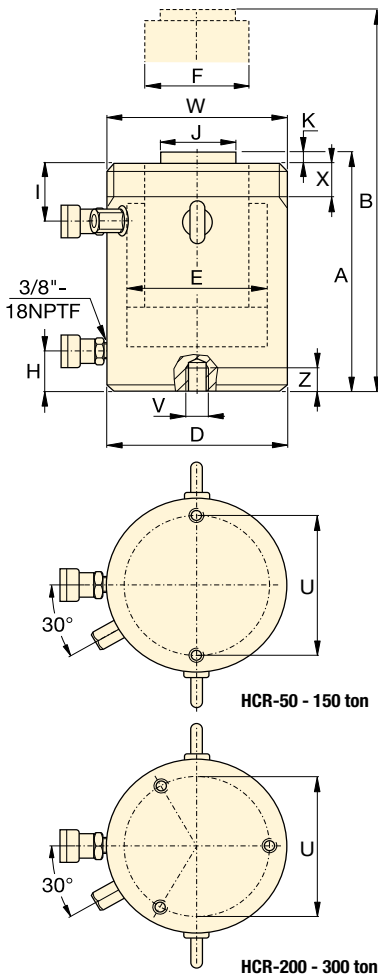


HCR-Series, High Tonnage Cylinders

ENERPAC



HCR-50 - 150 ton

HCR-200 - 300 ton

Collar Thread * (mm)		
Model / Capacity ton	Thread Size	Thread Length
	W	X
HCR50	M130 x 2	30
HCR100	M175 x 3	46
HCR150	M215 x 3	55
HCR200	M250 x 3	63
HCR250	M280 x 3	64
HCR300*	M305 x 3	73

* Standard collar thread up to 250 ton models. Collar thread is optional on 300 ton models and higher. For collar thread on cylinder add suffix "E002" to model number. Example: HCR300E002. 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		
HCR50	105	M12 x 1,75	22	2	90°
HCR100	150	M12 x 1,75	22	2	90°
HCR150	185	M12 x 1,75	22	2	90°
HCR200	215	M12 x 1,75	22	3	60°
HCR250	245	M12 x 1,75	22	3	60°
HCR300	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
- Standard collar thread up to 250 ton models. Collar thread is optional on 300 ton models and higher.

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

For 400 - 1000 ton models, see pages 54-55.

For full product features see pages 44-45.

Cylinder Capacity ton	Stroke (mm)	Model Number	Maximum Cylinder Capacity at 700 bar ton (kN)	Cylinder Effective Area (cm ²)	Oil Capacity (cm ³)		Collapsed Height A (mm)
					Advance	Retract	
50	50	HCR502	56 (550)	78,5	393	200	183
	100	HCR504			785	401	233
	150	HCR506 ¹⁾			1178	601	283
	200	HCR508			1571	801	346
	250	HCR5010			1963	1001	396
	300	HCR5012 ¹⁾			2356	1202	446
100	50	HCR1002	102 (1002)	143,1	716	361	202
	100	HCR1004			1431	723	252
	150	HCR1006			2147	1084	302
	200	HCR1008			2863	1445	379
	250	HCR10010			3578	1806	429
	300	HCR10012			4294	2168	479
150	50	HCR1502	153 (1497)	213,8	1069	504	220
	100	HCR1504			2138	1007	270
	150	HCR1506			3207	1511	320
	200	HCR1508			4276	2015	397
	250	HCR15010			5346	2518	447
	300	HCR15012			6415	3022	497
200	50	HCR2002	202 (1985)	283,5	1418	648	231
	100	HCR2004			2835	1296	281
	150	HCR2006			4253	1944	331
	200	HCR2008			5671	2592	408
	250	HCR20010			7088	3240	458
	300	HCR20012			8506	3888	508
250	50	HCR2502	259 (2541)	363,1	1815	680	241
	100	HCR2504			3631	1361	291
	150	HCR2506			5446	2041	341
	200	HCR2508			7261	2721	431
	250	HCR25010			9076	3402	481
	300	HCR25012			10.892	4082	531
300	50	HCR3002	310 (3036)	433,7	2169	598	296
	100	HCR3004			4337	1196	346
	150	HCR3006			6506	1794	396
	200	HCR3008			8675	2392	446
	250	HCR30010			10.843	2989	496
	300	HCR30012			13.012	3587	546

¹⁾ HCR506 and HCR5012: 7% side-load of maximum capacity.

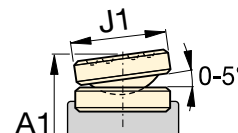
Double-Acting, High Tonnage Cylinders

Capacity:
50 - 300 ton

Stroke:
50 - 300 mm

Maximum Operating Pressure:
700 bar

HCR Series



CATS-Series Tilt Saddle

	Extended Height	Outside Diameter	Cylinder Bore Diameter	Plunger Diameter	Base to Advance Port	Top to Retract Port	Standard Saddle Diameter	Saddle Protrusion from Plunger		Model Number	Optional Tilt Saddle		
	B (mm)	D (mm)	E (mm)	F (mm)	H (mm)	I (mm)	J (mm)	K (mm)	(kg)		Saddle Diameter J1 (mm)	Collapsed Height ² A1 (mm)	Saddle Model Number
	233	130	100	70	38	45	50	3	17	HCR502	71	197	CATS50
	333								21	HCR504		247	
	433								25	HCR506 ¹⁾		297	
	546					55			31	HCR508		360	
	646								34	HCR5010		410	
	746								38	HCR5012 ¹⁾		460	
	252	175	135	95	38	65	75	3	34	HCR1002	71	212	CATS101
	352								41	HCR1004		262	
	452								48	HCR1006		312	
	579					80			59	HCR1008		389	
	679								66	HCR10010		439	
	779								73	HCR10012		489	
	270	215	165	120	41	70	94	3	56	HCR1502	97	239	CATS150
	370								67	HCR1504		289	
	470								78	HCR1506		339	
	597					90			95	HCR1508		416	
	697								106	HCR15010		466	
	797								116	HCR15012		516	
	281	250	190	140	47	79	113	3	81	HCR2002	126	249	CATS200
	381								96	HCR2004		299	
	481								111	HCR2006		349	
	608					97			139	HCR2008		426	
	708								153	HCR20010		476	
	808								168	HCR20012		526	
	291	280	215	170	53	79	140	4	107	HCR2502	175	280	CATS300
	391								127	HCR2504		330	
	491								146	HCR2506		380	
	631					104			184	HCR2508		470	
	731								207	HCR25010		520	
	831								227	HCR25012		570	
	346	305	235	200	58	101	140	4	159	HCR3002	175	335	CATS300
	446								183	HCR3004		385	
	546								208	HCR3006		435	
	646								232	HCR3008		485	
	746								257	HCR30010		535	
	846								281	HCR30012		585	

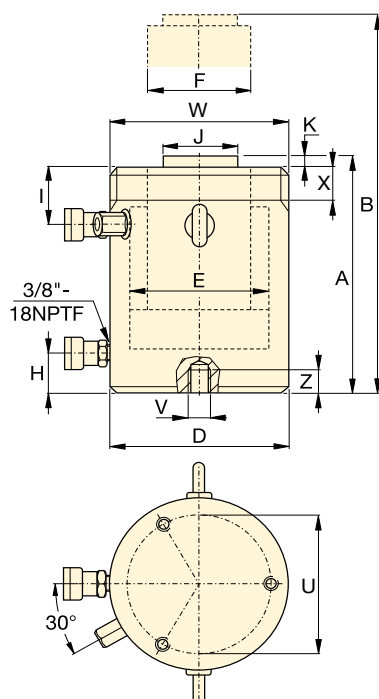
²⁾ A1 = Collapsed height including CATS-Series tilt saddle.

HCR-Series, High Tonnage Cylinders

ENERPAC

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
- Optional collar threads on 300 ton models and higher capacities.



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

For 50 - 300 ton models, see pages 52-53.

For full product features see pages 44-45.

Cylinder Capacity ton	Stroke (mm)	Model Number	Maximum Cylinder Capacity at 700 bar ton (kN)	Cylinder Effective Area (cm ²)	Oil Capacity (cm ³)		Collapsed Height A (mm)
					Advance	Retract	
400	50	HCR4002	409 (4008)	572,6	2863	962	321
	100	HCR4004			5726	1924	371
	150	HCR4006			8588	2886	421
	200	HCR4008			11.451	3848	471
	250	HCR40010			14.314	4811	521
	300	HCR40012			17.177	5773	571
500	50	HCR5002	522 (5114)	730,6	3653	1199	344
	100	HCR5004			7306	2397	394
	150	HCR5006			10.959	3596	444
	200	HCR5008			14.612	4795	494
	250	HCR50010			18.265	5994	544
	300	HCR50012			21.918	7192	594
600	50	HCR6002	611 (5987)	855,3	4276	1414	352
	100	HCR6004			8553	2827	402
	150	HCR6006			12.829	4241	452
	200	HCR6008			17.106	5655	502
	250	HCR60010			21.382	7069	552
	300	HCR60012			25.659	8482	602
800	50	HCR8002	831 (8149)	1164,2	5821	1800	404
	100	HCR8004			11.642	3599	454
	150	HCR8006			17.462	5399	504
	200	HCR8008			23.283	7198	554
	250	HCR80010			29.104	8998	604
	300	HCR80012			34.925	10.797	654
1000	50	HCR10002	1085 (10.644)	1520,5	7603	3063	442
	100	HCR10004			15.205	6126	492
	150	HCR10006			22.808	9189	542
	200	HCR10008			30.411	12.252	592
	250	HCR100010			38.013	15.315	642
	300	HCR100012			45.616	18.378	692

Optional Collar Thread (mm)

Model / Capacity ton	Thread Size	Thread Length
	W	X
HCR400	M350 x 3	83
HCR500	M400 x 4	90
HCR600	M430 x 4	100
HCR800	M505 x 5	122
HCR1000	M570 x 5	137

Collar thread is optional on 300 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 Z	Number of Holes	Angle from Coupler
	U	V	Z		
HCR400	300	M16 x 2	25	3	60°
HCR500	340	M24 x 3	36	3	60°
HCR600	370	M24 x 3	36	3	60°
HCR800	440	M24 x 3	36	3	60°
HCR1000	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.

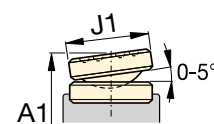
HCR Series



Capacity:
400 - 1000 ton

Stroke:
50 - 300 mm

Maximum Operating Pressure:
700 bar



CATS-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
371	350	270	220	74	111	159	4	227 HCR4002
471								258 HCR4004
571								289 HCR4006
671								321 HCR4008
771								352 HCR40010
871								383 HCR40012
394	400	305	250	79	121	179	4	320 HCR5002
494								361 HCR5004
594								402 HCR5006
694								443 HCR5008
794								484 HCR50010
894								525 HCR50012
402	430	330	270	85	121	194	4	379 HCR6002
502								427 HCR6004
602								474 HCR6006
702								521 HCR6008
802								568 HCR60010
902								615 HCR60012
454	505	385	320	100	143	224	4	608 HCR8002
554								674 HCR8004
654								740 HCR8006
754								806 HCR8008
854								872 HCR80010
954								938 HCR80012
492	570	440	340	114	153	249	4	843 HCR10002
592								921 HCR10004
692								1000 HCR10006
792								1079 HCR10008
892								1158 HCR100010
992								1236 HCR100012

Optional Tilt Saddle		
Saddle Diameter J1 (mm)	Collapsed Height * A1 (mm)	Saddle Model Number
210	369	CATS400
	419	
	469	
	519	
	569	
	619	
230	392	CATS500
	442	
	492	
	542	
	592	
	642	
250	405	CATS600
	455	
	505	
	555	
	605	
	655	
275	461	CATS800
	511	
	561	
	611	
	661	
	711	
300	519	CATS1000
	569	
	619	
	669	
	719	
	769	

* A1 = Collapsed height including CATS-Series tilt saddle.