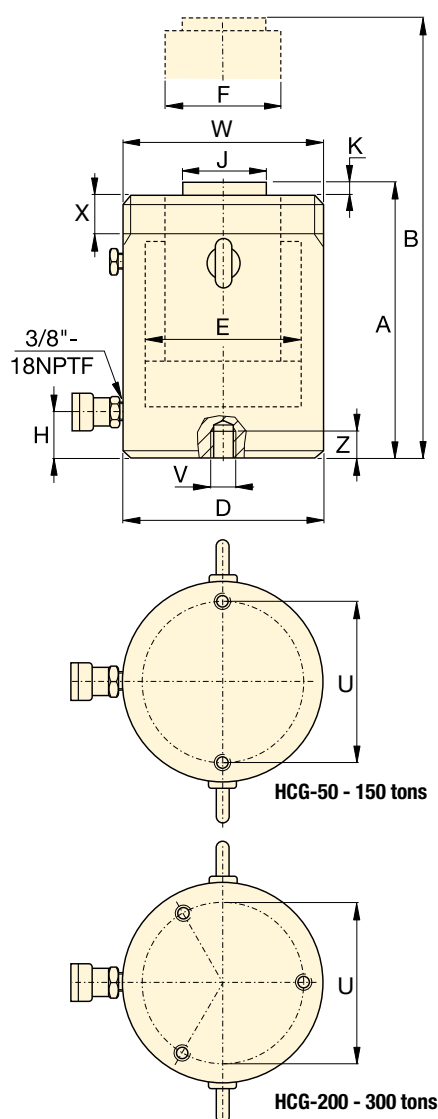




HCG-Series, Single-Acting, Gravity Return Cylinders

- Hardened surface resists side loading and cyclic wear
- Designed to withstand 10% side load of maximum capacity ¹⁾
- Stop ring to prevent plunger blow-out
- 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 tons models. Collar thread is optional on 300 tons models and higher.

SELECTION CHART 50 - 300 TONS HCG-MODELS

For 400 - 1000 tons models, see pages 56-57.

For full product features see pages 50-51.

Cylinder Capacity	Stroke	Model Number	Maximum Cylinder Capacity at 10,150 psi tons	Cylinder Effective Area	Oil Capacity	Collapsed Height
tons	(in)			(in ²)	(in ³)	A (in)
50	1.97	HCG502	62	12.17	23.96	7.20
	3.94	HCG504			47.93	9.17
	5.91	HCG506 ¹⁾			71.89	11.14
	7.87	HCG508			95.86	13.62
	9.84	HCG5010			119.82	15.59
	11.81	HCG5012 ¹⁾			143.78	17.56
100	1.97	HCG1002	113	22.19	43.67	7.95
	3.94	HCG1004			87.35	9.92
	5.91	HCG1006			131.02	11.89
	7.87	HCG1008			174.70	14.92
	9.84	HCG10010			218.37	16.89
	11.81	HCG10012			262.05	18.86
150	1.97	HCG1502	168	33.14	65.24	8.66
	3.94	HCG1504			130.48	10.63
	5.91	HCG1506			195.73	12.60
	7.87	HCG1508			260.97	15.63
	9.84	HCG15010			326.21	17.60
	11.81	HCG15012			391.45	19.57
200	1.97	HCG2002	223	43.95	86.51	9.09
	3.94	HCG2004			173.02	11.06
	5.91	HCG2006			259.53	13.03
	7.87	HCG2008			346.04	16.06
	9.84	HCG20010			432.55	18.03
	11.81	HCG20012			519.06	20.00
250	1.97	HCG2502	286	56.27	110.77	9.49
	3.94	HCG2504			221.55	11.46
	5.91	HCG2506			332.32	13.43
	7.87	HCG2508			443.09	16.97
	9.84	HCG25010			553.87	18.94
	11.81	HCG25012			664.64	20.91
300	1.97	HCG3002	341	67.23	132.34	11.65
	3.94	HCG3004			264.68	13.62
	5.91	HCG3006			397.02	15.59
	7.87	HCG3008			529.36	17.56
	9.84	HCG30010			661.71	19.53
	11.81	HCG30012			794.05	21.50

Collar Thread *

Model / Capacity tons	Thread Size	Thread Length
	W (mm)	X (mm)
HCG50	M130 x 2	1.18
HCG100	M175 x 3	1.81
HCG150	M215 x 3	2.17
HCG200	M250 x 3	2.48
HCG250	M280 x 3	2.52
HCG300 *	M305 x 3	2.87

* Standard collar thread up to 250 tons models. Collar thread is optional on 300 tons models and higher. For collar thread on cylinder add suffix "E002" to model number. **Example: HCG3006E002**
The collar thread length is designed for the full rated cylinder capacity.

Base Mounting Holes

Model / Capacity tons	Bolt Circle	Thread Size	Minimum Thread Depth	Number of Holes	Angle from Coupler (degrees)
	U (in)	V (mm)	Z (in)		
HCG50	4.13	M12 x 1,75	0.87	2	90°
HCG100	5.91	M12 x 1,75	0.87	2	90°
HCG150	7.28	M12 x 1,75	0.87	2	90°
HCG200	8.46	M12 x 1,75	0.87	3	60°
HCG250	9.65	M12 x 1,75	0.87	3	60°
HCG300	10.24	M16 x 2	0.98	3	60°

¹⁾ HCG506 and HCG5012: 7% side load of maximum capacity.

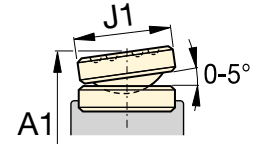
Single-Acting, High-Tonnage Cylinders

Capacity:
50 - 300 tons

Stroke:
1.97 - 11.81 inches

Maximum Operating Pressure:
10,150 psi

HCG Series

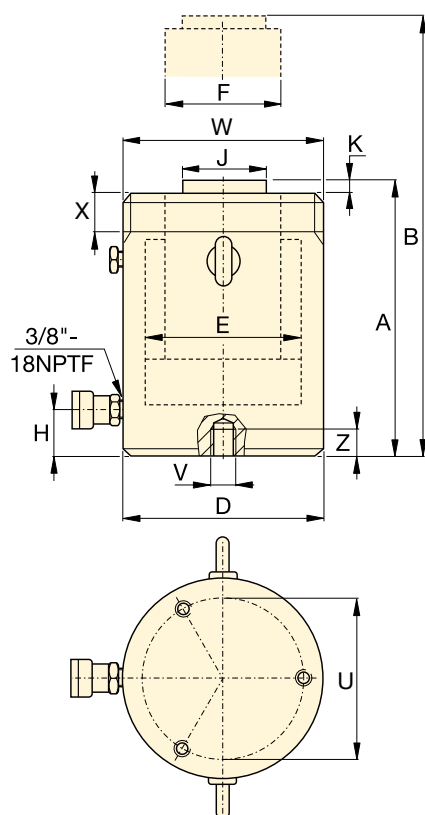


CATS-Series Tilt Saddle

Extended Height	Outside Diameter	Cylinder Bore Diameter	Plunger Diameter	Base to Advance Port	Standard Saddle Diameter	Saddle Protrusion from Plunger	 (lbs)	Model Number
B (in)	D (in)	E (in)	F (in)	H (in)	J (in)	K (in)		
9.17	5.12	3.94	2.76	1.50	1.97	0.12	37	HCG502
13.11							45	HCG504
17.05							53	HCG506 ¹⁾
21.50							64	HCG508
25.43							72	HCG5010
29.37							80	HCG5012 ¹⁾
9.92	6.89	5.31	3.74	1.50	2.95	0.12	73	HCG1002
13.86							88	HCG1004
17.80							102	HCG1006
22.80							128	HCG1008
26.73							142	HCG10010
30.67							157	HCG10012
10.63	8.46	6.50	4.72	1.61	3.70	0.12	123	HCG1502
14.57							145	HCG1504
18.50							168	HCG1506
23.50							207	HCG1508
27.44							230	HCG15010
31.38							253	HCG15012
11.06	9.84	7.48	5.51	1.85	4.45	0.12	178	HCG2002
15.00							209	HCG2004
18.94							240	HCG2006
23.94							300	HCG2008
27.87							331	HCG20010
31.81							363	HCG20012
11.46	11.02	8.46	6.69	2.09	5.51	0.16	235	HCG2502
15.39							277	HCG2504
19.33							318	HCG2506
24.84							401	HCG2508
28.78							442	HCG25010
32.72							484	HCG25012
13.62	12.01	9.25	7.87	2.28	5.51	0.16	348	HCG3002
17.56							401	HCG3004
21.50							454	HCG3006
25.43							507	HCG3008
29.37							560	HCG30010
33.31							613	HCG30012

Optional Tilt Saddle		
Saddle Diameter J1 (in)	Collapsed Height A1 (in)	Saddle Model Number
2.80	7.75	CATS50
	9.72	
	11.69	
	14.17	
	16.14	
	18.11	
2.80	8.35	CATS101
	10.31	
	12.28	
	15.31	
	17.28	
	19.25	
3.82	9.41	CATS150
	11.38	
	13.35	
	16.38	
	18.35	
	20.31	
4.96	9.80	CATS200
	11.77	
	13.74	
	16.77	
	18.74	
	20.71	
6.89	11.00	CATS300
	13.00	
	14.96	
	18.50	
	20.47	
	22.44	
6.89	13.19	CATS300
	15.16	
	17.13	
	19.00	
	21.00	
	23.00	

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



HCG-Series, Single-Acting, Gravity Return Cylinders

- Hardened surface resists side loading and cyclic wear
- Designed to withstand 10% side load of maximum capacity
- Stop ring to prevent plunger blow-out
- 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
- Optional collar threads on 300 tons models and higher capacities.

SELECTION CHART 400 - 1000 TONS HCG-MODELS

For 50 - 300 tons models, see pages 54-55.

For full product features see pages 50-51.

Cylinder Capacity tons	Stroke (in)	Model Number	Maximum Cylinder Capacity at 10,150 psi tons	Cylinder Effective Area (in ²)	Oil Capacity (in ³)	Collapsed Height A (in)
400	1.97	HCG4002	450	88.75	174.70	12.64
	3.94	HCG4004			349.39	14.61
	5.91	HCG4006			524.09	16.57
	7.87	HCG4008			698.79	18.54
	9.84	HCG40010			873.49	20.51
	11.81	HCG40012			1,048.18	22.48
500	1.97	HCG5002	575	113.25	222.92	13.54
	3.94	HCG5004			445.85	15.51
	5.91	HCG5006			668.77	17.48
	7.87	HCG5008			891.70	19.45
	9.84	HCG50010			1,114.62	21.42
	11.81	HCG50012			1,337.55	23.39
600	1.97	HCG6002	673	132.57	260.97	13.86
	3.94	HCG6004			521.94	15.83
	5.91	HCG6006			782.90	17.80
	7.87	HCG6008			1,043.87	19.76
	9.84	HCG60010			1,304.84	21.73
	11.81	HCG60012			1,565.81	23.70
800	1.97	HCG8002	916	180.44	355.21	15.91
	3.94	HCG8004			710.41	17.87
	5.91	HCG8006			1,065.62	19.84
	7.87	HCG8008			1,420.82	21.81
	9.84	HCG80010			1,776.03	23.78
	11.81	HCG80012			2,131.24	25.75
1000	1.97	HCG10002	1196	235.68	463.94	17.40
	3.94	HCG10004			927.88	19.37
	5.91	HCG10006			1,391.83	21.34
	7.87	HCG10008			1,855.77	23.31
	9.84	HCG100010			2,319.71	25.28
	11.81	HCG100012			2,783.65	27.24

Optional Collar Thread

Model / Capacity tons	Thread Size	Thread Length	Collar thread is optional on 300 ton models and higher. For collar thread on cylinder add suffix "E002" to model number. Example: HCG4006E002
	W (mm)	X (in)	
HCG400	M350 x 3	3.27	The collar thread length is designed for the full rated cylinder capacity.
HCG500	M400 x 4	3.54	
HCG600	M430 x 4	3.94	
HCG800	M505 x 5	4.80	
HCG1000	M570 x 5	5.39	

Base Mounting Holes

Model / Capacity tons	Bolt Circle U (in)	Thread Size V (mm)	Minimum Thread Depth Z (in)	Number of Holes	Angle from Coupler (degrees)
HCG400	11.81	M16 x 2	0.98	3	60°
HCG500	13.39	M24 x 3	1.42	3	60°
HCG600	14.57	M24 x 3	1.42	3	60°
HCG800	17.32	M24 x 3	1.42	3	60°
HCG1000	19.69	M24 x 3	1.42	3	60°

Single-Acting, High-Tonnage Cylinders



▲ Offshore wind turbines levelling: Enerpac's synchronous lifting system was the solution for leveling support cross pieces on 80 wind turbines.

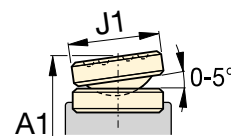
HCG Series



Capacity:
400 - 1000 tons

Stroke:
1.97 - 11.81 inches

Maximum Operating Pressure:
10,150 psi



CATS-Series Tilt Saddle

Extended Height B (in)	Outside Diameter D (in)	Cylinder Bore Diameter E (in)	Plunger Diameter F (in)	Base to Advance Port H (in)	Standard Saddle Diameter J (in)	Saddle Protrusion from Plunger K (in)	 (lbs)	Model Number
14.61	13.87	10.63	8.66	2.91	6.26	0.16	500	HCG4002
18.54							566	HCG4004
22.48							633	HCG4006
26.42							699	HCG4008
30.35							766	HCG40010
34.29							833	HCG40012
15.51	15.75	12.01	9.84	3.11	7.05	0.16	704	HCG5002
19.45							792	HCG5004
23.39							880	HCG5006
27.32							968	HCG5008
31.26							1,056	HCG50010
35.20							1,144	HCG50012
15.83	16.93	12.99	10.63	3.35	7.64	0.16	834	HCG6002
19.76							935	HCG6004
23.70							1,036	HCG6006
27.64							1,137	HCG6008
31.57							1,239	HCG60010
35.51							1,340	HCG60012
17.87	19.88	15.16	12.60	3.94	8.82	0.16	1,336	HCG8002
21.81							1,479	HCG8004
25.75							1,621	HCG8006
29.69							1,763	HCG8008
33.62							1,905	HCG80010
37.56							2,047	HCG80012
19.37	22.44	17.32	13.39	4.49	9.80	0.16	1,852	HCG10002
23.31							2,020	HCG10004
27.24							2,188	HCG10006
31.18							2,355	HCG10008
35.12							2,523	HCG100010
39.06							2,691	HCG100012

Optional Tilt Saddle		
Saddle Diameter J1 (in)	Collapsed Height * A1 (in)	Saddle Model Number
8.27	14.53	CATS400
	16.50	
	18.46	
	20.43	
	22.40	
	24.37	
9.06	15.43	CATS500
	17.40	
	19.37	
	21.34	
	23.31	
	25.28	
9.84	15.94	CATS600
	17.91	
	19.88	
	21.85	
	23.82	
	25.79	
10.83	18.15	CATS800
	20.12	
	22.00	
	24.00	
	26.00	
	28.00	
11.81	20.43	CATS1000
	22.40	
	24.37	
	26.34	
	28.31	
	30.28	

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