

▼ HCR Double-Acting Large-Tonnage Cylinders



Rated Pressure: 70MPa

Rated Tonnage: 50 - 1000ton

Stroke Range: 50-300mm

- Double-acting design for fast, controlled extension and retraction
- Gas nitriding with post-oxidation surface treatment delivers superior corrosion resistance and side-load resistance
- Withstands up to 10% side load at maximum capacity
- Stop ring prevents plunger over-travel
- All-weather protection inside and out
- Optional spherical saddle for improved load stability
- Replaceable upper and lower bearings support plunger throughout full stroke
- Collar thread as standard on models up to 250 ton; optional on 300 ton and larger

► HCR Series Performance Introduction

All components are surface-treated by gas nitriding and post-oxidation process (except for the hard saddle), providing superior corrosion resistance. High durability and high hardness ensure the wide applicability of the hydraulic cylinder.

Dust seal, preventing external impurities from entering the interior of the cylinder and causing contamination or damage.

Stop ring for absorbing overload and preventing piston overtravel.

Wear ring prevents metal-to-metal contact, resists eccentric load, protects cylinder barrel and plunger, and extends service life of the cylinder.

High-pressure seal to achieve zero internal leakage in the hydraulic system, reducing wear and extending service life.

Dust seal, preventing external impurities from entering the interior of the cylinder and causing contamination or damage.

Detachable hard seat to prevent plunger damage when contacting rough surfaces.

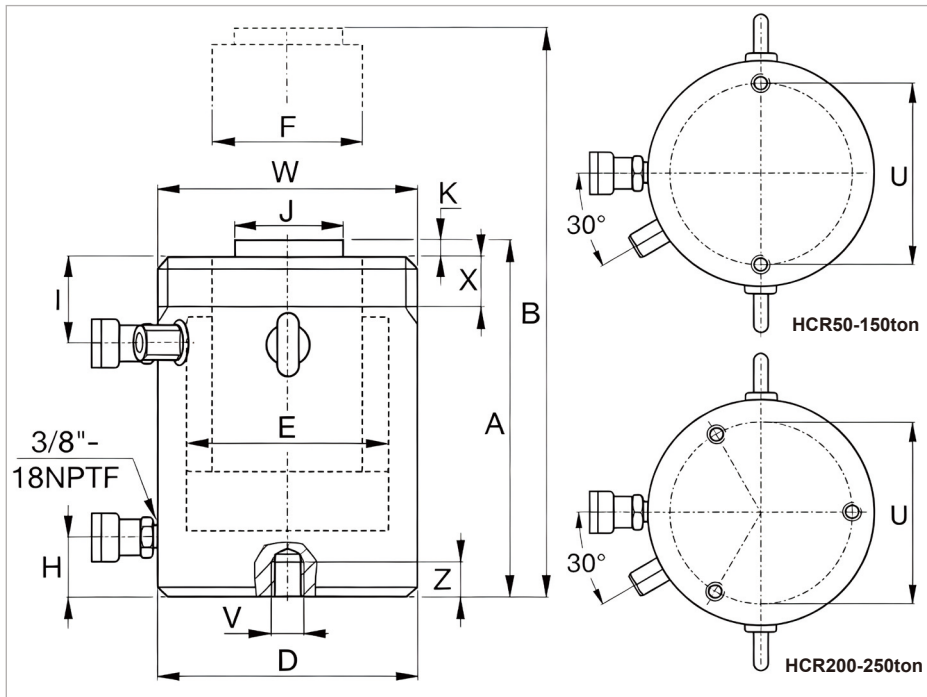
Certified lifting lugs G80 high-strength eye bolts

Return pressure protection safety valve prevents cylinder damage due to overpressure and overload, ensuring safe equipment operation.

The Swedish CEJN coupler and dust cap ensure safety throughout.

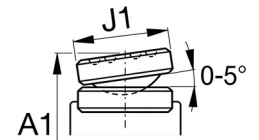
Capacity (ton)	Stroke (mm)	Model	Max. Cylinder Capacity (ton (kN))
50	50	HCR502	56 (550)
50	100	HCR504	56 (550)
50	150	HCR506	56 (550)
50	200	HCR508	56 (550)
50	250	HCR5010	56 (550)
50	300	HCR5012	56 (550)
100	50	HCR1002	102 (1002)
100	100	HCR1004	102 (1002)
100	150	HCR1006	102 (1002)
100	200	HCR1008	102 (1002)
100	250	HCR10010	102 (1002)
100	300	HCR10012	102 (1002)
150	50	HCR1502	153 (1497)
150	100	HCR1504	153 (1497)
150	150	HCR1506	153 (1497)
150	200	HCR1508	153 (1497)
150	250	HCR15010	153 (1497)
150	300	HCR15012	153 (1497)
200	50	HCR2002	202 (1985)
200	100	HCR2004	202 (1985)
200	150	HCR2006	202 (1985)
200	200	HCR2008	202 (1985)
200	250	HCR20010	202 (1985)
200	300	HCR20012	202 (1985)
250	50	HCR2502	259 (2541)
250	100	HCR2504	259 (2541)
250	150	HCR2506	259 (2541)
250	200	HCR2508	259 (2541)
250	250	HCR25010	259 (2541)
250	300	HCR25012	259 (2541)

◆Standard outer thread is provided for cylinders with a capacity of 250 tons and below.

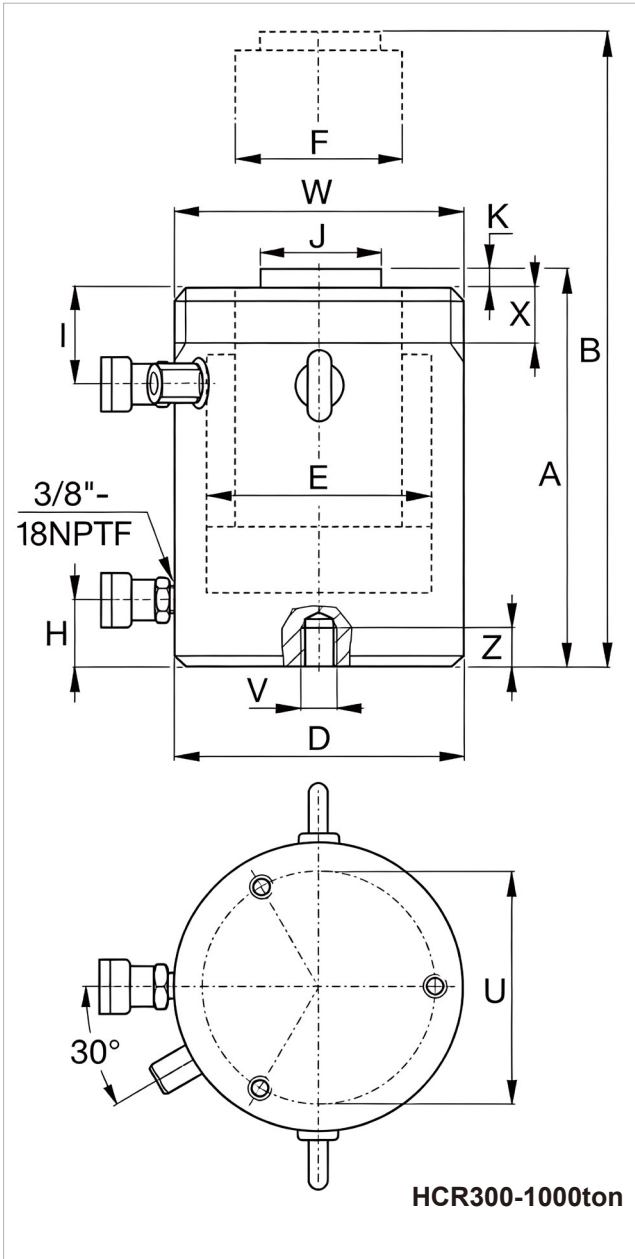


Outer Thread		
Model/ Capacity ton	Thread Size W	Thread Length X(mm)
HCR50	M130 x2	30
HCR100	M175 x3	46
HCR150	M215 x3	55
HCR200	M250 x3	63
HCR250	M280 x3	64

Bottom Mounting Hole					
Model/ Capacity ton	Bolt Pitch Circle Dia. U (mm)	Thread Size V	Min. Thread Depth Z (mm)	Hole Qty.	Angle From Coupler
HCR50	105	M12 x1.75	22	2	90°
HCR100	150	M12 x1.75	22	2	90°
HCR150	185	M12 x1.75	22	2	90°
HCR200	215	M12 x1.75	22	3	60°
HCR250	245	M12 x1.75	22	3	60°



Effective Area (cm ²)	Oil Capacity (cm ³)	Body Height A (mm)	Extended Height B (mm)	Outer Dia. D (mm)	Cylinder Bore E (mm)	Plunger Dia. (Thread) F (mm)	Inlet Height from Base H (mm)	Return Port Height I (mm)	Saddle Dia. J (mm)	Saddle Protrusion K (mm)	Weight (kg)	Model	Saddle Dia. J1 (mm)	Saddle Height K1 (mm)	Saddle Model
78.5	393	183	233	130	100	70	38	45	50	3	17	HCR502	71	197	CATS50
78.5	785	233	333	130	100	70	38	45	50	3	21	HCR504	71	247	CATS50
78.5	1178	283	433	130	100	70	38	45	50	3	25	HCR506	71	297	CATS50
78.5	1571	346	546	130	100	70	38	55	50	3	31	HCR508	71	360	CATS50
78.5	1963	396	646	130	100	70	38	55	50	3	34	HCR5010	71	410	CATS50
78.5	2356	446	746	130	100	70	38	55	50	3	38	HCR5012	71	460	CATS50
143.1	716	202	252	175	135	95	38	65	75	3	34	HCR1002	71	212	CATS101
143.1	1431	252	352	175	135	95	38	65	75	3	41	HCR1004	71	262	CATS101
143.1	2147	302	452	175	135	95	38	65	75	3	49	HCR1006	71	312	CATS101
143.1	2863	379	579	175	135	95	38	80	75	3	58	HCR1008	71	389	CATS101
143.1	3578	429	679	175	135	95	38	80	75	3	66	HCR10010	71	439	CATS101
143.1	4294	479	779	175	135	95	38	80	75	3	73	HCR10012	71	489	CATS101
213.8	1069	270	270	215	165	120	41	70	94	3	56	HCR1502	97	239	CATS150
213.8	2138	270	370	215	165	120	41	70	94	3	67	HCR1504	97	289	CATS150
213.8	3207	320	470	215	165	120	41	70	94	3	78	HCR1506	97	339	CATS150
213.8	4276	397	597	215	165	120	41	90	94	3	95	HCR1508	97	416	CATS150
213.8	5346	447	697	215	165	120	41	90	94	3	106	HCR15010	97	466	CATS150
213.8	6415	497	797	215	165	120	41	90	94	3	116	HCR15012	97	516	CATS150
283.5	1418	231	381	250	190	140	47	79	113	3	81	HCR2002	126	249	CATS200
283.5	2853	281	481	250	190	140	47	79	113	3	96	HCR2004	126	299	CATS200
283.5	4271	331	608	250	190	140	47	97	113	3	139	HCR2006	126	349	CATS200
283.5	5671	408	708	250	190	140	47	97	113	3	153	HCR2008	126	426	CATS200
283.5	7088	458	808	250	190	140	47	97	113	3	168	HCR20010	126	476	CATS200
283.5	8506	508	808	250	190	140	47	97	113	3	168	HCR20012	126	526	CATS200
363.1	1815	241	291	280	215	170	53	79	140	4	107	HCR2502	175	280	CATS300
363.1	3631	291	391	280	215	170	53	79	140	4	127	HCR2504	175	330	CATS300
363.1	5446	341	491	280	215	170	53	104	140	4	146	HCR2506	175	380	CATS300
363.1	7261	431	631	280	215	170	53	104	140	4	184	HCR2508	175	470	CATS300
363.1	9076	481	731	280	215	170	53	104	140	4	207	HCR25010	175	520	CATS300
363.1	10892	531	831	280	215	170	53	104	140	4	227	HCR25012	175	570	CATS300



HCR Series Cylinders :

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- All-weather protection inside and out
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- Replaceable upper and lower bearings support plunger throughout full stroke
- Collar thread as standard on models up to 250 ton; optional on 300 ton and larger

Capacity (ton)	Stroke (mm)	Model	Max. Cylinder Capacity (ton (kN))	Effective Area (cm ²)	Oil Capacity (cm ³)
300	50	HCR3002	310 (3036)	433.7	2169
300	100	HCR3004	310 (3036)	433.7	4337
300	150	HCR3006	310 (3036)	433.7	6506
300	200	HCR3008	310 (3036)	433.7	8675
300	250	HCR30010	310 (3036)	433.7	10843
300	300	HCR30012	310 (3036)	433.7	13012
400	50	HCR4002	409 (4008)	572.6	2826
400	100	HCR4004	409 (4008)	572.6	5723
400	150	HCR4006	409 (4008)	572.6	8588
400	200	HCR4008	409 (4008)	572.6	11451
400	250	HCR40010	409 (4008)	572.6	14314
400	300	HCR40012	409 (4008)	572.6	17177
500	50	HCR5002	522 (5114)	730.6	3653
500	100	HCR5004	522 (5114)	730.6	7306
500	150	HCR5006	522 (5114)	730.6	10959
500	200	HCR5008	522 (5114)	730.6	14612
500	250	HCR50010	522 (5114)	730.6	18265
500	300	HCR50012	522 (5114)	730.6	21918
600	50	HCR6002	611 (5987)	855.3	4276
600	100	HCR6004	611 (5987)	855.3	8553
600	150	HCR6006	611 (5987)	855.3	12829
600	200	HCR6008	611 (5987)	855.3	17106
600	250	HCR60010	611 (5987)	855.3	21382
600	300	HCR60012	611 (5987)	855.3	25659
800	50	HCR8002	831 (8149)	1164.2	5821
800	100	HCR8004	831 (8149)	1164.2	11642
800	150	HCR8006	831 (8149)	1164.2	17462
800	200	HCR8008	831 (8149)	1164.2	23283
800	250	HCR80010	831 (8149)	1164.2	29104
800	300	HCR80012	831 (8149)	1164.2	34925
1000	50	HCR10002	1085 (10644)	1520.5	7603
1000	100	HCR10004	1085 (10644)	1520.5	15205
1000	150	HCR10006	1085 (10644)	1520.5	22808
1000	200	HCR10008	1085 (10644)	1520.5	30411
1000	250	HCR100010	1085 (10644)	1520.5	38013
1000	300	HCR100012	1085 (10644)	1520.5	45616

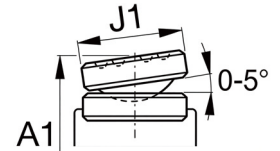
Outer Thread		
Model/ Capacity ton	Thread Size W	Thread Length X(mm)
HCR300	M305 x3	73
HCR400	M350 x3	83
HCR500	M400 x4	90
HCR600	M430 x4	100
HCR800	M505 x5	122
HCR1000	M570 x5	137

The length of the outer thread is designed for the maximum rated cylinder capacity.

Outer thread comes as standard for cylinders with a capacity of 250 tons and below. Outer thread is optional for cylinders with a capacity of 300 tons and above.

◆If outer thread on the cylinder is required, please add the suffix "E002" to the model. Example: HCR30010E002

Bottom Mounting Hole					
Model/ Capacity ton	Bolt Pitch Circle Diameter U (mm)	Thread Size V	Min. Thread Depth Z (mm)	Hole Qty.	Angle From Coupler
HCR300	260	M16 x2	25	3	60°
HCR400	300	M16 x2	25	3	60°
HCR500	340	M24 x3	36	3	60°
HCR600	370	M24 x3	36	3	60°
HCR800	440	M24 x3	36	3	60°
HCR1000	500	M24 x3	36	3	60°



*Optional Tilt Saddle

Body Height A (mm)	Extended Height B (mm)	Outer Dia. D (mm)	Cylinder Bore E (mm)	Plunger Dia. (Thread) F (mm)	Inlet Height from Base H (mm)	Return Port Height I (mm)	Saddle Dia. J (mm)	Saddle Protrusion K (mm)	Weight (kg)	Model	Saddle Dia. J1 (mm)	Saddle Height K1 (mm)	Saddle Model
296	346	305	235	200	58	101	140	4	159	HCR3002	175	335	CATS300
346	446	305	235	200	58	101	140	4	183	HCR3004	175	385	CATS300
396	546	305	235	200	58	101	140	4	208	HCR3006	175	435	CATS300
446	646	305	235	200	58	101	140	4	232	HCR3008	175	485	CATS300
496	746	305	235	200	58	101	140	4	257	HCR30010	175	535	CATS300
546	846	305	235	200	58	101	140	4	281	HCR30012	175	585	CATS300
321	371	350	270	220	74	111	159	4	227	HCR4002	210	369	CATS400
371	471	350	270	220	74	111	159	4	258	HCR4004	210	419	CATS400
421	571	350	270	220	74	111	159	4	289	HCR4006	210	469	CATS400
471	671	350	270	220	74	111	159	4	321	HCR4008	210	519	CATS400
521	771	350	270	220	74	111	159	4	352	HCR40010	210	569	CATS400
571	871	350	270	220	74	111	159	4	383	HCR40012	210	619	CATS400
344	394	400	305	250	79	121	179	4	320	HCR5002	230	392	CATS500
394	494	400	305	250	79	121	179	4	361	HCR5004	230	442	CATS500
444	594	400	305	250	79	121	179	4	402	HCR5006	230	492	CATS500
494	694	400	305	250	79	121	179	4	443	HCR5008	230	542	CATS500
544	794	400	305	250	79	121	179	4	484	HCR50010	230	592	CATS500
594	894	400	305	250	79	121	179	4	525	HCR50012	230	642	CATS500
402	402	430	330	270	85	121	194	4	379	HCR6002	250	405	CATS600
452	502	430	330	270	85	121	194	4	427	HCR6004	250	455	CATS600
502	602	430	330	270	85	121	194	4	474	HCR6006	250	505	CATS600
552	702	430	330	270	85	121	194	4	521	HCR6008	250	555	CATS600
602	802	430	330	270	85	121	194	4	568	HCR60010	250	605	CATS600
652	902	430	330	270	85	121	194	4	615	HCR60012	250	655	CATS600
404	454	505	385	320	100	143	224	4	608	HCR8002	275	461	CATS800
454	554	505	385	320	100	143	224	4	674	HCR8004	275	511	CATS800
504	654	505	385	320	100	143	224	4	740	HCR8006	275	561	CATS800
554	754	505	385	320	100	143	224	4	806	HCR8008	275	611	CATS800
604	854	505	385	320	100	143	224	4	872	HCR80010	275	661	CATS800
654	954	505	385	320	100	143	224	4	938	HCR80012	275	711	CATS800
442	492	570	440	340	114	153	249	4	843	HCR10002	300	519	CATS1000
492	592	570	440	340	114	153	249	4	921	HCR10004	300	569	CATS1000
542	692	570	440	340	114	153	249	4	1000	HCR10006	300	619	CATS1000
592	792	570	440	340	114	153	249	4	1079	HCR10008	300	669	CATS1000
642	892	570	440	340	114	153	249	4	1158	HCR100010	300	719	CATS1000
692	992	570	440	340	114	153	249	4	1236	HCR100012	300	769	CATS1000