



Universal cylinders model YH

**Double-acting with hydraulic return,
capacity 5 - 200 t**

These extremely robust double-acting cylinders are especially designed for universal heavy-duty lifting and positioning applications as well as for industrial production and assembly jobs. The cylinders offer high pushing and pulling forces. The double-acting design assures a high piston retraction speed.

Major areas of application are bridge building and civil engineering, off-shore, ship building, etc. They can also be used as power source in frame presses, stamping fixtures and other industrial uses where high pushing and pulling forces are required.

Features

- Yale ChroMo-Design.
- Operating pressure max. 700 bar.
- Double-acting with hydraulic return.
- Long bronze piston guidings.
- Piston strokes from 30 up to 500 mm.
- Cylinder body and piston are made from solid chromium-molybdenum steel and heat-treated.
- Double bronze bearing of the hard chromium plated piston.
- Metric mounting threads on cylinder housing, in the bottom of the cylinder body and in the piston rod.
- Stop ring can bear full capacity (pressure) and is fitted with dirt wiper.
- Interchangeable hardened saddle.
- Dirt wiper protects against dirt.
- Oil port thread 3/8 NPT.
- Incl. 2 female coupler halves model CFY-1.
- From model YH-30/200 with carrying handle.
- From model YH-50/350 with 2 lifting rings.

INFO

For cylinders series YH accessories please see pages 352 - 353.

Selection charts "cylinder/hand pumps" can be found on pages 405 - 407!

Travel-speed charts are supplied on pages 408 - 409.

Technical data model YH

| Cylinder size | Model | EAN-No. 4025092* | Capacity push | Capacity pull | Stroke | Effective plunger area push | Effective plunger area pull | Oil volume max. | Closed height | Cylinder outside diameter | Weight |
|---------------|------------|------------------|---------------|---------------|--------|-----------------------------|-----------------------------|-----------------|---------------|---------------------------|--------|
| t | | | kN | kN | mm | cm ² | cm ² | cm ³ | mm | mm | kg |
| 5 | YH-5/30 | *150408 | 50 | 22 | 30 | 7.2 | 3.1 | 21 | 160 | 55 | 2.5 |
| 5 | YH-5/80 | *150415 | 50 | 22 | 80 | 7.2 | 3.1 | 57 | 210 | 55 | 3.3 |
| 5 | YH-5/150 | *150422 | 50 | 22 | 150 | 7.2 | 3.1 | 106 | 280 | 55 | 4.4 |
| 10 | YH-10/30 | *150439 | 100 | 45 | 30 | 14.3 | 6.4 | 44 | 175 | 67 | 4.0 |
| 10 | YH-10/80 | *150446 | 100 | 45 | 80 | 14.3 | 6.4 | 116 | 225 | 67 | 5.0 |
| 10 | YH-10/150 | *150453 | 100 | 45 | 150 | 14.3 | 6.4 | 218 | 295 | 67 | 6.7 |
| 10 | YH-10/250 | *150460 | 100 | 45 | 250 | 14.3 | 6.4 | 363 | 395 | 67 | 9.0 |
| 20 | YH-20/50 | *150477 | 200 | 100 | 50 | 28.6 | 14.3 | 142 | 195 | 85 | 7.0 |
| 20 | YH-20/150 | *150484 | 200 | 100 | 150 | 28.6 | 14.3 | 424 | 310 | 85 | 11.0 |
| 20 | YH-20/250 | *150491 | 200 | 100 | 250 | 28.6 | 14.3 | 707 | 410 | 85 | 14.0 |
| 30 | YH-30/200 | *150507 | 300 | 140 | 200 | 42.9 | 20.0 | 884 | 355 | 102 | 19.0 |
| 30 | YH-30/350 | *150514 | 300 | 140 | 350 | 42.9 | 20.0 | 1547 | 510 | 102 | 27.0 |
| 50 | YH-50/150 | *150521 | 500 | 220 | 150 | 71.5 | 31.5 | 1064 | 325 | 125 | 27.0 |
| 50 | YH-50/350 | *150538 | 500 | 220 | 350 | 71.5 | 31.5 | 2481 | 525 | 125 | 42.0 |
| 50 | YH-50/500 | *150545 | 500 | 220 | 500 | 71.5 | 31.5 | 3544 | 685 | 125 | 52.0 |
| 70 | YH-70/150 | *150552 | 700 | 330 | 150 | 100.0 | 47.2 | 1478 | 335 | 146 | 37.0 |
| 70 | YH-70/350 | *150569 | 700 | 330 | 350 | 100.0 | 47.2 | 3449 | 540 | 146 | 56.0 |
| 100 | YH-100/50 | *150576 | 1000 | 450 | 50 | 143.0 | 64.4 | 716 | 265 | 180 | 49.0 |
| 100 | YH-100/150 | *150583 | 1000 | 450 | 150 | 143.0 | 64.4 | 2148 | 365 | 180 | 64.0 |
| 100 | YH-100/350 | *150590 | 1000 | 450 | 350 | 143.0 | 64.4 | 5010 | 565 | 180 | 94.0 |
| 100 | YH-100/500 | *150606 | 1000 | 450 | 500 | 143.0 | 64.4 | 7157 | 725 | 180 | 118.0 |
| 200 | YH-200/150 | *150613 | 2000 | 900 | 150 | 286.0 | 128.7 | 4253 | 410 | 250 | 137.0 |
| 200 | YH-200/350 | *150620 | 2000 | 900 | 350 | 286.0 | 128.7 | 9924 | 620 | 250 | 198.0 |
| 200 | YH-200/500 | *150637 | 2000 | 900 | 500 | 286.0 | 128.7 | 14177 | 780 | 250 | 244.0 |

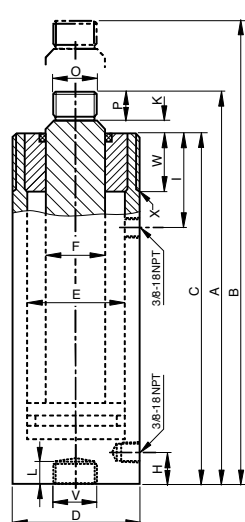


Hydraulic Jacks & Tools Hydraulic cylinders, double-acting

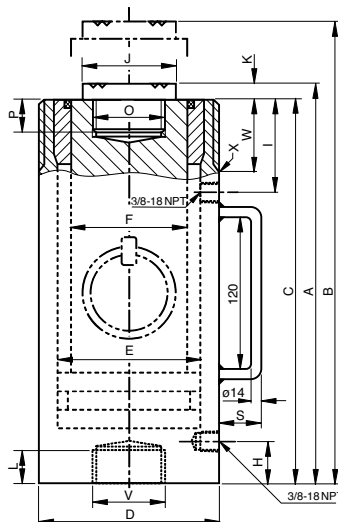
Dimensions model YH

| Model | YH-5/30 | YH-5/80 | YH-5/150 | YH-10/30 | YH-10/80 | YH-10/150 | YH-10/250 | YH-20/50 | YH-20/150 | YH-20/250 | YH-30/200 | YH-30/350 |
|-------|---------|---------|----------|----------|----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|
| A, mm | 160 | 210 | 280 | 175 | 225 | 295 | 395 | 195 | 310 | 410 | 355 | 510 |
| B, mm | 190 | 290 | 430 | 205 | 305 | 445 | 645 | 245 | 460 | 660 | 555 | 860 |
| C, mm | 138 | 188 | 258 | 150 | 200 | 270 | 370 | 167 | 282 | 382 | 345 | 500 |
| D, mm | 55 | 55 | 55 | 67 | 67 | 67 | 67 | 85 | 85 | 85 | 102 | 102 |
| E, mm | 30 | 30 | 30 | 43 | 43 | 43 | 43 | 60 | 60 | 60 | 75 | 75 |
| F, mm | 22.4 | 22.4 | 22.4 | 32 | 32 | 32 | 32 | 42 | 42 | 42 | 55 | 55 |
| H, mm | 31 | 31 | 31 | 35 | 35 | 35 | 35 | 22 | 37 | 37 | 46 | 46 |
| I, mm | 44 | 44 | 44 | 50 | 50 | 50 | 50 | 59 | 59 | 59 | 64 | 64 |
| J, mm | - | - | - | - | - | - | - | - | - | - | 50 | 50 |
| K, mm | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 10 | 10 |
| L, mm | 17 | 17 | 17 | 20 | 20 | 20 | 20 | - | 22 | 22 | 28 | 28 |
| O, mm | M18x1.5 | M18x1.5 | M18x1.5 | M27x2 | M27x2 | M27x2 | M27x2 | M36x2 | M36x2 | M36x2 | M36x2 | M36x2 |
| P, mm | 18 | 18 | 18 | 20 | 20 | 20 | 20 | 23 | 23 | 23 | 28 | 28 |
| S, mm | - | - | - | - | - | - | - | - | - | - | 51 | 51 |
| U, mm | - | - | - | - | - | - | - | - | - | - | - | - |
| V, mm | M27x2 | M27x2 | M27x2 | M36x2 | M36x2 | M36x2 | M36x2 | - | M45x2 | M45x2 | M36x2 | M36x2 |
| W, mm | 27 | 27 | 27 | 33 | 33 | 33 | 33 | 40 | 40 | 40 | 45 | 45 |
| X, mm | M55x1.5 | M55x1.5 | M55x1.5 | M67x1.5 | M67x1.5 | M67x1.5 | M67x1.5 | M85x2 | M85x2 | M85x2 | M102x2 | M102x2 |

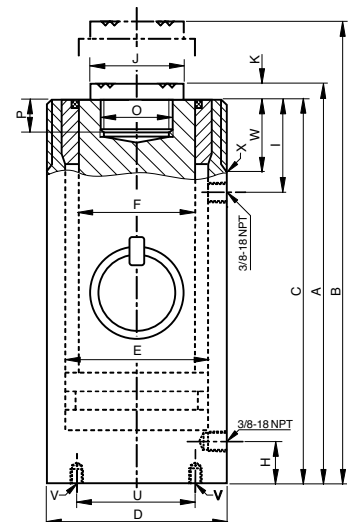
| Model | YH-50/150 | YH-50/350 | YH-50/500 | YH-70/150 | YH-70/350 | YH-100/50 | YH-100/150 | YH-100/350 | YH-100/500 | YH-200/150 | YH-200/350 | YH-200/500 |
|-------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|------------|------------|
| A, mm | 325 | 525 | 685 | 335 | 540 | 265 | 365 | 565 | 725 | 410 | 620 | 780 |
| B, mm | 475 | 875 | 1.185 | 485 | 890 | 315 | 515 | 915 | 1.225 | 560 | 970 | 1.280 |
| C, mm | 313 | 513 | 673 | 321 | 526 | 250 | 350 | 550 | 710 | 391 | 601 | 761 |
| D, mm | 125 | 125 | 125 | 146 | 146 | 180 | 180 | 180 | 180 | 250 | 250 | 250 |
| E, mm | 95 | 95 | 95 | 112 | 112 | 135 | 135 | 135 | 135 | 190 | 190 | 190 |
| F, mm | 70 | 70 | 70 | 80 | 80 | 100 | 100 | 100 | 100 | 140 | 140 | 140 |
| H, mm | 55 | 55 | 55 | 58 | 58 | 66 | 66 | 66 | 66 | 80 | 80 | 80 |
| I, mm | 70 | 70 | 70 | 79 | 79 | 90 | 90 | 90 | 95 | 105 | 105 | 105 |
| J, mm | 65 | 65 | 65 | 75 | 75 | 90 | 90 | 90 | 90 | 127 | 127 | 127 |
| K, mm | 12 | 12 | 12 | 14 | 14 | 15 | 15 | 15 | 15 | 19 | 19 | 19 |
| L, mm | 31 | 31 | 31 | 35 | 35 | - | - | - | - | - | - | - |
| O, mm | M45x2 | M45x2 | M45x2 | M50x3 | M50x3 | M65x3 | M65x3 | M65x3 | M65x3 | M90x3 | M90x3 | M90x3 |
| P, mm | 31 | 31 | 31 | 35 | 35 | 40 | 40 | 40 | 40 | 55 | 55 | 55 |
| S, mm | 51 | 24 | 24 | 24 | 24 | 24 | 24 | 30 | 30 | 30 | 30 | 30 |
| U, mm | - | - | - | - | - | 110 | 110 | 110 | 110 | 160 | 160 | 160 |
| V, mm | M45x2 | M45x2 | M45x2 | M50x3 | M50x3 | 4xM12 | 4xM12 | 4xM12 | 4xM12 | 4xM16 | 4xM16 | 4xM16 |
| W, mm | 50 | 50 | 50 | 60 | 60 | 70 | 70 | 70 | 70 | 80 | 80 | 80 |
| X, mm | M125x2 | M125x2 | M125x2 | M146x3 | M146x3 | M180x3 | M180x3 | M180x3 | M180x3 | M250x4 | M250x4 | M250x4 |



Model YH-5/30 up to YH 20/250



Model YH-30/200 up to YH 70/350



Model YH-100/50 up to YH 200/500