

* incl. 20 [-5; +30] mm pull out

3D model is available on request or www.hyva.com

| Specifications | | Max. pump flow | | Tipping time | |
|---|---------|-------------------------------------|-----------|-------------------------------------|--------|
| Max. working pressure | 190 bar | With KO ¹ | 190 L/min | With KO ¹ | 27 sec |
| Weight | 236 kg | Without KO ¹ | 137 L/min | Without KO ¹ | 38 sec |
| Working volume | 86 L | With KO ¹ below -20°C | 133 L/min | With KO ¹ below -20°C | 39 sec |
| Total volume | 93 L | Without KO ¹ below -20°C | 96 L/min | Without KO ¹ below -20°C | 54 sec |
| Max. cyl. load (start tipping) | 245 kN | | | Allowable lowering time | 27 sec |
| Max. cyl. load (end of stroke) ² | 95 kN | | | | |
| Max. cyl. load (end of stroke) ³ | 111 kN | | | | |

Technical notes

- This cylinder is a lifting device only. • It should not be used as a structural member and should not be subjected to side loads. • Tipping valve must have a pressure relief at the cylinder port set not higher than max. working pressure. • Verify max. cyl. load. • Working temperature range is between -40°C and +80°C. • Max. duration of extension is 0.5 hours (excluded hard chromed stages). • Cylinder is painted black (RAL9005) with a min. thickness conforming to the 480 hours neutral salt spray test as per ISO 9227. • ¹ Hyva knock-off. • ² Unsubstantial unloading (sticky load). • ³ Substantial unloading.

Related documentation

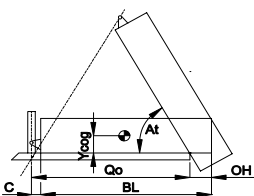
| | |
|-------------------------|---------------------|
| Bracket options: | 015BRA10 & 015BRA13 |
| Mounting instructions: | CYL-0031 |
| Oil specifications: | OIL-0011 |
| Spec sheet explanation: | CYL-0041 |

Configuration

| Extension | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Total |
|-------------------------|------|------|------|------|------|---|---|-------|
| Effective diameter [mm] | 169 | 149 | 129 | 110 | 91 | | | 6230 |
| Stroke* [mm] | 1230 | 1250 | 1250 | 1250 | 1250 | | | |

Tipping weight

For detailed tipping calculations please refer to: <https://tipper.hyva.com>



BL body length
OH rear overhang
Ycog vert. pos. centre of gravity
Qo pivot length
C bracket length
At tipping angle
stroke x 60 / Qo

| BL [mm] | 8200 | | | 7850 | | | 7500 | | |
|-----------|------|-----|-----|------|-----|-----|------|-----|-----|
| OH [mm] | 200 | 500 | 800 | 200 | 500 | 800 | 200 | 500 | 800 |
| At [°] | 46 | 48 | 50 | 48 | 50 | 52 | 50 | 53 | 55 |
| Ycog [mm] | 600 | | | 900 | | | 1200 | | |
| | 34 | 37 | 40 | 35 | 38 | 42 | 36 | 40 | 45 |
| | 36 | 39 | 44 | 38 | 41 | 47 | 40 | 44 | 51 |
| | 39 | 43 | 48 | 41 | 46 | 52 | 43 | 50 | |

Tipping weight [ton] at maximum pressure of 190 bar for a vertically mounted cylinder and C is 158 mm

| Pos. | Part no. | Description | Qty. |
|------|-----------|--------------------------------------|------|
| C01 | 71839131 | DUST COVER FE 169-5/179-5/191-6 | 1 |
| P01 | 74462441 | PISTON FL3 S 091-1445-HC | 1 |
| P02 | 71853091K | SLIDER FL 091 (2 X 1/2) A22 | 1 |
| P03 | 71851091K | OUTER STOPRING FL 091 A22 | 1 |
| P04 | 71822091 | BOTTOM PLATE PISTON FL 091 | 1 |
| P05 | 01745012K | CIRCLIP 82 DIN 472 (87.5x2.5) | 1 |
| P06 | 71870215K | O-RING PISTON BOTTOM 091 | 1 |
| P07 | 71847200 | PISTON EYE SPH. FL3 091 L=075 | 1 |
| P08 | 01226430K | O-RING 72.62 X 3.53 MM | 1 |
| P09 | 71875450K | SPHERICAL BEARING D.50.3 MAINT. FREE | 1 |
| P10 | 01770560K | CIRCLIP 75 DIN 472 (79.5x2.5) | 1 |
| P11 | 71875012 | PIN ROUND HEAD GROOVED 8x15 mm | 2 |

| | | | |
|-----|-----------|-----------------------------|---|
| S41 | 74603441 | STAGE FL2 110-1440-HC | 1 |
| S42 | 71802110K | PACKSET FL 110 | 1 |
| S43 | 71853110K | SLIDER FL 110 (2 X 1/2) A22 | 1 |
| S44 | 71851110K | OUTER STOPRING FL 110 A22 | 1 |
| S45 | 71852110K | LIFTRING FL 110 A22 | 1 |

| | | | |
|-----|-----------|-----------------------------|---|
| S31 | 74604441 | STAGE FL2 129-1440-HC | 1 |
| S32 | 71802129K | PACKSET FL 129/HP 129 | 1 |
| S33 | 71853129K | SLIDER FL 129 (2 X 1/2) A22 | 1 |
| S34 | 71851129K | OUTER STOPRING FL 129 A22 | 1 |
| S35 | 71852129K | LIFTRING FL 129 A22 | 1 |

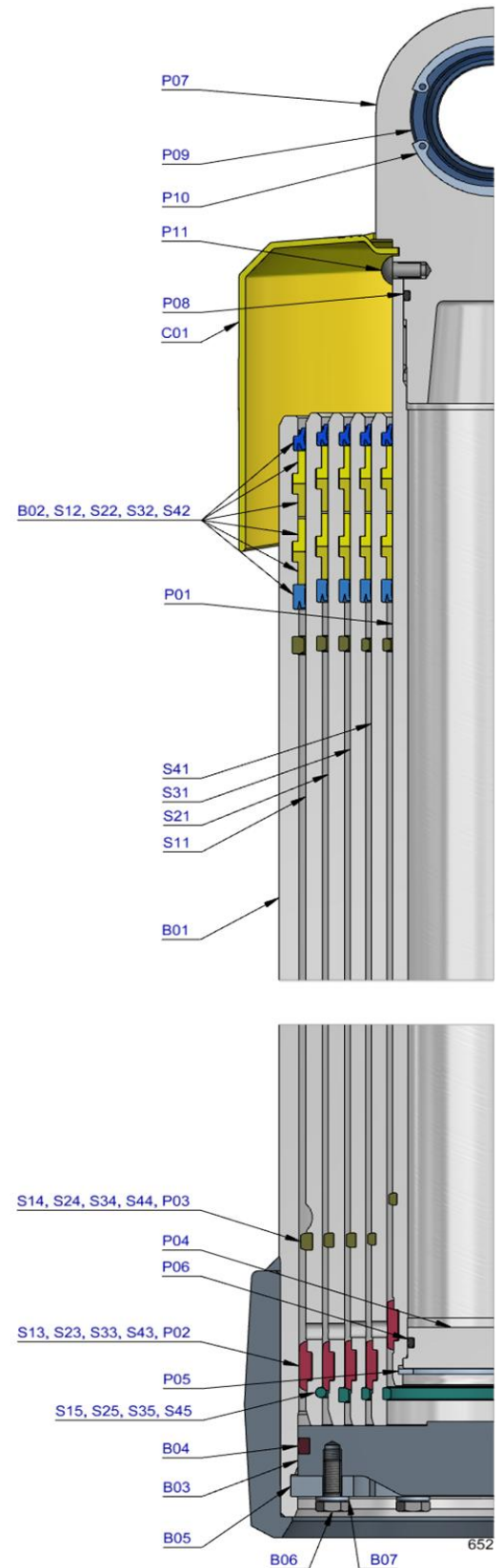
| | | | |
|-----|-----------|---------------------------|---|
| S21 | 74605441 | STAGE FL2 149-1440-HC | 1 |
| S22 | 71802149K | PACKSET FL 149/HP 150 | 1 |
| S23 | 71807151K | SLIDER FL 149 A35 | 1 |
| S24 | 71851149K | OUTER STOPRING FL 149 A22 | 1 |
| S25 | 71852149K | LIFTRING FL 149 A22 | 1 |

| | | | |
|-----|-----------|---------------------------|---|
| S11 | 74606441 | STAGE FL2 169-1440-HC | 1 |
| S12 | 71802169K | PACKSET FL 169 | 1 |
| S13 | 71807171K | SLIDER FL 169 A35 | 1 |
| S14 | 71851169K | OUTER STOPRING FL 169 A22 | 1 |
| S15 | 71813169K | LIFTRING FL 169x5 | 1 |

| | | | |
|-----|-----------|-------------------------------|---|
| B01 | 74507444 | BASE FL2 191-1483-4/4BSAE-290 | 1 |
| B02 | 71802191K | PACKSET FL 191 | 1 |
| B03 | 71825430 | BOTTOM PLATE FL2 191 | 1 |
| B04 | 71870040K | SEAL BOTTOM PLATE FL 191 | 1 |
| B05 | 71820195 | LOCKING PLATE FL2 191 | 3 |
| B06 | 01732055K | BOLT HEX M8X20X1.25 SET 6 PCS | 1 |
| B07 | 01732559K | WASHER SPRING M8 SET 6 PCS | 1 |

Seal kit complete

| | |
|-----------|--|
| 71908650K | Consists of all packsets with packset grease and O-rings |
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Notes

The inner stopring and piston bottom are pre-mounted on spare bases, stage and pistons. Therefore, when ordering new tubes, it is not required to order these parts separately.

For repair instructions see: CYL-0040. Serial no. is located on type plate and near type plate support.