



# High Tonnage Double Acting Cylinders

HDG Series - Heavy Lifting



## Capacity:

100 - 1000 Tons

## Stroke:

50 - 300 mm

## Max. Operating Pressure:

700 BAR

## Min. - Max. Height:

182 - 1114 mm



### Flow Control Valves

Control the speed of your cylinder by adding a flow control valve.

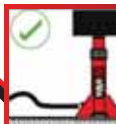
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### Related Product: Hoses

We offer a variety of hoses, fittings, lengths and materials.

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### Safety Instructions

Visit our DO'S and DON'TS section to review the best methods of operation. Always be prepared.

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- Cylinders are burnish rolled creating a smoother finish than honing
- Industrial hard chrome plated plunger prevents scratching and corrosion
- Base mounting holes standard on all models
- Plunger wiper seals out dirt and contamination
- High strength steel construction from gun drilled solid bar
- High flow 3/8" NPTF couplers
- Maximum working pressure: 10,000 psi / 700 bar
- Custom sizes are available upon request

## Gas/Diesel Engine Pumps

These HDG cylinders pair up well with a Gas or Diesel Engine pump. We offer a variety of different flow rates, motor sizes and reservoir sizes on our gas/diesel engine pumps. Contact your local BVA dealer for more details.



- Gas engine pump will provide 700 BAR hydraulic force at remote locations
- Industrial grade 5.5 hp. (4.1 kN) Honda gas engine or 4.6 hp. (3.5 kN) HATZ diesel engine.
- Ideal for applications where electricity isn't easily accessible.
- Two speed pump designed for rapid cylinder advance
- Gas pump features a sturdy protective roll cage for use in the toughest environments
- Optional electric start with Diesel Engine

## Electric Motor Pumps

These HDG cylinders pair up well with Electric Motor pumps. We offer a variety of different flow rates and motor sizes on our electric motor pumps. Contact your local BVA dealer for more details.



- Meets OSHA regulations for sound (80dBA)
- Two speed pump designed for rapid cylinder advance
- Internal filter screens contamination to prevent pump damage
- All units are wired as 240 VAC 50 Hz; Optional wiring: 115VAC 50Hz
- 100% Duty Cycle TEFC motors
- All hand pendants are wired at 24VAC for safety
- Full load starting capability

## Quick Reference Guide

Cylinder Capacity	Stroke (mm)	Model Number	Collapsed Height (mm)	Oil Capacity (cc)	Weight (kg)
100 Ton 890 kN	50	HDG10002	182	664	27.7
	100	HDG10004	232	1327	33.6
	150	HDG10006	282	1991	39.5
	200	HDG10008	332	2655	45.4
	250	HDG10010	382	3318	51.7
	300	HDG10012	432	3982	57.6
150 Ton 1334 kN	50	HDG15002	196	981	46.3
	100	HDG15004	246	1963	55.3
	150	HDG15006	296	2978	64.4
	200	HDG15008	346	3926	73.5
	250	HDG15010	396	4907	82.1
	300	HDG15012	446	5889	91.6
200 Ton 1779 kN	50	HDG20002	216	1322	54.9
	150	HDG20006	316	3989	91.2
	200	HDG20008	366	5289	109.8
	300	HDG20012	466	7977	146.1
300 Ton* 2669 kN	50	HDG30002	312	2281	184.2
	150	HDG30006	412	6843	231.8
	300	HDG30012	562	13685	303.0
400 Ton* 3559 kN	50	HDG40002	374	2800	269.9
	150	HDG40006	474	8399	330.2
	305	HDG40012	625	17077	420.9
500 Ton* 4448 kN	50	HDG50002	419	3653	401.0
	150	HDG50006	519	10959	479.9
	300	HDG50012	669	21919	599.2
600 Ton* 5338 kN	50	HDG60002	429	4277	474.0
	150	HDG60006	529	12829	565.2
	250	HDG60010	505	23088	430.0
	300	HDG60012	679	25662	700.8
800 Ton* 7117 kN	50	HDG80002	474	5881	741.2
	150	HDG80006	574	17649	868.2
	300	HDG80012	724	35281	1057.8
1000 Ton* 8896 kN	50	HDG100002	564	7329	1061.9
	150	HDG100006	664	21991	1212.9
	300	HDG100012	814	43966	1438.8

\* Available on request

See next pages (pg.34-35) to view more detailed stats on High Tonnage Double Acting Cylinders.



### HDG Series



#### Safety Practices

Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.



#### Optional Tilt-Saddles

Saddles tilt to a 5% maximum to adjust to the load. View our cylinder accessories page to figure out what saddle best fits these cylinders.

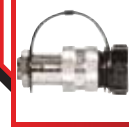
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#### Related Product: Gauges

Reduce the risk of overloading your product by using a gauge. A variety of graduations and types to suit any need.

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#### High-Flow Couplers

High-Flow Coupler: CH38F is included on all models (except where specified).



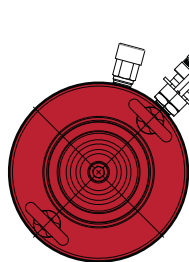
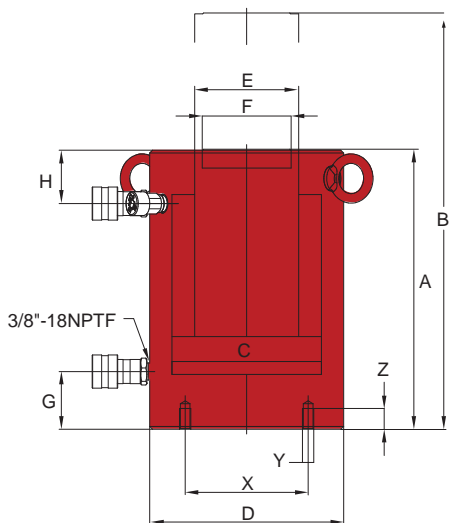
#### Relief Valve

All double acting cylinders are equipped with a pressure relief valve located next to the retract port. These pressure relief valves help prevent cylinder over pressurization on the return port side of the cylinder.

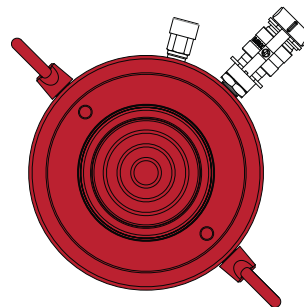


## High Tonnage Double Acting Cylinders

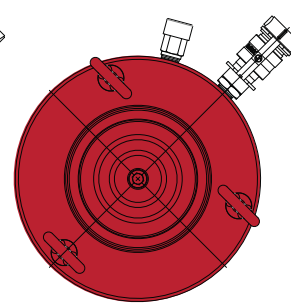
HDG Series - Heavy Lifting



HDG100



HDG150



HDG200

### Relief Valve

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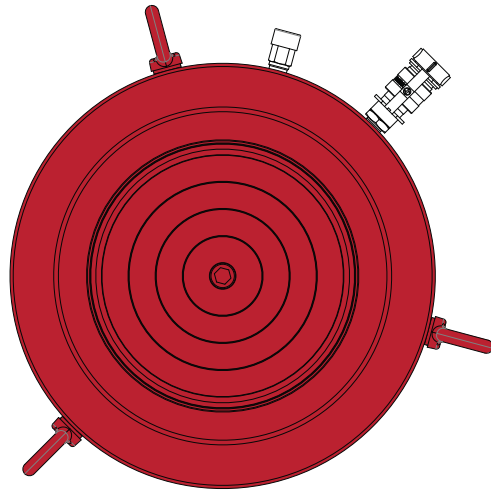
### High-Flow Couplers

High-Flow Coupler: CH38F is included on all models (except where specified).



Cylinder Capacity	Stroke (mm)	Model Number	Maximum Cylinder Capacity (ton)		Cylinder Effective Area (cm <sup>2</sup> )		Oil Capacity (cc)		Weight (kg)
			Push	Pull	Push	Pull	Push	Pull	
100 Ton 890 kN	50	HDG10002	102.9	47.9	132.7	61.9	664	309	27.7
	100	HDG10004	102.9	47.9	132.7	61.9	1327	618	33.6
	150	HDG10006	102.9	47.9	132.7	61.9	1991	928	39.5
	200	HDG10008	102.9	47.9	132.7	61.9	2655	1237	45.4
	250	HDG10010	102.9	47.9	132.7	61.9	3318	1546	51.7
150 Ton 1334 kN	50	HDG15002	152.2	78.5	196.3	101.3	981	506	46.3
	100	HDG15004	152.2	78.5	196.3	101.3	1963	1013	55.3
	150	HDG15006	152.2	78.5	196.3	101.3	2978	1447	64.4
	200	HDG15008	152.2	78.5	196.3	101.3	3926	2025	73.5
	250	HDG15010	152.2	78.5	196.3	101.3	4907	2531	82.1
200 Ton 1779 kN	50	HDG20002	205.0	94.0	264.5	121.3	1322	606	54.9
	150	HDG20006	205.0	94.0	264.5	121.3	3989	1905	91.2
	200	HDG20008	205.0	94.0	264.5	121.3	5289	2426	109.8
	300	HDG20012	205.0	94.0	264.5	121.3	7977	3809	146.1
300 Ton* 2669 kN	50	HDG30002	353.6	117.0	456.2	151.4	2281	757	184.2
	150	HDG30006	353.6	117.0	456.2	151.4	6843	2270	231.8
	300	HDG30012	353.6	117.0	456.2	151.4	13685	4541	303.0
400 Ton* 3559 kN	50	HDG40002	433.9	152.6	559.9	196.9	2800	967	269.9
	150	HDG40006	433.9	152.6	559.9	196.9	8399	2902	330.2
	300	HDG40012	433.9	152.6	559.9	196.9	17077	6004	420.9
500 Ton* 4448 kN	50	HDG50002	566.3	192.0	730.7	247.7	3653	1238	401.0
	150	HDG50006	566.3	192.0	730.7	247.7	10959	3713	479.9
	300	HDG50012	566.3	192.0	730.7	247.6	21919	7427	599.2
600 Ton* 5338 kN	50	HDG60002	662.9	229.0	855.3	295.4	4277	1477	474.0
	150	HDG60006	662.9	229.0	855.3	295.4	12829	4431	565.2
	250	HDG60010	670.9	352.9	865.7	455.3	23088	12142	430.0
	300	HDG60012	662.9	229.0	855.3	295.4	25662	8862	700.8
800 Ton* 7117 kN	50	HDG80002	911.6	300.0	1176	387.1	5881	1935	741.2
	150	HDG80006	911.6	300.0	1176	387.1	17649	5806	868.2
	300	HDG80012	911.6	300.0	1176	387.1	35281	11611	1057.8
1000 Ton* 8896 kN	50	HDG100002	1136.0	420.0	1465	541.8	7329	2709	1061.9
	150	HDG100006	1136.0	420.0	1465	541.8	21991	8126	1212.9
	300	HDG100012	1136.0	420.0	1465	541.8	43966	16252	1438.8

\* Available on request: no stock item



HDG300 - HDG1000



HDG Series

80%

**Safety Practices**

Good industry practice recommends not exceeding 80% of maximum rated capacities of all our products.

Model Number	Collapsed Height A (mm)	Extended Height B (mm)	Cylinder Bore Dia. C (mm)	Outside Dia. D (mm)	Plunger Dia. E (mm)	Saddle Dia. F (mm)	Base To Inlet Port G (mm)	Top To Retract Port H (mm)	Base Mounting Holes		
									Bolt Circle X (mm)	Thread Size	Thread Depth Z (mm)
HDG10002	182	232	130	89	95	75	54	48	95	M12	22
HDG10004	232	332	130	89	95	75	54	48	95	M12	22
HDG10006	282	432	130	89	95	75	54	48	95	M12	22
HDG10008	332	532	130	89	95	75	54	48	95	M12	22
HDG10010	382	632	130	89	95	75	54	48	95	M12	22
HDG10012	432	732	130	89	95	75	54	48	95	M12	22
HDG15002	196	246	158	205	110	94	61	56	130	M12	22
HDG15004	246	346	158	205	110	94	61	56	130	M12	22
HDG15006	296	446	158	205	110	94	61	56	130	M12	22
HDG15008	346	546	158	205	110	94	61	56	130	M12	22
HDG15010	396	646	158	205	110	94	61	56	130	M12	22
HDG15012	446	746	158	205	110	94	61	56	130	M12	22
HDG20002	216	266	183	235	135	113	67	56	165	M12	20
HDG20006	316	466	184	235	135	113	67	56	165	M12	20
HDG20008	366	566	183	235	135	113	67	56	165	M12	20
HDG20012	466	766	184	235	135	113	67	56	165	M12	20
HDG30002	312	362	241	310	197	177	101	75	180	M16	36
HDG30006	412	562	241	310	197	177	101	75	180	M16	36
HDG30012	562	862	241	310	197	177	101	75	180	M16	36
HDG40002	374	424	267	350	216	196	114	105	205	M16	36
HDG40006	474	625	267	350	216	196	114	105	205	M16	36
HDG40012	625	925	267	350	216	196	114	105	205	M16	36
HDG50002	419	469	305	400	248	228	114	135	250	M24	38
HDG50006	519	669	305	400	248	228	114	135	250	M24	38
HDG50012	669	969	305	400	248	228	114	135	250	M24	38
HDG60002	429	479	330	430	267	247	114	135	275	M24	38
HDG60006	529	679	330	430	267	247	114	135	275	M24	38
HDG60010	457	724	332	433	229	200	114	135	275	M24	38
HDG60012	679	979	330	430	267	247	114	135	275	M24	38
HDG80002	474	524	387	505	317	297	149	135	330	M24	38
HDG80006	574	724	387	505	317	297	149	135	330	M24	38
HDG80012	724	1024	387	505	317	297	149	135	330	M24	38
HDG100002	564	614	432	560	343	323	174	170	375	M24	38
HDG100006	664	814	432	560	343	323	174	170	375	M24	38
HDG100012	814	1114	432	560	343	323	174	170	375	M24	38