

**DDH Series**  
**Double-Acting**  
Hollow Plunger Cylinder  
Hydraulic return

**Capacity:**  
30-145 ton

**Stroke:**  
38-258 mm

**Center Hole Diameter:**  
33.3~79.5 mm

**Maximum Operating Pressure:**  
700 bar

**DDH Double-Acting, Hollow Plunger Cylinders**

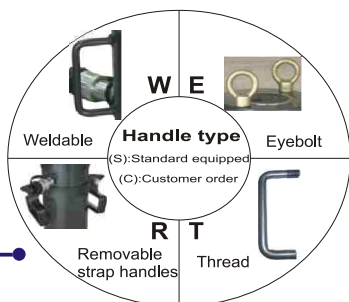
- Hollow plunger design allows for both pull and push forces.
- Relief valves protect against over pressurizing.
- Withstands full "dead-end" loads.
- Collar threads for easy fixturing(Except DDH-1001 & DDH-1508) and all collar threads have a cap for protection.
- Special center tube protect plunger and inner of cylinder increases product life.
- Hard chrome plated plunger resists wear and corrosion.
- Wiper rings protect the piston,bore & tube from contamination.
- Stop ring for piston blow-out protection.
- Powder coat finish for increased corrosion resistance and antirust.
- DQC-3/8UF coupler and dust cap are included on all models.



DDH-1003



DDH-3010

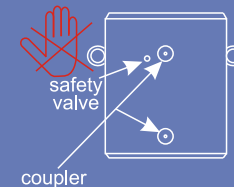


Handle type	Model Number	Cylinder Capacity	Stroke	Max. Cyl. Capacity		Cyl. Effect. Area		Oil Capacity		Coll. Height	Ext. Height	Out. Diam.
				Push	Pull	Push	Pull	Push	Pull			
(S)		ton(kN)	(mm)	(kN)		(cm <sup>2</sup> )		(cm <sup>3</sup> )		A (mm)	B (mm)	D (mm)
R	DDH-307	30(326)	178	326	213	46.6	30.4	829	541	330	508	114
R	DDH-3010		258	326	213	46.6	30.4	1202	784	431	689	114
R	DDH-603	60(576)	89	576	380	82.3	54.2	733	482	247	336	159
R	DDH-606		166	576	380	82.3	54.2	1366	900	323	489	159
R	DDH-6010		257	576	380	82.3	54.2	2115	1393	438	695	159
R	DDH-1001	95(931)	38	931	612	133.0	87.4	505	333	165	203	212
R	DDH-1003		76	931	612	133.0	87.4	1011	666	254	330	212
R	DDH-1006		153	931	612	133.0	87.4	2035	1337	342	495	212
R	DDH-10010		257	931	612	133.0	87.4	3420	2246	460	717	212
R	DDH-1508	145(1429)	203	1429	718	204.1	102.6	4144	2083	349	552	247



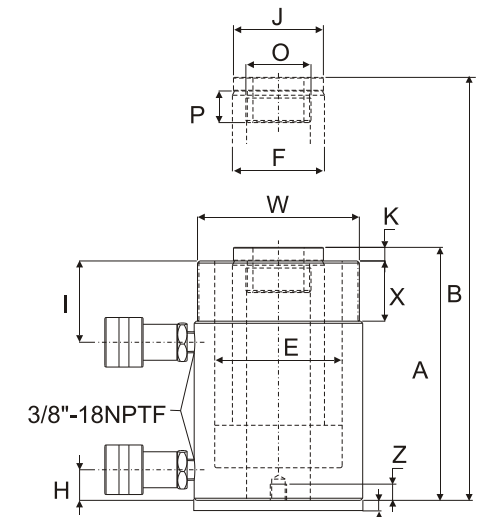
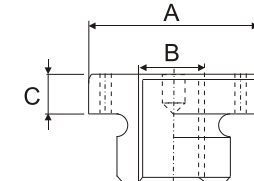
**WARNING**

**Don't adjust safety valve pressure!**  
Apply to double-acting cylinder  
DD, DDH, DLRG series  
Most double-acting cylinder safety valve pressure setting 10000psi(700bar).  
As surpasses the original factory hypothesis pressure safety valve will spurt oil to protect cylinder.  
Leaking from safety valve, inspect connection of coupler at first.

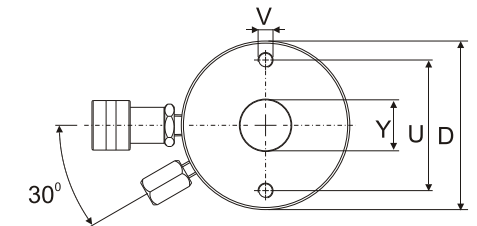


**Pump Selection**

A double-acting cylinder must be powered by a pump with a 4-way valve.



Steel baseplate :  
12ton serial : 8mm  
20~30ton serial : 10mm  
60ton serial : 12mm  
100ton serial : 16mm



Optional Heat Treated Hollow Saddles				
Cylinder Model/Cap.	Model No.	Saddle Dimensions		
		A (mm)	B (in)	C (mm)
ton(kN)				
DDH-307,3010	DXKHCH-30	63	1-1/4"-7	9
DDH-603,606,6010	DXKHCH-60	91	1-5/8"-5-1/2	12
DDH-1001,1003 1006,10010	DXKHCH-100	126	2-1/2"-8	13

※ Smooth hollow saddles are standard on all DDH series.

This drawing show the base mounting holes of barrel before setting steel base plate.

Cyl. Bore Diam.	Plngr. Diam.	Cyl. Base to Adv. Port	Cyl. Top to Return Port	Saddle Diam.	Saddle Protr. Fr. Plngr.	Plunger Internal Thread	Plunger Thread Length	Collar Thread	Collar Thread Length	Center Hole Diam.	Base Mounting Holes			Weight
											Bolt Circle	Thread	Thread Depth	
E (mm)	F (mm)	H (mm)	I (mm)	J (mm)	K (mm)	O (in)	P (mm)	W (in)	X (mm)	Y (mm)	U (mm)	V (in)	Z (mm)	(kg)
88.9	63.5	25	60	63	9	1 <sup>13</sup> / <sub>16</sub> "-16	22	4 <sup>1</sup> / <sub>2</sub> "-12	42	33.3	92.2	3/8"-16	15.7	21.65
88.9	63.5	25	60	63	9	1 <sup>13</sup> / <sub>16</sub> "-16	22	4 <sup>1</sup> / <sub>2</sub> "-12	42	33.3	92.2	3/8"-16	15.7	27.65
123.9	92.2	31	66	91	12	2 <sup>3</sup> / <sub>4</sub> "-16	19	6 <sup>1</sup> / <sub>4</sub> "-12	48	54.1	130.0	1/2"-13	14.0	29.60
123.9	92.2	31	66	91	12	2 <sup>3</sup> / <sub>4</sub> "-16	19	6 <sup>1</sup> / <sub>4</sub> "-12	48	54.1	130.0	1/2"-13	14.0	36.60
123.9	92.2	31	66	91	12	2 <sup>3</sup> / <sub>4</sub> "-16	19	6 <sup>1</sup> / <sub>4</sub> "-12	48	54.1	130.0	1/2"-13	14.0	46.60
165.1	127.0	38	44	126	12	4"-16	25	—	—	79.5	177.8	5/8"-11	19.0	36.60
165.1	127.0	38	85	126	12	4"-16	25	8 <sup>3</sup> / <sub>8</sub> "-12	60	79.5	177.8	5/8"-11	19.0	64.60
165.1	127.0	38	85	126	12	4"-16	25	8 <sup>3</sup> / <sub>8</sub> "-12	60	79.5	177.8	5/8"-11	19.0	82.60
165.1	127.0	38	85	126	12	4"-16	25	8 <sup>3</sup> / <sub>8</sub> "-12	60	79.5	177.8	5/8"-11	19.0	109.60
190.5	152.4	38	60	127	4	4 <sup>1</sup> / <sub>4</sub> "-12	25	—	—	79.5	214.0	5/8"-11	15.0	116.00