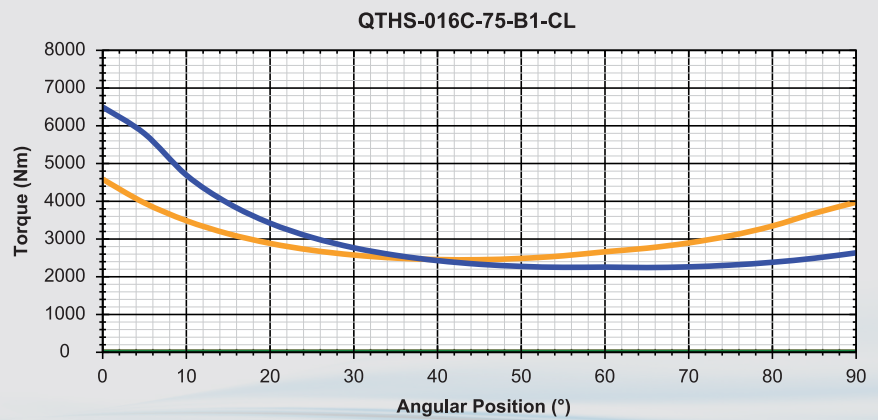


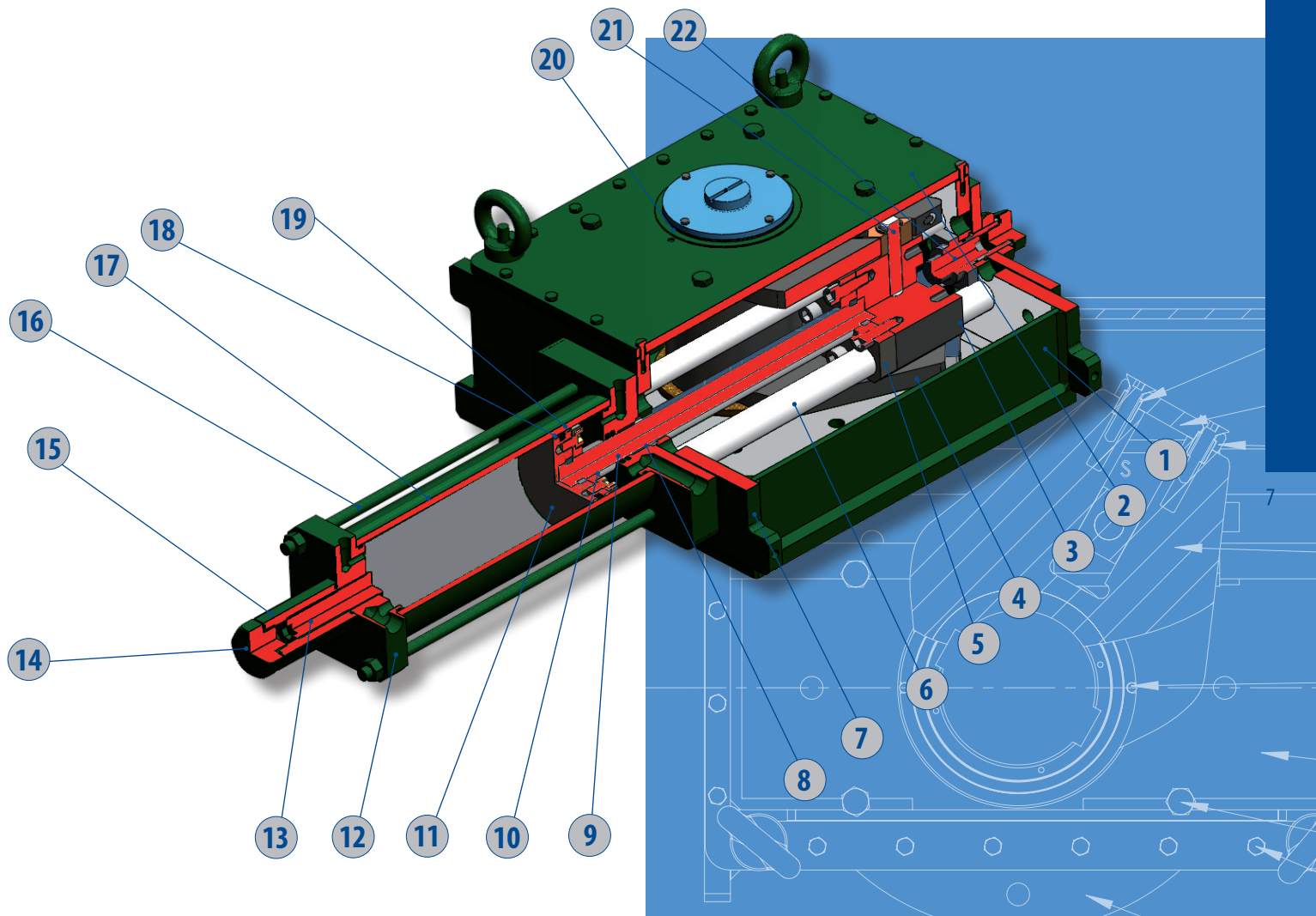
FIGURE 3
Torque for symmetric single acting QT

FIGURE 4
Torque for canted single acting QT



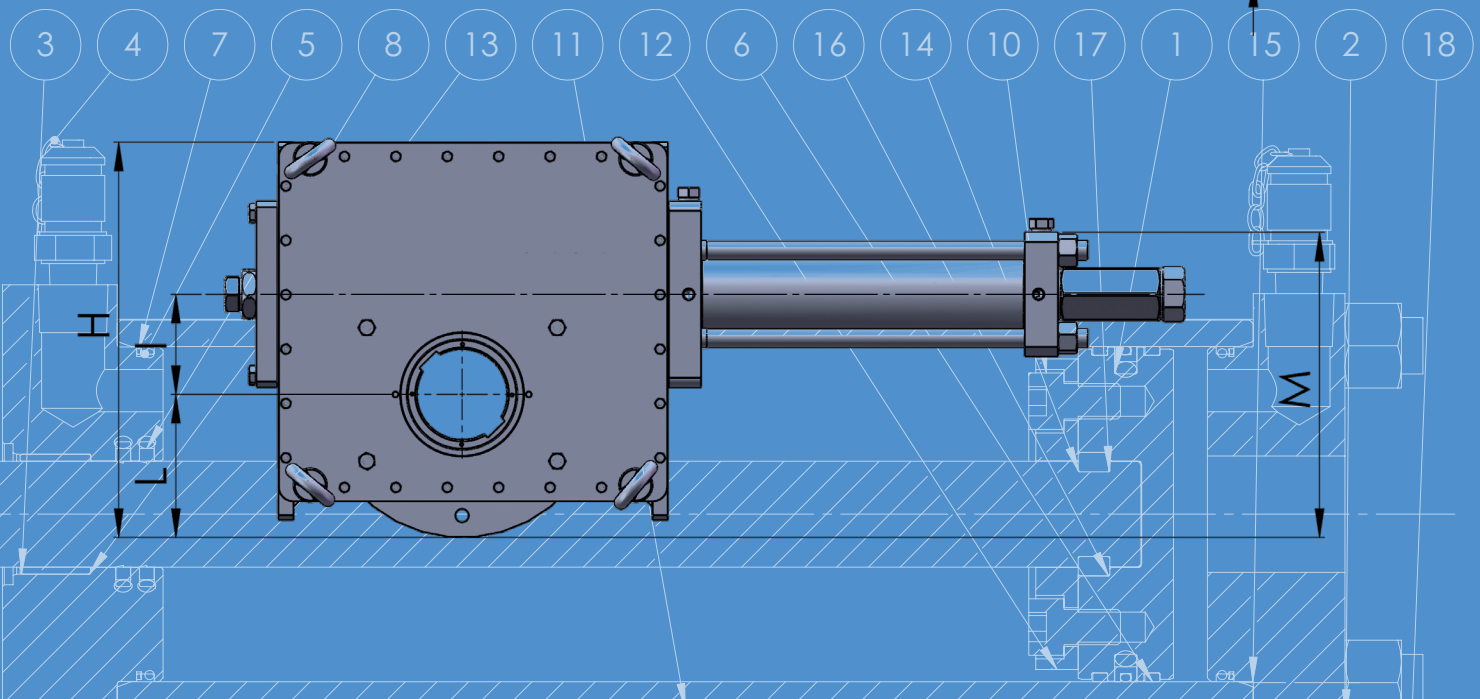
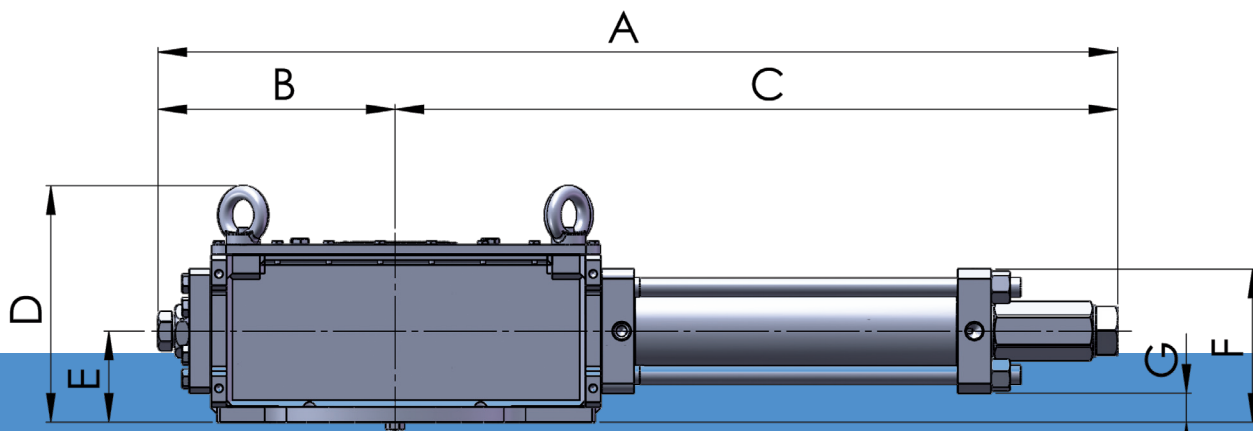
QT SERIES

DOUBLE ACTING SECTIONAL DRAWING



ITEM	DESCRIPTION	EN MATERIAL	ASTM MATERIAL
1	Housing	S355 J2G3 EN 10025	ASTM A570 Gr. 50
2	Cover	S355 J2G3 EN 10025	ASTM A570 Gr. 50
3	Guide block bushing	Carbon steel + Bronze + PTFE	Carbon steel + Bronze + PTFE
4	Scotch yoke	S355 J2G3 EN 10025 + E355 EN 10297	ASTM A570 Gr. 50 + ASTM A500 Gr. C
5	Guide block	S355JR EN 10025	ASTM A572 Gr 50
6	Guide bar	42CrMo4 EN10083	AISI (4140)
7	Cylinder Head flange	S355 J2G3 EN 10025	ASTM A570 Gr. 50
8	Piston rod bushing	Carbon steel + Bronze + PTFE	Carbon steel + Bronze + PTFE
9	Piston rod seal	NBR (FKM – MFQ – CR)	NBR (FKM – MFQ – CR)
10	Piston rod	42CrMo4 EN10083	AISI (4140)
11	Piston	S355 J2G3 EN 10025	ASTM A570 Gr. 50
12	Cylinder End flange	S355 J2G3 EN 10025	ASTM A570 Gr. 50
13	Travel stop screw	Class 45H ISO 4026	Class 45H ISO 4026
14	Plug	X5 CrNi 18 10	ASTM A276/276MTP304
15	Stop screw protection	X5 CrNi 18 10	ASTM A276/276MTP304
16	Tie rod	ASTM A320L7	ASTM A320L7
17	Cylinder tube	E355K2+N EN10297 – E355+N EN10305	ASTM A580 Grade C
18	Piston seal	NBR (FKM – MFQ – CR)	NBR (FKM – MFQ – CR)
19	Piston sliding guide	PTFE+Graphite	PTFE+Graphite
20	Yoke bushing	Carbon steel + Bronze + PTFE	Carbon steel + Bronze + PTFE
21	Guide block pin	42CrMo4 EN10083	AISI (4140)
22	Travel stop screw	Class 45H ISO 4026	Class 45H ISO 4026

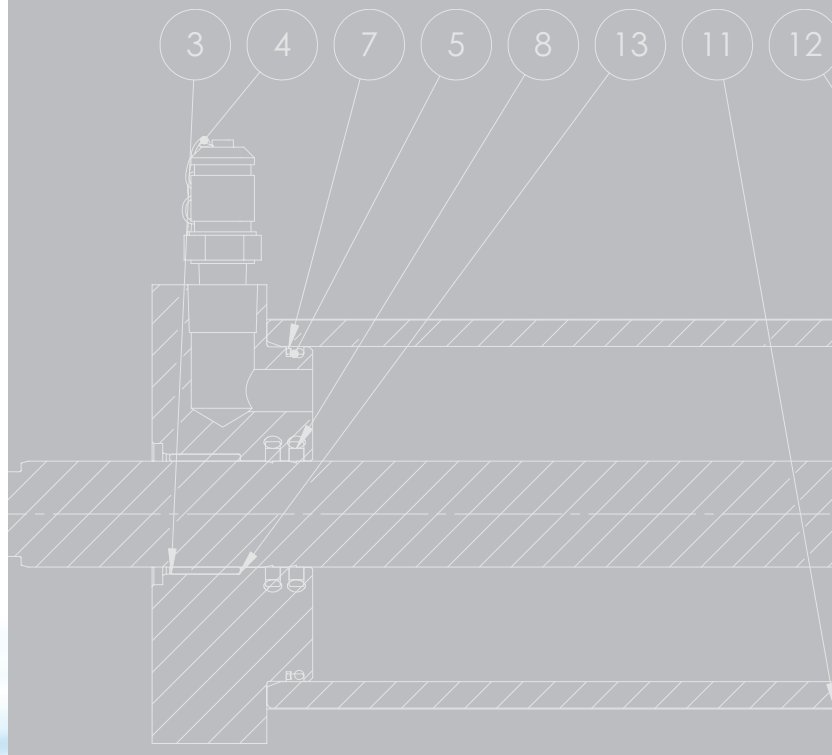
QT DOUBLE ACTING OVERALL DIMENSIONS



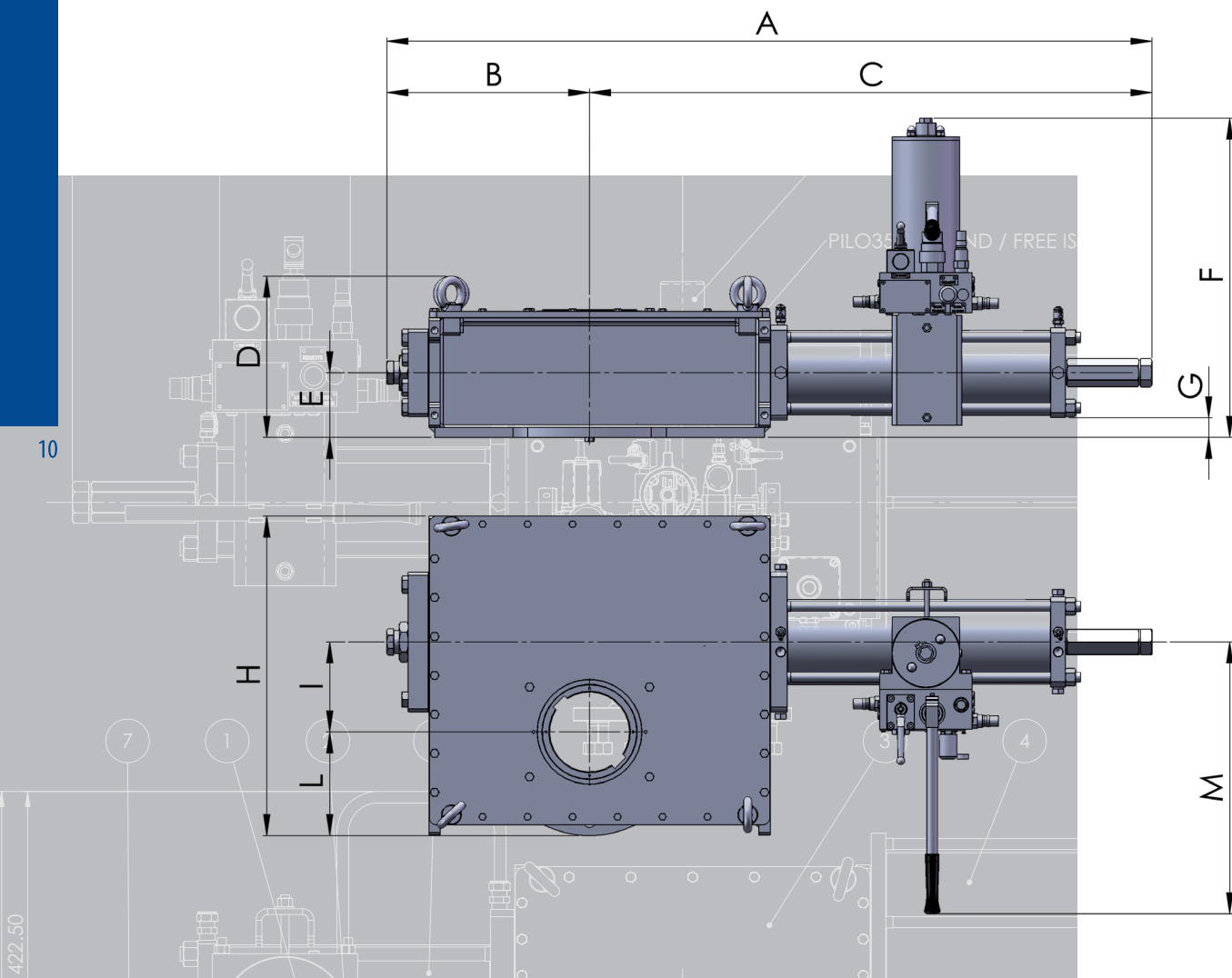
Model Size	A	B	C	D	E	F	G	H	I	L	M	Weight(Kg)
QTH-010S/C-40	980	249	731	248	96	146	46	415	105	150	305	90
QTH-010S/C-45	980	249	731	248	96	146	46	415	105	150	305	90
QTH-010S/C-55	992	249	743	248	96	156	36	415	105	150	315	95
QTH-010S/C-65	1003	249	754	248	96	156	36	415	105	150	315	95
QTH-010S/C-75	1008	249	759	248	96	161	31	415	105	150	320	100
QTH-010S/C-95	1008	249	759	248	96	159	34	415	105	150	318	104
QTH-010S/C-120	1008	249	759	248	96	172	20	415	105	150	331	110
QTH-016S/C-50	1120	293	827	277	111	171	51	497	135	176	371	158
QTH-016S/C-65	1130	293	837	277	111	174	49	497	135	176	374	158
QTH-016S/C-75	1160	293	867	277	111	174	49	497	135	176	374	165
QTH-016S/C-95	1162	293	869	277	111	174	49	497	135	176	374	170
QTH-016S/C-120	1162	293	869	277	111	187	35	497	135	176	387	174
QTH-016S/C-135	1167	293	874	277	111	194	29	497	135	176	394	178
QTH-030S/C-65	1520	406	1114	323	130	193	68	638	180	208	451	295
QTH-030S/C-75	1520	406	1114	323	130	195	65	638	180	208	453	300

QT DOUBLE ACTING OVERALL DIMENSIONS

Model Size	A	B	C	D	E	F	G	H	I	L	M	Weight(Kg)
QTH-030S/C-80	1523	406	1117	323	130	195	65	638	180	208	453	298
QTH-030S/C-95	1525	406	1119	323	130	195	65	638	180	208	453	299
QTH-030S/C-105	1525	406	1119	323	130	195	65	638	180	208	453	299
QTH-030S/C-120	1528	406	1122	323	130	206	54	638	180	208	464	320
QTH-030S/C-135	1530	406	1124	323	130	213	48	638	180	208	471	325
QTH-030S/C-150	1531	406	1125	323	130	220	40	638	180	208	478	328
QTH-060S/C-75	1800	474	1326	421	163	228	98	801	205	260	530	520
QTH-060S/C-95	1805	474	1331	421	163	228	98	801	205	260	530	522
QTH-060S/C-105	1805	474	1331	421	163	228	98	801	205	260	530	522
QTH-060S/C-120	1810	474	1336	421	163	239	87	801	205	260	541	525
QTH-060S/C-135	1815	474	1341	421	163	246	81	801	205	260	548	530
QTH-060S/C-150	1823	474	1349	421	163	258	68	801	205	260	560	549
QTH-060S/C-175	1833	474	1359	421	163	276	51	801	205	260	578	555
QTH-120S/C-95	1975	545	1430	522	205	268	143	905	230	280	573	940
QTH-120S/C-120	1980	545	1435	522	205	270	140	905	230	280	575	950
QTH-120S/C-135	1990	545	1445	522	205	288	123	905	230	280	593	960
QTH-120S/C-150	1996	545	1451	522	205	300	110	905	230	280	605	970
QTH-120S/C-175	2015	545	1470	522	205	318	93	905	230	280	623	975
QTH-120S/C-200	2085	545	1540	522	205	325	85	905	230	280	630	980
QTH-120S/C-235	2116	545	1571	522	205	383	28	905	230	280	688	1023
QTH-180S/C-120	2280	600	1680	546	230	345	115	1040	255	355	725	1220
QTH-180S/C-135	2285	600	1685	546	230	350	110	1040	255	355	730	1236
QTH-180S/C-150	2292	600	1692	546	230	355	105	1040	255	355	735	1253
QTH-180S/C-175	2295	600	1695	546	230	360	100	1040	255	355	740	1255
QTH-180S/C-200	2295	600	1695	546	230	360	100	1040	255	355	740	1265
QTH-180S/C-235	2298	600	1698	546	230	363	98	1040	255	355	743	1280
QTH-180S/C-280	2305	600	1705	546	230	370	90	1040	255	355	750	1290



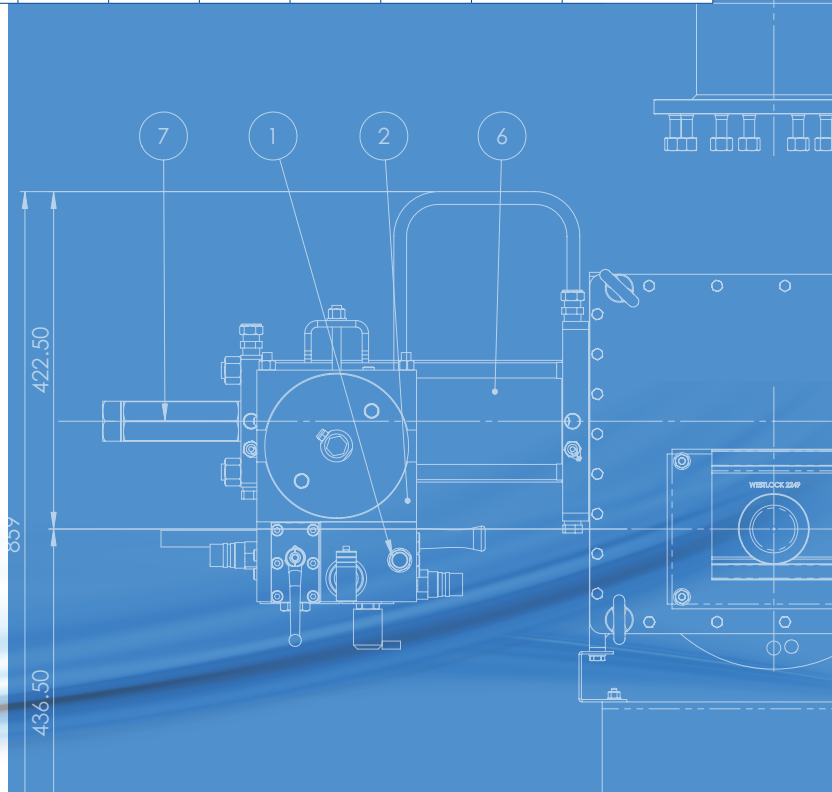
QT DOUBLE ACTING WITH HYDRAULIC MANUAL OVERRIDE (MH) OVERALL DIMENSIONS



Model Size	A	B	C	D	E	F	G	H	I	L	M	Weight (Kg)
QTH-010S/C-40-MH	980	249	731	248	96	571	46	415	105	150	510	105
QTH-010S/C-45-MH	980	249	731	248	96	571	46	415	105	150	510	105
QTH-010S/C-55-MH	992	249	743	248	96	581	36	415	105	150	520	110
QTH-010S/C-65-MH	1003	249	754	248	96	581	36	415	105	150	520	110
QTH-010S/C-75-MH	1008	249	759	248	96	586	31	415	105	150	525	115
QTH-010S/C-95-MH	1008	249	759	248	96	584	34	415	105	150	523	119
QTH-010S/C-120-MH	1008	249	759	248	96	597	20	415	105	150	536	125
QTH-016S/C-50-MH	1120	293	827	277	111	596	51	497	135	176	520	173
QTH-016S/C-65-MH	1130	293	837	277	111	599	49	497	135	176	523	173
QTH-016S/C-75-MH	1141	293	848	277	111	601	46	497	135	176	525	180
QTH-016S/C-95-MH	1162	293	869	277	111	599	49	497	135	176	523	185
QTH-016S/C-120-MH	1162	293	869	277	111	612	35	497	135	176	536	189
QTH-016S/C-135-MH	1167	293	874	277	111	619	29	497	135	176	543	193
QTH-030S/C-65-MH	1520	406	1114	323	130	618	68	638	180	208	523	310
QTH-030S/C-75-MH	1520	406	1114	323	130	620	65	638	180	208	525	315

QT DOUBLE ACTING WITH HYDRAULIC MANUAL OVERRIDE (MH) OVERALL DIMENSIONS

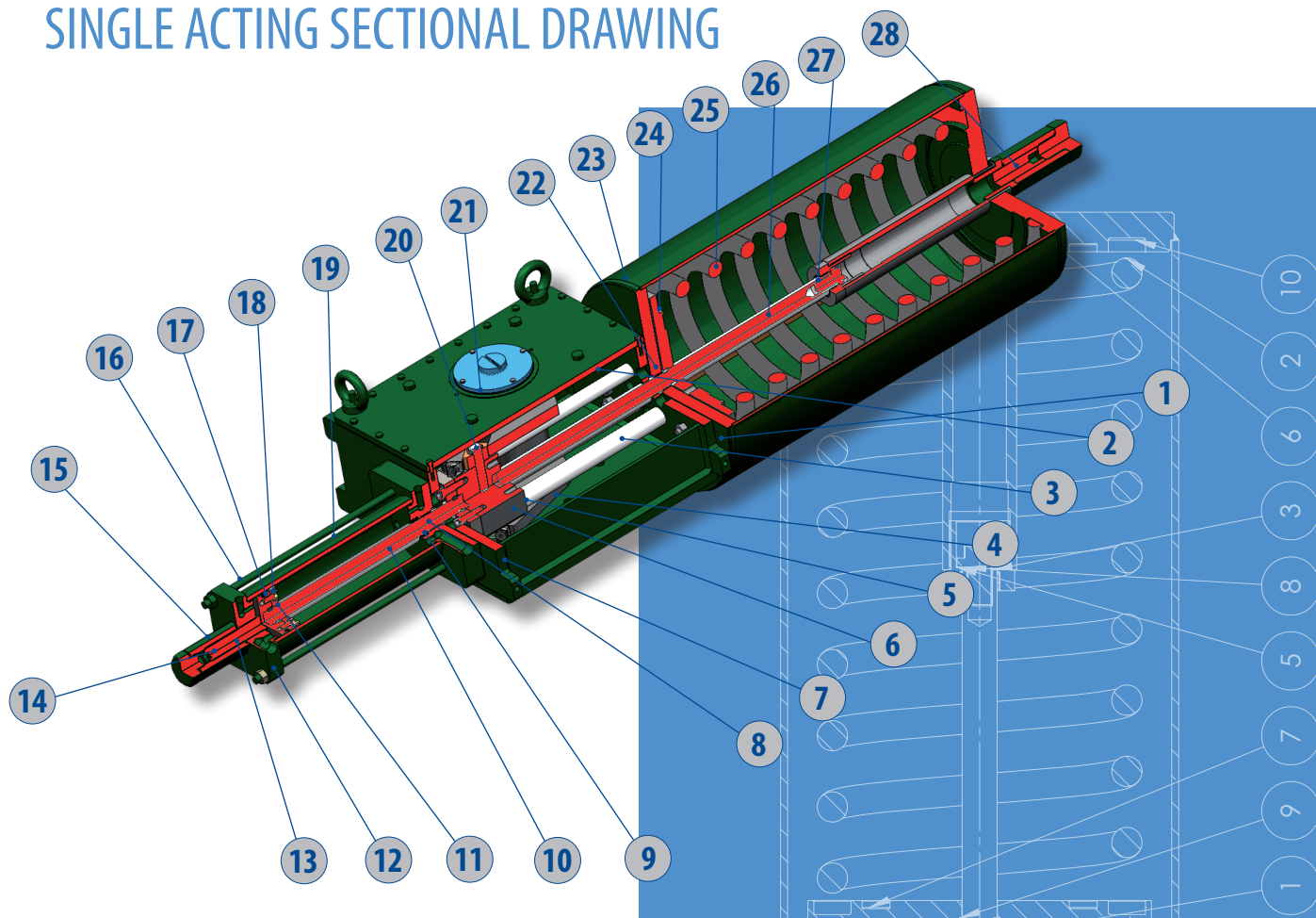
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QTH-030S/C-95-MH	1525	406	1119	323	130	620	65	638	180	208	525	314
QTH-030S/C-105-MH	1525	406	1119	323	130	620	65	638	180	208	525	314
QTH-030S/C-120-MH	1528	406	1122	323	130	631	54	638	180	208	536	335
QTH-030S/C-135-MH	1530	406	1124	323	130	638	48	638	180	208	543	340
QTH-030S/C-150-MH	1531	406	1125	323	130	645	40	638	180	208	550	343
QTH-060S/C-75-MH	1800	474	1326	421	163	653	98	801	205	260	525	535
QTH-060S/C-95-MH	1805	474	1331	421	163	653	98	801	205	260	525	537
QTH-060S/C-105-MH	1805	474	1331	421	163	653	98	801	205	260	525	537
QTH-060S/C-120-MH	1810	474	1336	421	163	664	87	801	205	260	536	540
QTH-060S/C-135-MH	1815	474	1341	421	163	671	81	801	205	260	543	545
QTH-060S/C-150-MH	1823	474	1349	421	163	683	68	801	205	260	555	564
QTH-060S/C-175-MH	1833	474	1359	421	163	701	51	801	205	260	573	570
QTH-120S/C-95-MH	1975	545	1430	522	205	693	143	905	230	280	523	955
QTH-120S/C-120-MH	1980	545	1435	522	205	695	140	905	230	280	525	965
QTH-120S/C-135-MH	1990	545	1445	522	205	713	123	905	230	280	543	975
QTH-120S/C-150-MH	1996	545	1451	522	205	725	110	905	230	280	555	985
QTH-120S/C-175-MH	2015	545	1470	522	205	743	93	905	230	280	573	990
QTH-120S/C-200-MH	2033	545	1488	522	205	750	85	905	230	280	580	995
QTH-120S/C-235-MH	2116	545	1571	522	205	808	28	905	230	280	638	1038
QTH-180S/C-120-MH	2280	600	1680	546	230	770	115	1040	255	355	575	1235
QTH-180S/C-135-MH	2285	600	1685	546	230	775	110	1040	255	355	580	1251
QTH-180S/C-150-MH	2292	600	1692	546	230	780	105	1040	255	355	585	1268
QTH-180S/C-175-MH	2295	600	1695	546	230	785	100	1040	255	355	590	1270
QTH-180S/C-200-MH	2295	600	1695	546	230	785	100	1040	255	355	590	1280
QTH-180S/C-235-MH	2298	600	1698	546	230	788	98	1040	255	355	593	1295
QTH-180S/C-280-MH	2305	600	1705	546	230	795	90	1040	255	355	600	1305



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QT SERIES

SINGLE ACTING SECTIONAL DRAWING

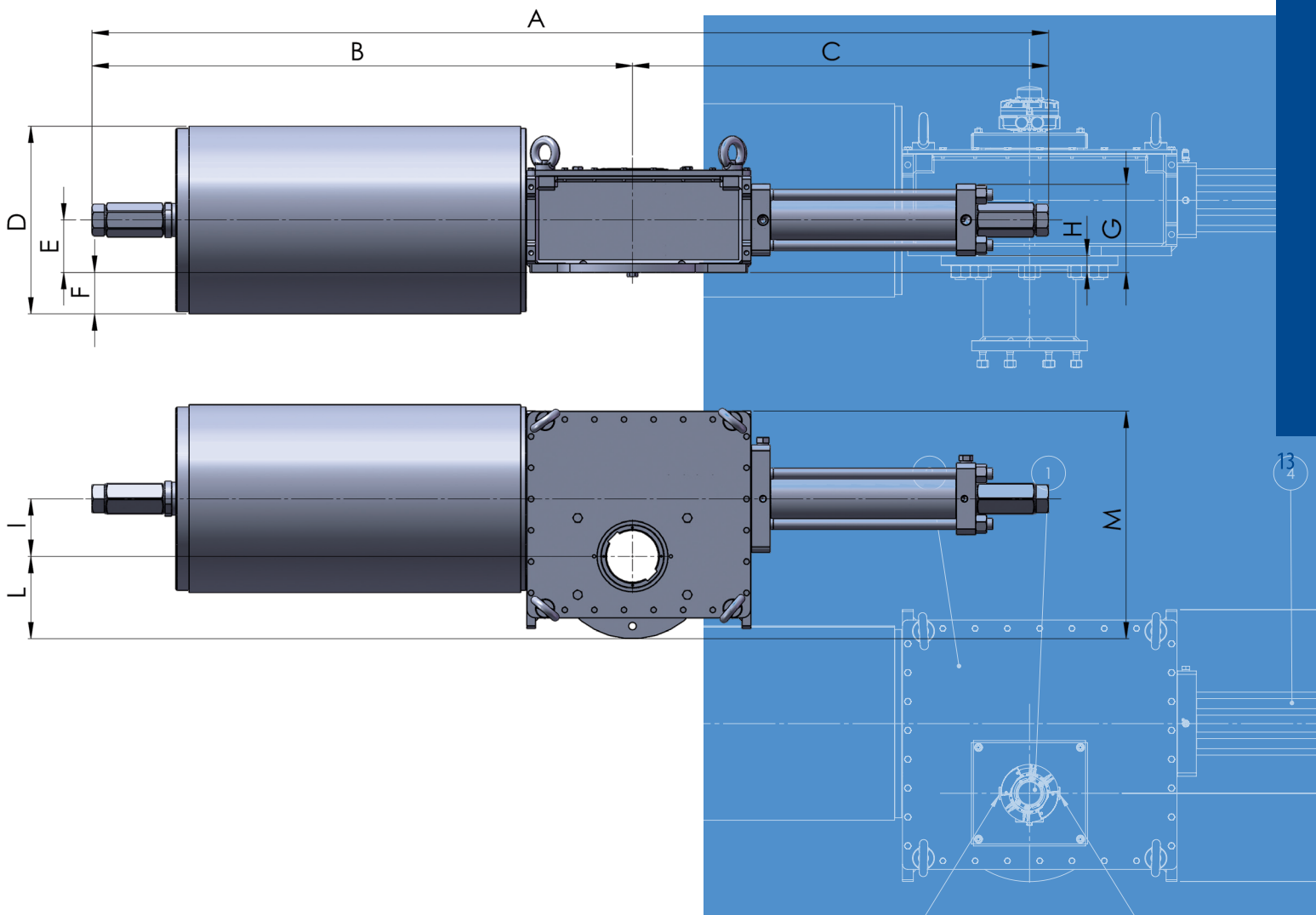


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ITEM	DESCRIPTION	EN MATERIAL	ASTM MATERIAL
1	Housing	S355 J2G3 EN 10025	ASTM A570 Gr. 50
2	Cover	S355 J2G3 EN 10025	ASTM A570 Gr. 50
3	Guide bar	42CrMo4 EN 10083	AISI (9840)
4	Scotch yoke	S355 J2G3 EN 10025 + E355 EN 10297	ASTM A570 Gr. 50 + ASTM A500 Gr. C
5	Guide block bushing	Carbon steel + Bronze + PTFE	Carbon steel + Bronze + PTFE
6	Guide block	S355JR EN 10025	ASTM A572 Gr 50
7	Cylinder Head flange	S355 J2G3 EN 10025	ASTM A570 Gr. 50
8	Piston rod bushing	Carbon steel + Bronze + PTFE	Carbon steel + Bronze + PTFE
9	Piston rod seal	NBR (FKM – MFQ – CR)	NBR (FKM – MFQ – CR)
10	Piston rod	42CrMo4 EN10083	AISI (4140)
11	Piston	S355 J2G3 EN 10025	ASTM A570 Gr. 50
12	Cylinder End flange	S355 J2G3 EN 10025	ASTM A570 Gr. 50
13	Travel stop screw	Class 45H ISO 4026	Class 45H ISO 4026
14	Plug	X5 CrNi 18 10	ASTM A276/276MTP304
15	Stop screw protection	X5 CrNi 18 10	ASTM A276/276MTP304
16	Tie rod	ASTM A320L7	ASTM A320L7
17	Piston seal	NBR (FKM – MFQ – CR)	NBR (FKM – MFQ – CR)
18	Piston sliding guide	PTFE+Graphite	PTFE+Graphite
19	Cylinder tube	E355K2+N EN10297 – E355+N EN10305	ASTM A580 Grade C
20	Guide block pin	42CrMo4 EN10083	AISI (4140)
21	Yoke bushing	Carbon steel + Bronze + PTFE	Carbon steel + Bronze + PTFE
22	Container rod bushing	Carbon steel + Bronze + PTFE	Carbon steel + Bronze + PTFE
23	Spring Cartridge tube	E355 EN 10297-10305	ASTM A500 Gr.C + ASTM A106 Gr.B
24	Spring cartridge load flange	S335 J2G3 EN 10025	ASTM A570 Gr. 50
25	Spring	EN 10270-2-FDSiCr	ASTM A-401
26	Spring cartridge rod	42CrMo4 EN 10083	AISI (9840)
27	Spring cartridge rod bushing	Carbon steel + Bronze + PTFE	Carbon steel + Bronze + PTFE
28	Travel stop screw	Class 45H ISO 4026	Class 45H ISO 4026

OVERALL DIMENSIONS

QT SPRING TO CLOSE



Model Size	A	B	C	D	E	F	G	H	I	L	M	Weight(Kg)
QTHS-010S/C-40-A1-CL	1717	986	731	342	96	75	146	46	105	150	415	188
QTHS-010S/C-40-A2-CL	1717	986	731	342	96	75	146	46	105	150	415	188
QTHS-010S/C-40-A3-CL	1717	986	731	342	96	75	146	46	105	150	415	188
QTHS-010S/C-40-A4-CL	1717	986	731	342	96	75	146	46	105	150	415	188
QTHS-010S/C-45-A1-CL	1717	986	731	342	96	75	146	46	105	150	415	190
QTHS-010S/C-45-A2-CL	1717	986	731	342	96	75	146	46	105	150	415	190
QTHS-010S/C-45-A3-CL	1717	986	731	342	96	75	146	46	105	150	415	190
QTHS-010S/C-45-A4-CL	1717	986	731	342	96	75	146	46	105	150	415	190
QTHS-010S/C-55-A1-CL	1729	986	743	342	96	75	156	36	105	150	415	197
QTHS-010S/C-55-A2-CL	1729	986	743	342	96	75	156	36	105	150	415	197
QTHS-010S/C-55-A3-CL	1729	986	743	342	96	75	156	36	105	150	415	197
QTHS-010S/C-55-A4-CL	1729	986	743	342	96	75	156	36	105	150	415	197
QTHS-010S/C-65-A1-CL	1740	986	754	342	96	75	156	36	105	150	415	202
QTHS-010S/C-65-A2-CL	1740	986	754	342	96	75	156	36	105	150	415	202
QTHS-010S/C-65-A3-CL	1740	986	754	342	96	75	156	36	105	150	415	202
QTHS-010S/C-65-A4-CL	1740	986	754	342	96	75	156	36	105	150	415	202
QTHS-010S/C-75-A1-CL	1745	986	759	342	96	75	161	31	105	150	415	206
QTHS-010S/C-75-A2-CL	1745	986	759	342	96	75	161	31	105	150	415	206
QTHS-010S/C-75-A3-CL	1745	986	759	342	96	75	161	31	105	150	415	208
QTHS-010S/C-75-A4-CL	1745	986	759	342	96	75	161	31	105	150	415	208

OVERALL DIMENSIONS

QT SPRING TO CLOSE

Model Size	A	B	C	D	E	F	G	H	I	L	M	Weight(Kg)
QTHS-010S/C-95-A1-CL	1745	986	759	342	96	75	159	34	105	150	415	215
QTHS-010S/C-95-A2-CL	1745	986	759	342	96	75	159	34	105	150	415	215
QTHS-010S/C-95-A3-CL	1745	986	759	342	96	75	159	34	105	150	415	215
QTHS-010S/C-95-A4-CL	1745	986	759	342	96	75	159	34	105	150	415	215
QTHS-010S/C-120-A1-CL	1745	986	759	342	96	75	172	20	105	150	415	219
QTHS-010S/C-120-A2-CL	1745	986	759	342	96	75	172	20	105	150	415	232
QTHS-010S/C-120-A3-CL	1745	986	759	342	96	75	172	20	105	150	415	235
QTHS-010S/C-120-A4-CL	1745	986	759	342	96	75	172	20	105	150	415	238
QTHS-016S/C-50-B1-CL	2003	1176	827	413	111	96	171	51	135	176	497	305
QTHS-016S/C-50-B2-CL	2003	1176	827	413	111	96	171	51	135	176	497	305
QTHS-016S/C-50-B3-CL	2003	1176	827	413	111	96	171	51	135	176	497	305
QTHS-016S/C-65-B1-CL	2013	1176	837	413	111	96	174	49	135	176	497	315
QTHS-016S/C-65-B2-CL	2013	1176	837	413	111	96	174	49	135	176	497	315
QTHS-016S/C-65-B3-CL	2013	1176	837	413	111	96	174	49	135	176	497	315
QTHS-016S/C-75-B1-CL	2043	1176	867	413	111	96	174	49	135	176	497	329
QTHS-016S/C-75-B2-CL	2043	1176	867	413	111	96	174	49	135	176	497	329
QTHS-016S/C-75-B3-CL	2043	1176	867	413	111	96	174	49	135	176	497	329
QTHS-016S/C-95-B1-CL	2045	1176	869	413	111	96	174	49	135	176	497	332
QTHS-016S/C-95-B2-CL	2045	1176	869	413	111	96	174	49	135	176	497	332
QTHS-016S/C-95-B3-CL	2045	1176	869	413	111	96	174	49	135	176	497	332
QTHS-016S/C-120-B1-CL	2045	1176	869	413	111	96	187	35	135	176	497	338
QTHS-016S/C-120-B2-CL	2045	1176	869	413	111	96	187	35	135	176	497	338
QTHS-016S/C-120-B3-CL	2045	1176	869	413	111	96	187	35	135	176	497	338
QTHS-016S/C-135-B1-CL	2050	1176	874	413	111	96	194	29	135	176	497	345
QTHS-016S/C-135-B2-CL	2050	1176	874	413	111	96	194	29	135	176	497	345
QTHS-016S/C-135-B3-CL	2050	1176	874	413	111	96	194	29	135	176	497	345
QTHS-030S/C-65-C0-CL	2682	1568	1114	506	130	123	193	68	180	208	638	640
QTHS-030S/C-65-C1-CL	2682	1568	1114	506	130	123	193	68	180	208	638	640
QTHS-030S/C-65-C2-CL	2682	1568	1114	506	130	123	193	68	180	208	638	640
QTHS-030S/C-65-C3-CL	2682	1568	1114	506	130	123	193	68	180	208	638	640
QTHS-030S/C-75-C0-CL	2682	1568	1114	506	130	123	195	65	180	208	638	640
QTHS-030S/C-75-C1-CL	2682	1568	1114	506	130	123	195	65	180	208	638	640
QTHS-030S/C-75-C2-CL	2682	1568	1114	506	130	123	195	65	180	208	638	640
QTHS-030S/C-75-C3-CL	2682	1568	1114	506	130	123	195	65	180	208	638	640
QTHS-030S/C-80-C0-CL	2685	1568	1117	506	130	123	195	65	180	208	638	655
QTHS-030S/C-80-C1-CL	2685	1568	1117	506	130	123	195	65	180	208	638	655
QTHS-030S/C-80-C2-CL	2685	1568	1117	506	130	123	195	65	180	208	638	655
QTHS-030S/C-80-C3-CL	2685	1568	1117	506	130	123	195	65	180	208	638	655
QTHS-030S/C-95-C0-CL	2687	1568	1119	506	130	123	195	65	180	208	638	670
QTHS-030S/C-95-C1-CL	2687	1568	1119	506	130	123	195	65	180	208	638	670
QTHS-030S/C-95-C2-CL	2687	1568	1119	506	130	123	195	65	180	208	638	670
QTHS-030S/C-95-C3-CL	2687	1568	1119	506	130	123	195	65	180	208	638	670
QTHS-030S/C-105-C0-CL	2687	1568	1119	506	130	123	195	65	180	208	638	670
QTHS-030S/C-105-C1-CL	2687	1568	1119	506	130	123	195	65	180	208	638	680
QTHS-030S/C-105-C2-CL	2687	1568	1119	506	130	123	195	65	180	208	638	680
QTHS-030S/C-105-C3-CL	2687	1568	1119	506	130	123	195	65	180	208	638	680
QTHS-030S/C-120-C0-CL	2690	1568	1122	506	130	123	206	54	180	208	638	680
QTHS-030S/C-120-C1-CL	2690	1568	1122	506	130	123	206	54	180	208	638	695
QTHS-030S/C-120-C2-CL	2690	1568	1122	506	130	123	206	54	180	208	638	695
QTHS-030S/C-120-C3-CL	2690	1568	1122	506	130	123	206	54	180	208	638	695



OVERALL DIMENSIONS

QT SPRING TO CLOSE

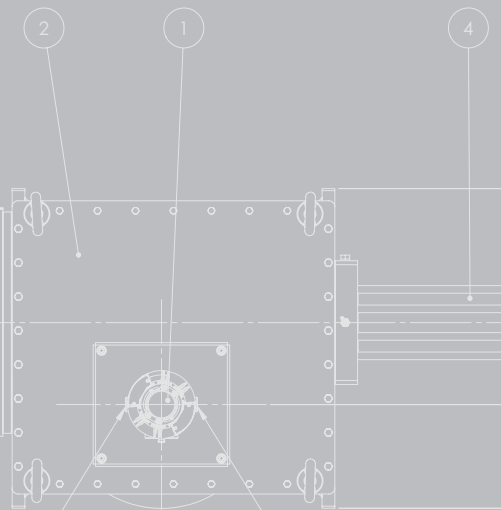
Model Size	A	B	C	D	E	F	G	H	I	L	M	Weight(Kg)
QTHS-030S/C-135-C0-CL	2692	1568	1124	506	130	123	213	48	180	208	638	695
QTHS-030S/C-135-C1-CL	2692	1568	1124	506	130	123	213	48	180	208	638	704
QTHS-030S/C-135-C2-CL	2692	1568	1124	506	130	123	213	48	180	208	638	704
QTHS-030S/C-135-C3-CL	2692	1568	1124	506	130	123	213	48	180	208	638	704
QTHS-030S/C-150-C0-CL	2693	1568	1125	506	130	123	220	40	180	208	638	705
QTHS-030S/C-150-C1-CL	2693	1568	1125	506	130	123	220	40	180	208	638	705
QTHS-030S/C-150-C2-CL	2693	1568	1125	506	130	123	220	40	180	208	638	705
QTHS-030S/C-150-C3-CL	2693	1568	1125	506	130	123	220	40	180	208	638	705
QTHS-060S/C-75-D1-CL	3291	1965	1326	569	163	122	228	98	205	260	801	1390
QTHS-060S/C-75-D2-CL	3291	1965	1326	569	163	122	228	98	205	260	801	1390
QTHS-060S/C-75-D3-CL	3291	1965	1326	569	163	122	228	98	205	260	801	1390
QTHS-060S/C-95-D1-CL	3296	1965	1331	569	163	122	228	98	205	260	801	1395
QTHS-060S/C-95-D2-CL	3296	1965	1331	569	163	122	228	98	205	260	801	1395
QTHS-060S/C-95-D3-CL	3296	1965	1331	569	163	122	228	98	205	260	801	1395
QTHS-060S/C-105-D1-CL	3296	1965	1331	569	163	122	228	98	205	260	801	1395
QTHS-060S/C-105-D2-CL	3296	1965	1331	569	163	122	228	98	205	260	801	1395
QTHS-060S/C-105-D3-CL	3296	1965	1331	569	163	122	228	98	205	260	801	1395
QTHS-060S/C-120-D1-CL	3301	1965	1336	569	163	122	239	87	205	260	801	1399
QTHS-060S/C-120-D2-CL	3301	1965	1336	569	163	122	239	87	205	260	801	1399
QTHS-060S/C-120-D3-CL	3301	1965	1336	569	163	122	239	87	205	260	801	1399
QTHS-060S/C-135-D1-CL	3306	1965	1341	569	163	122	246	81	205	260	801	1405
QTHS-060S/C-135-D2-CL	3306	1965	1341	569	163	122	246	81	205	260	801	1405
QTHS-060S/C-135-D3-CL	3306	1965	1341	569	163	122	246	81	205	260	801	1405
QTHS-060S/C-150-D1-CL	3314	1965	1349	569	163	122	258	68	205	260	801	1413
QTHS-060S/C-150-D2-CL	3314	1965	1349	569	163	122	258	68	205	260	801	1413
QTHS-060S/C-150-D3-CL	3314	1965	1349	569	163	122	258	68	205	260	801	1413
QTHS-060S/C-175-D1-CL	3324	1965	1359	569	163	122	276	51	205	260	801	1422
QTHS-060S/C-175-D2-CL	3324	1965	1359	569	163	122	276	51	205	260	801	1422
QTHS-060S/C-175-D3-CL	3324	1965	1359	569	163	122	276	51	205	260	801	1422
QTHS-120S/C-95-E1-CL	3730	2300	1430	654	205	122	268	143	230	280	905	1820
QTHS-120S/C-95-E2-CL	3730	2300	1430	654	205	122	268	143	230	280	905	1820
QTHS-120S/C-95-E3-CL	3730	2300	1430	654	205	122	268	143	230	280	905	1820
QTHS-120S/C-95-E4-CL	3730	2300	1430	654	205	122	268	143	230	280	905	1820
QTHS-120S/C-120-E1-CL	3735	2300	1435	654	205	122	270	140	230	280	905	1850
QTHS-120S/C-120-E2-CL	3735	2300	1435	654	205	122	270	140	230	280	905	1850
QTHS-120S/C-120-E3-CL	3735	2300	1435	654	205	122	270	140	230	280	905	1850
QTHS-120S/C-120-E4-CL	3735	2300	1435	654	205	122	270	140	230	280	905	1850
QTHS-120S/C-135-E1-CL	3745	2300	1445	654	205	122	288	123	230	280	905	1862
QTHS-120S/C-135-E2-CL	3745	2300	1445	654	205	122	288	123	230	280	905	1862
QTHS-120S/C-135-E3-CL	3745	2300	1445	654	205	122	288	123	230	280	905	1862
QTHS-120S/C-135-E4-CL	3745	2300	1445	654	205	122	288	123	230	280	905	1862
QTHS-120S/C-150-E1-CL	3751	2300	1451	654	205	122	300	110	230	280	905	1890
QTHS-120S/C-150-E2-CL	3751	2300	1451	654	205	122	300	110	230	280	905	1890
QTHS-120S/C-150-E3-CL	3751	2300	1451	654	205	122	300	110	230	280	905	1890
QTHS-120S/C-150-E4-CL	3751	2300	1451	654	205	122	300	110	230	280	905	1890
QTHS-120S/C-175-E1-CL	3770	2300	1470	654	205	122	318	93	230	280	905	1903
QTHS-120S/C-175-E2-CL	3770	2300	1470	654	205	122	318	93	230	280	905	1903
QTHS-120S/C-175-E3-CL	3770	2300	1470	654	205	122	318	93	230	280	905	1903
QTHS-120S/C-175-E4-CL	3770	2300	1470	654	205	122	318	93	230	280	905	1903
QTHS-120S/C-200-E1-CL	3840	2300	1540	654	205	122	325	85	230	280	905	1916

OVERALL DIMENSIONS

QT SPRING TO CLOSE

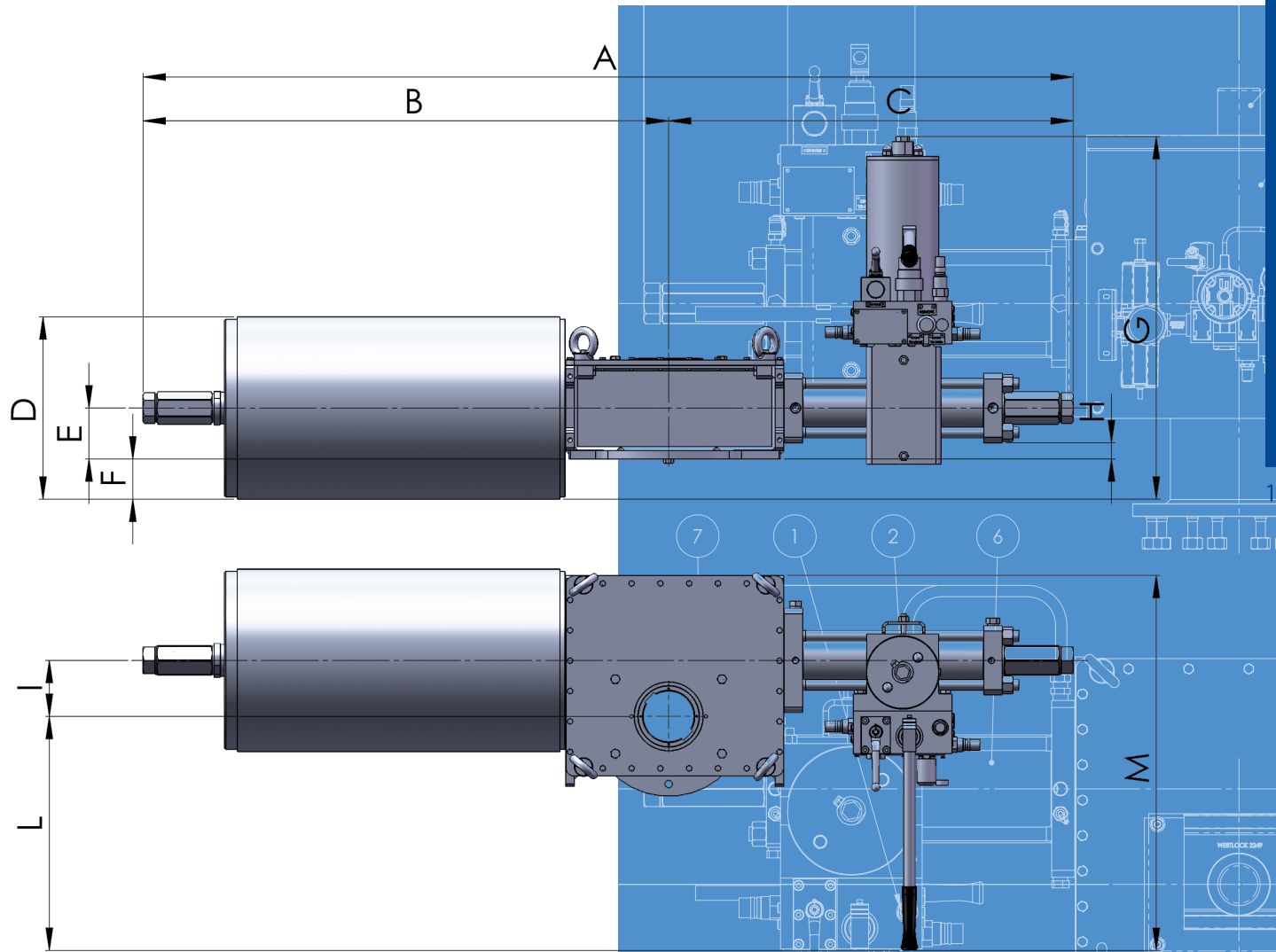
Model Size	A	B	C	D	E	F	G	H	I	L	M	Weight(Kg)
QTHS-120S/C-200-E2-CL	3840	2300	1540	654	205	122	325	85	230	280	905	1916
QTHS-120S/C-200-E3-CL	3840	2300	1540	654	205	122	325	85	230	280	905	1916
QTHS-120S/C-200-E4-CL	3840	2300	1540	654	205	122	325	85	230	280	905	1916
QTHS-120S/C-235-E1-CL	3871	2300	1571	654	205	122	383	28	230	280	905	1940
QTHS-120S/C-235-E2-CL	3871	2300	1571	654	205	122	383	28	230	280	905	1940
QTHS-120S/C-235-E3-CL	3871	2300	1571	654	205	122	383	28	230	280	905	1940
QTHS-120S/C-235-E4-CL	3871	2300	1571	654	205	122	383	28	230	280	905	1940
QTHS-180S/C-120-F1-CL	4268	2588	1680	745	230	143	345	115	255	355	1040	2340
QTHS-180S/C-120-F2-CL	4268	2588	1680	745	230	143	345	115	255	355	1040	2340
QTHS-180S/C-120-F3-CL	4268	2588	1680	745	230	143	345	115	255	355	1040	2340
QTHS-180S/C-135-F1-CL	4273	2588	1685	745	230	143	350	110	255	355	1040	2387
QTHS-180S/C-135-F2-CL	4273	2588	1685	745	230	143	350	110	255	355	1040	2387
QTHS-180S/C-135-F3-CL	4273	2588	1685	745	230	143	350	110	255	355	1040	2387
QTHS-180S/C-150-F1-CL	4280	2588	1692	745	230	143	355	105	255	355	1040	2415
QTHS-180S/C-150-F2-CL	4280	2588	1692	745	230	143	355	105	255	355	1040	2415
QTHS-180S/C-150-F3-CL	4280	2588	1692	745	230	143	355	105	255	355	1040	2415
QTHS-180S/C-175-F1-CL	4283	2588	1695	745	230	143	360	100	255	355	1040	2429
QTHS-180S/C-175-F2-CL	4283	2588	1695	745	230	143	360	100	255	355	1040	2429
QTHS-180S/C-175-F3-CL	4283	2588	1695	745	230	143	360	100	255	355	1040	2429
QTHS-180S/C-200-F1-CL	4283	2588	1695	745	230	143	360	100	255	355	1040	2445
QTHS-180S/C-200-F2-CL	4283	2588	1695	745	230	143	360	100	255	355	1040	2445
QTHS-180S/C-200-F3-CL	4283	2588	1695	745	230	143	360	100	255	355	1040	2445
QTHS-180S/C-235-F1-CL	4286	2588	1698	745	230	143	363	98	255	355	1040	2460
QTHS-180S/C-235-F2-CL	4286	2588	1698	745	230	143	363	98	255	355	1040	2460
QTHS-180S/C-235-F3-CL	4286	2588	1698	745	230	143	363	98	255	355	1040	2460
QTHS-180S/C-280-F1-CL	4293	2588	1705	745	230	143	370	90	255	355	1040	2490
QTHS-180S/C-280-F2-CL	4293	2588	1705	745	230	143	370	90	255	355	1040	2490
QTHS-180S/C-280-F3-CL	4293	2588	1705	745	230	143	370	90	255	355	1040	2490

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OVERALL DIMENSIONS

QT SPRING TO CLOSE WITH HYDRAULIC MANUAL OVERRIDE-MH

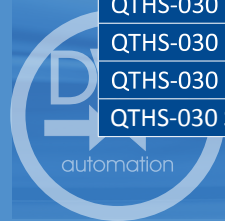


Model Size	A	B	C	D	E	F	G	H	I	L	M	Weight(Kg)
QTHS-010 S/C-40-A1-CL-MH	1717	986	731	342	96	75	671	46	105	495	760	218
QTHS-010 S/C-40-A2-CL-MH	1717	986	731	342	96	75	671	46	105	495	760	218
QTHS-010 S/C-40-A3-CL-MH	1717	986	731	342	96	75	671	46	105	495	760	218
QTHS-010 S/C-40-A4-CL-MH	1717	986	731	342	96	75	671	46	105	495	760	218
QTHS-010 S/C-45-A1-CL-MH	1717	986	731	342	96	75	671	46	105	495	760	220
QTHS-010 S/C-45-A2-CL-MH	1717	986	731	342	96	75	671	46	105	495	760	220
QTHS-010 S/C-45-A3-CL-MH	1717	986	731	342	96	75	671	46	105	495	760	220
QTHS-010 S/C-45-A4-CL-MH	1717	986	731	342	96	75	671	46	105	495	760	220
QTHS-010 S/C-55-A1-CL-MH	1729	986	743	342	96	75	681	36	105	515	780	227
QTHS-010 S/C-55-A2-CL-MH	1729	986	743	342	96	75	681	36	105	515	780	227
QTHS-010 S/C-55-A3-CL-MH	1729	986	743	342	96	75	681	36	105	515	780	227
QTHS-010 S/C-55-A4-CL-MH	1729	986	743	342	96	75	681	36	105	515	780	227
QTHS-010 S/C-65-A1-CL-MH	1740	986	754	342	96	75	681	36	105	515	780	232
QTHS-010 S/C-65-A2-CL-MH	1740	986	754	342	96	75	681	36	105	515	780	232
QTHS-010 S/C-65-A3-CL-MH	1740	986	754	342	96	75	681	36	105	515	780	232
QTHS-010 S/C-65-A4-CL-MH	1740	986	754	342	96	75	681	36	105	515	780	232
QTHS-010 S/C-75-A1-CL-MH	1745	986	759	342	96	75	686	31	105	525	790	236
QTHS-010 S/C-75-A2-CL-MH	1745	986	759	342	96	75	686	31	105	525	790	236
QTHS-010 S/C-75-A3-CL-MH	1745	986	759	342	96	75	686	31	105	525	790	238
QTHS-010 S/C-75-A4-CL-MH	1745	986	759	342	96	75	686	31	105	525	790	238

OVERALL DIMENSIONS

QT SPRING TO CLOSE WITH HYDRAULIC MANUAL OVERRIDE-MH

Model Size	A	B	C	D	E	F	G	H	I	L	M	Weight(Kg)
QTHS-010 S/C-95-A1-CL-MH	1745	986	759	342	96	75	683,5	33,5	105	520	785	245
QTHS-010 S/C-95-A2-CL-MH	1745	986	759	342	96	75	683,5	33,5	105	520	785	245
QTHS-010 S/C-95-A3-CL-MH	1745	986	759	342	96	75	683,5	33,5	105	520	785	245
QTHS-010 S/C-95-A4-CL-MH	1745	986	759	342	96	75	683,5	33,5	105	520	785	245
QTHS-010 S/C-120-A1-CL-MH	1745	986	759	342	96	75	697	20	105	547	812	249
QTHS-010 S/C-120-A2-CL-MH	1745	986	759	342	96	75	697	20	105	547	812	262
QTHS-010 S/C-120-A3-CL-MH	1745	986	759	342	96	75	697	20	105	547	812	265
QTHS-010 S/C-120-A4-CL-MH	1745	986	759	342	96	75	697	20	105	547	812	268
QTHS-016 S/C-50-B1-CL-MH	2003	1176	827	413	111	95,5	716,5	51	135	485	806	335
QTHS-016 S/C-50-B2-CL-MH	2003	1176	827	413	111	95,5	716,5	51	135	485	806	335
QTHS-016 S/C-50-B3-CL-MH	2003	1176	827	413	111	95,5	716,5	51	135	485	806	335
QTHS016 S/C-65-B1-CL-MH	2013	1176	837	413	111	95,5	719	48,5	135	490	811	345
QTHS016 S/C-65-B2-CL-MH	2013	1176	837	413	111	95,5	719	48,5	135	490	811	345
QTHS016 S/C-65-B3-CL-MH	2013	1176	837	413	111	95,5	719	48,5	135	490	811	345
QTHS016 S/C-75-B1-CL-MH	2043	1176	867	413	111	95,5	719	48,5	135	490	811	359
QTHS016 S/C-75-B2-CL-MH	2043	1176	867	413	111	95,5	719	48,5	135	490	811	359
QTHS016 S/C-75-B3-CL-MH	2043	1176	867	413	111	95,5	719	48,5	135	490	811	359
QTHS016 S/C-90-B1-CL-MH	2045	1176	869	413	111	95,5	719	48,5	135	490	811	362
QTHS016 S/C-90-B2-CL-MH	2045	1176	869	413	111	95,5	719	48,5	135	490	811	362
QTHS016 S/C-90-B3-CL-MH	2045	1176	869	413	111	95,5	719	48,5	135	490	811	362
QTHS016 S/C-120-B1-CL-MH	2045	1176	869	413	111	95,5	732,5	35	135	517	838	368
QTHS016 S/C-120-B2-CL-MH	2045	1176	869	413	111	95,5	732,5	35	135	517	838	368
QTHS016 S/C-120-B3-CL-MH	2045	1176	869	413	111	95,5	732,5	35	135	517	838	368
QTHS016 S/C-135-B1-CL-MH	2050	1176	874	413	111	95,5	739	28,5	135	530	851	375
QTHS016 S/C-135-B2-CL-MH	2050	1176	874	413	111	95,5	739	28,5	135	530	851	375
QTHS016 S/C-135-B3-CL-MH	2050	1176	874	413	111	95,5	739	28,5	135	530	851	375
QTHS-030 S/C-65-C0-CL-MH	2682	1568	1114	506	130	123	765,5	67,5	180	445	875	670
QTHS-030 S/C-65-C1-CL-MH	2682	1568	1114	506	130	123	765,5	67,5	180	445	875	670
QTHS-030 S/C-65-C2-CL-MH	2682	1568	1114	506	130	123	765,5	67,5	180	445	875	670
QTHS-030 S/C-65-C3-CL-MH	2682	1568	1114	506	130	123	765,5	67,5	180	445	875	670
QTHS-030 S/C-75-C0-CL-MH	2682	1568	1114	506	130	123	768	65	180	450	880	670
QTHS-030 S/C-75-C1-CL-MH	2682	1568	1114	506	130	123	768	65	180	450	880	670
QTHS-030 S/C-75-C2-CL-MH	2682	1568	1114	506	130	123	768	65	180	450	880	670
QTHS-030 S/C-75-C3-CL-MH	2682	1568	1114	506	130	123	768	65	180	450	880	670
QTHS-030 S/C-80-C0-CL-MH	2685	1568	1117	506	130	123	768	65	180	450	880	685
QTHS-030 S/C-80-C1-CL-MH	2685	1568	1117	506	130	123	768	65	180	450	880	685
QTHS-030 S/C-80-C2-CL-MH	2685	1568	1117	506	130	123	768	65	180	450	880	685
QTHS-030 S/C-80-C3-CL-MH	2685	1568	1117	506	130	123	768	65	180	450	880	685
QTHS-030 S/C-95-C0-CL-MH	2687	1568	1119	506	130	123	768	65	180	450	880	700
QTHS-030 S/C-95-C1-CL-MH	2687	1568	1119	506	130	123	768	65	180	450	880	700
QTHS-030 S/C-95-C2-CL-MH	2687	1568	1119	506	130	123	768	65	180	450	880	700
QTHS-030 S/C-95-C3-CL-MH	2687	1568	1119	506	130	123	768	65	180	450	880	700
QTHS-030 S/C-105-C0-CL-MH	2687	1568	1119	506	130	123	768	65	180	450	880	700
QTHS-030 S/C-105-C1-CL-MH	2687	1568	1119	506	130	123	768	65	180	450	880	710
QTHS-030 S/C-105-C2-CL-MH	2687	1568	1119	506	130	123	768	65	180	450	880	710
QTHS-030 S/C-105-C3-CL-MH	2687	1568	1119	506	130	123	768	65	180	450	880	710
QTHS-030 S/C-120-C0-CL-MH	2690	1568	1122	506	130	123	779	54	180	472	902	710
QTHS-030 S/C-120-C1-CL-MH	2690	1568	1122	506	130	123	779	54	180	472	902	725
QTHS-030 S/C-120-C2-CL-MH	2690	1568	1122	506	130	123	779	54	180	472	902	725
QTHS-030 S/C-120-C3-CL-MH	2690	1568	1122	506	130	123	779	54	180	472	902	725



OVERALL DIMENSIONS

QT SPRING TO CLOSE WITH HYDRAULIC MANUAL OVERRIDE-MH

Model Size	A	B	C	D	E	F	G	H	I	L	M	Weight(Kg)
QTHS-030 S/C-135-C0-CL-MH	2692	1568	1124	506	130	123	785,5	47,5	180	485	915	725
QTHS-030 S/C-135-C1-CL-MH	2692	1568	1124	506	130	123	785,5	47,5	180	485	915	734
QTHS-030 S/C-135-C2-CL-MH	2692	1568	1124	506	130	123	785,5	47,5	180	485	915	734
QTHS-030 S/C-135-C3-CL-MH	2692	1568	1124	506	130	123	785,5	47,5	180	485	915	734
QTHS-030 S/C-150-C0-CL-MH	2693	1568	1125	506	130	123	793	40	180	500	930	735
QTHS-030 S/C-150-C1-CL-MH	2693	1568	1125	506	130	123	793	40	180	500	930	735
QTHS-030 S/C-150-C2-CL-MH	2693	1568	1125	506	130	123	793	40	180	500	930	735
QTHS-030 S/C-150-C3-CL-MH	2693	1568	1125	506	130	123	793	40	180	500	930	735
QTHS-060 S/C-75-D1-CL-MH	3291	1965	1326	569	163	121,5	799,5	98	205	425	966	1420
QTHS-060 S/C-75-D2-CL-MH	3291	1965	1326	569	163	121,5	799,5	98	205	425	966	1420
QTHS-060 S/C-75-D3-CL-MH	3291	1965	1326	569	163	121,5	799,5	98	205	425	966	1420
QTHS-060 S/C-95-D1-CL-MH	3296	1965	1331	569	163	121,5	799,5	98	205	425	966	1425
QTHS-060 S/C-95-D2-CL-MH	3296	1965	1331	569	163	121,5	799,5	98	205	425	966	1425
QTHS-060 S/C-95-D3-CL-MH	3296	1965	1331	569	163	121,5	799,5	98	205	425	966	1425
QTHS-060 S/C-105-D1-CL-MH	3296	1965	1331	569	163	121,5	799,5	98	205	425	966	1425
QTHS-060 S/C-105-D2-CL-MH	3296	1965	1331	569	163	121,5	799,5	98	205	425	966	1425
QTHS-060 S/C-105-D3-CL-MH	3296	1965	1331	569	163	121,5	799,5	98	205	425	966	1425
QTHS-060 S/C-120-D1-CL-MH	3301	1965	1336	569	163	121,5	810,5	87	205	447	988	1429
QTHS-060 S/C-120-D2-CL-MH	3301	1965	1336	569	163	121,5	810,5	87	205	447	988	1429
QTHS-060 S/C-120-D3-CL-MH	3301	1965	1336	569	163	121,5	810,5	87	205	447	988	1429
QTHS-060 S/C-135-D1-CL-MH	3306	1965	1341	569	163	121,5	817	80,5	205	460	1001	1435
QTHS-060 S/C-135-D2-CL-MH	3306	1965	1341	569	163	121,5	817	80,5	205	460	1001	1435
QTHS-060 S/C-135-D3-CL-MH	3306	1965	1341	569	163	121,5	817	80,5	205	460	1001	1435
QTHS-060 S/C-150-D1-CL-MH	3314	1965	1349	569	163	121,5	829,5	68	205	485	1026	1443
QTHS-060 S/C-150-D2-CL-MH	3314	1965	1349	569	163	121,5	829,5	68	205	485	1026	1443
QTHS-060 S/C-150-D3-CL-MH	3314	1965	1349	569	163	121,5	829,5	68	205	485	1026	1443
QTHS-060 S/C-175-D1-CL-MH	3324	1965	1359	569	163	121,5	847	50,5	205	520	1061	1452
QTHS-060 S/C-175-D2-CL-MH	3324	1965	1359	569	163	121,5	847	50,5	205	520	1061	1452
QTHS-060 S/C-175-D3-CL-MH	3324	1965	1359	569	163	121,5	847	50,5	205	520	1061	1452
QTHS-120 S/C-95-E1-CL-MH	3730	2300	1430	654	205	122	839,5	142,5	230	395	1020	1850
QTHS-120 S/C-95-E2-CL-MH	3730	2300	1430	654	205	122	839,5	142,5	230	395	1020	1850
QTHS-120 S/C-95-E3-CL-MH	3730	2300	1430	654	205	122	839,5	142,5	230	395	1020	1850
QTHS-120 S/C-95-E4-CL-MH	3730	2300	1430	654	205	122	839,5	142,5	230	395	1020	1850
QTHS-120 S/C-120-E1-CL-MH	3735	2300	1435	654	205	122	842	140	230	400	1025	1880
QTHS-120 S/C-120-E2-CL-MH	3735	2300	1435	654	205	122	842	140	230	400	1025	1880
QTHS-120 S/C-120-E3-CL-MH	3735	2300	1435	654	205	122	842	140	230	400	1025	1880
QTHS-120 S/C-120-E4-CL-MH	3735	2300	1435	654	205	122	842	140	230	400	1025	1880
QTHS-120 S/C-135-E1-CL-MH	3745	2300	1445	654	205	122	859,5	122,5	230	435	1060	1892
QTHS-120 S/C-135-E2-CL-MH	3745	2300	1445	654	205	122	859,5	122,5	230	435	1060	1892
QTHS-120 S/C-135-E3-CL-MH	3745	2300	1445	654	205	122	859,5	122,5	230	435	1060	1892
QTHS-120 S/C-135-E4-CL-MH	3745	2300	1445	654	205	122	859,5	122,5	230	435	1060	1892
QTHS-120 S/C-150-E1-CL-MH	3751	2300	1451	654	205	122	872	110	230	460	1085	1920
QTHS-120 S/C-150-E2-CL-MH	3751	2300	1451	654	205	122	872	110	230	460	1085	1920
QTHS-120 S/C-150-E3-CL-MH	3751	2300	1451	654	205	122	872	110	230	460	1085	1920
QTHS-120 S/C-150-E4-CL-MH	3751	2300	1451	654	205	122	872	110	230	460	1085	1920
QTHS-120 S/C-175-E1-CL-MH	3770	2300	1470	654	205	122	889,5	92,5	230	495	1120	1933
QTHS-120 S/C-175-E2-CL-MH	3770	2300	1470	654	205	122	889,5	92,5	230	495	1120	1933
QTHS-120 S/C-175-E3-CL-MH	3770	2300	1470	654	205	122	889,5	92,5	230	495	1120	1933
QTHS-120 S/C-175-E4-CL-MH	3770	2300	1470	654	205	122	889,5	92,5	230	495	1120	1933
QTHS-120 S/C-200-E1-CL-MH	3840	2300	1540	654	205	122	897	85	230	510	1135	1946

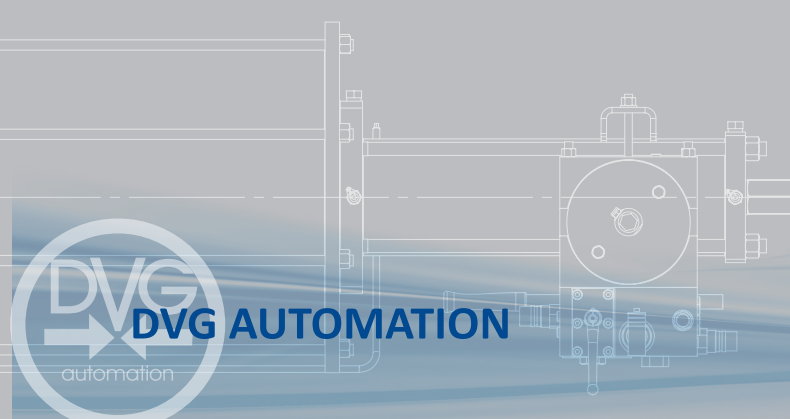
OVERALL DIMENSIONS

QT SPRING TO CLOSE WITH HYDRAULIC MANUAL OVERRIDE-MH

Model Size	A	B	C	D	E	F	G	H	I	L	M	Weight(Kg)
QTHS-120 S/C-200-E2-CL-MH	3840	2300	1540	654	205	122	897	85	230	510	1135	1946
QTHS-120 S/C-200-E3-CL-MH	3840	2300	1540	654	205	122	897	85	230	510	1135	1946
QTHS-120 S/C-200-E4-CL-MH	3840	2300	1540	654	205	122	897	85	230	510	1135	1946
QTHS-120 S/C-235-E1-CL-MH	3871	2300	1571	654	205	122	954,5	27,5	230	625	1250	1970
QTHS-120 S/C-235-E2-CL-MH	3871	2300	1571	654	205	122	954,5	27,5	230	625	1250	1970
QTHS-120 S/C-235-E3-CL-MH	3871	2300	1571	654	205	122	954,5	27,5	230	625	1250	1970
QTHS-120 S/C-235-E4-CL-MH	3871	2300	1571	654	205	122	954,5	27,5	230	625	1250	1970
QTHS-180 S/C-120-F1-CL-MH	4268	2588	1680	745	230	142,5	937,5	115	255	475	1160	2370
QTHS-180 S/C-120-F2-CL-MH	4268	2588	1680	745	230	142,5	937,5	115	255	475	1160	2370
QTHS-180 S/C-120-F3-CL-MH	4268	2588	1680	745	230	142,5	937,5	115	255	475	1160	2370
QTHS-180 S/C-135-F1-CL-MH	4273	2588	1685	745	230	142,5	942,5	110	255	485	1170	2417
QTHS-180 S/C-135-F2-CL-MH	4273	2588	1685	745	230	142,5	942,5	110	255	485	1170	2417
QTHS-180 S/C-135-F3-CL-MH	4273	2588	1685	745	230	142,5	942,5	110	255	485	1170	2417
QTHS-180 S/C-150-F1-CL-MH	4280	2588	1692	745	230	142,5	947,5	105	255	495	1180	2445
QTHS-180 S/C-150-F2-CL-MH	4280	2588	1692	745	230	142,5	947,5	105	255	495	1180	2445
QTHS-180 S/C-150-F3-CL-MH	4280	2588	1692	745	230	142,5	947,5	105	255	495	1180	2445
QTHS-180 S/C-175-F1-CL-MH	4283	2588	1695	745	230	142,5	952,5	100	255	505	1190	2459
QTHS-180 S/C-175-F2-CL-MH	4283	2588	1695	745	230	142,5	952,5	100	255	505	1190	2459
QTHS-180 S/C-175-F3-CL-MH	4283	2588	1695	745	230	142,5	952,5	100	255	505	1190	2459
QTHS-180 S/C-200-F1-CL-MH	4283	2588	1695	745	230	142,5	952,5	100	255	505	1190	2475
QTHS-180 S/C-200-F2-CL-MH	4283	2588	1695	745	230	142,5	952,5	100	255	505	1190	2475
QTHS-180 S/C-200-F3-CL-MH	4283	2588	1695	745	230	142,5	952,5	100	255	505	1190	2475
QTHS-180 S/C-235-F1-CL-MH	4286	2588	1698	745	230	142,5	955	97,5	255	510	1195	2490
QTHS-180 S/C-235-F2-CL-MH	4286	2588	1698	745	230	142,5	955	97,5	255	510	1195	2490
QTHS-180 S/C-235-F3-CL-MH	4286	2588	1698	745	230	142,5	955	97,5	255	510	1195	2490
QTHS-180 S/C-280-F1-CL-MH	4293	2588	1705	745	230	142,5	962,5	90	255	525	1210	2520
QTHS-180 S/C-280-F2-CL-MH	4293	2588	1705	745	230	142,5	962,5	90	255	525	1210	2520
QTHS-180 S/C-280-F3-CL-MH	4293	2588	1705	745	230	142,5	962,5	90	255	525	1210	2520

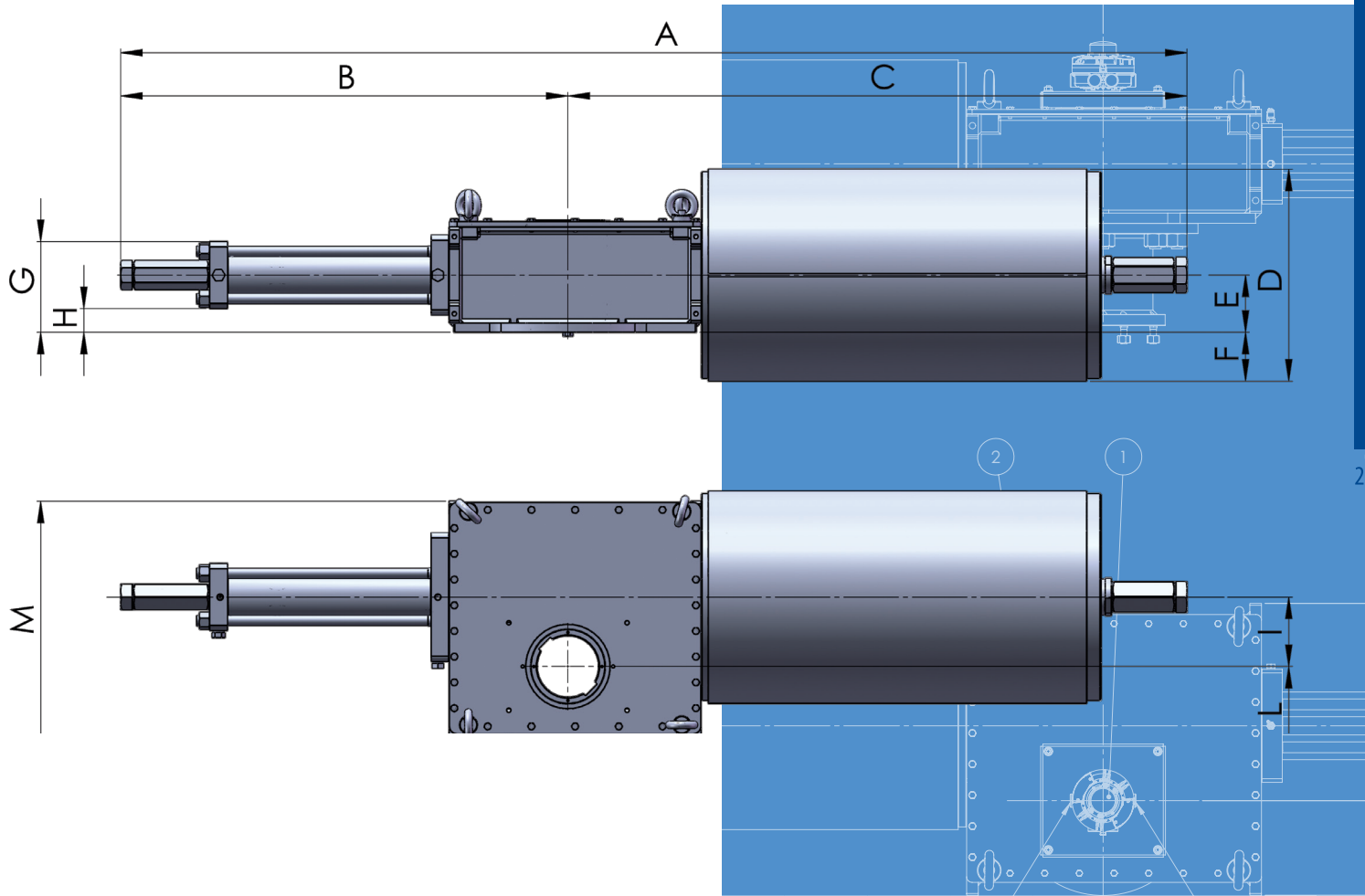


ELECTRIC CONNECTION M25X1.5 F



OVERALL DIMENSIONS

QT SPRING TO OPEN



Model Size	A	B	C	D	E	F	G	H	I	L	M	Weight(Kg)
QTHS-010S/C-40-A1-OP	1717	963	754	342	96	75	146	46	105	150	415	188
QTHS-010S/C-40-A2-OP	1717	963	754	342	96	75	146	46	105	150	415	188
QTHS-010S/C-40-A3-OP	1717	963	754	342	96	75	146	46	105	150	415	188
QTHS-010S/C-40-A4-OP	1717	963	754	342	96	75	146	46	105	150	415	188
QTHS-010S/C-45-A1-OP	1717	963	754	342	96	75	146	46	105	150	415	190
QTHS-010S/C-45-A2-OP	1717	963	754	342	96	75	146	46	105	150	415	190
QTHS-010S/C-45-A3-OP	1717	963	754	342	96	75	146	46	105	150	415	190
QTHS-010S/C-45-A4-OP	1717	963	754	342	96	75	146	46	105	150	415	190
QTHS-010S/C-55-A1-OP	1729	963	766	342	96	75	156	36	105	150	415	197
QTHS-010S/C-55-A2-OP	1729	963	766	342	96	75	156	36	105	150	415	197
QTHS-010S/C-55-A3-OP	1729	963	766	342	96	75	156	36	105	150	415	197
QTHS-010S/C-55-A4-OP	1729	963	766	342	96	75	156	36	105	150	415	197
QTHS-010S/C-65-A1-OP	1740	963	777	342	96	75	156	36	105	150	415	202
QTHS-010S/C-65-A2-OP	1740	963	777	342	96	75	156	36	105	150	415	202
QTHS-010S/C-65-A3-OP	1740	963	777	342	96	75	156	36	105	150	415	202
QTHS-010S/C-65-A4-OP	1740	963	777	342	96	75	156	36	105	150	415	202
QTHS-010S/C-75-A1-OP	1745	963	782	342	96	75	161	31	105	150	415	206
QTHS-010S/C-75-A2-OP	1745	963	782	342	96	75	161	31	105	150	415	206
QTHS-010S/C-75-A3-OP	1745	963	782	342	96	75	161	31	105	150	415	208
QTHS-010S/C-75-A4-OP	1745	963	782	342	96	75	161	31	105	150	415	208

OVERALL DIMENSIONS

QT SPRING TO OPEN

Model Size	A	B	C	D	E	F	G	H	I	L	M	Weight(Kg)
QTHS-010S/C-95-A1-OP	1745	963	782	342	96	75	159	34	105	150	415	215
QTHS-010S/C-95-A2-OP	1745	963	782	342	96	75	159	34	105	150	415	215
QTHS-010S/C-95-A3-OP	1745	963	782	342	96	75	159	34	105	150	415	215
QTHS-010S/C-95-A4-OP	1745	963	782	342	96	75	159	34	105	150	415	215
QTHS-010S/C-120-A1-OP	1745	963	782	342	96	75	172	20	105	150	415	219
QTHS-010S/C-120-A2-OP	1745	963	782	342	96	75	172	20	105	150	415	232
QTHS-010S/C-120-A3-OP	1745	963	782	342	96	75	172	20	105	150	415	235
QTHS-010S/C-120-A4-OP	1745	963	782	342	96	75	172	20	105	150	415	238
QTHS-016S/C-50-B1-OP	2003	1148	855	413	111	96	171	51	135	176	497	305
QTHS-016S/C-50-B2-OP	2003	1148	855	413	111	96	171	51	135	176	497	305
QTHS-016S/C-50-B3-OP	2003	1148	855	413	111	96	171	51	135	176	497	305
QTHS-016S/C-65-B1-OP	2013	1148	865	413	111	96	174	49	135	176	497	315
QTHS-016S/C-65-B2-OP	2013	1148	865	413	111	96	174	49	135	176	497	315
QTHS-016S/C-65-B3-OP	2013	1148	865	413	111	96	174	49	135	176	497	315
QTHS-016S/C-75-B1-OP	2043	1148	895	413	111	96	174	49	135	176	497	329
QTHS-016S/C-75-B2-OP	2043	1148	895	413	111	96	174	49	135	176	497	329
QTHS-016S/C-75-B3-OP	2043	1148	895	413	111	96	174	49	135	176	497	329
QTHS-016S/C-90-B1-OP	2045	1148	897	413	111	96	174	49	135	176	497	332
QTHS-016S/C-90-B2-OP	2045	1148	897	413	111	96	174	49	135	176	497	332
QTHS-016S/C-90-B3-OP	2045	1148	897	413	111	96	174	49	135	176	497	332
QTHS-016S/C-120-B1-OP	2045	1148	897	413	111	96	187	35	135	176	497	338
QTHS-016S/C-120-B2-OP	2045	1148	897	413	111	96	187	35	135	176	497	338
QTHS-016S/C-120-B3-OP	2045	1148	897	413	111	96	187	35	135	176	497	338
QTHS-016S/C-135-B1-OP	2050	1148	902	413	111	96	194	29	135	176	497	345
QTHS-016S/C-135-B2-OP	2050	1148	902	413	111	96	194	29	135	176	497	345
QTHS-016S/C-135-B3-OP	2050	1148	902	413	111	96	194	29	135	176	497	345
QTHS-030S/C-65-C0-OP	2682	1528	1154	506	130	123	193	68	180	208	638	640
QTHS-030S/C-65-C1-OP	2682	1528	1154	506	130	123	193	68	180	208	638	640
QTHS-030S/C-65-C2-OP	2682	1528	1154	506	130	123	193	68	180	208	638	640
QTHS-030S/C-65-C3-OP	2682	1528	1154	506	130	123	193	68	180	208	638	640
QTHS-030S/C-75-C0-OP	2682	1528	1154	506	130	123	195	65	180	208	638	640
QTHS-030S/C-75-C1-OP	2682	1528	1154	506	130	123	195	65	180	208	638	640
QTHS-030S/C-75-C2-OP	2682	1528	1154	506	130	123	195	65	180	208	638	640
QTHS-030S/C-75-C3-OP	2682	1528	1154	506	130	123	195	65	180	208	638	640
QTHS-030S/C-80-C0-OP	2685	1528	1157	506	130	123	195	65	180	208	638	655
QTHS-030S/C-80-C1-OP	2685	1528	1157	506	130	123	195	65	180	208	638	655
QTHS-030S/C-80-C2-OP	2685	1528	1157	506	130	123	195	65	180	208	638	655
QTHS-030S/C-80-C3-OP	2685	1528	1157	506	130	123	195	65	180	208	638	655
QTHS-030S/C-95-C0-OP	2687	1528	1159	506	130	123	195	65	180	208	638	670
QTHS-030S/C-95-C1-OP	2687	1528	1159	506	130	123	195	65	180	208	638	670
QTHS-030S/C-95-C2-OP	2687	1528	1159	506	130	123	195	65	180	208	638	670
QTHS-030S/C-95-C3-OP	2687	1528	1159	506	130	123	195	65	180	208	638	670
QTHS-030S/C-105-C0-OP	2687	1528	1159	506	130	123	195	65	180	208	638	670
QTHS-030S/C-105-C1-OP	2687	1528	1159	506	130	123	195	65	180	208	638	680
QTHS-030S/C-105-C2-OP	2687	1528	1159	506	130	123	195	65	180	208	638	680
QTHS-030S/C-105-C3-OP	2687	1528	1159	506	130	123	195	65	180	208	638	680
QTHS-030S/C-120-C0-OP	2690	1528	1162	506	130	123	206	54	180	208	638	680
QTHS-030S/C-120-C1-OP	2690	1528	1162	506	130	123	206	54	180	208	638	695
QTHS-030S/C-120-C2-OP	2690	1528	1162	506	130	123	206	54	180	208	638	695
QTHS-030S/C-120-C3-OP	2690	1528	1162	506	130	123	206	54	180	208	638	695

OVERALL DIMENSIONS

QT SPRING TO OPEN

Model Size	A	B	C	D	E	F	G	H	I	L	M	Weight(Kg)
QTHS-030S/C-135-C0-OP	2692	1528	1164	506	130	123	213	48	180	208	638	695
QTHS-030S/C-135-C1-OP	2692	1528	1164	506	130	123	213	48	180	208	638	704
QTHS-030S/C-135-C2-OP	2692	1528	1164	506	130	123	213	48	180	208	638	704
QTHS-030S/C-135-C3-OP	2692	1528	1164	506	130	123	213	48	180	208	638	704
QTHS-030S/C-150-C0-OP	2693	1528	1165	506	130	123	220	40	180	208	638	705
QTHS-030S/C-150-C1-OP	2693	1528	1165	506	130	123	220	40	180	208	638	705
QTHS-030S/C-150-C2-OP	2693	1528	1165	506	130	123	220	40	180	208	638	705
QTHS-030S/C-150-C3-OP	2693	1528	1165	506	130	123	220	40	180	208	638	705
QTHS-060S/C-75-D1-OP	3291	1905	1386	569	163	122	228	98	205	260	801	1390
QTHS-060S/C-75-D2-OP	3291	1905	1386	569	163	122	228	98	205	260	801	1390
QTHS-060S/C-75-D3-OP	3291	1905	1386	569	163	122	228	98	205	260	801	1390
QTHS-060S/C-95-D1-OP	3296	1905	1391	569	163	122	228	98	205	260	801	1395
QTHS-060S/C-95-D2-OP	3296	1905	1391	569	163	122	228	98	205	260	801	1395
QTHS-060S/C-95-D3-OP	3296	1905	1391	569	163	122	228	98	205	260	801	1395
QTHS-060S/C-105-D1-OP	3296	1905	1391	569	163	122	228	98	205	260	801	1395
QTHS-060S/C-105-D2-OP	3296	1905	1391	569	163	122	228	98	205	260	801	1395
QTHS-060S/C-105-D3-OP	3296	1905	1391	569	163	122	228	98	205	260	801	1395
QTHS-060S/C-120-D1-OP	3301	1905	1396	569	163	122	239	87	205	260	801	1399
QTHS-060S/C-120-D2-OP	3301	1905	1396	569	163	122	239	87	205	260	801	1399
QTHS-060S/C-120-D3-OP	3301	1905	1396	569	163	122	239	87	205	260	801	1399
QTHS-060S/C-135-D1-OP	3306	1905	1401	569	163	122	246	81	205	260	801	1405
QTHS-060S/C-135-D2-OP	3306	1905	1401	569	163	122	246	81	205	260	801	1405
QTHS-060S/C-135-D3-OP	3306	1905	1401	569	163	122	246	81	205	260	801	1405
QTHS-060S/C-150-D1-OP	3314	1905	1409	569	163	122	258	68	205	260	801	1413
QTHS-060S/C-150-D2-OP	3314	1905	1409	569	163	122	258	68	205	260	801	1413
QTHS-060S/C-150-D3-OP	3314	1905	1409	569	163	122	258	68	205	260	801	1413
QTHS-060S/C-175-D1-OP	3324	1905	1419	569	163	122	276	51	205	260	801	1422
QTHS-060S/C-175-D2-OP	3324	1905	1419	569	163	122	276	51	205	260	801	1422
QTHS-060S/C-175-D3-OP	3324	1905	1419	569	163	122	276	51	205	260	801	1422
QTHS-120S/C-95-E1-OP	3730	2230	1500	654	205	122	268	143	230	280	905	1820
QTHS-120S/C-95-E2-OP	3730	2230	1500	654	205	122	268	143	230	280	905	1820
QTHS-120S/C-95-E3-OP	3730	2230	1500	654	205	122	268	143	230	280	905	1820
QTHS-120S/C-95-E4-OP	3730	2230	1500	654	205	122	268	143	230	280	905	1820
QTHS-120S/C-120-E1-OP	3735	2230	1505	654	205	122	270	140	230	280	905	1850
QTHS-120S/C-120-E2-OP	3735	2230	1505	654	205	122	270	140	230	280	905	1850
QTHS-120S/C-120-E3-OP	3735	2230	1505	654	205	122	270	140	230	280	905	1850
QTHS-120S/C-120-E4-OP	3735	2230	1505	654	205	122	270	140	230	280	905	1850
QTHS-120S/C-135-E1-OP	3745	2230	1515	654	205	122	288	123	230	280	905	1862
QTHS-120S/C-135-E2-OP	3745	2230	1515	654	205	122	288	123	230	280	905	1862
QTHS-120S/C-135-E3-OP	3745	2230	1515	654	205	122	288	123	230	280	905	1862
QTHS-120S/C-135-E4-OP	3745	2230	1515	654	205	122	288	123	230	280	905	1862
QTHS-120S/C-150-E1-OP	3751	2230	1521	654	205	122	300	110	230	280	905	1890
QTHS-120S/C-150-E2-OP	3751	2230	1521	654	205	122	300	110	230	280	905	1890
QTHS-120S/C-150-E3-OP	3751	2230	1521	654	205	122	300	110	230	280	905	1890
QTHS-120S/C-150-E4-OP	3751	2230	1521	654	205	122	300	110	230	280	905	1890
QTHS-120S/C-175-E1-OP	3770	2230	1540	654	205	122	318	93	230	280	905	1903
QTHS-120S/C-175-E2-OP	3770	2230	1540	654	205	122	318	93	230	280	905	1903
QTHS-120S/C-175-E3-OP	3770	2230	1540	654	205	122	318	93	230	280	905	1903
QTHS-120S/C-175-E4-OP	3770	2230	1540	654	205	122	318	93	230	280	905	1903
QTHS-120S/C-200-E1-OP	3840	2230	1610	654	205	122	325	85	230	280	905	1916

OVERALL DIMENSIONS

QT SPRING TO OPEN

Model Size	A	B	C	D	E	F	G	H	I	L	M	Weight(Kg)
QTHS-120S/C-200-E2-OP	3840	2230	1610	654	205	122	325	85	230	280	905	1916
QTHS-120S/C-200-E3-OP	3840	2230	1610	654	205	122	325	85	230	280	905	1916
QTHS-120S/C-200-E4-OP	3840	2230	1610	654	205	122	325	85	230	280	905	1916
QTHS-120S/C-235-E1-OP	3871	2230	1641	654	205	122	383	28	230	280	905	1940
QTHS-120S/C-235-E2-OP	3871	2230	1641	654	205	122	383	28	230	280	905	1940
QTHS-120S/C-235-E3-OP	3871	2230	1641	654	205	122	383	28	230	280	905	1940
QTHS-120S/C-235-E4-OP	3871	2230	1641	654	205	122	383	28	230	280	905	1940
QTHS-180S/C-120-F1-OP	4268	2511	1757	745	230	143	345	115	255	355	1040	2340
QTHS-180S/C-120-F2-OP	4268	2511	1757	745	230	143	345	115	255	355	1040	2340
QTHS-180S/C-120-F3-OP	4268	2511	1757	745	230	143	345	115	255	355	1040	2340
QTHS-180S/C-135-F1-OP	4273	2511	1762	745	230	143	350	110	255	355	1040	2387
QTHS-180S/C-135-F2-OP	4273	2511	1762	745	230	143	350	110	255	355	1040	2387
QTHS-180S/C-135-F3-OP	4273	2511	1762	745	230	143	350	110	255	355	1040	2387
QTHS-180S/C-150-F1-OP	4280	2511	1769	745	230	143	355	105	255	355	1040	2415
QTHS-180S/C-150-F2-OP	4280	2511	1769	745	230	143	355	105	255	355	1040	2415
QTHS-180S/C-150-F3-OP	4280	2511	1769	745	230	143	355	105	255	355	1040	2415
QTHS-180S/C-175-F1-OP	4283	2511	1772	745	230	143	360	100	255	355	1040	2429
QTHS-180S/C-175-F2-OP	4283	2511	1772	745	230	143	360	100	255	355	1040	2429
QTHS-180S/C-175-F3-OP	4283	2511	1772	745	230	143	360	100	255	355	1040	2429
QTHS-180S/C-200-F1-OP	4283	2511	1772	745	230	143	360	100	255	355	1040	2445
QTHS-180S/C-200-F2-OP	4283	2511	1772	745	230	143	360	100	255	355	1040	2445
QTHS-180S/C-200-F3-OP	4283	2511	1772	745	230	143	360	100	255	355	1040	2445
QTHS-180S/C-235-F1-OP	4286	2511	1775	745	230	143	363	98	255	355	1040	2460
QTHS-180S/C-235-F2-OP	4286	2511	1775	745	230	143	363	98	255	355	1040	2460
QTHS-180S/C-235-F3-OP	4286	2511	1775	745	230	143	363	98	255	355	1040	2460
QTHS-180S/C-280-F1-OP	4293	2511	1782	745	230	143	370	90	255	355	1040	2490
QTHS-180S/C-280-F2-OP	4293	2511	1782	745	230	143	370	90	255	355	1040	2490
QTHS-180S/C-280-F3-OP	4293	2511	1782	745	230	143	370	90	255	355	1040	2490

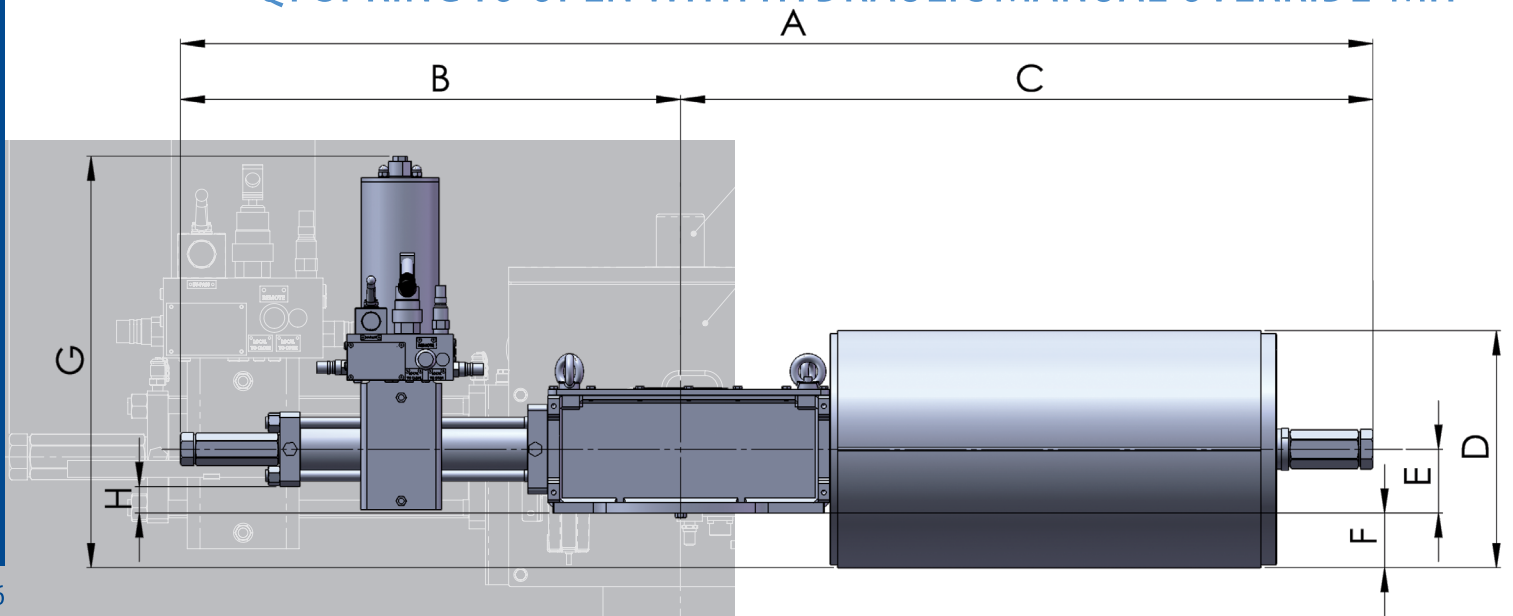
OVERALL DIMENSIONS

QT SPRING TO OPEN



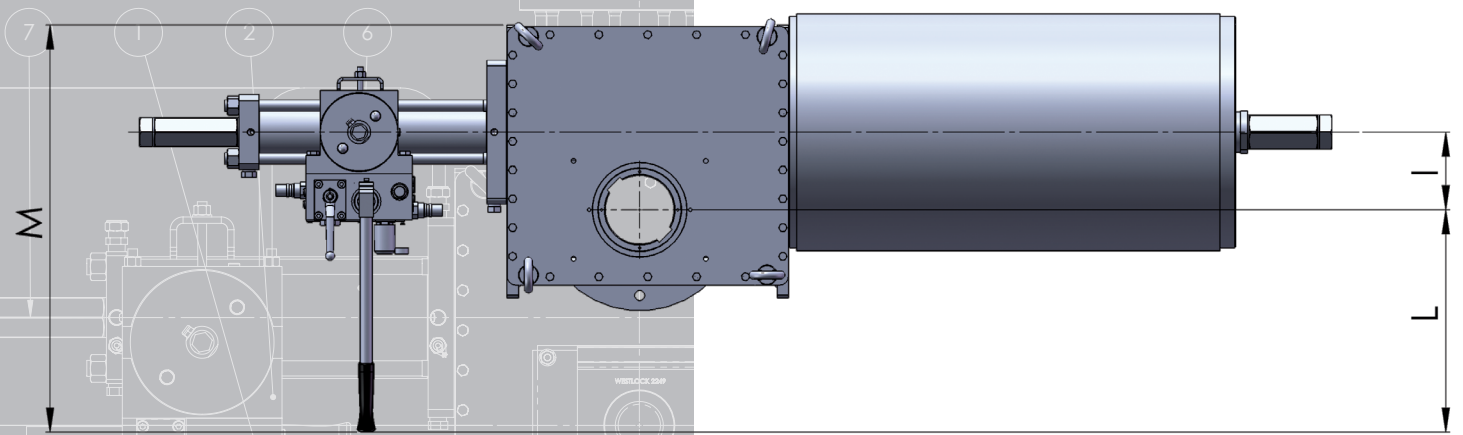
OVERALL DIMENSIONS

QT SPRING TO OPEN WITH HYDRAULIC MANUAL OVERRIDE-MH



26

42.50
436.50



Model Size	A	B	C	D	E	F	G	H	I	L	M	Weight(Kg)
QTHS-010S/C-40-A1-OP-MH	1717	963	754	342	96	75	671	46	105	495	760	218
QTHS-010S/C-40-A2-OP-MH	1717	963	754	342	96	75	671	46	105	495	760	218
QTHS-010S/C-40-A3-OP-MH	1717	963	754	342	96	75	671	46	105	495	760	218
QTHS-010S/C-40-A4-OP-MH	1717	963	754	342	96	75	671	46	105	495	760	218
QTHS-010S/C-45-A1-OP-MH	1717	963	754	342	96	75	671	46	105	495	760	220
QTHS-010S/C-45-A2-OP-MH	1717	963	754	342	96	75	671	46	105	495	760	220
QTHS-010S/C-45-A3-OP-MH	1717	963	754	342	96	75	671	46	105	495	760	220
QTHS-010S/C-45-A4-OP-MH	1717	963	754	342	96	75	671	46	105	495	760	220
QTHS-010S/C-55-A1-OP-MH	1729	963	766	342	96	75	681	36	105	515	780	227
QTHS-010S/C-55-A2-OP-MH	1729	963	766	342	96	75	681	36	105	515	780	227
QTHS-010S/C-55-A3-OP-MH	1729	963	766	342	96	75	681	36	105	515	780	227
QTHS-010S/C-55-A4-OP-MH	1729	963	766	342	96	75	681	36	105	515	780	227
QTHS-010S/C-65-A1-OP-MH	1740	963	777	342	96	75	681	36	105	515	780	232
QTHS-010S/C-65-A2-OP-MH	1740	963	777	342	96	75	681	36	105	515	780	232
QTHS-010S/C-65-A3-OP-MH	1740	963	777	342	96	75	681	36	105	515	780	232
QTHS-010S/C-65-A4-OP-MH	1740	963	777	342	96	75	681	36	105	515	780	232
QTHS-010S/C-75-A1-OP-MH	1745	963	782	342	96	75	686	31	105	525	790	236
QTHS-010S/C-75-A2-OP-MH	1745	963	782	342	96	75	686	31	105	525	790	236
QTHS-010S/C-75-A3-OP-MH	1745	963	782	342	96	75	686	31	105	525	790	238
QTHS-010S/C-75-A4-OP-MH	1745	963	782	342	96	75	686	31	105	525	790	238



OVERALL DIMENSIONS

QT SPRING TO OPEN WITH HYDRAULIC MANUAL OVERRIDE-MH

Model Size	A	B	C	D	E	F	G	H	I	L	M	Weight(Kg)
QTHS-010S/C-95-A1-OP-MH	1745	963	782	342	96	75	683,5	34	105	520	785	245
QTHS-010S/C-95-A2-OP-MH	1745	963	782	342	96	75	683,5	34	105	520	785	245
QTHS-010S/C-95-A3-OP-MH	1745	963	782	342	96	75	683,5	34	105	520	785	245
QTHS-010S/C-95-A4-OP-MH	1745	963	782	342	96	75	683,5	34	105	520	785	245
QTHS-010S/C-120-A1-OP-MH	1745	963	782	342	96	75	697	20	105	547	812	249
QTHS-010S/C-120-A2-OP-MH	1745	963	782	342	96	75	697	20	105	547	812	262
QTHS-010S/C-120-A3-OP-MH	1745	963	782	342	96	75	697	20	105	547	812	265
QTHS-010S/C-120-A4-OP-MH	1745	963	782	342	96	75	697	20	105	547	812	268
QTHS-016S/C-50-B1-OP-MH	2003	1148	855	413	111	95,5	716,5	51	135	485	806	335
QTHS-016S/C-50-B2-OP-MH	2003	1148	855	413	111	95,5	716,5	51	135	485	806	335
QTHS-016S/C-50-B3-OP-MH	2003	1148	855	413	111	95,5	716,5	51	135	485	806	335
QTHS-016S/C-65-B1-OP-MH	2013	1148	865	413	111	95,5	719	49	135	490	811	345
QTHS-016S/C-65-B2-OP-MH	2013	1148	865	413	111	95,5	719	49	135	490	811	345
QTHS-016S/C-65-B3-OP-MH	2013	1148	865	413	111	95,5	719	49	135	490	811	345
QTHS-016S/C-75-B1-OP-MH	2043	1148	895	413	111	95,5	719	49	135	490	811	359
QTHS-016S/C-75-B2-OP-MH	2043	1148	895	413	111	95,5	719	49	135	490	811	359
QTHS-016S/C-75-B3-OP-MH	2043	1148	895	413	111	95,5	719	49	135	490	811	359
QTHS-016S/C-90-B1-OP-MH	2045	1148	897	413	111	95,5	719	49	135	490	811	362
QTHS-016S/C-90-B2-OP-MH	2045	1148	897	413	111	95,5	719	49	135	490	811	362
QTHS-016S/C-90-B3-OP-MH	2045	1148	897	413	111	95,5	719	49	135	490	811	362
QTHS-016S/C-120-B1-OP-MH	2045	1148	897	413	111	95,5	732,5	35	135	517	838	368
QTHS-016S/C-120-B2-OP-MH	2045	1148	897	413	111	95,5	732,5	35	135	517	838	368
QTHS-016S/C-120-B3-OP-MH	2045	1148	897	413	111	95,5	732,5	35	135	517	838	368
QTHS-016S/C-135-B1-OP-MH	2050	1148	902	413	111	95,5	739	29	135	530	851	375
QTHS-016S/C-135-B2-OP-MH	2050	1148	902	413	111	95,5	739	29	135	530	851	375
QTHS-016S/C-135-B3-OP-MH	2050	1148	902	413	111	95,5	739	29	135	530	851	375
QTHS-030S/C-65-C0-OP-MH	2682	1528	1154	506	130	123	765,5	68	180	445	875	670
QTHS-030S/C-65-C1-OP-MH	2682	1528	1154	506	130	123	765,5	68	180	445	875	670
QTHS-030S/C-65-C2-OP-MH	2682	1528	1154	506	130	123	765,5	68	180	445	875	670
QTHS-030S/C-65-C3-OP-MH	2682	1528	1154	506	130	123	765,5	68	180	445	875	670
QTHS-030S/C-75-C0-OP-MH	2682	1528	1154	506	130	123	768	65	180	450	880	670
QTHS-030S/C-75-C1-OP-MH	2682	1528	1154	506	130	123	768	65	180	450	880	670
QTHS-030S/C-75-C2-OP-MH	2682	1528	1154	506	130	123	768	65	180	450	880	670
QTHS-030S/C-75-C3-OP-MH	2682	1528	1154	506	130	123	768	65	180	450	880	670
QTHS-030S/C-80-C0-OP-MH	2685	1528	1157	506	130	123	768	65	180	450	880	685
QTHS-030S/C-80-C1-OP-MH	2685	1528	1157	506	130	123	768	65	180	450	880	685
QTHS-030S/C-80-C2-OP-MH	2685	1528	1157	506	130	123	768	65	180	450	880	685
QTHS-030S/C-80-C3-OP-MH	2685	1528	1157	506	130	123	768	65	180	450	880	685
QTHS-030S/C-95-C0-OP-MH	2687	1528	1159	506	130	123	768	65	180	450	880	700
QTHS-030S/C-95-C1-OP-MH	2687	1528	1159	506	130	123	768	65	180	450	880	700
QTHS-030S/C-95-C2-OP-MH	2687	1528	1159	506	130	123	768	65	180	450	880	700
QTHS-030S/C-95-C3-OP-MH	2687	1528	1159	506	130	123	768	65	180	450	880	700
QTHS-030S/C-105-C0-OP-MH	2687	1528	1159	506	130	123	768	65	180	450	880	700
QTHS-030S/C-105-C1-OP-MH	2687	1528	1159	506	130	123	768	65	180	450	880	710
QTHS-030S/C-105-C2-OP-MH	2687	1528	1159	506	130	123	768	65	180	450	880	710
QTHS-030S/C-105-C3-OP-MH	2687	1528	1159	506	130	123	768	65	180	450	880	710
QTHS-030S/C-120-C0-OP-MH	2690	1528	1162	506	130	123	779	54	180	472	902	710
QTHS-030S/C-120-C1-OP-MH	2690	1528	1162	506	130	123	779	54	180	472	902	725
QTHS-030S/C-120-C2-OP-MH	2690	1528	1162	506	130	123	779	54	180	472	902	725
QTHS-030S/C-120-C3-OP-MH	2690	1528	1162	506	130	123	779	54	180	472	902	725

OVERALL DIMENSIONS

QT SPRING TO OPEN WITH HYDRAULIC MANUAL OVERRIDE-MH

Model Size	A	B	C	D	E	F	G	H	I	L	M	Weight(Kg)
QTHS-030S/C-135-C0-OP-MH	2692	1528	1164	506	130	123	785,5	48	180	485	915	725
QTHS-030S/C-135-C1-OP-MH	2692	1528	1164	506	130	123	785,5	48	180	485	915	734
QTHS-030S/C-135-C2-OP-MH	2692	1528	1164	506	130	123	785,5	48	180	485	915	734
QTHS-030S/C-135-C3-OP-MH	2692	1528	1164	506	130	123	785,5	48	180	485	915	734
QTHS-030S/C-150-C0-OP-MH	2693	1528	1165	506	130	123	793	40	180	500	930	735
QTHS-030S/C-150-C1-OP-MH	2693	1528	1165	506	130	123	793	40	180	500	930	735
QTHS-030S/C-150-C2-OP-MH	2693	1528	1165	506	130	123	793	40	180	500	930	735
QTHS-030S/C-150-C3-OP-MH	2693	1528	1165	506	130	123	793	40	180	500	930	735
QTHS-060S/C-75-D1-OP-MH	3291	1905	1386	569	163	121,5	799,5	98	205	425	966	1420
QTHS-060S/C-75-D2-OP-MH	3291	1905	1386	569	163	121,5	799,5	98	205	425	966	1420
QTHS-060S/C-75-D3-OP-MH	3291	1905	1386	569	163	121,5	799,5	98	205	425	966	1420
QTHS-060S/C-95-D1-OP-MH	3296	1905	1391	569	163	121,5	799,5	98	205	425	966	1425
QTHS-060S/C-95-D2-OP-MH	3296	1905	1391	569	163	121,5	799,5	98	205	425	966	1425
QTHS-060S/C-95-D3-OP-MH	3296	1905	1391	569	163	121,5	799,5	98	205	425	966	1425
QTHS-060S/C-105-D1-OP-MH	3296	1905	1391	569	163	121,5	799,5	98	205	425	966	1425
QTHS-060S/C-105-D2-OP-MH	3296	1905	1391	569	163	121,5	799,5	98	205	425	966	1425
QTHS-060S/C-105-D3-OP-MH	3296	1905	1391	569	163	121,5	799,5	98	205	425	966	1425
QTHS-060S/C-120-D1-OP-MH	3301	1905	1396	569	163	121,5	810,5	87	205	447	988	1429
QTHS-060S/C-120-D2-OP-MH	3301	1905	1396	569	163	121,5	810,5	87	205	447	988	1429
QTHS-060S/C-120-D3-OP-MH	3301	1905	1396	569	163	121,5	810,5	87	205	447	988	1429
QTHS-060S/C-135-D1-OP-MH	3306	1905	1401	569	163	121,5	817	81	205	460	1001	1435
QTHS-060S/C-135-D2-OP-MH	3306	1905	1401	569	163	121,5	817	81	205	460	1001	1435
QTHS-060S/C-135-D3-OP-MH	3306	1905	1401	569	163	121,5	817	81	205	460	1001	1435
QTHS-060S/C-150-D1-OP-MH	3314	1905	1409	569	163	121,5	829,5	68	205	485	1026	1443
QTHS-060S/C-150-D2-OP-MH	3314	1905	1409	569	163	121,5	829,5	68	205	485	1026	1443
QTHS-060S/C-150-D3-OP-MH	3314	1905	1409	569	163	121,5	829,5	68	205	485	1026	1443
QTHS-060S/C-175-D1-OP-MH	3324	1905	1419	569	163	121,5	847	51	205	520	1061	1452
QTHS-060S/C-175-D2-OP-MH	3324	1905	1419	569	163	121,5	847	51	205	520	1061	1452
QTHS-060S/C-175-D3-OP-MH	3324	1905	1419	569	163	121,5	847	51	205	520	1061	1452
QTHS-120S/C-95-E1-OP-MH	3730	2230	1500	654	205	122	839,5	143	230	395	1020	1850
QTHS-120S/C-95-E2-OP-MH	3730	2230	1500	654	205	122	839,5	143	230	395	1020	1850
QTHS-120S/C-95-E3-OP-MH	3730	2230	1500	654	205	122	839,5	143	230	395	1020	1850
QTHS-120S/C-95-E4-OP-MH	3730	2230	1500	654	205	122	839,5	143	230	395	1020	1850
QTHS-120S/C-120-E1-OP-MH	3735	2230	1505	654	205	122	842	140	230	400	1025	1880
QTHS-120S/C-120-E2-OP-MH	3735	2230	1505	654	205	122	842	140	230	400	1025	1880
QTHS-120S/C-120-E3-OP-MH	3735	2230	1505	654	205	122	842	140	230	400	1025	1880
QTHS-120S/C-120-E4-OP-MH	3735	2230	1505	654	205	122	842	140	230	400	1025	1880
QTHS-120S/C-135-E1-OP-MH	3745	2230	1515	654	205	122	859,5	123	230	435	1060	1892
QTHS-120S/C-135-E2-OP-MH	3745	2230	1515	654	205	122	859,5	123	230	435	1060	1892
QTHS-120S/C-135-E3-OP-MH	3745	2230	1515	654	205	122	859,5	123	230	435	1060	1892
QTHS-120S/C-135-E4-OP-MH	3745	2230	1515	654	205	122	859,5	123	230	435	1060	1892
QTHS-120S/C-150-E1-OP-MH	3751	2230	1521	654	205	122	872	110	230	460	1085	1920
QTHS-120S/C-150-E2-OP-MH	3751	2230	1521	654	205	122	872	110	230	460	1085	1920
QTHS-120S/C-150-E3-OP-MH	3751	2230	1521	654	205	122	872	110	230	460	1085	1920
QTHS-120S/C-150-E4-OP-MH	3751	2230	1521	654	205	122	872	110	230	460	1085	1920
QTHS-120S/C-175-E1-OP-MH	3770	2230	1540	654	205	122	889,5	93	230	495	1120	1933
QTHS-120S/C-175-E2-OP-MH	3770	2230	1540	654	205	122	889,5	93	230	495	1120	1933
QTHS-120S/C-175-E3-OP-MH	3770	2230	1540	654	205	122	889,5	93	230	495	1120	1933
QTHS-120S/C-175-E4-OP-MH	3770	2230	1540	654	205	122	889,5	93	230	495	1120	1933
QTHS-120S/C-200-E2-OP-MH	3840	2230	1610	654	205	122	897	85	230	510	1135	1946

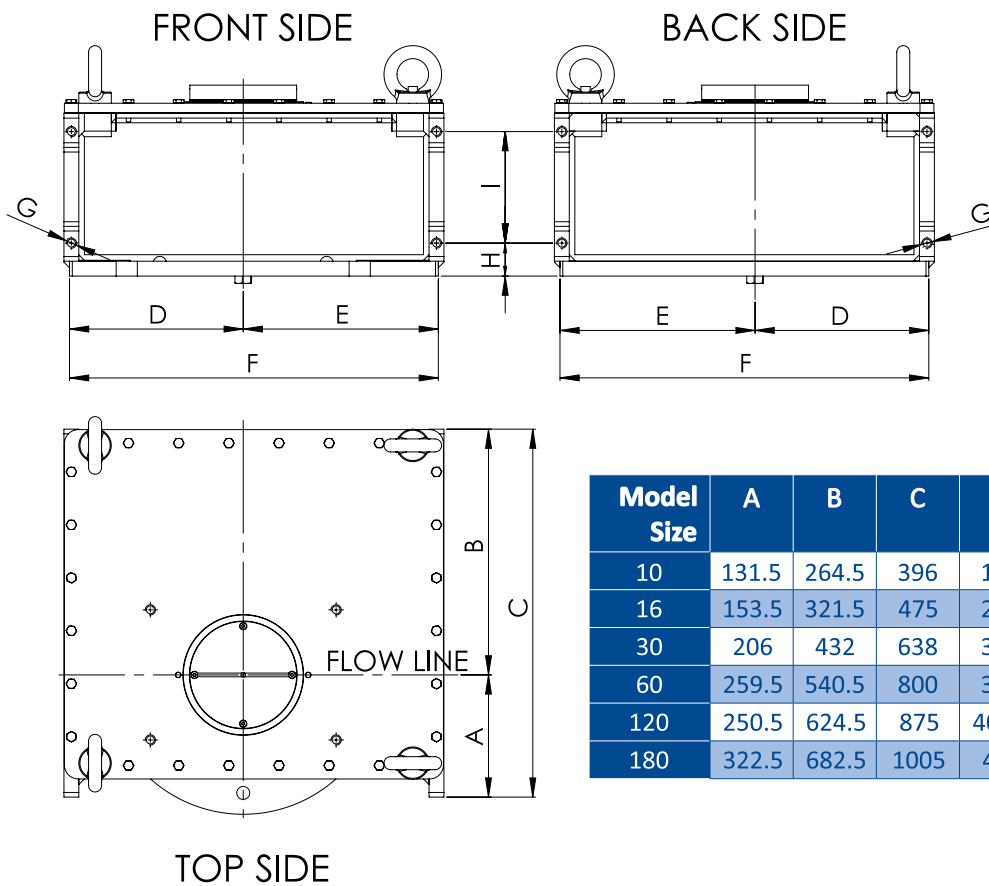
OVERALL DIMENSIONS

QT SPRING TO OPEN WITH HYDRAULIC MANUAL OVERRIDE-MH

Model Size	A	B	C	D	E	F	G	H	I	L	M	Weight(Kg)
QTHS-120S/C-200-E3-OP-MH	3840	2230	1610	654	205	122	897	85	230	510	1135	1946
QTHS-120S/C-200-E4-OP-MH	3840	2230	1610	654	205	122	897	85	230	510	1135	1946
QTHS-120S/C-235-E1-OP-MH	3871	2230	1641	654	205	122	954,5	28	230	625	1250	1970
QTHS-120S/C-235-E2-OP-MH	3871	2230	1641	654	205	122	954,5	28	230	625	1250	1970
QTHS-120S/C-235-E3-OP-MH	3871	2230	1641	654	205	122	954,5	28	230	625	1250	1970
QTHS-120S/C-235-E4-OP-MH	3871	2230	1641	654	205	122	954,5	28	230	625	1250	1970
QTHS-180S/C-120-F1-OP-MH	4268	2511	1757	745	230	142,5	937,5	115	255	475	1160	2370
QTHS-180S/C-120-F2-OP-MH	4268	2511	1757	745	230	142,5	937,5	115	255	475	1160	2370
QTHS-180S/C-120-F3-OP-MH	4268	2511	1757	745	230	142,5	937,5	115	255	475	1160	2370
QTHS-180S/C-135-F1-OP-MH	4273	2511	1762	745	230	142,5	942,5	110	255	485	1170	2417
QTHS-180S/C-135-F2-OP-MH	4273	2511	1762	745	230	142,5	942,5	110	255	485	1170	2417
QTHS-180S/C-135-F3-OP-MH	4273	2511	1762	745	230	142,5	942,5	110	255	485	1170	2417
QTHS-180S/C-150-F1-OP-MH	4280	2511	1769	745	230	142,5	947,5	105	255	495	1180	2445
QTHS-180S/C-150-F2-OP-MH	4280	2511	1769	745	230	142,5	947,5	105	255	495	1180	2445
QTHS-180S/C-150-F3-OP-MH	4280	2511	1769	745	230	142,5	947,5	105	255	495	1180	2445
QTHS-180S/C-175-F1-OP-MH	4283	2511	1772	745	230	142,5	952,5	100	255	505	1190	2459
QTHS-180S/C-175-F2-OP-MH	4283	2511	1772	745	230	142,5	952,5	100	255	505	1190	2459
QTHS-180S/C-175-F3-OP-MH	4283	2511	1772	745	230	142,5	952,5	100	255	505	1190	2459
QTHS-180S/C-200-F1-OP-MH	4283	2511	1772	745	230	142,5	952,5	100	255	505	1190	2475
QTHS-180S/C-200-F2-OP-MH	4283	2511	1772	745	230	142,5	952,5	100	255	505	1190	2475
QTHS-180S/C-200-F3-OP-MH	4283	2511	1772	745	230	142,5	952,5	100	255	505	1190	2475
QTHS-180S/C-235-F1-OP-MH	4286	2511	1775	745	230	142,5	955	98	255	510	1195	2490
QTHS-180S/C-235-F2-OP-MH	4286	2511	1775	745	230	142,5	955	98	255	510	1195	2490
QTHS-180S/C-235-F3-OP-MH	4286	2511	1775	745	230	142,5	955	98	255	510	1195	2490
QTHS-180S/C-280-F1-OP-MH	4293	2511	1782	745	230	142,5	962,5	90	255	525	1210	2520
QTHS-180S/C-280-F2-OP-MH	4293	2511	1782	745	230	142,5	962,5	90	255	525	1210	2520
QTHS-180S/C-280-F3-OP-MH	4293	2511	1782	745	230	142,5	962,5	90	255	525	1210	2520
QTHS-180S/C-280-F3-OP	4293	2511	1782	745	230	143	370	90	255	355	1040	2490

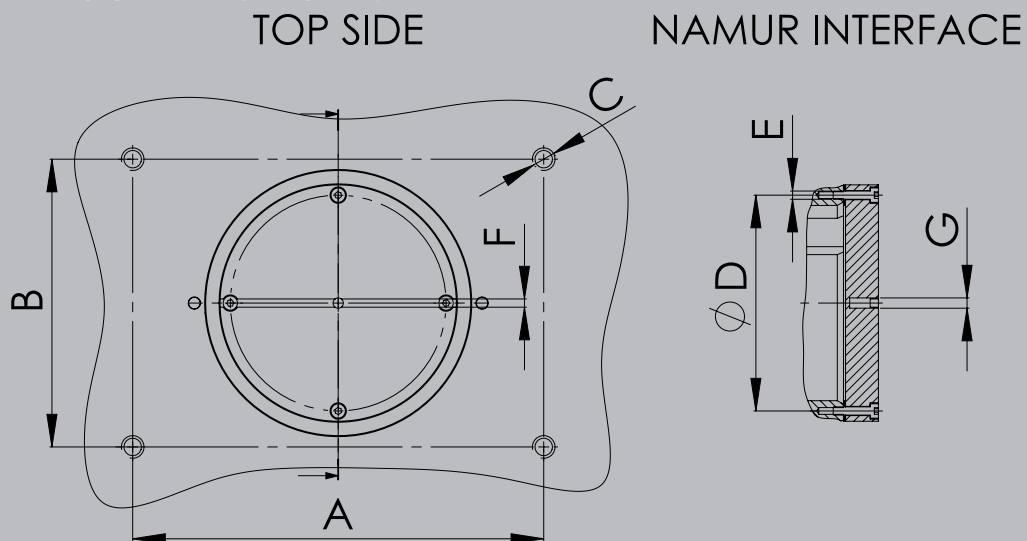


HOUSING MOUNTING HOLES AND INTERFACE



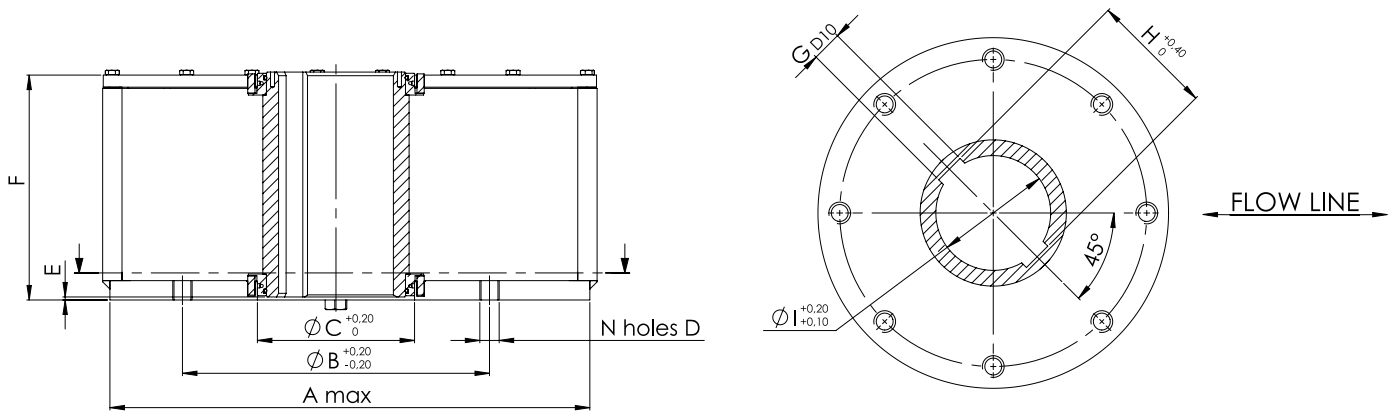
Model Size	A	B	C	D	E	F	G	H	I
10	131.5	264.5	396	185	208	393	N.4 M10	36	120
16	153.5	321.5	475	221	249	470	N.4 M10	36	150
30	206	432	638	310	350	660	N.4 M16	44.5	170
60	259.5	540.5	800	358	418	776	N.4 M20	62.5	205
120	250.5	624.5	875	406.5	476.5	883	N.4 M24	62	290
180	322.5	682.5	1005	446	523	969	N.4 M24	74	290

COVER AND YOKE MOUNTING HOLES



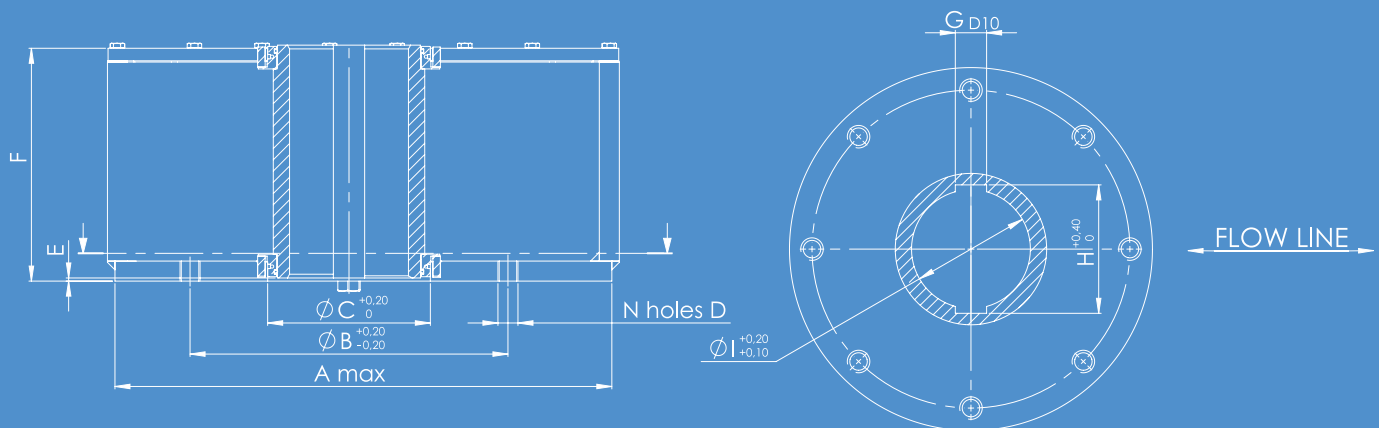
Model Size	A	B	C	D	E	F	G
10	200	140	N.4 M10	105	N.4 M4	4	M6
16	230	170	N.4 M10	132.5	N.4 M5	4	M6
30	240	180	N.4 M10	174	N.4 M6	4	M6
60	300	270	N.4 M12	216	N.4 M6	4	M6
120	300	270	N.4 M12	240	N.4 M6	4	M6
180	310	290	N.4 M12	240	N.4 M6	4	M6

COUPLING DIMENSIONS FOR MODELS 10-60



Model Size	A	B	C	D	E	F	G	H	I
10	300	254	130	N.8 M16	3	186	25	102.6	95
16	350	298	165	N.8 M20	3	215	32	128.8	120
30	415	356	210	N.8 M30	3	252	32	174.8	160
60	520	406	260	N.8 M36	3	312	32	209.8	195

COUPLING DIMENSIONS FOR MODELS 120-180



Model Size	A	B	C	D	E	F	G	H	I
120	560	483	250	N.12 M36	5	394	45	195.8	175
180	680	603	285	N.20 M36	5	418	45	220.8	200

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