

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

3D model is available on request or [www.hyva.com](http://www.hyva.com)

Specifications	Max. pump flow		Tipping time		
Max. working pressure <sup>4</sup>	190 bar	With KO <sup>1</sup>	220 L/min	With KO <sup>1</sup>	32 sec
Weight	293 kg	Without KO <sup>1</sup>	190 L/min	Without KO <sup>1</sup>	37 sec
Working volume	116 L	With KO <sup>1</sup> below -20°C	154 L/min	With KO <sup>1</sup> below -20°C	46 sec
Total volume	125 L	Without KO <sup>1</sup> below -20°C	133 L/min	Without KO <sup>1</sup> below -20°C	53 sec
Max. cyl. load (start tipping)	345 kN			Allowable lowering time	25 sec
Max. cyl. load (end of stroke) <sup>2</sup>	149 kN				
Max. cyl. load (end of stroke) <sup>3</sup>	173 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 grey (DB7350) with a min. thickness conforming to the 480 hours neutral salt spray test as per ISO 9227. • <sup>1</sup> Hyva knock-off. • <sup>2</sup> Unsubstantial unloading (sticky load). • <sup>3</sup> Substantial unloading. • <sup>4</sup> Max. working pressure does not relate to max. cyl. load (end of stroke); substantial unloading required before tipping to end of stroke. • 50 mm clearance required between the headboard and the stages at end of stroke (deviation from CYL-0031).

Related documentation

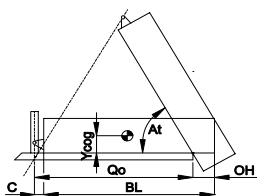
Bracket options:	015BRA10 & 015BRA13
Mounting instructions:	CYL-0031
Oil specifications:	OIL-0011
Spec sheet explanation:	CYL-0041

Configuration

Extension	1	2	3	4	5	6	7	Total
Effective diameter [mm]	191	169	149	129	110			6375
Stroke* [mm]	1250	1275	1280	1285	1285			

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
- $stroke \times 60 / Qo$

BL [mm]	8400		8050		7700				
OH [mm]	200	500	800	200	500	800	200	500	800
At [°]	46	47	49	48	50	52	50	52	55
Ycog [mm]									
600	49	53	58	51	55	60	53	58	64
900	53	57	63	55	60	67	57	63	72
1200	56	62	69	59	66	75	62	71	

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	71838904	DUST COVER FES 191-5	1
P01	74473511	PISTON FL3 S 110-1515-HD-HC	1
P02	71807112K	SLIDER FL 110 (2 X 1/2) A35	1
P03	71851110K	OUTER STOPRING FL 110 A22	2
P04	71822710	BOTTOM PLATE PISTON FL 110 MK2 HD	1
P05	01745021K	CIRCLIP 97 DIN 472 (102.5x3.0)	1
P06	71870220K	O-RING PISTON BOTTOM 110	1
P07	71847301	PISTON EYE SPH. FL3 110 L=075 GR	1
P08	01226538K	O-RING 91.67 X 3.53 MM NBR	1
P09	01770085K	SPHERICAL BEARING D.50.3 DO GREASED	1
P10	01770560K	CIRCLIP 75 DIN 472 (79.5x2.5)	1
P11	71875012	PIN ROUND HEAD GROOVED 8x15 mm	2
P12	56288044K	GREASE NIPPLE M8x1 DIN 71412	1
P13	01317670K	GREASER PROTECTION CAP	1

S41	74614510	STAGE FL2 129-1510-HD	1
S42	71808129K	PACKSET FL 129/HP 129 TANDEM SEAL	1
S43	71807131K	SLIDER FL 129 (2 X 1/2) A35	1
S44	71851129K	OUTER STOPRING FL 129 A22	2
S45	71852129K	LIFTRING FL 129 A22	1

S31	74615510	STAGE FL2 149-1510-HD	1
S32	71808149K	PACKSET FL 149/HP 150 TANDEM SEAL	1
S33	71807151K	SLIDER FL 149 A35	1
S34	71851149K	OUTER STOPRING FL 149 A22	2
S35	71852149K	LIFTRING FL 149 A22	1

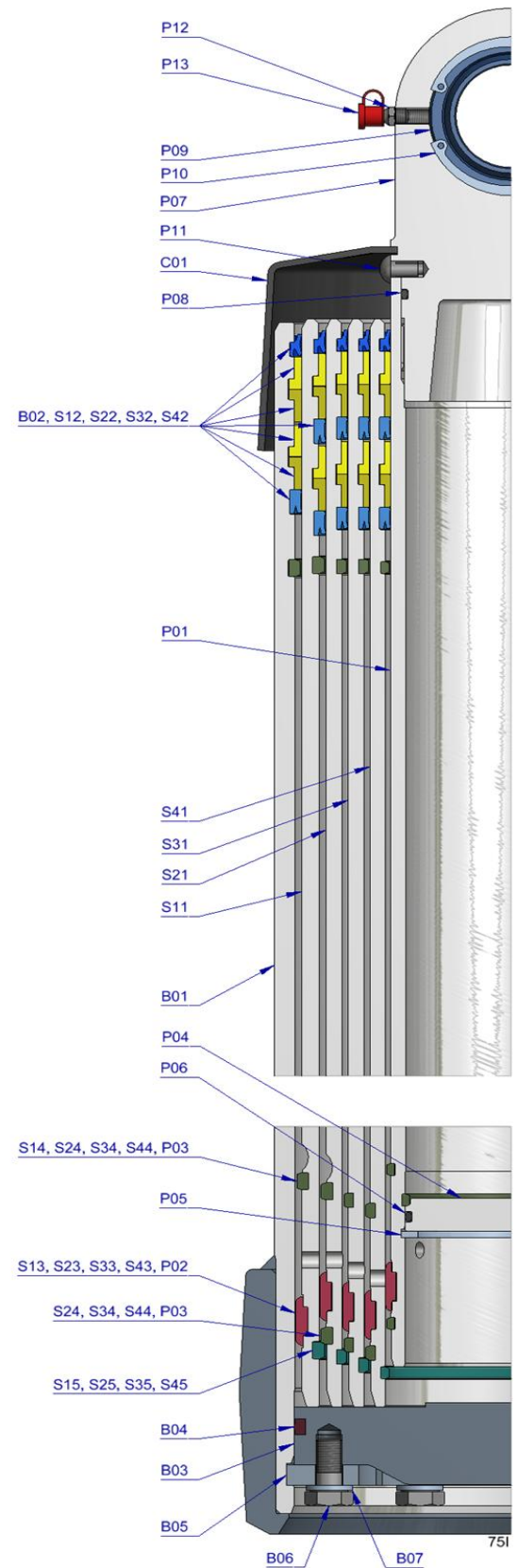
S21	74616510	STAGE FL2 169-1510-HD	1
S22	71808169K	PACKSET FL 169 TANDEM SEAL	1
S23	71807171K	SLIDER FL 169 A35	1
S24	71851169K	OUTER STOPRING FL 169 A22	2
S25	71852169K	LIFTRING FL 169 A22	1

S11	74617510	STAGE FL2 191-1510-HD	1
S12	71808191K	PACKSET FL 191 TANDEM SEAL	1
S13	71807193K	SLIDER FL 191 A35	1
S14	71851191K	OUTER STOPRING FL 191 A22	1
S15	71852191K	LIFTRING FL 191 A22	1

B01	74518510	BASE FL2 214-1561-4/4BSAE-190-HD	1
B02	71802214K	PACKSET FL 214	1
B03	71825435	BOTTOM PLATE FL2 214	1
B04	71870045K	SEAL BOTTOM PLATE FL 214	1
B05	71820214	LOCKING PLATE FL 214	3
B06	01732020K	BOLT HEX M12X25X1.25 SET 6 PCS	1
B07	01732523K	WASHER SPRING M12 SET 6 PCS	1

Seal kit complete

71908751K	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.