

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

3D model is available on request

Specifications

Max. working pressure ²	170 bar	Max. pump flow (with KO ¹)	190 L/min	Resulting tipping time (with KO ¹)	31 sec
Weight	265 kg	Max. pump flow (without KO ¹)	137 L/min	Resulting tipping time (without KO ¹)	42 sec
Working volume	97 L			Allowable lowering time	31 sec
Total volume	106 L				
Max. cyl. load (start tipping)	245 kN				
Max. cyl. load (end of stroke)	136 kN				

KO¹: Hyva pneumatic knock off

Extension	1	2	3	4	5	6	7	Total
Effective diameter [mm]	169	149	129	110	91			7030
Stroke* [mm]	1410	1430	1430	1430	1330			

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. • When the cylinder is mounted at an angle, the maximum tipping weight could be reduced. • Maximum backwards angle of rotation during operation is 29 deg.
- Working pressure depends on the application, but must never exceed the maximum working pressure stated. • 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 thickness conforming to the 480 hours neutral salt spray test as per ISO 9227 (ISO10289, rating 9). • ² Max. working pressure does not relate to max. cyl. load (end of stroke); substantial unloading required before tipping to end of stroke.

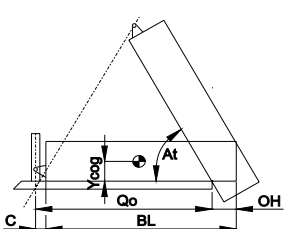
Related documentation

Bracket options: 015BRA10 & 015BRA13

Mounting instructions: CYL-0031

Oil specifications: OIL-0011

Tipping weight



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]	9300			9100			8900		
OH [mm]	200	500	800	200	500	800	200	500	800
At [°]	45	47	49	46	48	50	48	49	51
Ycog [mm]									
600	30	32	34	30	32	35	31	33	35
900	31	34	36	32	34	37	33	35	38
1200	33	36	39	34	37	41	35	38	42

Tipping weight [ton] at maximum pressure of 170 bar for a vertically mounted cylinder and C is 158 mm

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

Pos.	Part no.	Description	Qty.
C01	71839131	DUST COVER FE 169-5/179-5/191-6	1
P01	74402653	PISTON FL2 S 091-1645-HC (SR=100)	1
P02	71853091 K	SLIDER FL 091 (2 X 1/2) A22	1
P03	71851091 K	OUTER STOPRING FL 091 A22	1
P04	71822091	BOTTOM PLATE PISTON FL 091	1
P05	01745012 K	CIRCLIP 82 DIN 472 (87.5x2.5)	1
P06	71870215 K	O-RING PISTON BOTTOM 091	1
P07	71847200	PISTON EYE SPH. FL 091 MK2 L=075	1
P08	01226430 K	O-RING 72.62 X 3.53 MM	1
P09	71875450 K	SPHERICAL BEARING D.50 MAINT. FREE	1
P10	01770560 K	CIRCLIP 75 GE 50 DO DIN 472	1
P11	71875012	PIN ROUND HEAD GROOVED 8x15 mm	2

S41	74603650	STAGE FL2 110-1640	1
S42	71802110 K	PACKSET FL 110	1
S43	71853110 K	SLIDER FL 110 (2 X 1/2) A22	1
S44	71851110 K	OUTER STOPRING FL 110 A22	1
S45	71852110 K	LIFTRING FL 110 A22	1

S31	74604650	STAGE FL2 129-1640	1
S32	71802129 K	PACKSET FL 129/HP 129	1
S33	71853129 K	SLIDER FL 129 (2 X 1/2) A22	1
S34	71851129 K	OUTER STOPRING FL 129 A22	1
S35	71852129 K	LIFTRING FL 129 A22	1

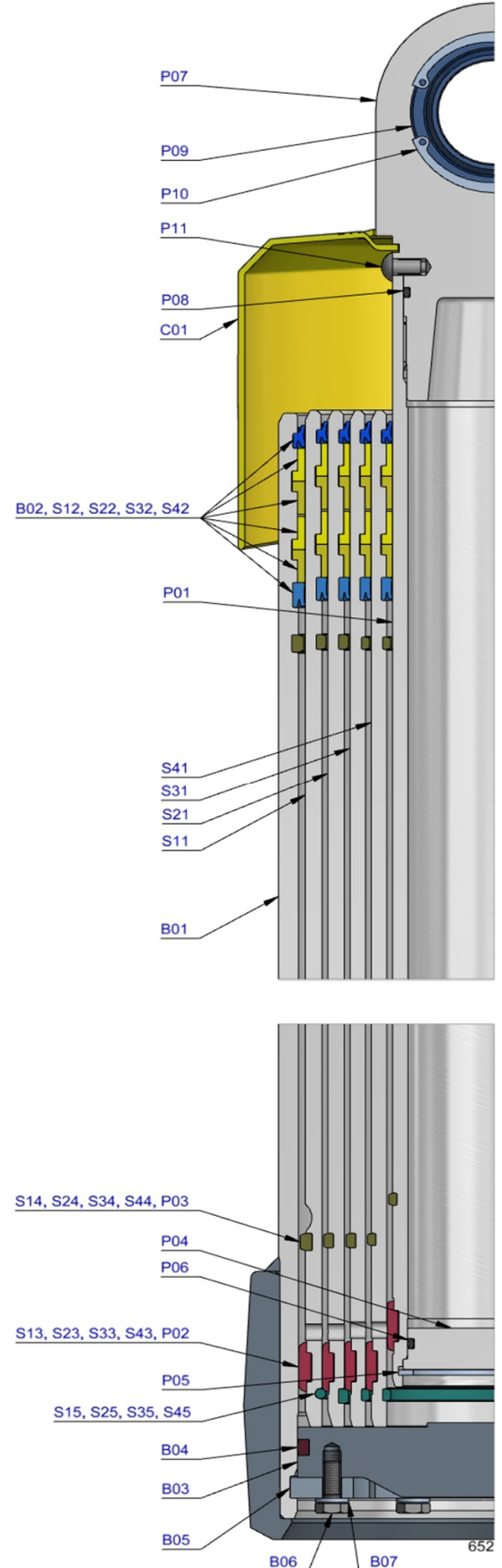
S21	74605650	STAGE FL2 149-1640	1
S22	71802149 K	PACKSET FL 149/HP 150	1
S23	71807151 K	SLIDER FL 149 A35	1
S24	71851149 K	OUTER STOPRING FL 149 A22	1
S25	71852149 K	LIFTRING FL 149 A22	1

S11	74606650	STAGE FL2 169-1640	1
S12	71802169 K	PACKSET FL 169	1
S13	71807171 K	SLIDER FL 169 A35	1
S14	71851169 K	OUTER STOPRING FL 169 A22	1
S15	71813169 K	LIFTRING FL 169x5	1

B01	74507654	BASE FL2 191-1683-4/4BSAE-290	1
B02	71802191 K	PACKSET FL 191	1
B03	71825430	BOTTOM PLATE FL2 191	1
B04	71870040 K	SEAL BOTTOM PLATE FL 191	1
B05	71820195	LOCKING PLATE FL2 191	3
B06	01732055 K	BOLT HEX M8X20X1.25 SET 6 PCS	1
B07	01732559 K	WASHER SPRING M8 SET 6 PCS	1

Seal kit complete

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

The inner, outer stoprings and liftrings are pre-mounted in the grooves on spare stages and pistons. Therefore, when ordering new tubes, it is not required to order stoprings separately.