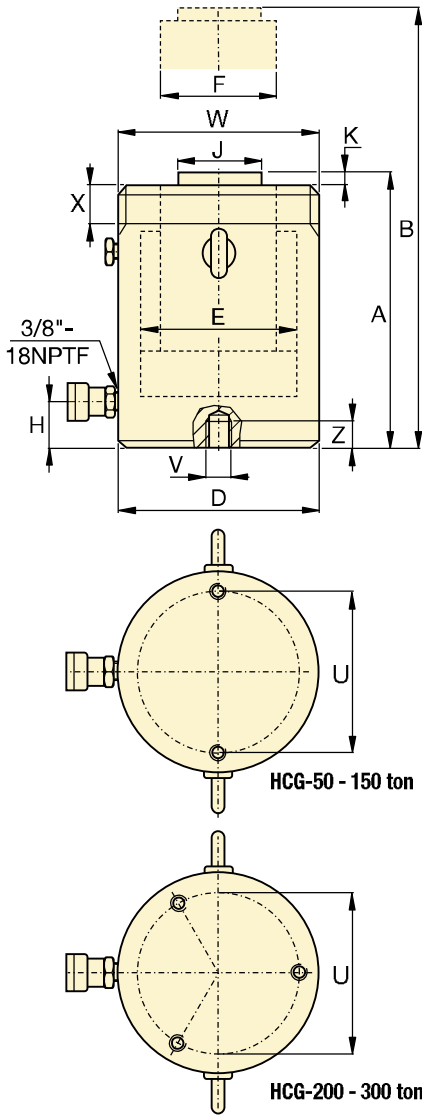


HCG-Series, High Tonnage Cylinders



HCG-Series, Single-Acting, Gravity Return Cylinders

- Hardened surface resists side-loading and cyclic wear
- Designed to withstand 10% side-load of maximum capacity¹⁾
- 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.

SELECTION CHART 50 - 300 TON HCG-MODELS

For 400 - 1000 ton models, see pages 46-47.

For full product features see pages 40-41.

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

| Collar Thread (mm) | | |
|----------------------|-------------|---------------|
| Model / Capacity ton | Thread Size | Thread Length |
| | W | X |
| HCG-50 | M130 x 2 | 30 |
| HCG-100 | M175 x 3 | 46 |
| HCG-150 | M215 x 3 | 55 |
| HCG-200 | M250 x 3 | 63 |
| HCG-250 | M280 x 3 | 64 |
| HCG-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 | | |
| HCG-50 | 105 | M12 x 1,75 | 22 | 2 | 90° |
| HCG-100 | 150 | M12 x 1,75 | 22 | 2 | 90° |
| HCG-150 | 185 | M12 x 1,75 | 22 | 2 | 90° |
| HCG-200 | 215 | M12 x 1,75 | 22 | 3 | 60° |
| HCG-250 | 245 | M12 x 1,75 | 22 | 3 | 60° |
| HCG-300 | 260 | M16 x 2 | 25 | 3 | 60° |

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

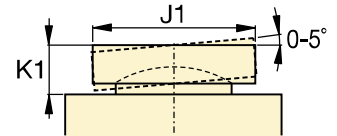
Single-Acting, High Tonnage Cylinders

Capacity:
50 - 300 ton


Stroke:
50 - 300 mm

Maximum Operating Pressure:
700 bar

HCG Series

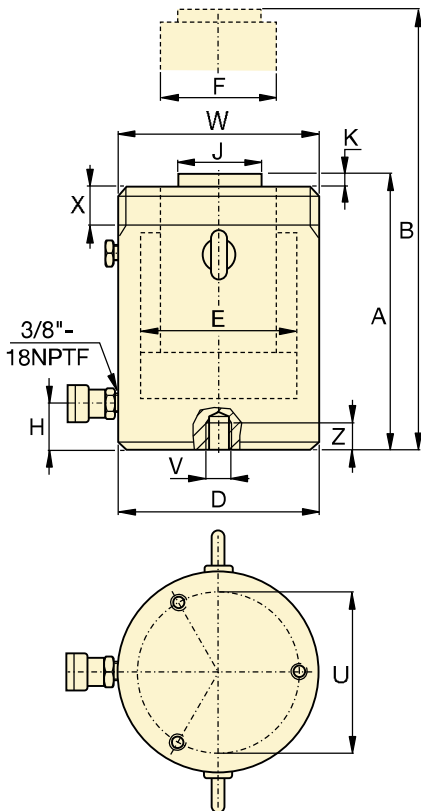


CATG-Series Tilt Saddle

| | Extended Height B (mm) | Outside Diameter D (mm) | Cylinder Bore Diameter E (mm) | Plunger Diameter F (mm) | Base to Advance Port H (mm) | Standard Saddle Diameter J (mm) | Saddle Protrusion from Plunger K (mm) |  (kg) | Model Number | Optional Tilt Saddle | | |
|--|------------------------------|-------------------------------|-------------------------------------|-------------------------------|-----------------------------------|---------------------------------------|---|--|------------------------|----------------------|-------------------|---------------------|
| | | | | | | | | | | Diameter J1 (mm) | Height K1 (mm) | Saddle Model Number |
| | 233 | 130 | 100 | 70 | 38 | 50 | 3 | 17 | HCG-502 | 50 | 24 | CATG-50 |
| | 333 | | | | | | | 20 | HCG-504 | | | |
| | 433 | | | | | | | 24 | HCG-506 ¹⁾ | | | |
| | 546 | | | | | | | 29 | HCG-508 | | | |
| | 646 | | | | | | | 32 | HCG-5010 | | | |
| | 746 | | | | | | | 36 | HCG-5012 ¹⁾ | | | |
| | 252 | 175 | 135 | 95 | 38 | 75 | 3 | 33 | HCG-1002 | 73 | 29 | CATG-100 |
| | 352 | | | | | | | 40 | HCG-1004 | | | |
| | 452 | | | | | | | 46 | HCG-1006 | | | |
| | 579 | | | | | | | 58 | HCG-1008 | | | |
| | 679 | | | | | | | 65 | HCG-10010 | | | |
| | 779 | | | | | | | 71 | HCG-10012 | | | |
| | 270 | 215 | 165 | 120 | 41 | 94 | 3 | 56 | HCG-1502 | 91 | 31 | CATG-150 |
| | 370 | | | | | | | 66 | HCG-1504 | | | |
| | 470 | | | | | | | 76 | HCG-1506 | | | |
| | 597 | | | | | | | 94 | HCG-1508 | | | |
| | 697 | | | | | | | 104 | HCG-15010 | | | |
| | 797 | | | | | | | 115 | HCG-15012 | | | |
| | 281 | 250 | 190 | 140 | 47 | 113 | 3 | 81 | HCG-2002 | 118 | 35 | CATG-200 |
| | 381 | | | | | | | 95 | HCG-2004 | | | |
| | 481 | | | | | | | 109 | HCG-2006 | | | |
| | 608 | | | | | | | 136 | HCG-2008 | | | |
| | 708 | | | | | | | 150 | HCG-20010 | | | |
| | 808 | | | | | | | 164 | HCG-20012 | | | |
| | 291 | 280 | 215 | 170 | 53 | 145 | 4 | 107 | HCG-2502 | 144 | 47 | CATG-250 |
| | 391 | | | | | | | 125 | HCG-2504 | | | |
| | 491 | | | | | | | 144 | HCG-2506 | | | |
| | 631 | | | | | | | 182 | HCG-2508 | | | |
| | 731 | | | | | | | 201 | HCG-25010 | | | |
| | 831 | | | | | | | 219 | HCG-25012 | | | |
| | 346 | 305 | 235 | 200 | 58 | 177 | 4 | 158 | HCG-3002 | 160 | 64 | CATG-300 |
| | 446 | | | | | | | 182 | HCG-3004 | | | |
| | 546 | | | | | | | 206 | HCG-3006 | | | |
| | 646 | | | | | | | 230 | HCG-3008 | | | |
| | 746 | | | | | | | 254 | HCG-30010 | | | |
| | 846 | | | | | | | 278 | HCG-30012 | | | |

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 400 ton models and higher capacities.



| Optional Collar Thread (mm) | | |
|-----------------------------|-------------|---------------|
| Model / Capacity ton | Thread Size | Thread Length |
| | W | X |
| HCG-400 | M350 x 3 | 83 |
| HCG-500 | M400 x 4 | 90 |
| HCG-600 | M430 x 4 | 100 |
| HCG-800 | M505 x 5 | 122 |
| HCG-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: **HCG4006E002**

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 | | |
| HCG-400 | 300 | M16 x 2 | 25 | 3 | 60° |
| HCG-500 | 340 | M24 x 3 | 36 | 3 | 60° |
| HCG-600 | 370 | M24 x 3 | 36 | 3 | 60° |
| HCG-800 | 440 | M24 x 3 | 36 | 3 | 60° |
| HCG-1000 | 500 | M24 x 3 | 36 | 3 | 60° |

SELECTION CHART 400 - 1000 TON HCG-MODELS

For 50 - 300 ton models, see pages 44-45.
For full product features see pages 40-41.

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

Single-Acting, High Tonnage Cylinders



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

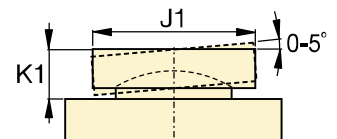
HCG Series



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) | 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 | 196 | 4 | 227 | 193 | 59 | CATG-400 |
| 471 | | | | | | | 257 | | | |
| 571 | | | | | | | 287 | | | |
| 671 | | | | | | | 317 | | | |
| 771 | | | | | | | 347 | | | |
| 871 | | | | | | | 378 | | | |
| 394 | 400 | 305 | 250 | 79 | 228 | 4 | 319 | 228 | 63 | CATG-500 |
| 494 | | | | | | | 359 | | | |
| 594 | | | | | | | 399 | | | |
| 694 | | | | | | | 439 | | | |
| 794 | | | | | | | 479 | | | |
| 894 | | | | | | | 519 | | | |
| 402 | 430 | 330 | 270 | 85 | 247 | 4 | 378 | 241 | 78 | CATG-600 |
| 502 | | | | | | | 424 | | | |
| 602 | | | | | | | 470 | | | |
| 702 | | | | | | | 516 | | | |
| 802 | | | | | | | 562 | | | |
| 902 | | | | | | | 608 | | | |
| 454 | 505 | 385 | 320 | 100 | 297 | 4 | 606 | 287 | 87 | CATG-800 |
| 554 | | | | | | | 671 | | | |
| 654 | | | | | | | 735 | | | |
| 754 | | | | | | | 800 | | | |
| 854 | | | | | | | 864 | | | |
| 954 | | | | | | | 929 | | | |
| 492 | 570 | 440 | 340 | 114 | 323 | 4 | 840 | 311 | 93 | CATG-1000 |
| 592 | | | | | | | 916 | | | |
| 692 | | | | | | | 992 | | | |
| 792 | | | | | | | 1068 | | | |
| 892 | | | | | | | 1145 | | | |
| 992 | | | | | | | 1221 | | | |