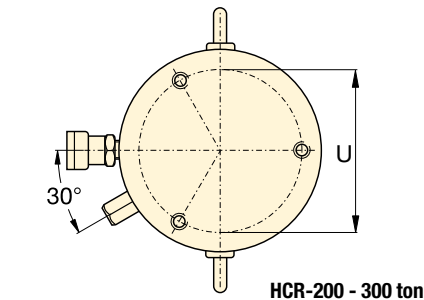
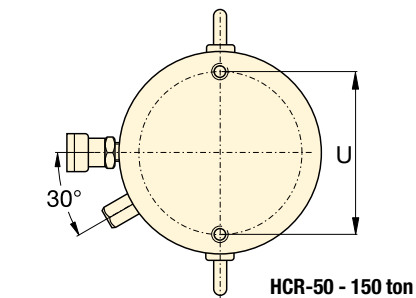
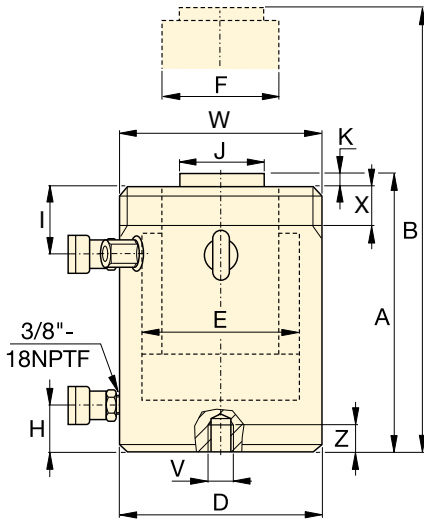


HCR-Series, High Tonnage Cylinders



Collar Thread (mm)		
Model / Capacity ton	Thread Size	Thread Length
	W	X
HCR-50	M130 x 2	30
HCR-100	M175 x 3	46
HCR-150	M215 x 3	55
HCR-200	M250 x 3	63
HCR-250	M280 x 3	64
HCR-300	M305 x 3	73

The collar thread length is designed for the full rated cylinder capacity.

Base Mounting Holes (mm)					
Model / Capacity ton	Bolt Circle	Thread Size	Minimum Thread Depth	Number of Holes	Angle from Coupler
	U	V	Z		
HCR-50	105	M12 x 1,75	22	2	90°
HCR-100	150	M12 x 1,75	22	2	90°
HCR-150	185	M12 x 1,75	22	2	90°
HCR-200	215	M12 x 1,75	22	3	60°
HCR-250	245	M12 x 1,75	22	3	60°
HCR-300	260	M16 x 2	25	3	60°

HCR-Series, Double-Acting Cylinders

- Fast advance and retract
- Designed to withstand 10% side-load of maximum capacity¹⁾
- Hardened surface resists side-loading and cyclic wear
- Weather protected, inside and out
- Upper and lower replaceable bearings enclose the cylinder plunger for support throughout the stroke
- Certified lifting eyes, base mounting holes and collar threads.

SELECTION CHART & DETAILS OF 50 - 300 TON HCR-MODELS

For 400 - 1000 ton models, see pages 50-51.

For full product features see pages 40-41.

Cylinder Capacity	Stroke	Model Number	Maximum Cylinder Capacity at 700 bar ton (kN)	Cylinder Effective Area	Oil Capacity	Collapsed Height
ton	(mm)			(cm ²)	(cm ³)	A (mm)
50	50	HCR-502	56 (550)	78,5	393	183
	100	HCR-504			785	233
	150	HCR-506 ¹⁾			1178	283
	200	HCR-508			1571	346
	250	HCR-5010			1963	396
	300	HCR-5012 ¹⁾			2356	446
100	50	HCR-1002	102 (1002)	143,1	716	202
	100	HCR-1004			1431	252
	150	HCR-1006			2147	302
	200	HCR-1008			2863	379
	250	HCR-10010			3578	429
	300	HCR-10012			4294	479
150	50	HCR-1502	153 (1497)	213,8	1069	220
	100	HCR-1504			2138	270
	150	HCR-1506			3207	320
	200	HCR-1508			4276	397
	250	HCR-15010			5346	447
	300	HCR-15012			6415	497
200	50	HCR-2002	202 (1985)	283,5	1418	231
	100	HCR-2004			2835	281
	150	HCR-2006			4253	331
	200	HCR-2008			5671	408
	250	HCR-20010			7088	458
	300	HCR-20012			8506	508
250	50	HCR-2502	259 (2541)	363,1	1815	241
	100	HCR-2504			3631	291
	150	HCR-2506			5446	341
	200	HCR-2508			7261	431
	250	HCR-25010			9076	481
	300	HCR-25012			10.892	531
300	50	HCR-3002	310 (3036)	433,7	2169	296
	100	HCR-3004			4337	346
	150	HCR-3006			6506	396
	200	HCR-3008			8675	446
	250	HCR-30010			10.843	496
	300	HCR-30012			13.012	546

¹⁾ HCR-506 and HCR-5012: 7% side-load of maximum capacity.

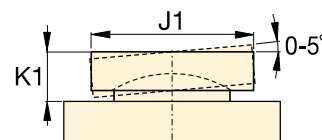
Double-Acting, High Tonnage Cylinders

Capacity:
50 - 300 ton


Stroke:
50 - 300 mm

Maximum Operating Pressure:
700 bar

HCR Series

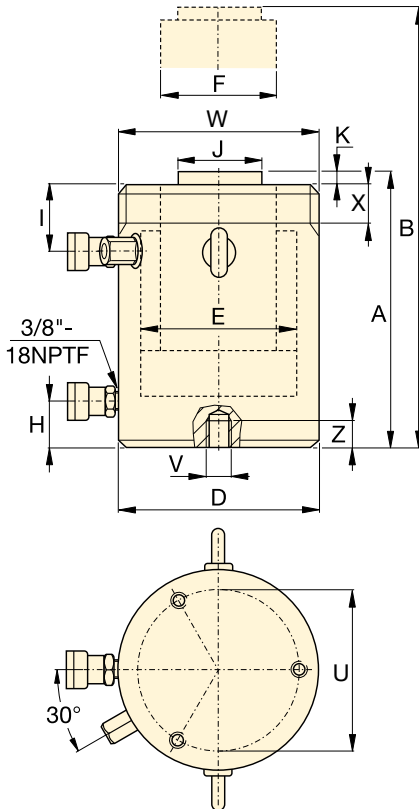


CATG-Series Tilt Saddle

	Extended Height B (mm)	Outside Diameter D (mm)	Cylinder Bore Diameter E (mm)	Plunger Diameter F (mm)	Base to Advance Port H (mm)	Top to Retract Port I (mm)	Standard Saddle Diameter J (mm)	Saddle Protrusion from Plunger K (mm)	 Model Number (kg)	Optional Tilt Saddle			
										Diameter J1 (mm)	Height K1 (mm)	Saddle Model Number	
	233	130	100	70	38	45	50	3	17	HCR-502	50	24	CATG-50
	333								21	HCR-504			
	433								25	HCR-506 ¹⁾			
	546								31	HCR-508			
	646								34	HCR-5010			
	746								38	HCR-5012 ¹⁾			
	252	175	135	95	38	65	75	3	34	HCR-1002	73	29	CATG-100
	352								41	HCR-1004			
	452								48	HCR-1006			
	579								59	HCR-1008			
	679								66	HCR-10010			
	779								73	HCR-10012			
	270	215	165	120	41	70	94	3	56	HCR-1502	91	31	CATG-150
	370								67	HCR-1504			
	470								78	HCR-1506			
	597								95	HCR-1508			
	697								106	HCR-15010			
	797								116	HCR-15012			
	281	250	190	140	47	79	113	3	81	HCR-2002	118	35	CATG-200
	381								96	HCR-2004			
	481								111	HCR-2006			
	608								139	HCR-2008			
	708								153	HCR-20010			
	808								168	HCR-20012			
	291	280	215	170	53	79	145	4	107	HCR-2502	144	47	CATG-250
	391								127	HCR-2504			
	491								146	HCR-2506			
	631								184	HCR-2508			
	731								207	HCR-25010			
	831								227	HCR-25012			
	346	305	235	200	58	101	177	4	159	HCR-3002	160	64	CATG-300
	446								183	HCR-3004			
	546								208	HCR-3006			
	646								232	HCR-3008			
	746								257	HCR-30010			
	846								281	HCR-30012			

HCR-Series, Double-Acting Cylinders

- Fast advance and retract
- Designed to withstand 10% side-load of maximum capacity
- Hardened surface resists side-loading and cyclic wear
- Weather protected, inside and out
- Upper and lower replaceable bearings enclose the cylinder plunger for support throughout the stroke
- Certified lifting eyes, base mounting holes and optional collar threads.



SELECTION CHART & DETAILS OF 400 - 1000 TON HCR-MODELS

For 50 - 300 ton models, see pages 48-49.

For full product features see pages 40-41.

Cylinder Capacity	Stroke	Model Number	Maximum Cylinder Capacity at 700 bar ton (kN)	Cylinder Effective Area (cm ²)	Oil Capacity (cm ³)	Collapsed Height A (mm)
ton	(mm)					
400	50	HCR-4002	409 (4008)	572,6	2863	321
	100	HCR-4004			5726	371
	150	HCR-4006			8588	421
	200	HCR-4008			11.451	471
	250	HCR-40010			14.314	521
	300	HCR-40012			17.177	571
500	50	HCR-5002	522 (5114)	730,6	3653	344
	100	HCR-5004			7306	394
	150	HCR-5006			10.959	444
	200	HCR-5008			14.612	494
	250	HCR-50010			18.265	544
	300	HCR-50012			21.918	594
600	50	HCR-6002	611 (5987)	855,3	4276	352
	100	HCR-6004			8553	402
	150	HCR-6006			12.829	452
	200	HCR-6008			17.106	502
	250	HCR-60010			21.382	552
	300	HCR-60012			25.659	602
800	50	HCR-8002	831 (8149)	1164,2	5821	404
	100	HCR-8004			11.642	454
	150	HCR-8006			17.462	504
	200	HCR-8008			23.283	554
	250	HCR-80010			29.104	604
	300	HCR-80012			34.925	654
1000	50	HCR-10002	1085 (10.644)	1520,5	7603	442
	100	HCR-10004			15.205	492
	150	HCR-10006			22.808	542
	200	HCR-10008			30.411	592
	250	HCR-100010			38.013	642
	300	HCR-100012			45.616	692

Optional Collar Thread (mm)

Model / Capacity ton	Thread Size	Thread Length
	W	X
HCR-400	M350 x 3	83
HCR-500	M400 x 4	90
HCR-600	M430 x 4	100
HCR-800	M505 x 5	122
HCR-1000	M570 x 5	137

Collar thread is optional on 400 ton models and higher. For collar thread on cylinder add suffix "E002" to model number. Example: **HCR4006E002**

The collar thread length is designed for the full rated cylinder capacity.

Base Mounting Holes (mm)

Model / Capacity ton	Bolt Circle	Thread Size	Minimum Thread Depth	Number of Holes	Angle from Coupler
	U	V	Z		
HCR-400	300	M16 x 2	25	3	60°
HCR-500	340	M24 x 3	36	3	60°
HCR-600	370	M24 x 3	36	3	60°
HCR-800	440	M24 x 3	36	3	60°
HCR-1000	500	M24 x 3	36	3	60°

Double-Acting, High Tonnage Cylinders



▲ The superlifting and launch of a 43.000-ton floating oil production system in Malaysia for the Gumusut-Kakap offshore field has set high benchmarks for safety through its use of sophisticated EVO-Series synchronous hydraulics to lift, balance, weigh and smoothly launch massive resource structures.

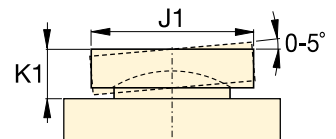
HCR Series




Capacity:
400 - 1000 ton

Stroke:
50 - 300 mm

Maximum Operating Pressure:
700 bar



CATG-Series Tilt Saddle

Extended Height B (mm)	Outside Diameter D (mm)	Cylinder Bore Diameter E (mm)	Plunger Diameter F (mm)	Base to Advance Port H (mm)	Top to Retract Port I (mm)	Standard Saddle Diameter J (mm)	Saddle Protrusion from Plunger K (mm)		Model Number	Optional Tilt Saddle			
										Diameter J1 (mm)	Height K1 (mm)	Saddle Model Number	
371	350	270	220	74	111	196	4		227 HCR-4002	193	59	CATG-400	
471													258 HCR-4004
571													289 HCR-4006
671													321 HCR-4008
771													352 HCR-40010
871													383 HCR-40012
394	400	305	250	79	121	228	4		320 HCR-5002	228	63	CATG-500	
494													361 HCR-5004
594													402 HCR-5006
694													443 HCR-5008
794													484 HCR-50010
894													525 HCR-50012
402	430	330	270	85	121	247	4		379 HCR-6002	241	78	CATG-600	
502													427 HCR-6004
602													474 HCR-6006
702													521 HCR-6008
802													568 HCR-60010
902													615 HCR-60012
454	505	385	320	100	143	297	4		608 HCR-8002	287	87	CATG-800	
554													674 HCR-8004
654													740 HCR-8006
754													806 HCR-8008
854													872 HCR-80010
954													938 HCR-80012
492	570	440	340	114	153	323	4		843 HCR-10002	311	93	CATG-1000	
592													921 HCR-10004
692													1000 HCR-10006
792													1079 HCR-10008
892													1158 HCR-100010
992													1236 HCR-100012