

## YCS
## Hollow cylinders

### Single-acting with spring return, capacity 12 - 93 t

Due to the centre hole design a threaded rod can be placed through the hollow cylinders so that extremely high pulling forces can be achieved.

Hollow cylinders are used as the power component within hydraulic puller sets, for prestressing anker bolts, removing axles, shafts, bushings, extracting tubes, as well as for heavy-duty pulling applications.

### Features

- Yale ChroMo-Design.
- Operating pressure max. 700 bar.
- Single-acting with spring return.
- With large centre hole diameter.
- Cylinder body and piston are made from solid chromium-molybdenum steel and heat-treated.
- Hard-chromium plated piston with replaceable, heat-treated saddle.
- Metric mounting threads at cylinder body and inside of piston.
- Stop ring prevents overtravel of the piston up to full operating pressure.
- Interchangeable hardened saddle.
- With inner and outer dirt wipers.
- Oil port thread 3/8 NPT.
- Incl. female coupler half CFY-1.
- From YCS-21/150 with carrying handle.
- From YCS-57/70 with two lifting rings.

## INFO

Selection charts “cylinder/hand pumps” can be found on pages 438 - 439.

Travel-speed charts are supplied on pages 440 - 441.



## Function principal of the hollow cylinders

In connection with threaded rods hollow cylinders can produce extremely high forces which are helpful for various repair or assembly applications like removing press-fitted parts, prestressing anchors etc.
In addition, hollow cylinders are used as power source in puller sets and test rigs. By the use of long threaded rods and by readjusting the nut larger distances can be pulled even when using short cylinder strokes.

## Technical data YCS

| Cylinder size t | Model | Art.-No. | Capacity kN | Stroke mm | Effective plunger area cm² | Oil volume max. cm³ | Closed height mm | Centre hole diameter mm | Cylinder outside diameter mm | Weight kg |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | **YCS-12/40** | N11400070 | 120 | 40 | 17.2 | 71 | 142 | 20 | 70 | 3.5 |
| 12 | **YCS-12/75** | N11400071 | 120 | 75 | 17.2 | 132 | 195 | 20 | 70 | 4.5 |
| 21 | **YCS-21/50** | N11400072 | 214 | 50 | 30.5 | 153 | 173 | 27 | 100 | 8.5 |
| 21 | **YCS-21/150** | N11400073 | 214 | 150 | 30.5 | 458 | 335 | 27 | 100 | 15.0 |
| 33 | **YCS-33/60** | N11400074 | 335 | 60 | 47.9 | 287 | 193 | 33 | 114 | 12.0 |
| 33 | **YCS-33/150** | N11400075 | 335 | 150 | 47.9 | 716 | 343 | 33 | 114 | 21.0 |
| 57 | **YCS-57/70** | N11400076 | 567 | 70 | 81.0 | 562 | 242 | 42 | 150 | 25.0 |
| 62 | **YCS-62/150** | N11400077 | 618 | 150 | 88.3 | 1330 | 335 | 55 | 163 | 38.0 |
| 93 | **YCS-93/75** | N11400078 | 930 | 75 | 133 | 990 | 280 | 80 | 214 | 55.0 |

## Dimensions YCS

| Model | YCS-12/40 | YCS-12/75 | YCS-21/50 | YCS-21/150 | YCS-33/60 | YCS-33/150 | YCS-57/70 | YCS-62/150 | YCS-93/75 |
|---|---|---|---|---|---|---|---|---|---|
| A, mm | 135 | 188 | 163 | 325 | 183 | 333 | 230 | 323 | 265 |
| B, mm | 175 | 263 | 213 | 475 | 243 | 483 | 300 | 473 | 340 |
| C, mm | 20 | 20 | 27 | 27 | 33 | 33 | 42 | 55 | 80 |
| D, mm | 70 | 70 | 100 | 100 | 114 | 114 | 150 | 163 | 214 |
| E, mm | 55 | 55 | 73 | 73 | 90 | 90 | 118 | 130 | 170 |
| F, mm | 40 | 40 | 53 | 53 | 65 | 65 | 90 | 100 | 136 |
| J, mm | 38 | 38 | 50 | 50 | 62 | 62 | 85 | 96 | 132 |
| K, mm | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 |
| M, mm | – | – | – | 120 | – | 120 | – | – | – |
| O, mm | M30 x 1.5 | M30 x 1.5 | M40 x 1.5 | M40 x 1.5 | M48 x 1.5 | M48 x 1.5 | M65 x 2 | M78 x 2 | M115 x 2 |
| P, mm | 20 | 20 | 25 | 25 | 30 | 30 | 35 | 40 | 45 |
| R, mm | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | – |
| S, mm | – | – | – | 51 | – | 51 | 24 | 24 | 24 |
| T, mm | – | – | – | – | – | – | 155 | 200 | 170 |
| U, mm | 58 | 58 | 82 | 82 | 92 | 92 | 120 | 135 | 180 |
| V, mm | 2 x M8 | 2 x M8 | 2 x M10 | 2 x M10 | 4 x M10 | 4 x M10 | 4 x M12 | 4 x M12 | 4 x M16 |
| W, mm | 30 | 30 | 35 | 35 | 40 | 40 | 50 | 60 | – |
| X, mm | M70 x 2 | M70 x 2 | M100 x 2 | M100 x 2 | M110 x 2 | M110 x 2 | M150 x 3 | M160 x 3 | – |
| Y, mm | 7 | 7 | 10 | 10 | 10 | 10 | 12 | 12 | 15 |




