

FRONT END TIPPING SOLUTIONS

ALPHA WET KIT CATALOGUE



TIPPING SOLUTIONS INFORMATION	4
OIL TANKS	
140CMT01 - CRADLE MOUNTED TANKS	7
140RMT01 - REAR MOUNTED TANKS	9
140TMT01 - TOP MOUNTED TANKS	11
140SMT01 - SIDE MOUNTED TANKS	13
08102116 - HYVA AIR BREATHERS	16
RFILTE01 - HYVA RETURN FILTERS	17
HYVA GEAR PUMP	
145GPBRITE - HYVA GEAR PUMPS	18
HYVA TIPPING VALVES	
HT-1150-TNK-SAE	22
HT-1220-SAE	24
HT-1220-TNK	26
HT-2220-TNK	28
HYVA KNOCK-OFF	
14700506 - KNOCK-OFF STANDARD	30
14700575 - KNOCK-OFF HEAVY DUTY	31
HYVA AIR CONTROLS	
147AIR-51-52 AIR - CONTROLS ALU HOUSING	32
021AIR-51-52 AIR - AIR CONTROL PLASTIC HOUSING	34
TECHNOLOGY	36
HYVA HOSES	
00000LP-H - LOW PRESSURE HOSES	38
00000H-I - HIGH PRESSURE HOSES	39
HYVA ADAPTERS	
LPADAP01 - LOW PRESSURE ADAPTERS	41
HPADAP01 - HIGH PRESSURE ADAPTERS	44
HYVA BRACKETS	
015BRA10 - CHASSIS BRACKETS	50
015BRA11 - CHASSIS BRACKETS	51
015BRA12 - LIFTING BRACKETS	52
015BRA13 - TOP BRACKETS	53
MARKETS	54

TIPPING SOLUTIONS

ALPHA Series delivers lighter, faster, safer and more efficient front end tipping solutions.

Heritage, innovation and leadership

The ALPHA Series extends and consolidates Hyva's record of innovation and leadership in front end cylinders. This is the fifth generation of front end tipping solutions which Hyva has brought to the market in more than 30 years.

Development has focused on **optimising transport efficiency, safety and reliability** for the typical duty and conditions prevailing in each market segment.

Year	HYVA Cylinder	Operating Pressure	Dry Weight	Wet Weight
1990	162-4 at 170 bar	170	316	394
2005	149-4 at 190 bar	190	257	322
2014	137-4 at 250 bar	250	222	274

Note: Based on the same/equal lifting capacity

Tried and tested

The ALPHA solution was reached only after extensive **research, design and analysis**.

Every design was laboratory tested to verify that performance matched design specification. And, **extensive field trials** were conducted in China, India and the UK.

Solution approach to Technology development

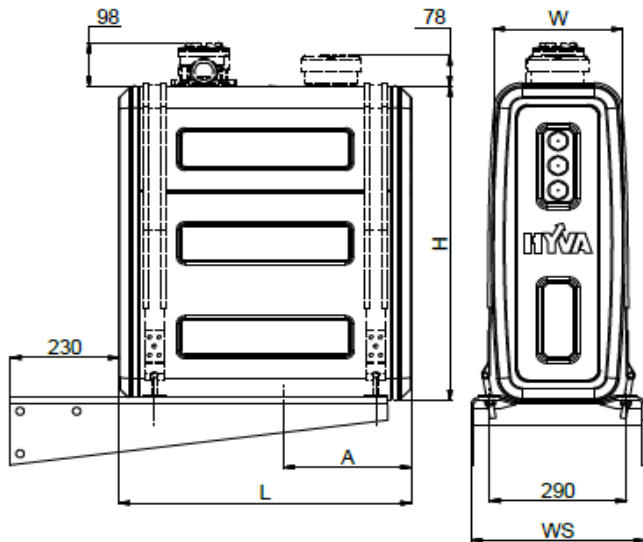
The new ALPHA Series is more than a new hydraulic cylinder. The total system – **cylinder, brackets and wet kit** – has been re-designed and re-engineered for higher efficiency and safer operating at lower cost.

Solution for each Market segment

Through customer visits and consultation, Hyva has taken time to understand the different requirements of different users in different application areas and to use this knowledge to create product ranges for **Construction, Transportation** and **Mining** segments.

Performance, efficiency and customer value

Lower dead weight	higher payload
Faster tipping and lowering	shorter cycle time
Longer service intervals	increased operating time
Safer and more reliable	reduced downtime
Cost effective	can reduce operating costs
Lower oil & fuel consumption	environmentally friendly



3D model is available on request

Specifications

Part Number		14016500	14016505	14016520	14016540	14016550	
Width	W	280	280	280	340	340	mm
	WS	368	368	368	400	400	mm
Height	H	525	525	700	700	700	mm
Length	L	500	620	620	710	820	mm
Outer-Section port distance	A	270	270	270	270	270	mm
Gross Volume		66	83	108	154	179	Liters
Working volume 1		47	59	86	122	142	Liters
Working volume 2		39	48	78	110	127	Liters
Working volume 3		-	-	69	97	113	Liters
Weight tank		17.7	22.1	27.3	33	36.4	Kg
Suction port		1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	BSPIT

Technical notes

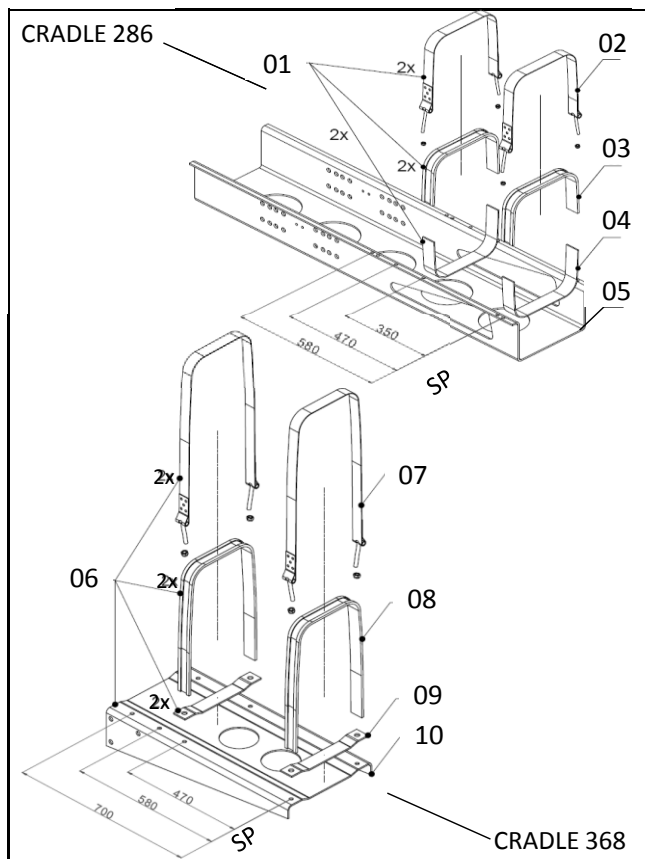
• Mount the tank according the mounting instructions • Fill the tank with the recommended hydraulic oil to the centre of the level indicator • Change the oil once a year • Replace the air breather and return filter element twice a year • Do not use the tank as a support or to stand on • Do not weld on the oil tank • Paint spec: TNO00_00001

Related documentation

Mounting instructions: OIL-0021

Oil specifications: OIL-0011

Support, straps & rubbers



			Part No. Oil Tank					Weight (Kg)
			14016500	14016505	14016520	14016540	14016550	
Cradle 286 + tank in cradle	01	KIT full	14021010	•	•			1.8
	02	Strap	14020470	•	•			0.7
	03	Rubbers strap strap pos. (SP)	14020475	•	•			0.1
	04	Support rubbers	14020450	•	•			0.1

Cradle to be ordered separate from the kit above:

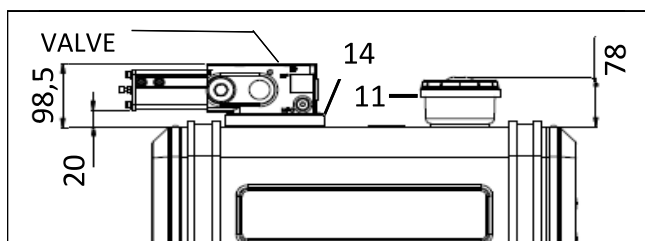
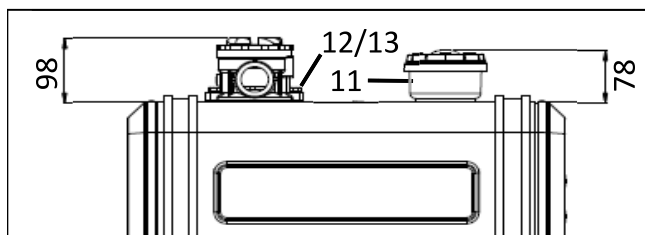
05	Cradle 286	01507538	•	•	•			36.7
----	------------	----------	---	---	---	--	--	------

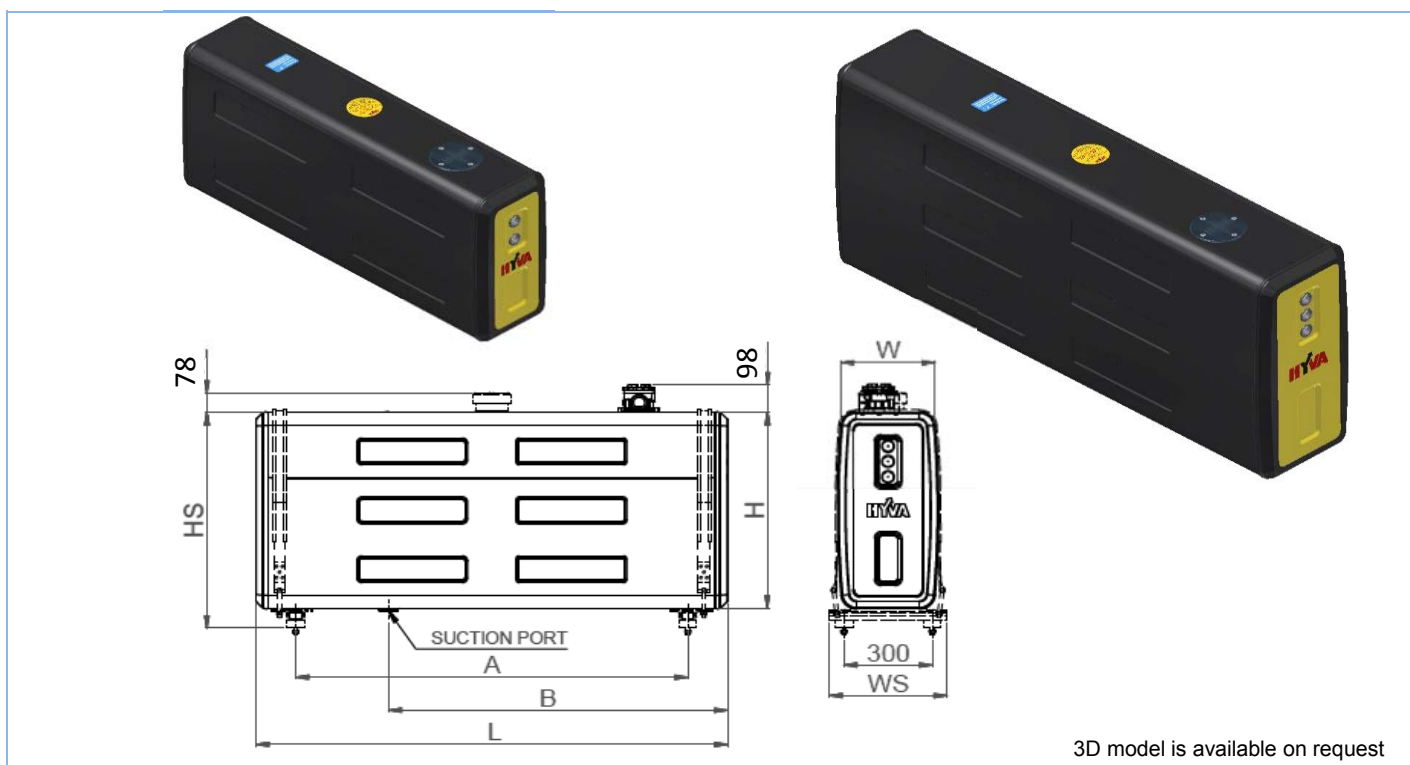
Cradle 368 + support	06	KIT full	14021013	•	•	•			20.0
			14021014				•	•	20.0
			14021015					•	22.0
	07	Strap	14020460	•	•	•			1.2
			14020340				•	•	1.4
			14020330					•	1.4
	08	Rubbers strap	14020465	•	•	•	•	•	0.2
		strap pos. (SP)	14020335	350	470	470	560	670	0.2
	09	Rubbers support	14020485	•	•	•			0.1
			14020495				•	•	0.1
	10	support	14020480	•	•	•			17.0
			14020490				•	•	18.0

Air breather & return filters



		Tank Height =		Tank Height = 700			Weight (Kg)
		14016500	14016505	14016520	14016540	14016550	
11	Air Breather	08102116					0.4
12	Return filter 150L/m	14780302		14780304			1.0
13	Return filter high capacity 250L/m	14780332		14780334			1.2
14	Return filter valve mounting plate 150 L/m	14895919		14895921			1.9





Specifications

Part Number		14016022	14016030	14016160	
Width	W	280	280	340	mm
Overall Width	WS	360	360	400	mm
Height	H	525	700	700	mm
Overall Height	HS	770	595	770	mm
Length	L	1286	1300	1600	mm
Distance between support	A-Min	860	950	1100	mm
	A-Max	940	1040	1330	mm
Outer-Suction port distance	B	878	885	1150	mm
Gross Volume		174	232	353	Liters
Working volume 1		125	185	280	Liters
Working volume 2		103	169	252	Liters
Working volume 3		-	148	223	Liters
Weight tank		34.6	49	63.1	Kg
Suction port		1.5"	1.5"	1.5"	BSPIT

Technical notes

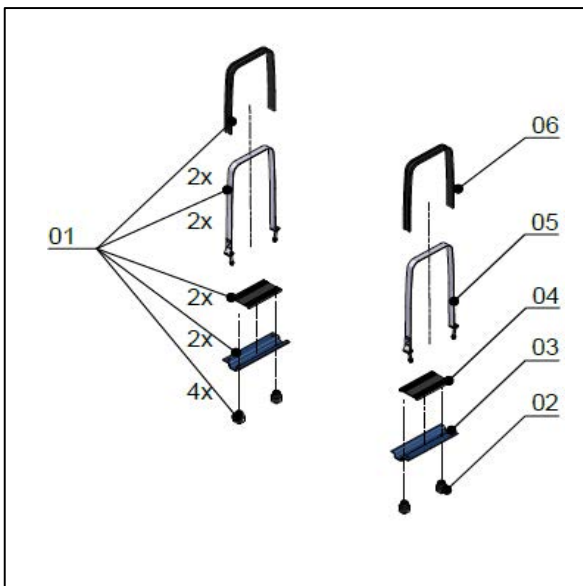
- Mount the tank according the mounting instructions • Fill the tank with the recommended hydraulic oil to the centre of the level indicator • Change the oil once a year • Replace the air breather and return filter element twice a year • Do not use the tank as a support or to stand on • Do not weld on the oil tank

Related documentation

Mounting instructions: OIL-0021

Oil specifications: OIL-0011

Support, straps & rubbers

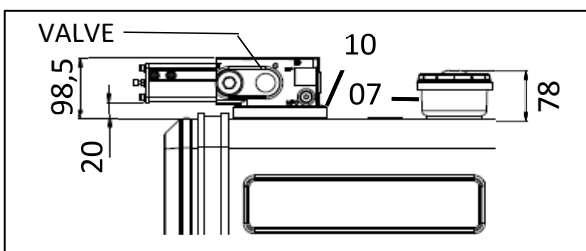
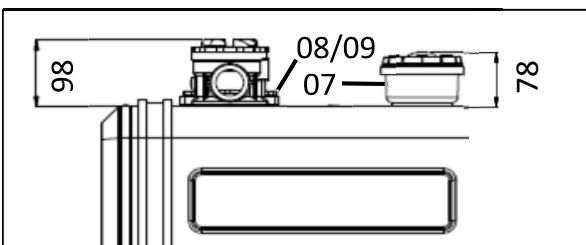


			Part No. Oil Tank			Weight (Kg)
			14016022	14016030	14016160	
01	Full KIT	14021020	•	•	•	7.8
		14021021	•	•	•	8.4
		14021022	•	•	•	8.9
02	Vibration Damper	08101078	•	•	•	0.2
03	Support Bracket	14221600	•	•	•	2.5
		14221605	•	•	•	2.8
04	Support Rubber	14221602	•	•	•	0.2
05	Strap	14020460	•	•	•	0.9
		14020330	•	•	•	1.5
		14020340	•	•	•	1.2
06	Rubber strap	14020465	•	•	•	0.2
		14020335	•	•	•	0.2

Air breather & return filters



		Tank Height =525	Tank Height =700		Weight (Kg)
		14016022	14016030	14016160	
07	Air Breather	08102116			0.4
08	Return filter 150L/m	14780302	14780304		1
09	Return filter 250L/m	14780332	14780334		1.2
10	Return filter valve mounting plate150 L/m	14895919	14895921		1.9

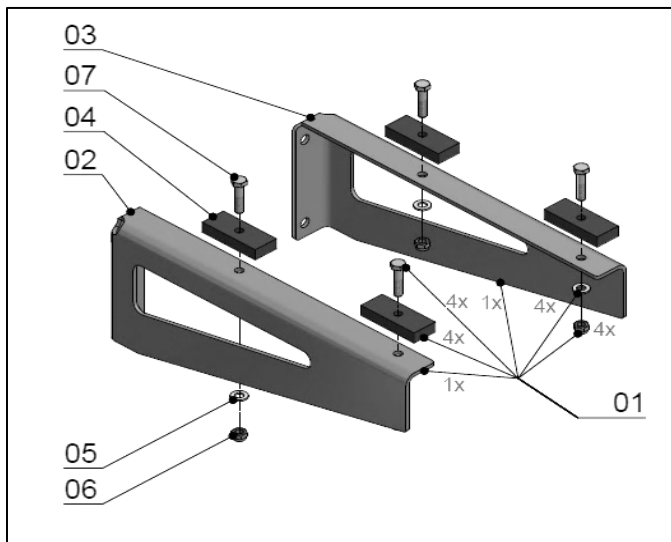


Part Number		14016515	14016525	
Width	W	280	280	mm
	WS	396	396	mm
Height	H	525	700	mm
Length	L	620	620	mm
Outer-Suction port distance	A	232	407	mm
Gross Volume		83	108	Liters
Working volume 1		59	86	Liters
Working volume 2		48	78	Liters
Working volume 3			69	Liters
Weight tank		29	34,2	Kg
Suction port		1"	1"	BSPIT

• Mount the tank according the mounting instructions • Fill the tank with the recommended hydraulic oil to the centre of the level indicator • Change the oil once a year • Replace the air breather and return filter element twice a year • Do not use the tank as a support or to stand on • Do not weld on the oil tank • Paint spec: TNO00_00001

Oil specifications: OIL-0011

Support, straps & rubbers

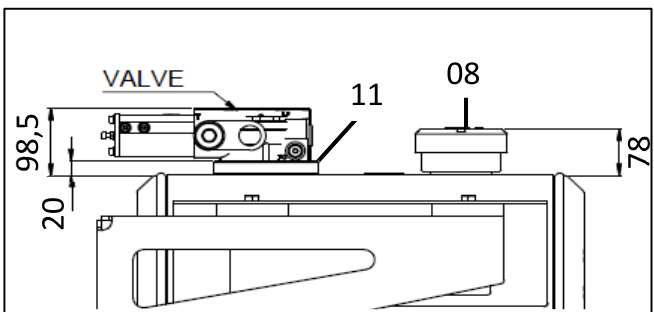
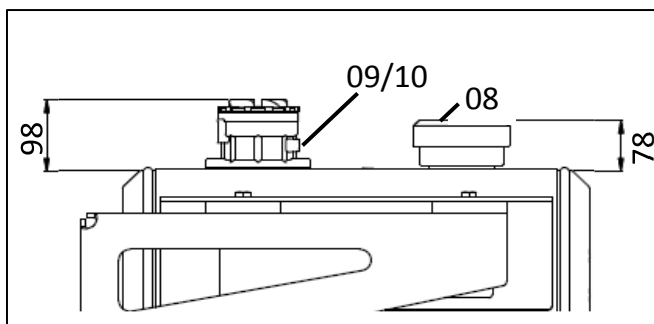


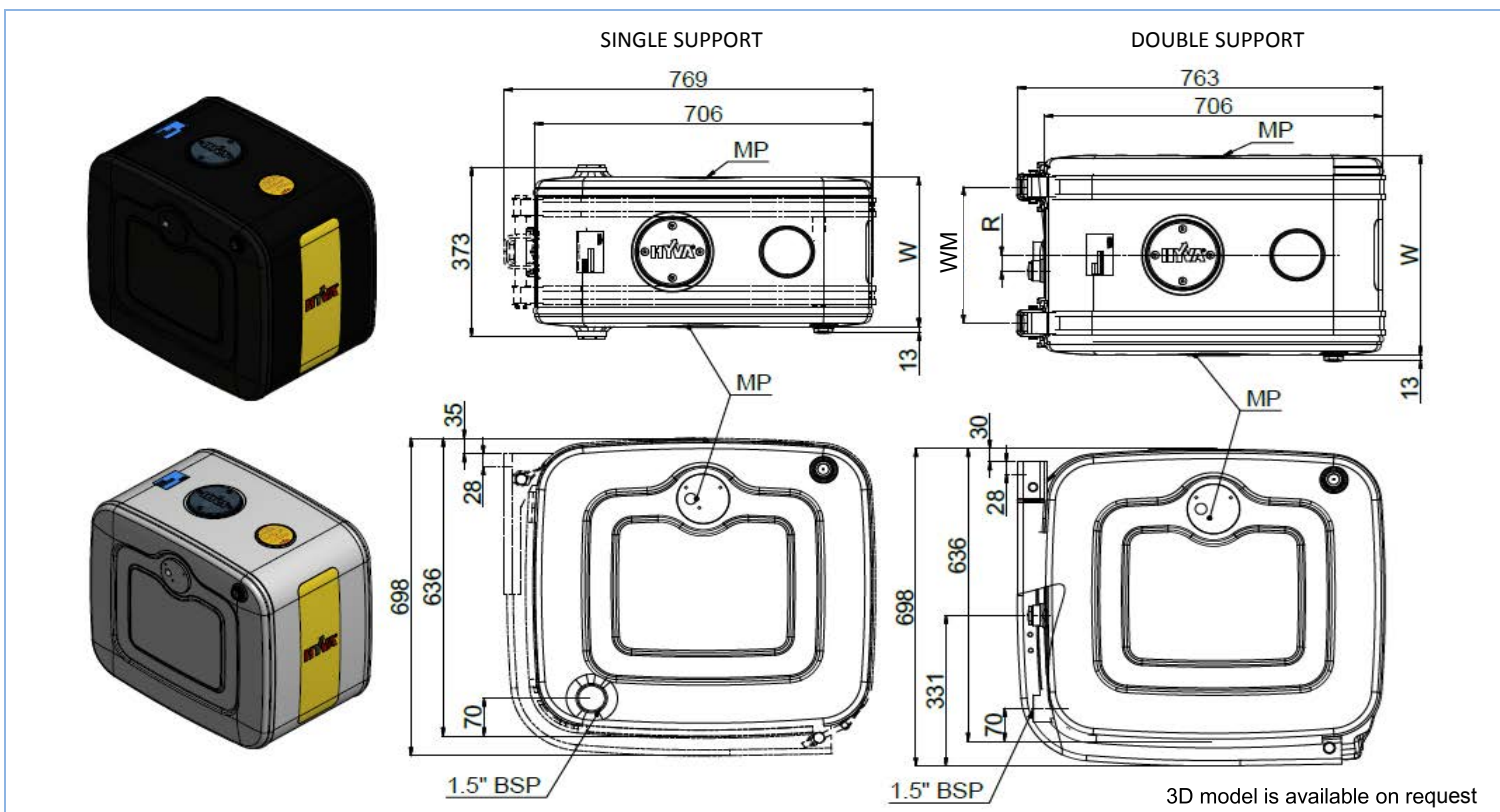
		Part no. Tank	Weight (Kg)
		14016515 & 14016525	
01	Full kit	14021030	10,6
02	Support left	14020500	5,0
03	Support right	14020502	5,0
04	Tank rubber	08101050	0,1
05	Washer	15020070	0,1
06	Locking Nut	15026535	0,1
07	Bolt	89250078	0,1

Air breather & return filters



		Tank Height=525	Tank Height=700	Weight (Kg)
		14016515	14016525	
08	Air Breather	08102116		0,4
09	Return filter 150L/m	14780302	14780304	1,1
10	Return filter high capacity 250L/m	14780332	14780334	1,2
11	Return filter valve mounting plate 150 L/m	14895919	14795921	1,2





Specifications

Part numbers Steel		14017252	14017256	14017260	14017264	14017268	
Part numbers Aluminium		14018252	14018256	14018260	14018264	14018268	
Support configuration		Single	Double	Double	Double	Double	
Width	W	365	419	480	538	627	mm
Mounting Width	WM-Min	-	195	200	220	250	mm
	WM-Max	-	225	275	330	415	mm
Gross Volume		141	166	192	216	245	Liters
Working volume 1		110	130	150	170	200	Liters
Weight tank (Steel)		38.9	39.4	40.6	41.5	43.9	Kg
Weight tank (Aluminium)		15.9	16.2	17	17.9	18.6	Kg
Suction port		1.5" (2x)	1.5"	1.5"	1.5"	1.5"	BSP
Extra Return Port offset	R	N/A	35	35	10	0	mm
Extra Return Port Size		N/A	1.0"	1.0"	1.0"	1.0"	BSP

MP = Mounting plate for valve mounting with 3/4" threaded Hole

Technical notes

- Mount the tank according the mounting instructions • Fill the tank with the recommended hydraulic oil to the centre of the level indicator • Change the oil once a year • Replace the air breather and return filter element twice a year • Do not use the tank as a support or to stand on • Do not weld on the oil tank • Paint spec: TNO00_00001

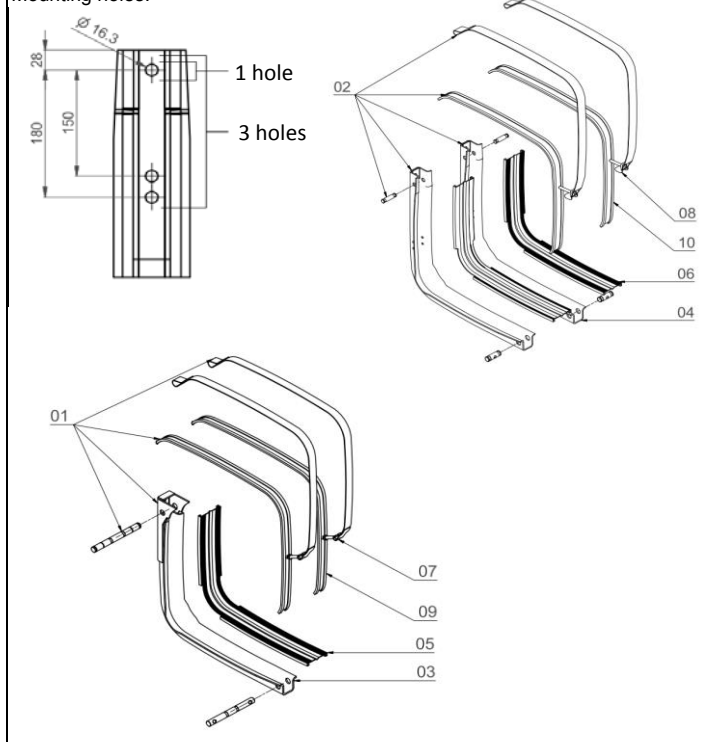
Related documentation

Mounting instructions: OIL-0023

Oil specifications: OIL-0011

Support, straps & rubbers

Mounting holes:



				Part No. Oil Tank			Weight (Kg)
				14017252 14018252	14017256 - 14017268 14018256 - 14018268		
01		14021040		•			16.6
02	Full KIT	14021041	1 hole		•		22.5
02		14021042	3 holes			•	22.5
03	Support	14020345	1 hole	•			11.7
04		14020346	1 hole		•		8.7
04		14020341	3 holes			•	8.7
05	Support rubber	14020339		•			0.4
06		14020435			•		0.4
07	Strap	14020301		•			1.2
08		14020300			•		1.4
09	Strap rubber	14020426		•			0.2
10		14020425			•		0.2
	Mounting kit***	14020159		•			1.7
		14020328			•		1.1

*** Mounting kit contains fastening components like bolts and pins

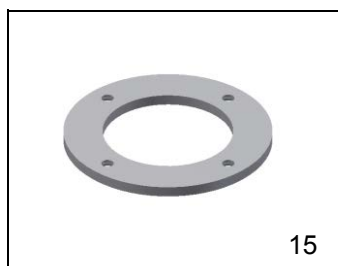
Air breather & return filters



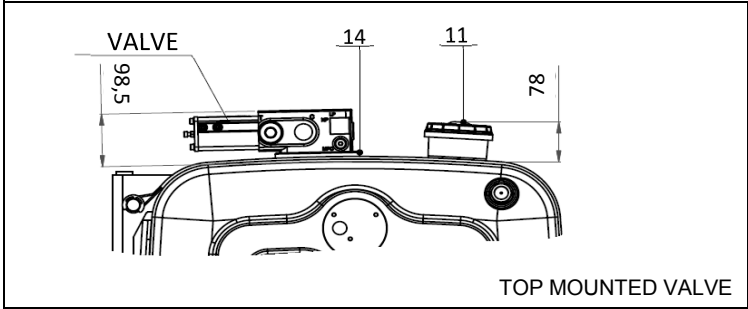
No.	Description	Part no.	Weight
11	Air Breather	08102116	0.4
12	Return filter 150L/m	14780303	1
13	Return filter 250L/m	14780333	1.1
14	Return filter valve mounting plate 150 L/m	14895921	1.9

For configuration, See Page-3

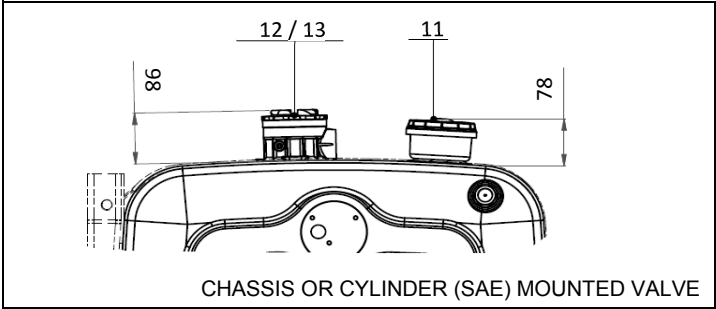
Options



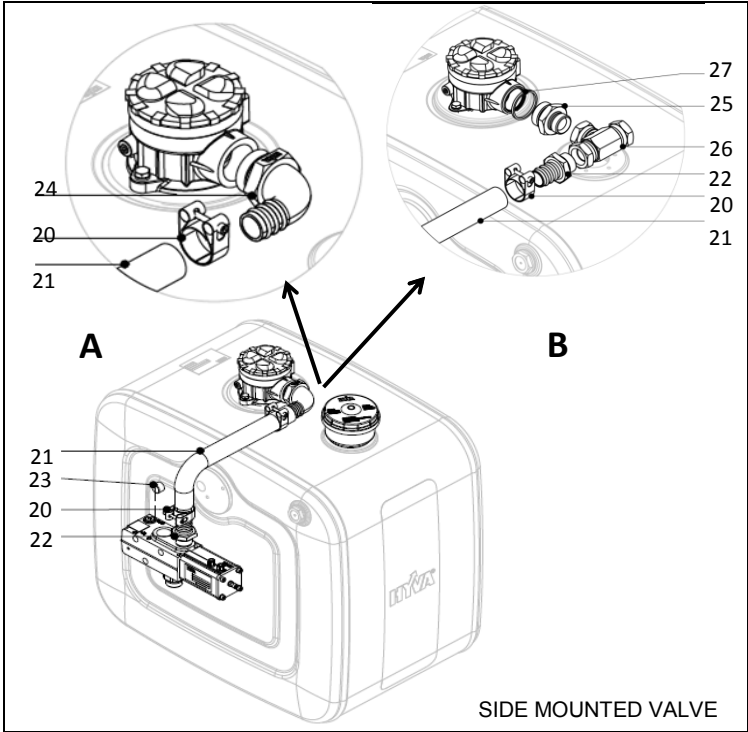
No.	Description	Part no.	Weight
15	Strengthening ring SM tank RF kit	14020509	0.2
	- Spacer 295x60x40 for Man	01040002	0.8
	- Spacer 295x60x27 for Man	01040003	0.5
	- Spacer 160x60x8 for Renault	01040004	0.1
	- Spacer 230x60x20/16 for Mercedes	01040005	0.3
	- Spacer 230x60x6/2 for Mercedes	01040006	0.1
	- Spacer Flat 67MM Iveco	01040007	0.7



TOP MOUNTED VALVE

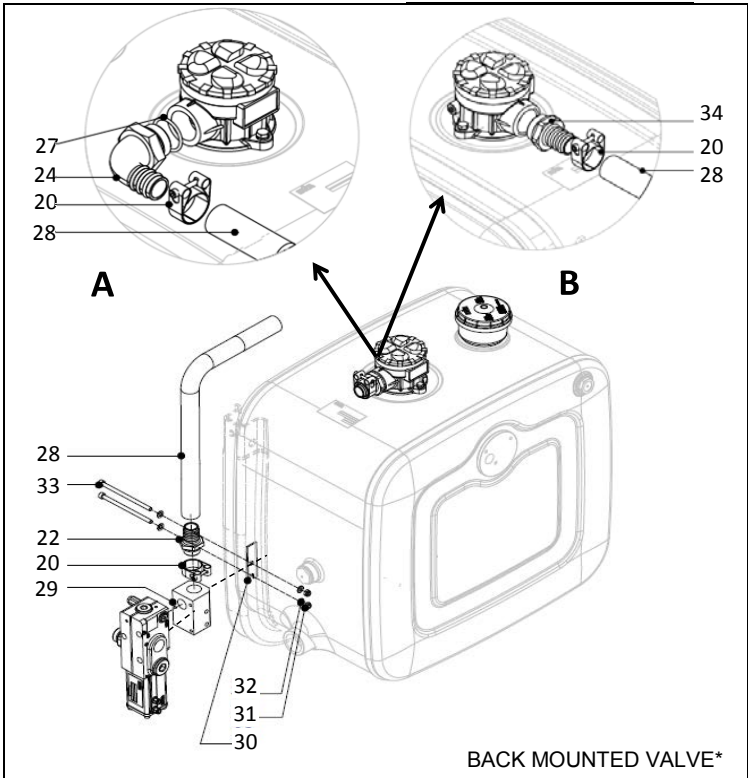


CHASSIS OR CYLINDER (SAE) MOUNTED VALVE



SIDE MOUNTED VALVE

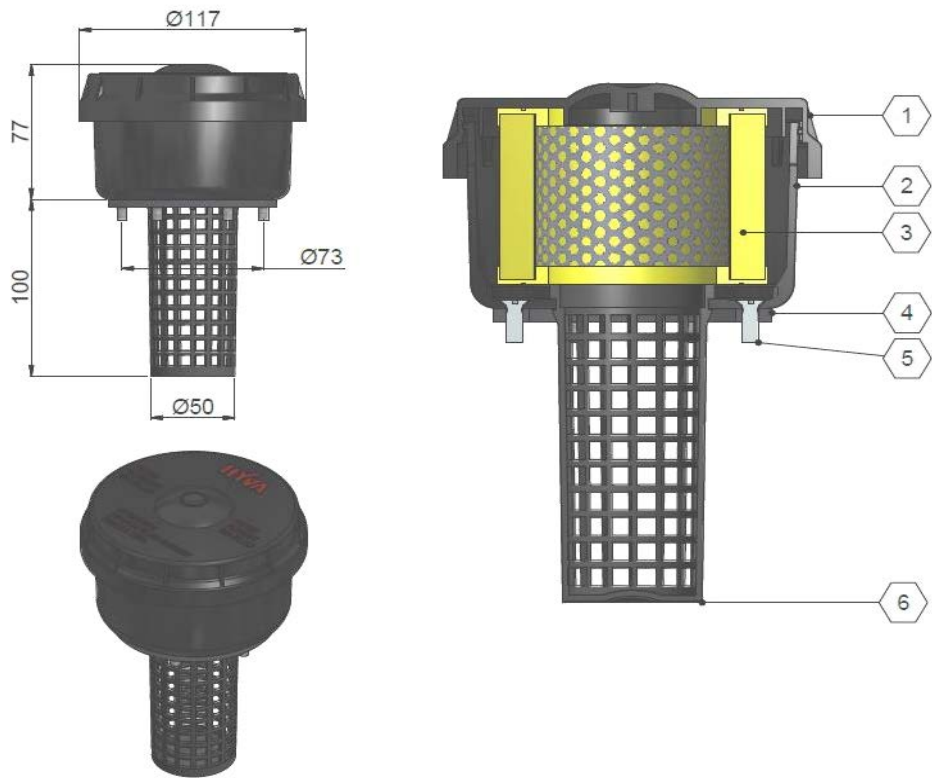
No.	Description	Part No.	Qty. per KIT	
			Option A	Option B
	Full kit option A	14021045	•	•
	Full kit option B	14021046	•	•
20	Worm Clamp	01238120	2	2
21	Return Hose	14797010	1	1
22	Hose Pillar	14500587	1	1
23	Blanking Plug	14799175	1	1
24	Hose Pillar 1 1/4	14799322	1	-
25	Adapter	01222107	-	1
26	Adapter HP-T-SW-1"	01318251	-	1
27	Bonded Seal	01206874	-	1
22	Hose Pillar	14500587	-	1



BACK MOUNTED VALVE*

No.	Description	Part No.	Qty. per KIT	
			Option A	Option B
	Full kit option A	14021047	•	•
	Full kit option B	14021048	•	•
28	Hose LP20	14795020	1	1
22	Hose Pillar	14500587	1	1
29	Mounting Block	14020550	1	1
30	Rubber for valve block	14020551	1	1
31	Nut M8x1,25	15026510	2	2
32	Washer M8	15020051	4	4
33	Bolt M8x140x1,25	15013700	2	2
24	Hose Pillar 1 1/4	14799322	1	-
34	Hose Pillar LP20	14500585	-	1

* = NOT POSSIBLE IN COMBINATION WITH SINGLE SUPPORT TANKS



3D model is available on request

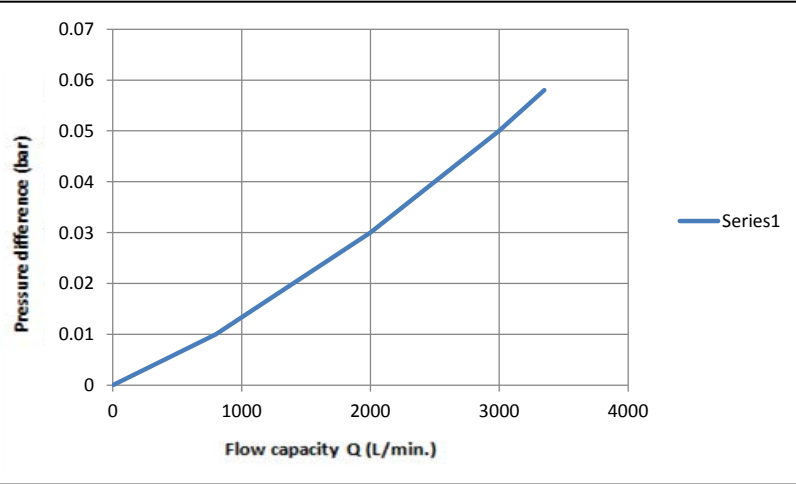
Specifications

Part no.	08102116
Filter action	10 µm
Filter capacity	1350 L/min.
Temperature range	min -40 °C
	max +100 °C
max. filling quantity	40 L/min.

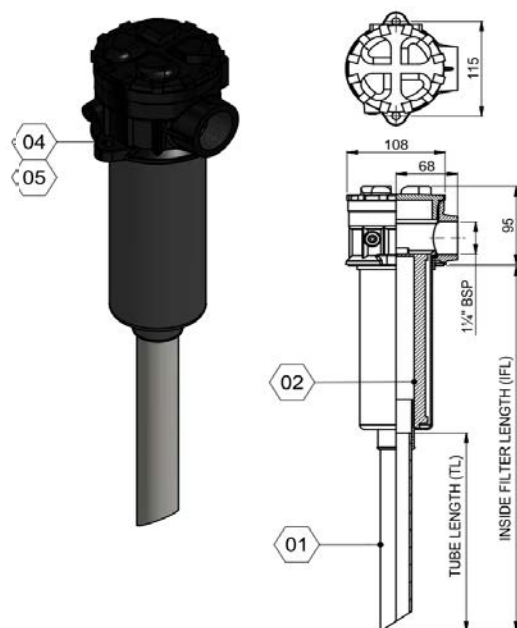
Spare parts

No.	Part no.	Description	Qty.
1	08102119	cover	1
2	08102125	filter house	1
3	08102117	filter element	1
4	08102126	seal	1
5	08102127	bolt	6
6	08102128	sleeve	1

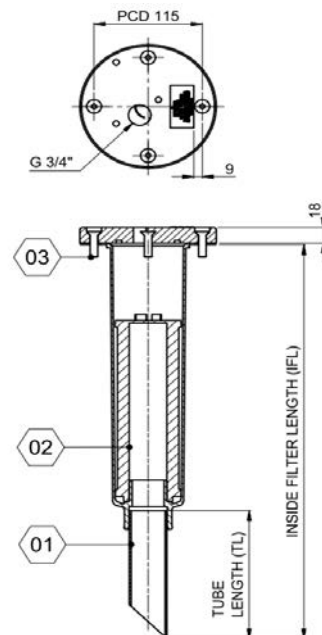
Pressure difference vs. flow



Return filter + top housing



Return filter + valve housing



3D model is available on request

Types & components

	TL	IFL	SQ*	HQ**	Full kit	Weight (kg)
Return filter + top housing	No tube		•	•	14780306	1.2
					14780305	1.4
	250	460	•	•	14780301	1.3
					14780331	1.5
	350	560	•	•	14780303	1.3
Return filter + valve mounting					14780333	1.5
	400	610	•	•	14780304	1.3
					14780334	1.5
	No tube		•	•	14895918	1.7
	150	460	•	•	14895919	1.8
	250	560	•	•	14895920	1.9
	350	660	•	•	14895921	2.0

SQ* = Standard Quality

HQ** = High Quality

Spare parts per type

Tube only number (1)	Filter Only number (2)
-	14896991A
-	14896990
14780319	14896991A
	14896990
14780320	14896991A
	14896990
14780307	14896991A
	14896990
-	14896991A
14895915	14896991A
14895916	14896991A
14895917	14896991A

General spare parts

No.	Part no	Description	Qty
03	15012790	Countersunk bolt	4
04	15004010	Hex. bolt	2
05	15022020	Washer	2

Specification

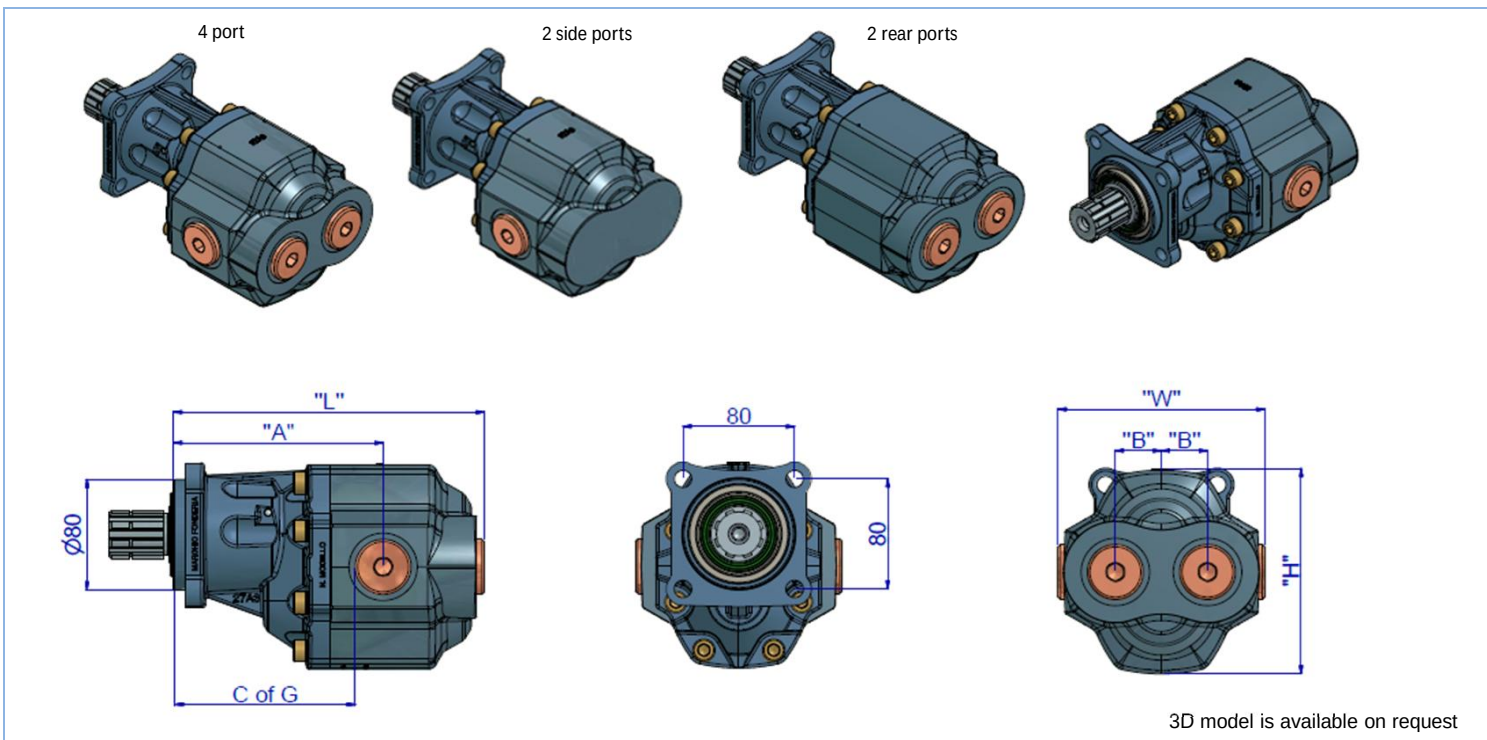
	SQ*	HQ**	
Nominal flow (clean element)	150	250	L/min
Peak flow	300	375	L/min
By-pass pressure	1.75	2.5	bar +/-10%
Collapse pressure element	10	8	bar
Filter element	25	25	μ
Temperature range	min -40	min -40	°C
	max +100	max +100	°C
Dirt holding capacity	25	37,4	gr @ 2 bar
Filter area	1730	2500	mm2

Technical notes

Replace element twice a year

HYVA GEAR PUMP

ALPHA Gear pump 4H ISO



Specifications

		14562005	14562010	14562015	14571224	14562091	14562030	14562093	14562095	14562041	
Displacement per revolution		34,56	51,88	61,26	81,68	81,68	91,56	100,52	100,52	112,85	cm ³
Max. Pressure for tipping applications (intermittent)		275	275	250	250	250	250	250	250	250	bar
Max. continuous pressure		255	255	230	230	230	230	230	230	230	bar
Max. flow (@ max. rpm)		80	119	141	188	188	190	213	213	213	l/m
Mass		12,5	13,5	14	16	16	19	19	19	20,5	kg
Port configuration		4 port	4 port	4 port	2 side	2 rear	4 port	2 rear	2 side	2 rear	
Length pump	L	189	200	206	221,5	221,5	236	239	239	246	mm
Width pump	W	128	128	128	138	138	140,5	140	140	140,5	mm
Height pump	H	149,4	149,4	149,4	149,4	149,4	166,5	149,4	149,4	166,5	mm
Position side port	A	130,5	132,5	138,5	151,5		155	161		165	mm
Position rear port	B	30	30	30		33	33		33	33	mm
Maximum peak pressure		280	280	260	255	255	255	255	255	255	bar
Max. speed at intermittent press.		2500	2500	2500	2500	2500	2250	2250	2250	2000	rpm
Min. speed at intermittent press.		300	300	300	300	300	400	400	400	400	rpm
Oil temperature range		-40	-40	-40	-40	-40	-40	-40	-40	-40	°C
	min	80	80	80	80	80	80	80	80	80	°C
	max										
Inlet pressure range (suction side)		0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7	bar
	min	3	3	3	3	3	3	3	3	3	bar
	max										
Recommended oil viscosity range		12	12	12	12	12	12	12	12	12	mm ² /s
	min	100	100	100	100	100	100	100	100	100	mm ² /s
	max										
Maximum starting viscosity		750	750	750	750	750	750	750	750	750	mm ² /s
Min. Filtration		25	25	25	25	25	25	25	25	25	µm
Connection:											
inlet - straight internal thread		3/4	1	1	1	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	BSP
outlet - straight internal thread		3/4	1	1	1	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	BSP
Minimum suction hose bore diameter		1 1/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	1 3/4	2	inch
Shaft DIN 5462		8*32*36	8*32*36	8*32*36	8*32*36	8*32*36	8*32*36	8*32*36	8*32*36	8*32*36	mm
Centre of gravity distance (CofG)		99,3	105,2	106,5	117,8	117,8	126	128	131	132,4	mm
Noise level at 1000 min-1 and 100 bar		62,5	62,6	65,1	66,6	66,6	64,8	66,6	66,6	66,6	dB
noise level at 1500 min-1 and 100 bar		67,6	67,5	69,4	71	71	68,3	69,5	69,5	69,5	dB

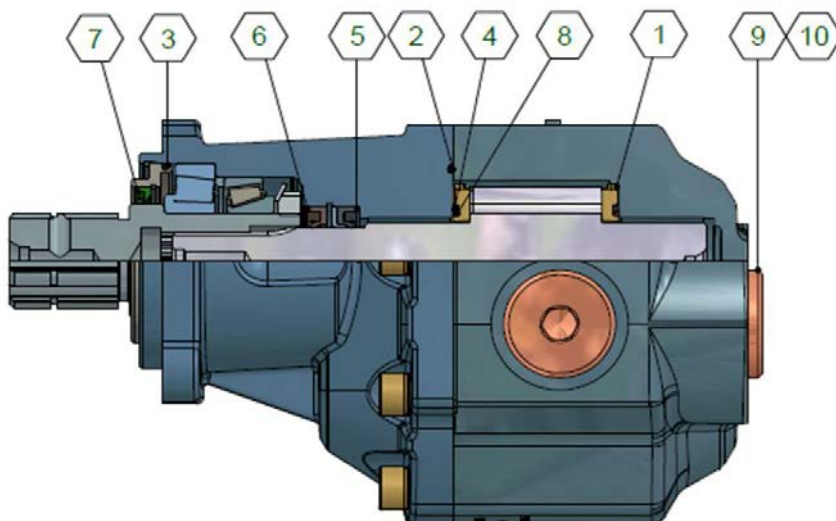
Technical notes

• The mentioned data on page 1 is for mineral based oil, for other fluids please contact our engineering dept. • The filtration as mentioned is for tippers only. For different application we advise filtration according ISO 4406 class 17/14. • To avoid the cavitation, the suction hose must be kept as short and straight as possible, and the minimum oil level in the oil tank must be above the inlet of the pump. • Paint spec: TNO00_00001

Related documents

Mounting Instructions: PUM-0020

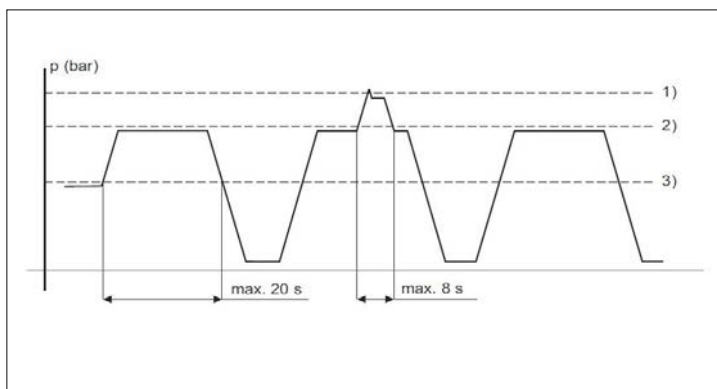
Oil Specifications: OIL-0011



Spare parts

	Description	35cc	52cc	61cc	82cc	92cc	100cc	113cc
	Seal kit (parts: 2, 3, 4, 5, 6, 7 & 8)	02460000	02460000	02460000	02460000	02460005	02460007	02460005
1	Thrust plate	02059415	02059415	02259400	02259400	02259405	-	02259405
2	OR-seal	02391720	02391720	02391720	02391720	02391721	02391720	02391721
3	O-ring	02395800	02395800	02395800	02395800	-	02395800	-
4	seal	02396570	02396570	02396570	02396570	02396571	02396570	02396571
5	shaft seal	02404819	02404819	02404819	02404819	02404826	02404819	02404826
6	shaft seal	02404825	02404825	02404825	02404825	02404841	02404825	02404841
7	shaft seal	02391675	02391675	02391675	02391675	02404839	02391675	02404839
8	back-up ring	02396527	02396527	02396527	02396527	02396528	02396527	02396528
9	Bonded Seal	01206850	01313848	01313848	01313848	01206874	01206874	01206874
10	Steel plug	01702841	01702853	01702853	01702853	01702856	01702856	01702856
11	leak indicator kit	02470180	02470180	02470180	02470180	02470180	02470180	02470180

Pressure definition

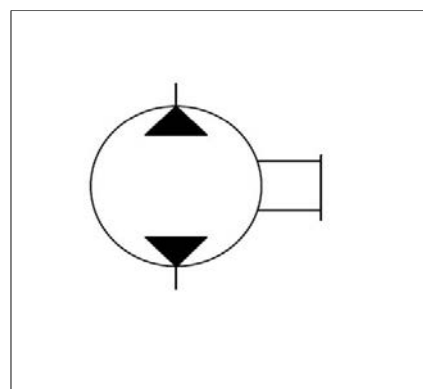


P1 = Peak Pressure

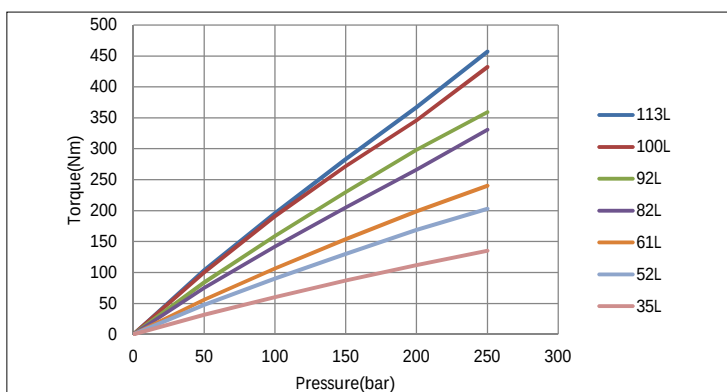
P2 = Intermittent Pressure

P3 = Continuous Pressure

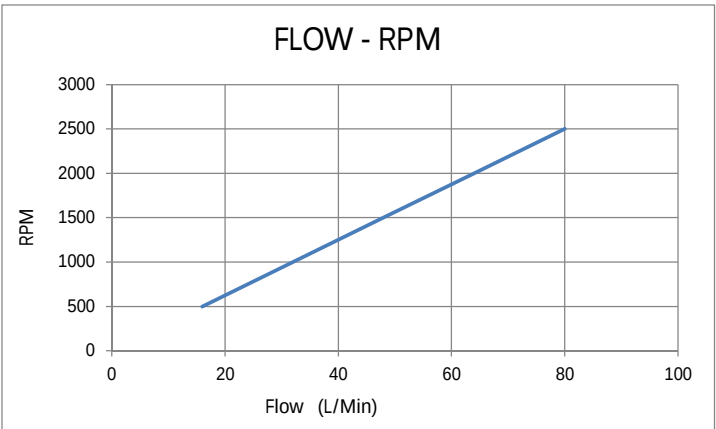
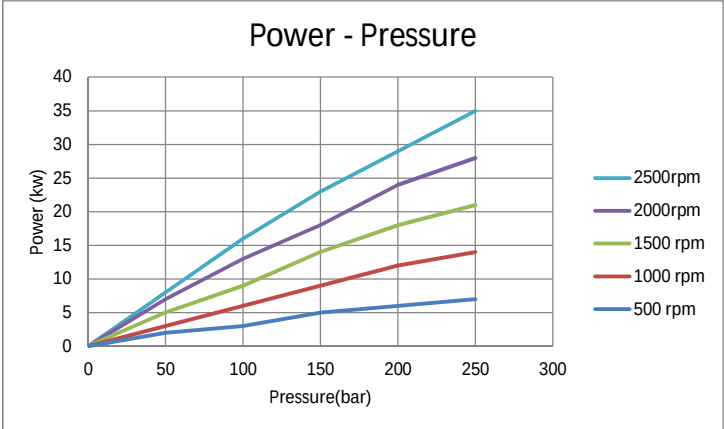
hydraulic pump symbol



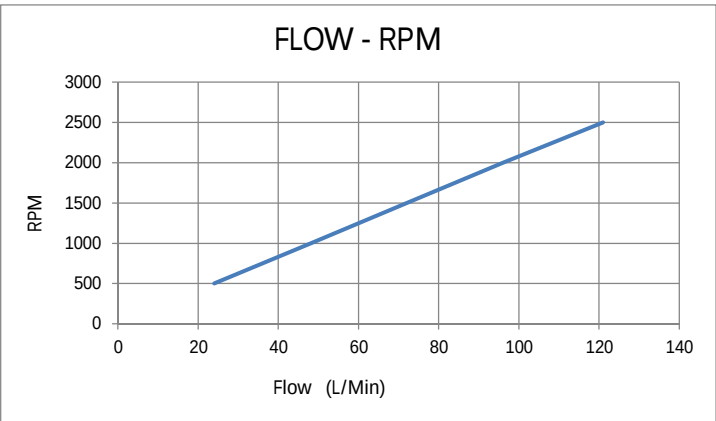
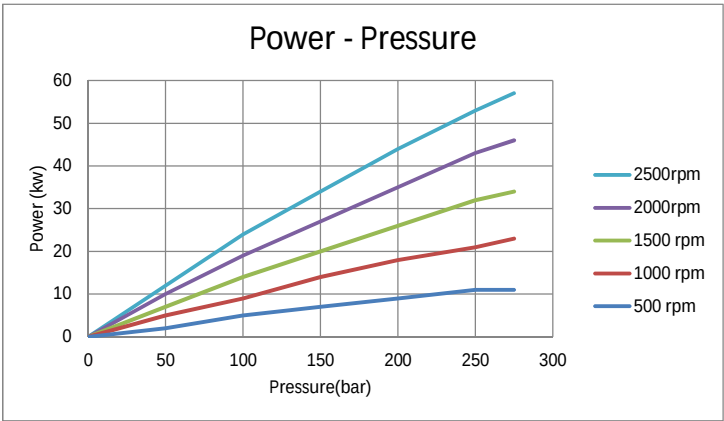
Torque - Pressure characteristics



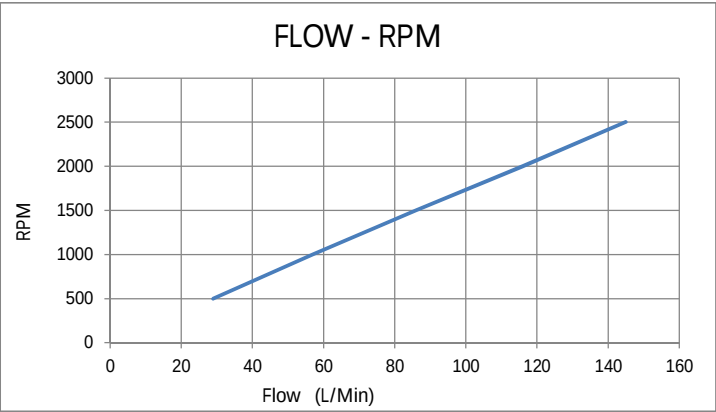
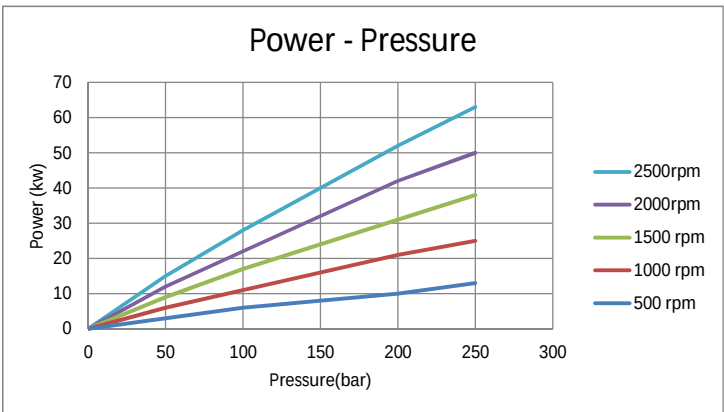
35 cc (145620005)



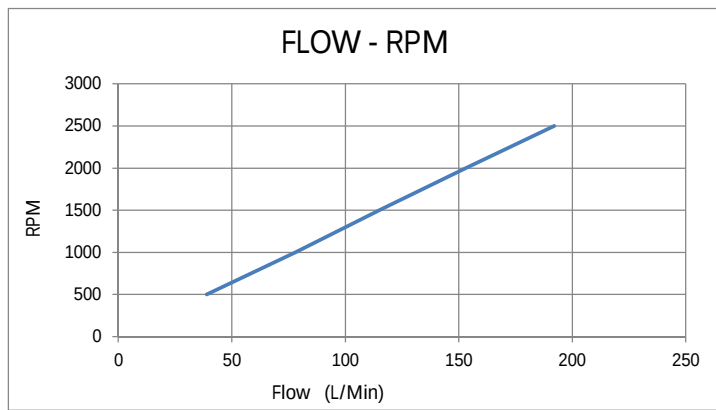
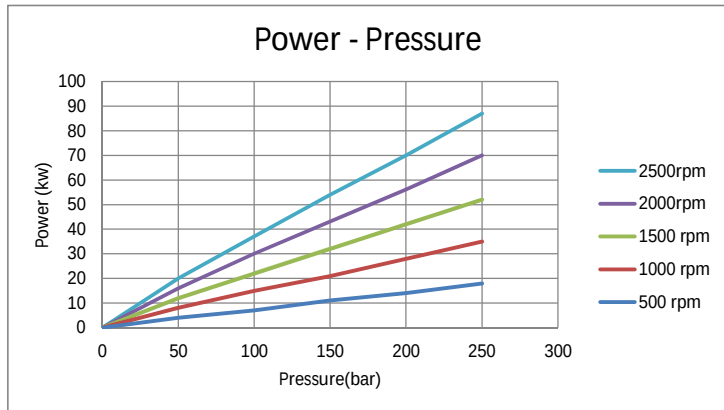
52 cc (14562010)



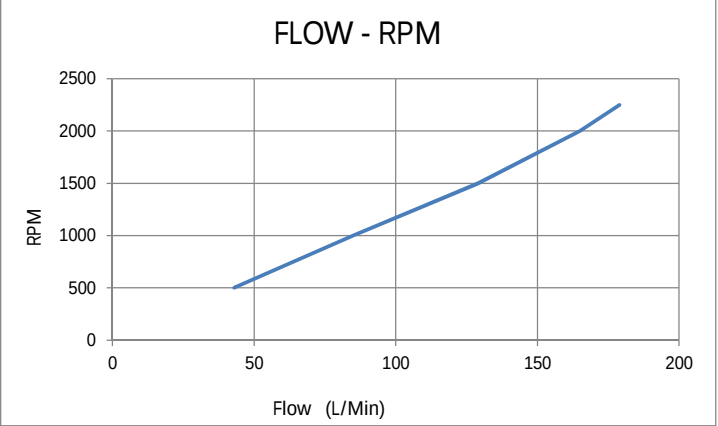
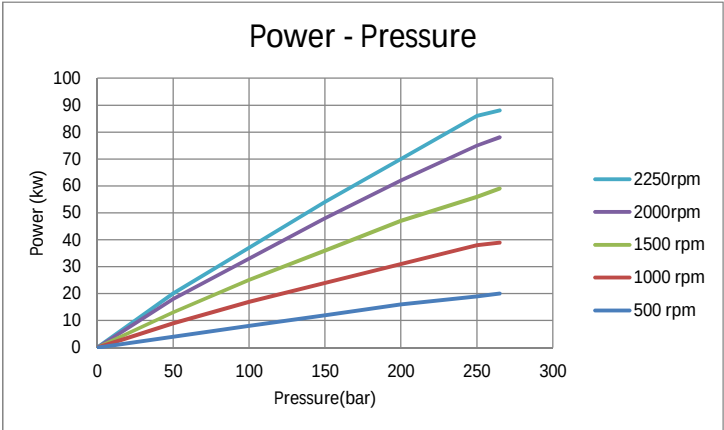
61 cc (14562015)



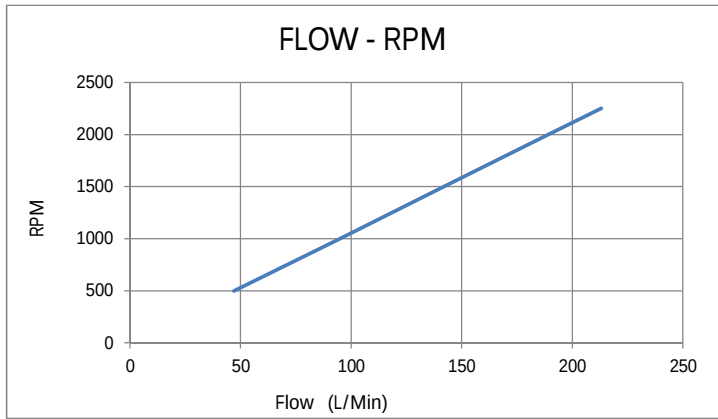
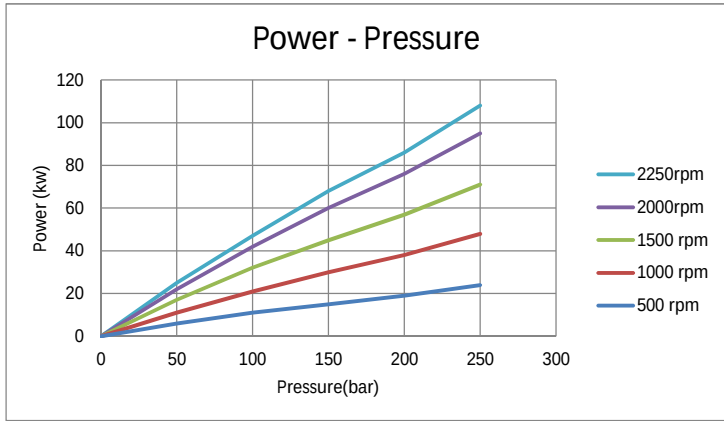
82 cc (14571224 & 14562091)



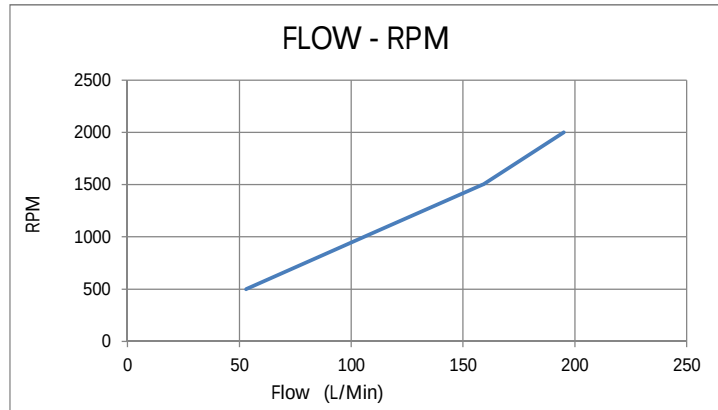
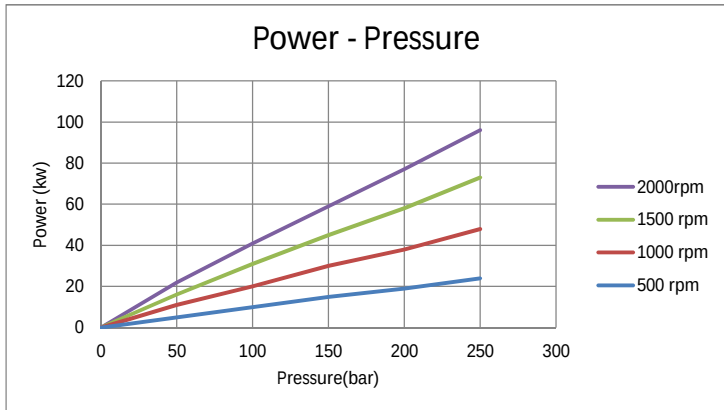
92 cc (14562030)

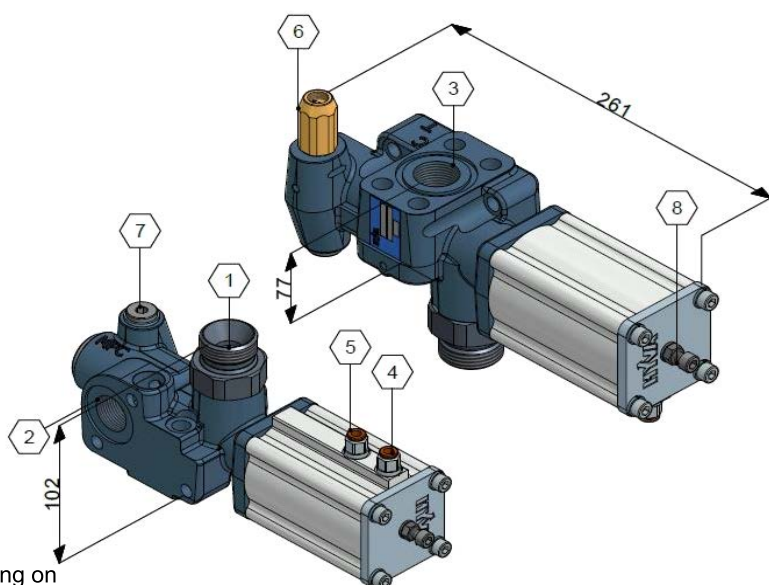


100 cc (14562093 & 14562095)



113 cc (14562041)





For mounting on

- Hyva tank mounting plate
- Directly on Hyva cylinder with SAE inlet

3D model is available on request

- 1 Pump connection (P)
- 2 Tank connection (T)
- 3 Cylinder connection SAE(C)
- 4 Pneumatic connection (Tip)
- 5 Pneumatic connection (Lower)
- 6 Pressure cartridge
- 7 Pressure gauge point
- 8 Adjustment screw
(To adjust the lowering speed)

SAFETY

HT valve fitted on cylinder (SAE)
Valve offers hose burst safety function

Types

Hydraulic connections	Pressure (BAR)	Part Number	Description
	Max.		
P, T & C = 3/4" C = SAE	135	14767213	TIP VALVE HT-TNK/SAE-1150-135-P3/4"
	150	14767215	TIP VALVE HT-TNK/SAE-1150-150-P3/4"
	170	14767217	TIP VALVE HT-TNK/SAE-1150-170-P3/4"
	190	14767219	TIP VALVE HT-TNK/SAE-1150-190-P3/4"
	220	14767222	TIP VALVE HT-TNK/SAE-1150-220-P3/4"
	250	14767225	TIP VALVE HT-TNK/SAE-1150-250-P3/4"
T, C=3/4"& P=1" C = SAE	135	14767263	TIP VALVE HT-TNK/SAE-1150-135-P1"
	150	14767265	TIP VALVE HT-TNK/SAE-1150-150-P1"
	170	14767267	TIP VALVE HT-TNK/SAE-1150-170-P1"
	190	14767269	TIP VALVE HT-TNK/SAE-1150-190-P1"
	220	14767272	TIP VALVE HT-TNK/SAE-1150-220-P1"
	250	14767275	TIP VALVE HT-TNK/SAE-1150-250-P1"

Optional adapter kits	Kit number
3/4" Straight TNK	AK5212TS
3/4" 90 degree TNK	AK5212TE
3/4" Straight SAE	AK5212SS
3/4" 90 degree SAE	AK5212SE
1" Straight TNK	AK5216TS
1" 90 degree TNK	AK5216TE
1" Straight SAE	AK5216SS
1" 90 degree SAE	AK5216SE

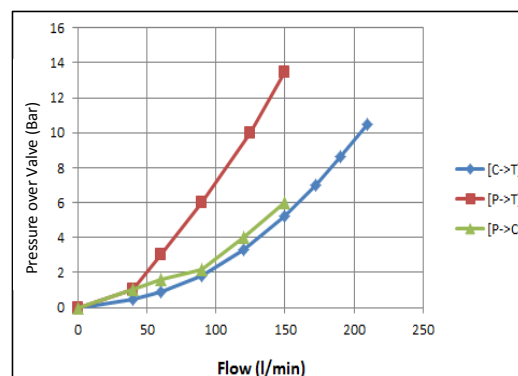
Mounting kits	Kit number
Cylinder (SAE)*	14735162
Tank (TNK)*	14735160

* = NOT included with valve

Specifications

Type	Spool valve with pressureless bypass in neutral. Oil flow in lowering position is proportional with pneumatic pilot pressure.	
Max. peak pressure		300 bar
Pneumatic pilot pressure		6-12 bar
Max. pump flow		150 L/min
Max. pressure on T-connection		10 bar
Min. filtration (ISO 18/13)		25 µm
Viscosity range	min	12 mm ² /s (cst)
	max	100 mm ² /s (cst)
Temperature range	min	-40 °C
	max	80 °C
Mass		3,7 kg

Δp - Q characteristic



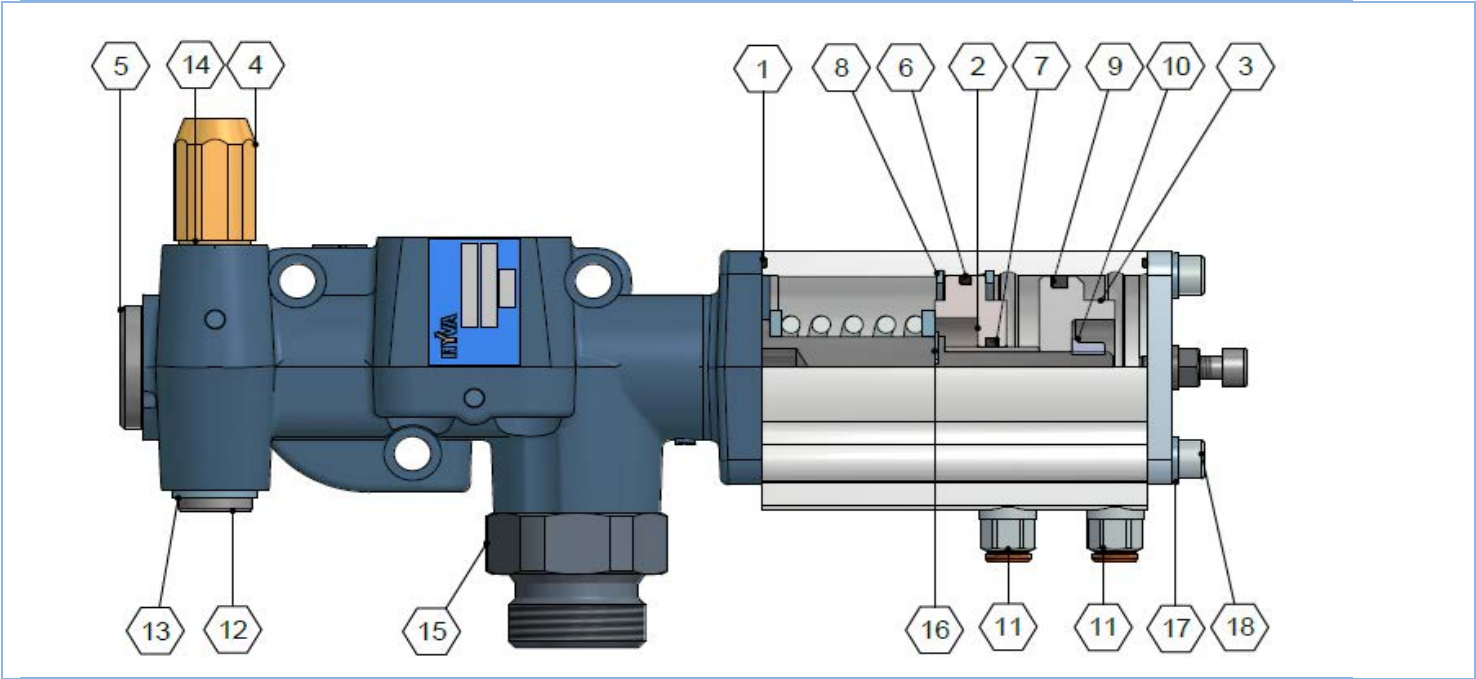
Technical notes

- Mount the valve according the mounting instructions
- Use the correct washers and adapters in the ports to prevent housing deformation. Do not use adapters with tapered threads
- To further prevent deformation of the valve housing, the mounting plate surface or block must be completely flat and plane.
- Do not weld to the valve.
- Ideal air pressure for valve is 8 bar.
- Make sure inlet air is dry.
- Paint Spec: TN00_00001

Related documentation

Mounting instructions: VAL-0022

OIL Specifications: OIL:0011

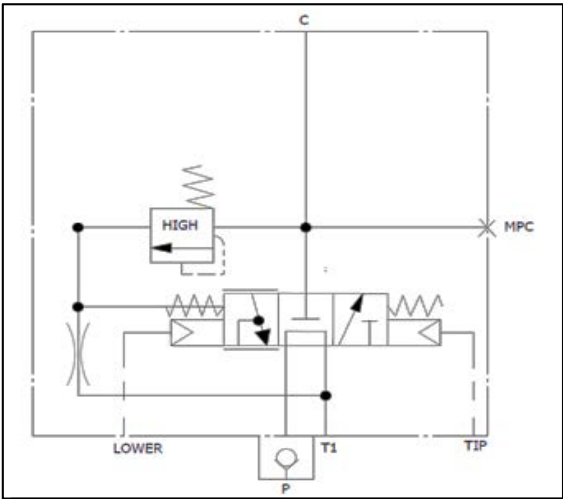


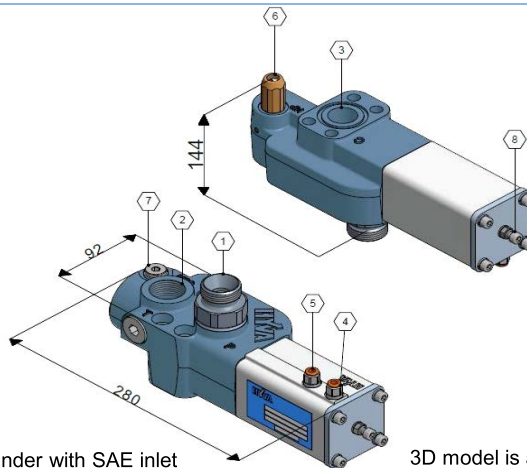
Spare Parts

No.	Part no.	Description	Qty
1	01226200	O-ring	2
2	14845005	Closing plate for HT-valve	1
3	14845007	Piston air cylinder	1
4	14772...	Cartridge pressure relief	1
	14772135	135 bar	
	14772150	150 bar	
	14772170	170 bar	
	14772190	190 bar	
	14772220	220 bar	
	14772250	250 bar	
	14772280	280 bar	
5	14845024	Plug	1
6	14845013	O-ring	1

No.	Part no.	Description	Qty
7	14845018	Quadring	1
8	14845019	Circlip	2
9	14845020	Quadring	1
10	14845015	Sealing nut M8 for HT-valve	1
11	14810517	Air coupling 1/8"	2
12	14845039	Plug	1
13	01206813	Bonded seal	1
14	14841215	O-ring 10,82 x 1,78	1
15	14739980	Non return valve 3/4"	1
	14739975A	Non return valve 1"	1
16	15029046	Circlip	1
17	15022015	Washer spring	4
18	15013639	Bolt HSHC	4

Hydraulic symbol of the HT valve





For mounting on

- Directly on Hyva cylinder with SAE inlet

3D model is available on request

- 1 Pump connection (P)
- 2 Tank connection (T)
- 3 Cylinder connection SAE(C)
- 4 Pneumatic connection (Tip)
- 5 Pneumatic connection (Lower)
- 6 pressure cartridge
- 7 Pressure gauge point
- 8 Adjustment screw (To adjust the lowering speed)

SAFETY

HT valve fitted on cylinder (SAE)

Port offers hose burst safety function

Types

Hydraulic connections	Pressure (BAR)	Part Number	Description
	Max.		
P = 3/4" & T=1" C = SAE	150	14767454	TIP VALVE HT-SAE-1220-150-P3/4"
	170	14767456	TIP VALVE HT-SAE-1220-170-P3/4"
	190	14767458	TIP VALVE HT-SAE-1220-190-P3/4"
	220	14767460	TIP VALVE HT-SAE-1220-220-P3/4"
	250	14767462	TIP VALVE HT-SAE-1220-250-P3/4"
T & P=1" C = SAE	150	14767455	TIP VALVE HT-SAE-1220-150-P1"
	170	14767457	TIP VALVE HT-SAE-1220-170-P1"
	190	14767459	TIP VALVE HT-SAE-1220-190-P1"
	220	14767461	TIP VALVE HT-SAE-1220-220-P1"
	250	14767463	TIP VALVE HT-SAE-1220-250-P1"

Optional adapter kits	Kit number
3/4" Straight SAE	AK5112SS
3/4" 90 degree SAE	AK5112SE
1" Straight SAE	AK5116SS
1" 90 degree SAE	AK5116SE

Mounting kits	Kit number
Cylinder (SAE)*	14735175

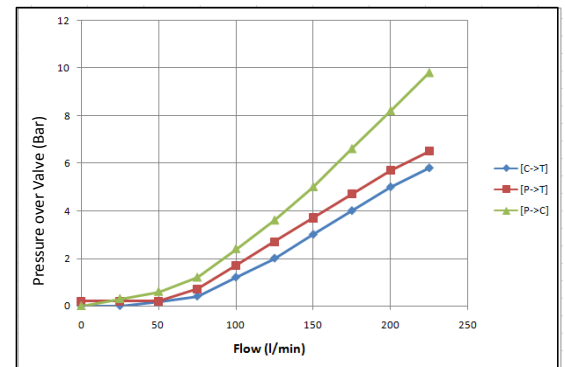
* = included with valve

Specifications

Type Spool valve with pressureless bypass in neutral.
Oil flow in lowering position is proportional with pneumatic pilot pressure

Max. peak pressure	300 bar
Pneumatic pilot pressure	6-12 bar
Max. pump flow	220 L/min
Max. pressure on T-connection	10 bar
Min. filtration (ISO 18/13)	25 µm
Viscosity range	min 12 mm2/s (cst)
	max 100 mm2/s (cst)
Temperature range	min -40 °C
	max 80 °C
Mass	5,5 kg

Δp - Q characteristic



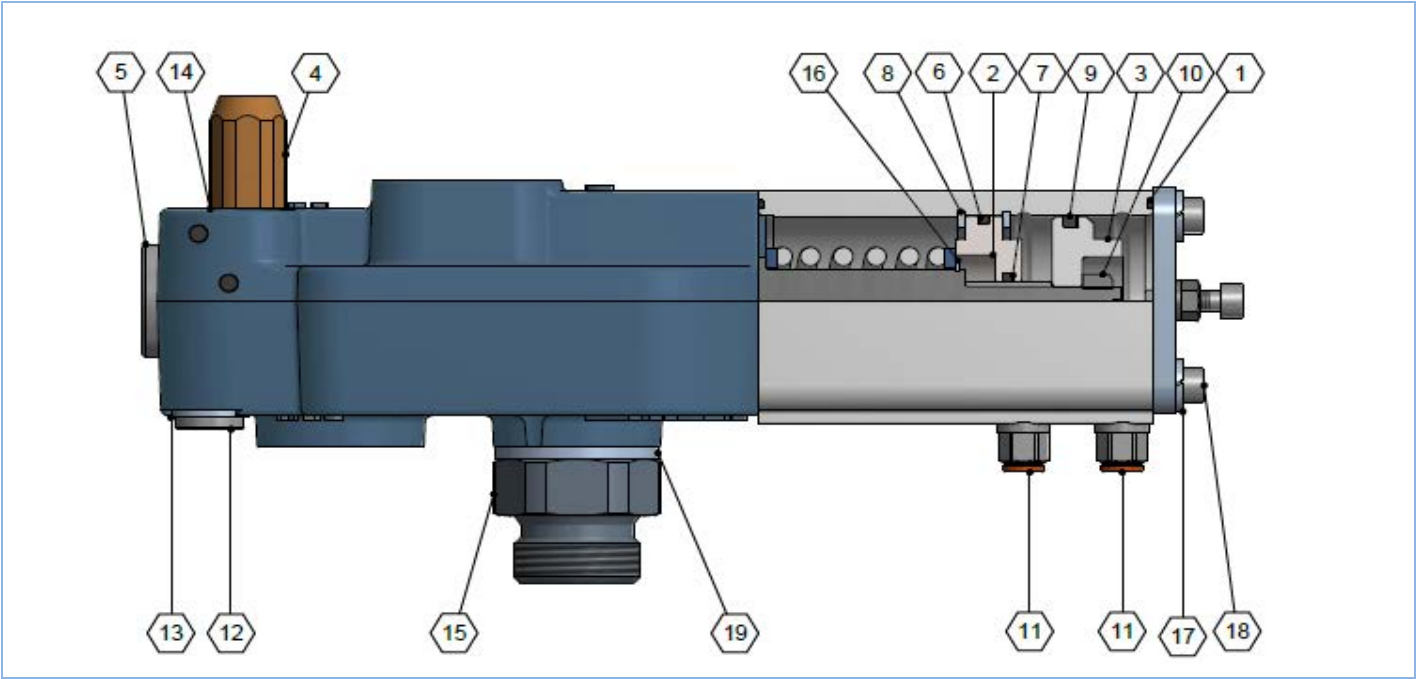
Technical notes

- Mount the valve according the mounting instructions • Use the correct washers and adapters in the ports to prevent housing deformation. Do not use adapters with tapered threads • To further prevent deformation of the valve housing, the mounting plate surface or block must be completely flat and plane. • Do not weld to the valve. • Ideal air pressure for valve is 8 bar. • Make sure inlet air is dry.
- Paint spec: TNO00_00001

Related documentation

Mounting instructions: VAL-0021

OIL Specifications: OIL:0011

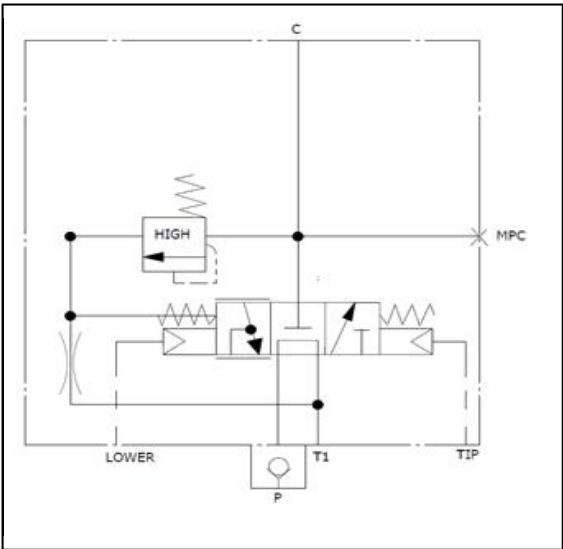


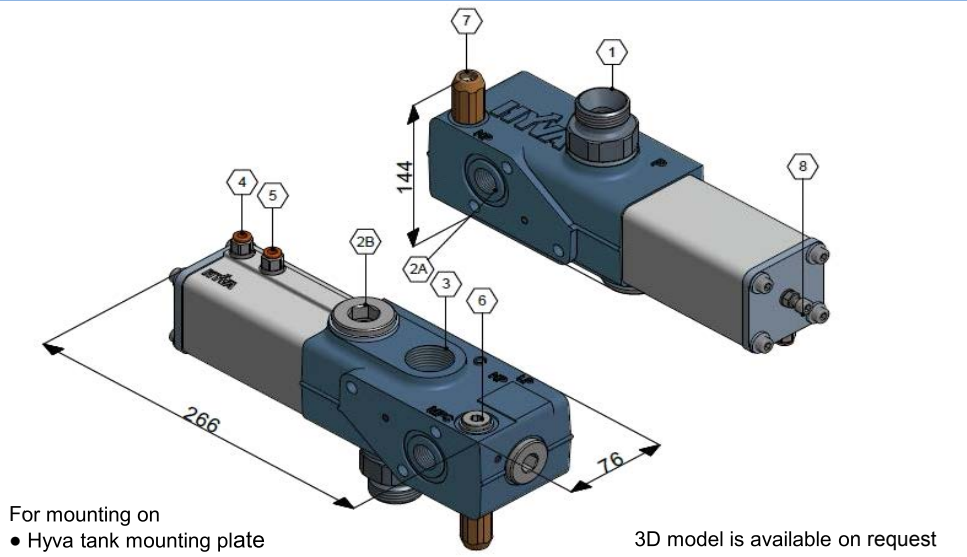
Spare Parts

No.	Part no.	Description	Qty
1	01226200	o-ring	2
2	14845005	closing plate	1
3	14845007	piston air cylinder	1
4	14772...	cartridge pressure relief	1
	14772150	150 bar	
	14772170	170 bar	
	14772190	190 bar	
	14772220	220 bar	
	14772250	250 bar	
5	14845024	blind plug	1
6	14845013	O-ring	1

No.	Part no.	Description	Qty
7	14845018	quadring	1
8	14845019	circlip	2
9	14845020	quadring	1
10	14845015	sealing nut M8 for HT-valve	1
11	14810517	air coupling 1/8"	2
12	14845039	blind plug	1
13	01206813	bonded seal	1
14	14841215	o-ring 10,82 x 1,78	1
15	14739980	non return valve 3/4"	1
15	14739975A	non return valve 1"	1
16	15029046	circlip	1
17	15022015	washer spring	4
18	15013639	bolt HSHC	4
19	01313848	bonded seal	1

Hydraulic symbol of the HT valve





- 1 Pump connection (P)
- 2A Return tank connection (T)
- 2B Alternative return tank connection (T)
- 3 Cylinder connection (C)
- 4 Pneumatic connection (Tip)
- 5 Pneumatic connection (Lower)
- 6 Pressure gauge point
- 7 High pressure cartridge
- 8 Adjustment screw (To adjust the lowering speed)

Types

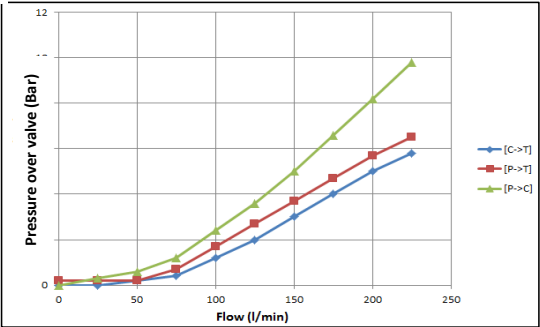
Hydraulic connections	Pressure (BAR)	Part Number	Description	Optional adapter kits	
	Max.			Kit number	
T, C & P=1"	110	14767111	TIP VALVE HT-TNK-1220-110-P1"	1" Straight TNK	AK5016TS
	135	14767113	TIP VALVE HT-TNK-1220-135-P1"	1" 90 degree TNK	AK5016TE
	150	14767115	TIP VALVE HT-TNK-1220-150-P1"	1" Straight CHASSIS	AK5016CS
	170	14767117	TIP VALVE HT-TNK-1220-170-P1"	1" 90 degree CHASSIS	AK5016CE
	190	14767119	TIP VALVE HT-TNK-1220-190-P1"		
	220	14767122	TIP VALVE HT-TNK-1220-220-P1"		
	250	14767125	TIP VALVE HT-TNK-1220-250-P1"		
	280	14767128	TIP VALVE HT-TNK-1220-280-P1"		
	350	14767135	TIP VALVE HT-TNK-1220-350-P1"		
				Mounting kits	
				Kit number	
				Tank (TNK) *	14735168
				Chassis	14735208

* = included with valve

Specifications

Type	Spool valve with pressureless bypass in neutral. Oil flow in lowering position is proportional with pneumatic pilot pressure.	
Max. peak pressure		350 bar
Pneumatic pilot pressure		6-12 bar
Max. pump flow		220 L/min
Max. pressure on T-connection		10 bar
Filtration (ISO 18/13)		25 µm
Viscosity range	min	12 mm2/s (cst)
	max	100 mm2/s (cst)
Temperature range	min	-40 °C
	max	80 °C
Mass		6,1 kg

Δp - Q characteristic



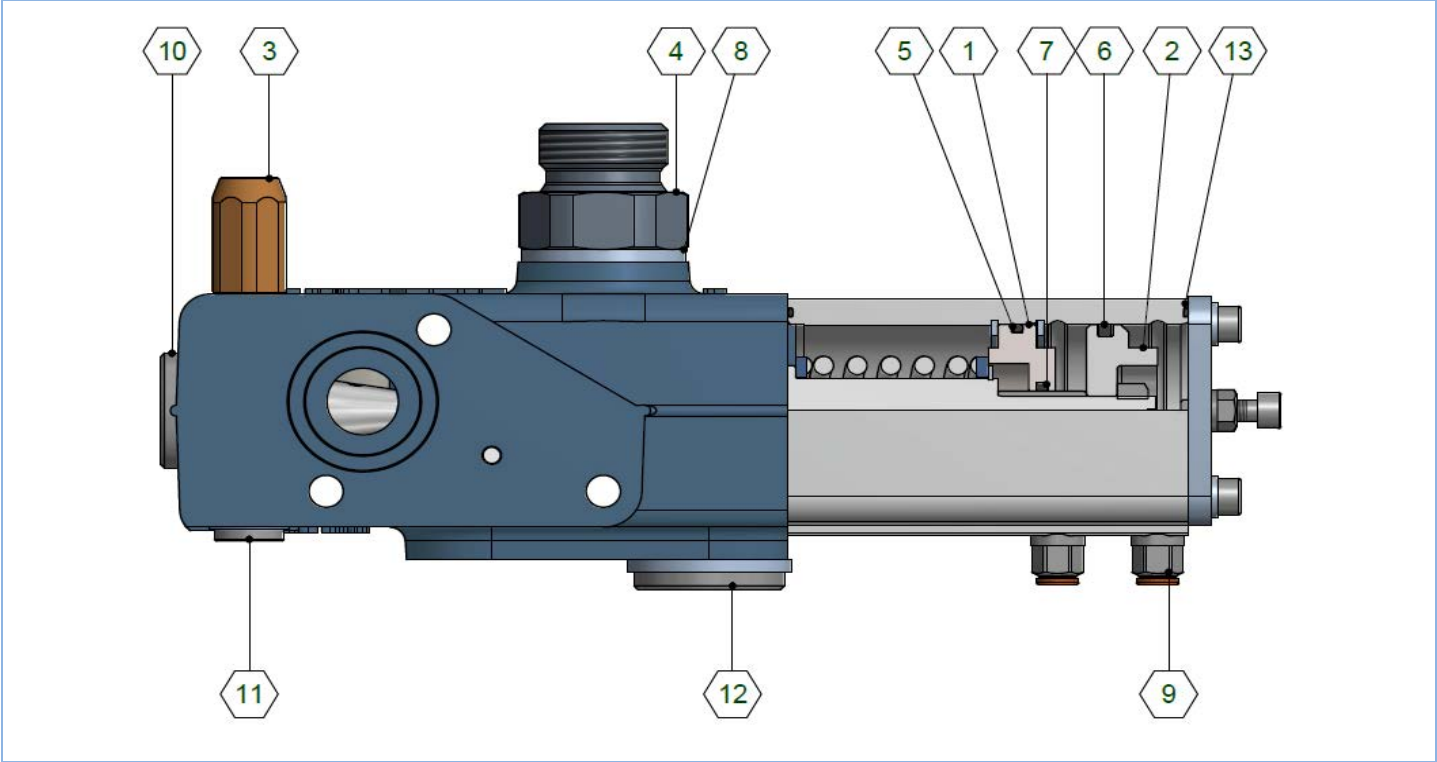
Technical notes

- Mount the valve according the mounting instructions • Use the correct washers and adapters in the ports to prevent housing deformation. Do not use adapters with tapered threads • To further prevent deformation of the valve housing, the mounting plate surface or block must be completely flat and plane.
- Do not weld to the valve. • Ideal air pressure for valve is 8 bar. • Make sure inlet air is dry.
- Paint spec: TNO00_00001

Related documentation

Mounting instructions: VAL-0022

OIL Specifications: OIL:0011

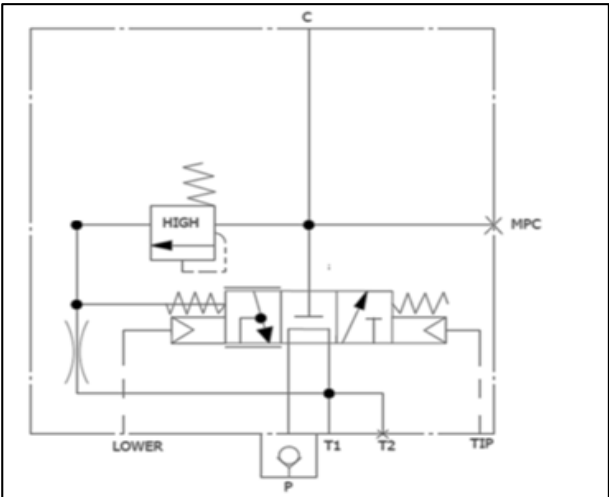


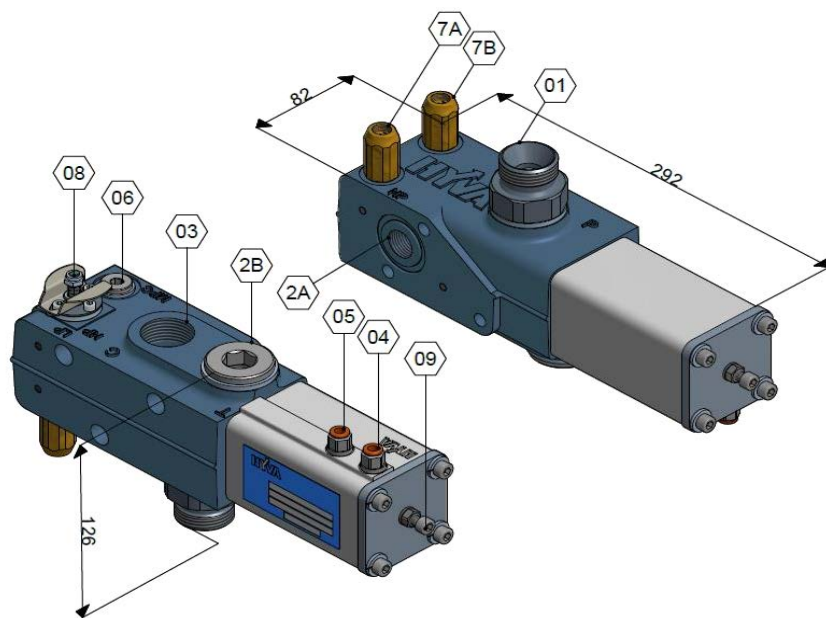
Spare Parts

No.	Part no.	Description	Qty
1	14845005	closing plate	1
2	14845007	piston air cylinder	1
3	14772...	cartridge pressure relief	1
	14772110	110 bar	1
	14772135	135 bar	
	14772150	150 bar	
	14772170	170 bar	
	14772190	190 bar	
	14772220	220 bar	
	14772250	250 bar	
	14772280	280 bar	
	14772350	350 bar	

No.	Part no.	Description	Qty
4	14739975A	non return valve	1
5	14845013	O-ring	1
6	14845020	Quadring	1
7	14845018	Quadring	1
8	01313848	bonded seal	2
9	14810517	straight coupling	2
10	14845024	blind plug	1
11	14845039	blind plug	1
12	14845040	blind plug	1
13	01226200	O-ring	2

HT valve: Hydraulic symbol





For mounting on
• Hyva tank mounting plate

3D model is available on request

- 1 Pump connection (P)
- 2A Return tank connection (T)
- 2B Alternative return tank connection (T)
- 3 Cylinder connection (C)
- 4 Pneumatic connection (Tip)
- 5 Pneumatic connection (Lower)
- 6 Pressure gauge point
- 7A High pressure cartridge (Max 2)
- 7B Low pressure cartridge (Max 1)
- 8 Pressure Selector
- 9 Adjustment screw (To adjust the lowering speed)

Types

Hydraulic connections	Pressure (BAR)		Part Number	Description
	Max. 1*	Max. 2*		
T, C & P=1"	150	220	14767152	TIP VALVE HT-TNK-2220-150-220-P1"
		250	14767155	TIP VALVE HT-TNK-2220-150-250-P1"
		280	14767158	TIP VALVE HT-TNK-2220-150-280-P1"
		350	14767165	TIP VALVE HT-TNK-2220-150-350-P1"
	170	220	14767172	TIP VALVE HT-TNK-2220-170-220-P1"
		250	14767175	TIP VALVE HT-TNK-2220-170-250-P1"
		280	14767178	TIP VALVE HT-TNK-2220-170-280-P1"
		350	14767185	TIP VALVE HT-TNK-2220-170-350-P1"
	190	220	14767192	TIP VALVE HT-TNK-2220-190-220-P1"
		250	14767195	TIP VALVE HT-TNK-2220-190-250-P1"
		280	14767198	TIP VALVE HT-TNK-2220-190-280-P1"
		350	14767200	TIP VALVE HT-TNK-2220-190-350-P1"

Optional adapter kits	Kit number
1" Straight TNK mounting	AK5016TS
1" 90 degree TNK mounting	AK5016TE
1" Straight CHASSIS mounting	AK5016CS
1" 90 degree CHASSIS mount.	AK5016CE

Mounting kits	Kit number
Tank (TNK) **	14735168
Chassis	14735208

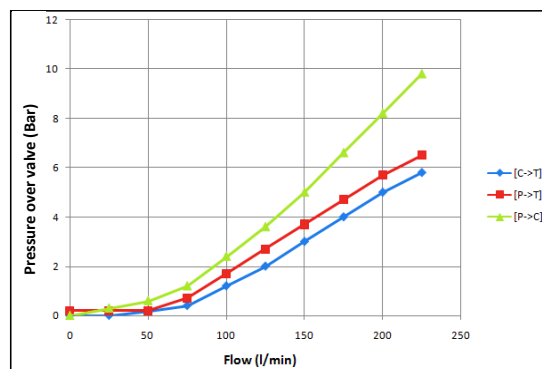
** = included with valve

* = The user can choose the maximum pressure limit by using the Pressure Selector (8)

Specifications

Type	Spool valve with pressureless bypass in neutral. Oil flow in lowering position is proportional with pneumatic pilot pressure	
Max. peak pressure		350 bar
Pneumatic pilot pressure		6-12 bar
Max. pump flow		220 L/min
Max. pressure on T-connection		10 bar
Min. filtration (ISO 18/13)		25 µm
Viscosity range	min	12 mm2/s (cst)
	max	100 mm2/s (cst)
Temperature range	min	-40 °C
	max	80 °C
Mass		6,4 kg

Δp - Q characteristic



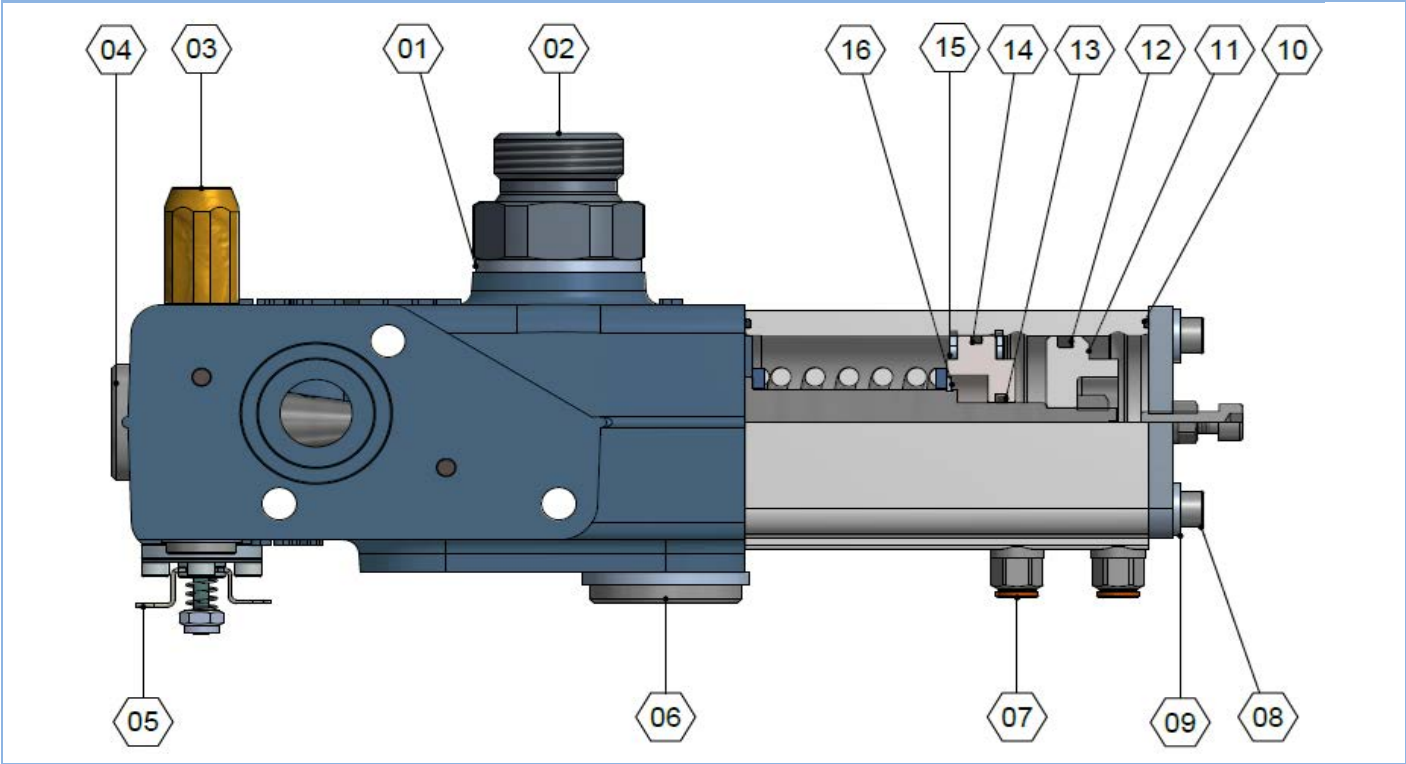
Technical notes

- Mount the valve according the mounting instructions • Use the correct washers and adapters in the ports to prevent housing deformation. Do not use adapters with tapered threads • To further prevent deformation of the valve housing, the mounting plate surface or block must be completely flat and plane. • Do not weld to the valve. • Ideal air pressure for valve is 8 bar. • Make sure inlet air is dry.
- Paint spec: TNO00_00001

Related documentation

Mounting instructions: VAL-0022

OIL Specifications: OIL:0011

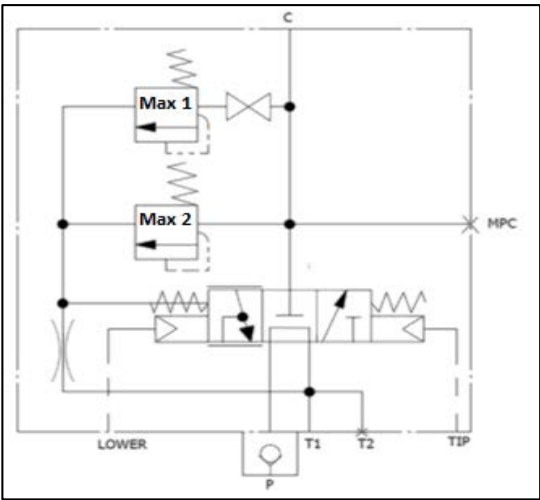


Spare Parts

No.	Part no.	Description	Qty
1	01313848	Bonded Seal	2
2	14739975A	Non return valve	1
3	14772...	Pressure cartridge	2
3	14772150	150 bar	
3	14772170	170 bar	
3	14772190	190 bar	
3	14772220	220 bar	
3	14772250	250 bar	
3	14772280	280 bar	
3	14772350	350 bar	
4	14845024	Blind Plug	1
5	14845050	PR. Adj. KIT	1

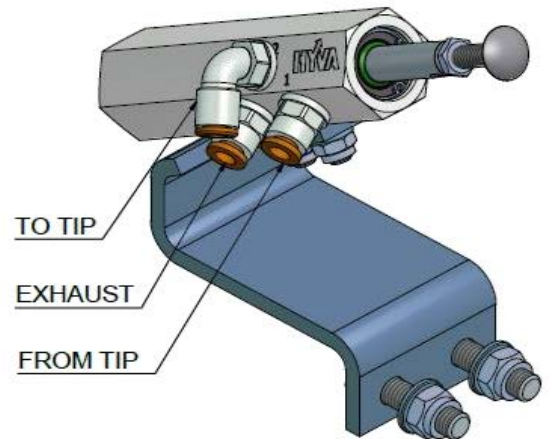
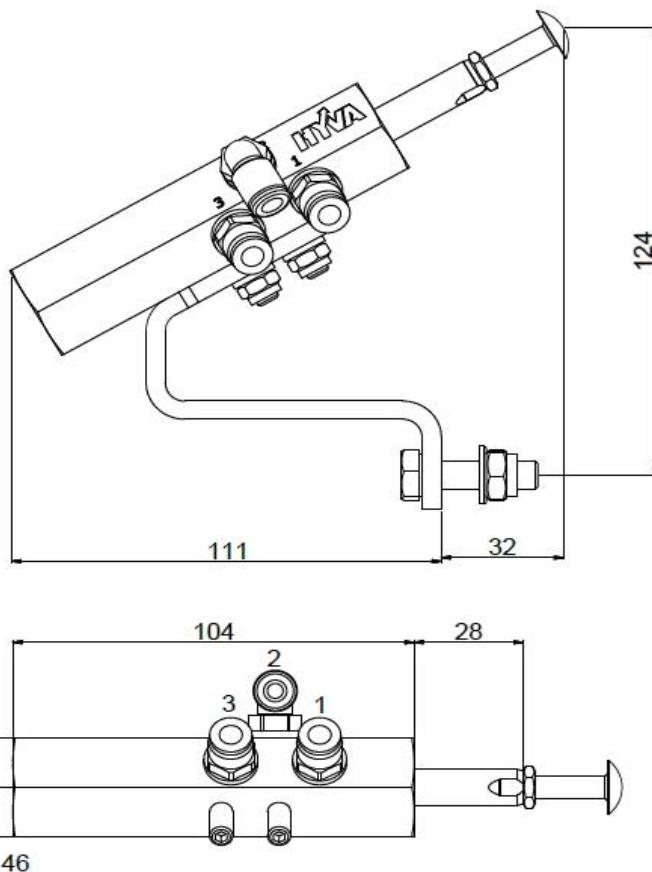
No.	Part no.	Description	Qty
6	14845040	Bling Plug	1
7	14810517	Straight coupling	2
8	15013638	Bolt	4
9	15022015	Washer	4
10	01226200	O-ring	2
11	14845007	Piston air cylinder	1
12	14845020	Quadring	1
13	14845018	Quadring	1
14	14845013	O-ring	1
15	14845019	Retaining ring	2
16	14845031	Retaining ring	3

Hydraulic symbol of the HT valve



Max 1 = the pressure cartridge with the lowest BAR value

Max 2 = the pressure cartridge with the highest BAR value

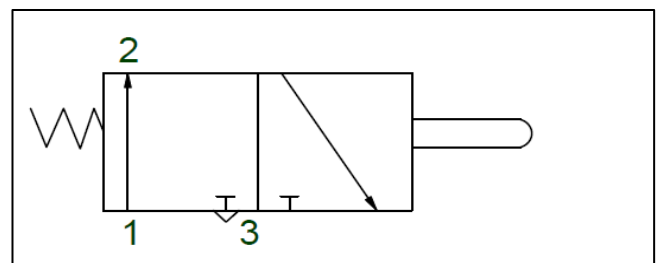


3D model is available on request

Specification

Part No.	14700506
Mounting	Cradle
Max working pressure	10 bar
Connections (tube)	6 x 4 mm
Temperature range	Max +80 °C
	Min -40 °C
Weight	0,6 kg

Pneumatic symbol



Spare Parts

Part No.	Description	Qty	Weight (KG)
14700508	Knock-off (no bracket)	1	0,25
14700507	Seal kit	1	
14810517	Air coupling straight - 6 mm	1	0,01
14810566	Air coupling 90 degrees - 6 mm	1	0,01

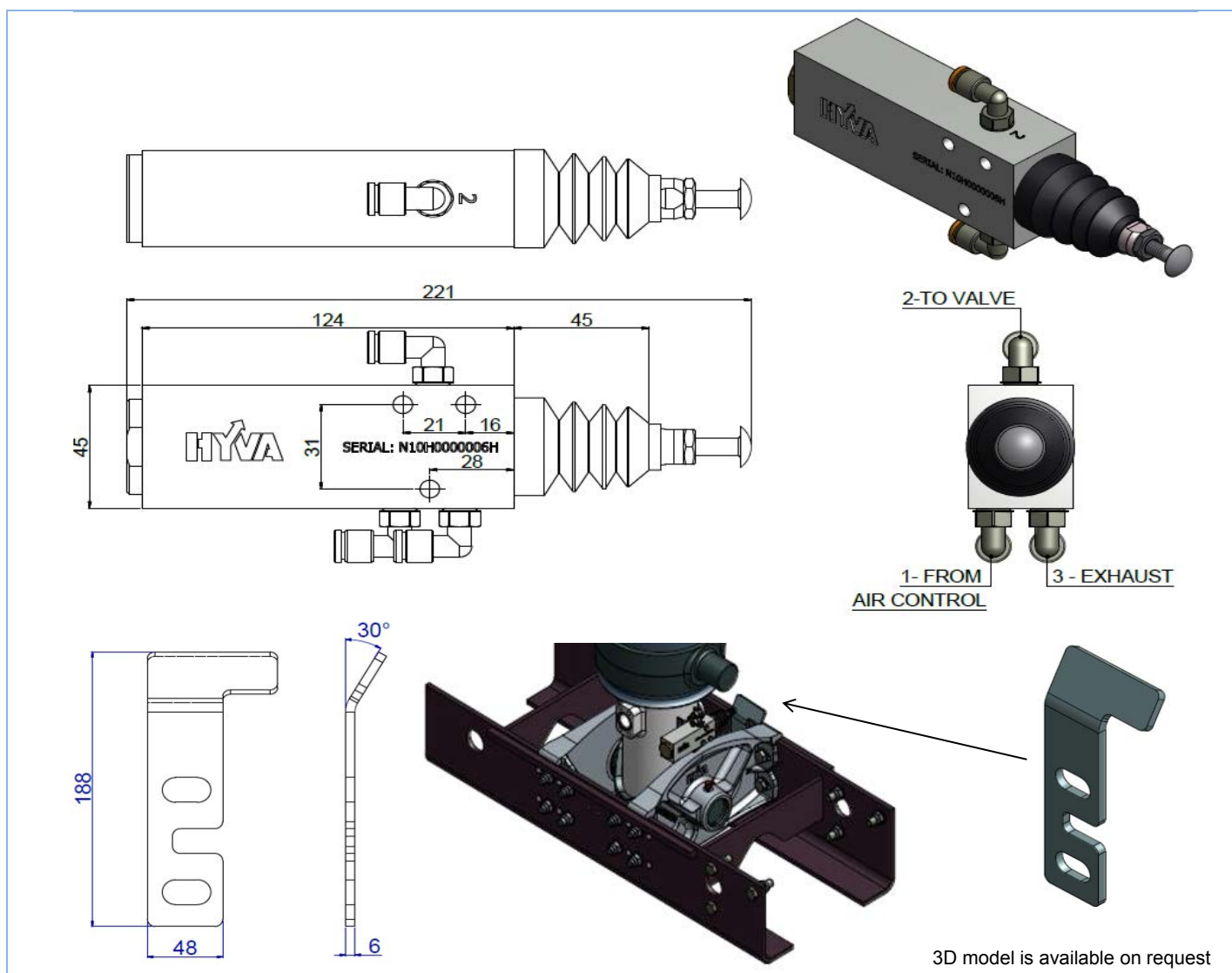
Technical notes

Make sure inlet air is dry and clean

Related documentation

Mounting instructions: KNO-0020

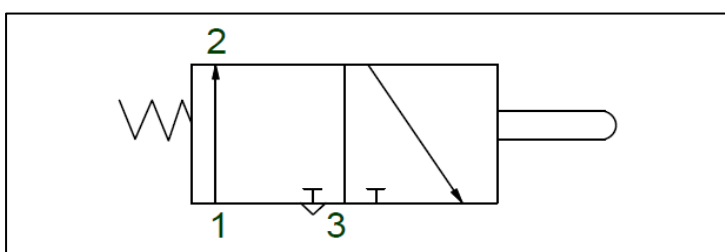
Repair instructions: KNO-0005



Specification

Part No.	14700578
Mounting	Cylinder
Max working pressure	10 bar
Connections (tube)	6 x 4 mm
Temperature range	Max +80 °C
	Min -40 °C
Weight	0,95 kg

Pneumatic symbol



Spare Parts

Part No.	Description	Qty	Weight (KG)
14700575	Knock-off (no bracket)	1	0,73
75375015	Stop Plate - KnockOff	1	0,05
14700577	Seal Kit	1	
14810517	Air coupling straight - 6 mm	1	0,01
14810566	Air coupling 90 degrees - 6 mm	1	0,01

Technical notes

Make sure inlet air is dry and clean

Related documentation

Mounting instructions: KNO-0021

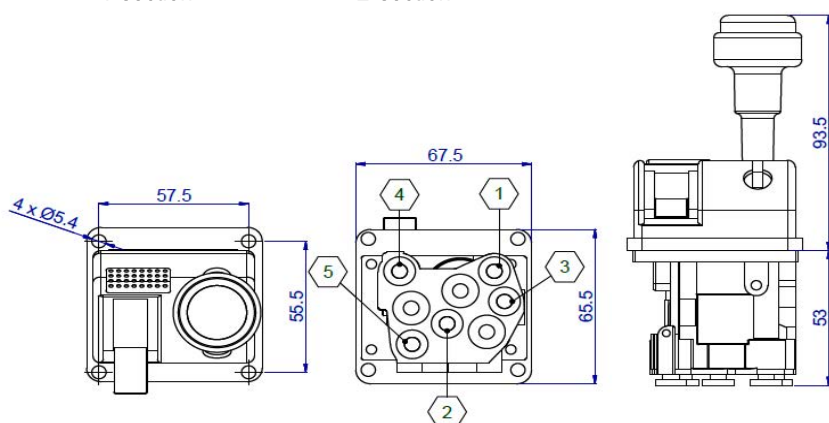
Repair instructions: KNO-0007



1-section



2-section



3D model is available on request

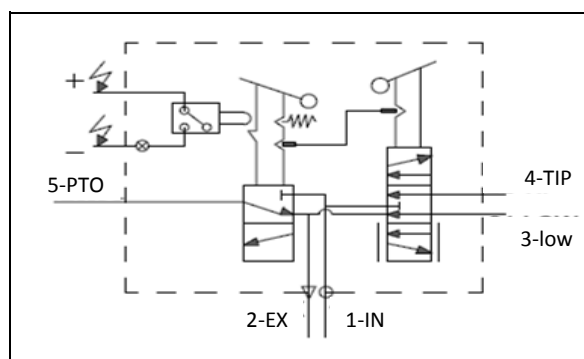
- 1 Air inlet
- 2 Air exhaust
- 3 Lowering connection(to tipping valve)
- 4 Tipping connection(to tipping valve)
- 5 Working port P.T.O.



Specification

Max. air pressure	12 Bar	Connections	6 mm hose
Min. air pressure	5 Bar	Mounting holes	M6
Max. temperature	80 °C	Voltage lamp	24 VDC
Min. temperature	-40 °C	Weight	0,4 KG

Pneumatic symbol



Section	Lever characteristic		PTO control		Part no.
	TS/LF	TF/LF	PNL	PAL	
1-section	•	•			14750667H 14750665H
2-section	•	•	•	•	14750646H 14750652H 14750644H 14750650H

TF	Lever is fixed in tipping position
TS	Lever has spring return in tipping position
LF	Lever is fixed in lowering position
PNL	P.T.O control has no automatic disengage P.T.O has a lamp
PAL	P.T.O control has an automatic disengage P.T.O has a lamp

NOTE:

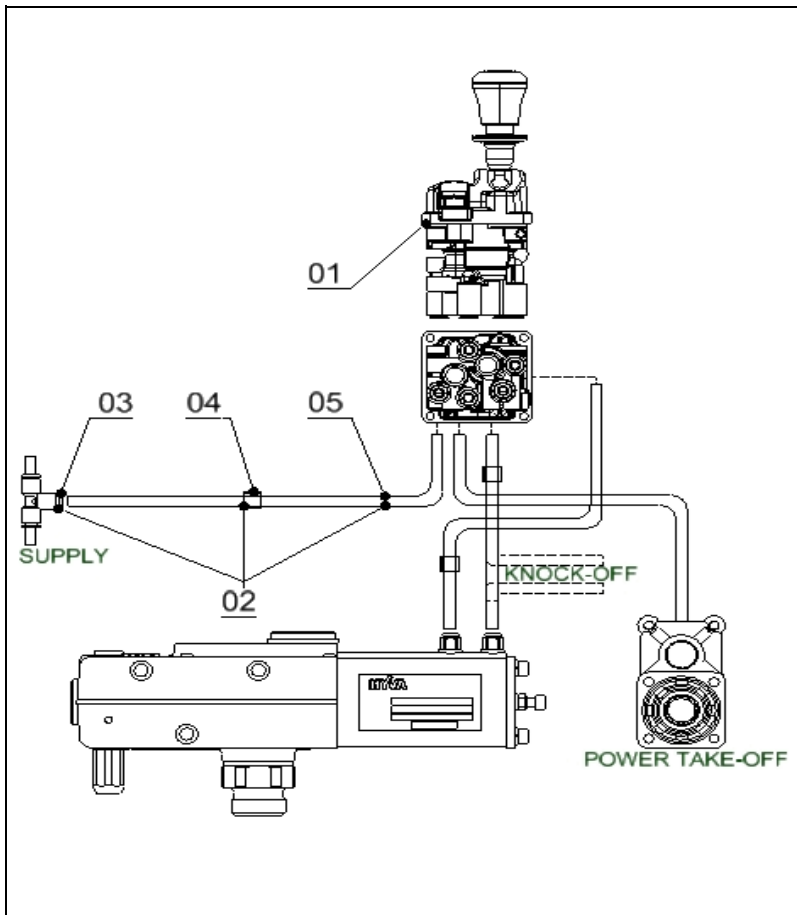
The air control TF/LF is not allowed to be used on a tipper in the EU according Machinery Directive 2006/42/EC, chapter 3.3.1

Technical notes

- When used with a compatible tipping valve with proportional lowering, the speed of descent of the body can be regulated by the proportional movement of the air control lever.
- The air control includes an electrical indicator to show P.T.O. engagement.
- The functions of Hyva air controls are clearly indicated on the type plate.
- Make sure inlet air is dry.

Related documentation

Mounting instructions: AIR- 0002



POS	Part no.	Description	Qty.
01	147506xxH	Air control	1
02	14750119K	Air tube kit 6mm	1
		25 meter single tube	
02	14750120K	Air tube kit 6mm	1
		9 meter (3 in 1)	
02	14750121K	Air tube kit 6mm	1
		9 meter (2 in 1)	
03	09225005	T-piece 6mm	1
04	14875500	Air tube tie	8
05	1487500715	Air tube 15m - 4x6 mm	1
05	1487500720	Air tube 20m - 4x6 mm	1
05	1487500725	Air tube 25m - 4x6 mm	1
05	1487500735	Air tube 35m - 4x6 mm	1

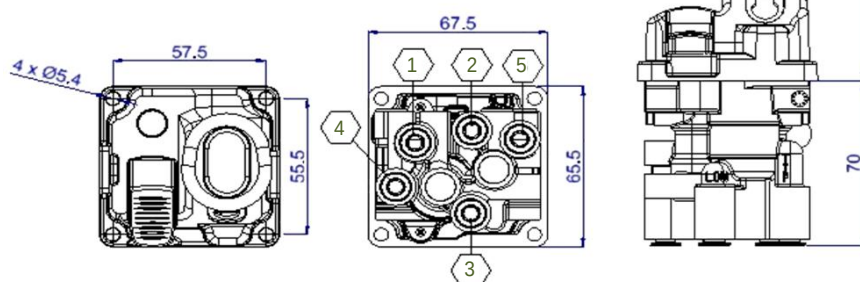
POS	Part no.	Description	Weight (kg)
06	09232002	Support tip control	0,18
07	09205002	Support tip control	0.44



1-section

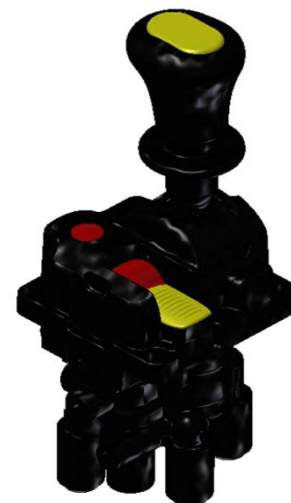


2-section



3D model is available on request

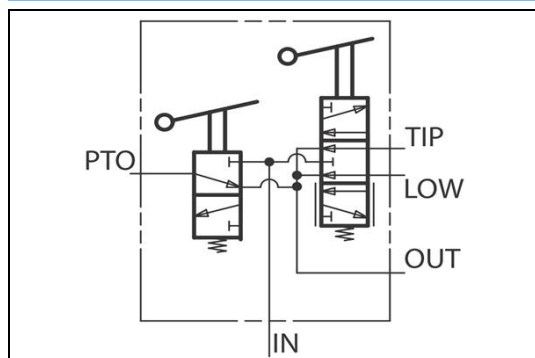
- 1 Air inlet
- 2 Air exhaust
- 3 Lowering connection(to tipping valve)
- 4 Tipping connection(to tipping valve)
- 5 Working port P.T.O.



Specification

Max. air pressure	12 Bar	Connections	6 mm hose
Min. air pressure	5 Bar	Mounting holes	M6
Max. temperature	80 °C	Voltage lamp	24 VDC
Min. temperature	-40 °C	Weight	0,37 KG

Pneumatic symbol



Section	Lever characteristic		PTO control		Safety switch	Part no.
	TS/LF	TF/LF	PNL	PAL		
1-section	•	•				02119065 02119064
2-section	•	•	•	•	•	02119061 02119063 02119060 02119062 02119035

TF	Lever is fixed in tipping position
TS	Lever has spring return in tipping position
LF	Lever is fixed in lowering position
PNL	P.T.O control has no automatic disengage P.T.O has a lamp
PAL	P.T.O control has an automatic disengage P.T.O has a lamp

NOTE:

The air control TF/LF is not allowed to be used on a tipper in the EU according Machinery Directive 2006/42/EC, chapter 3.3.1

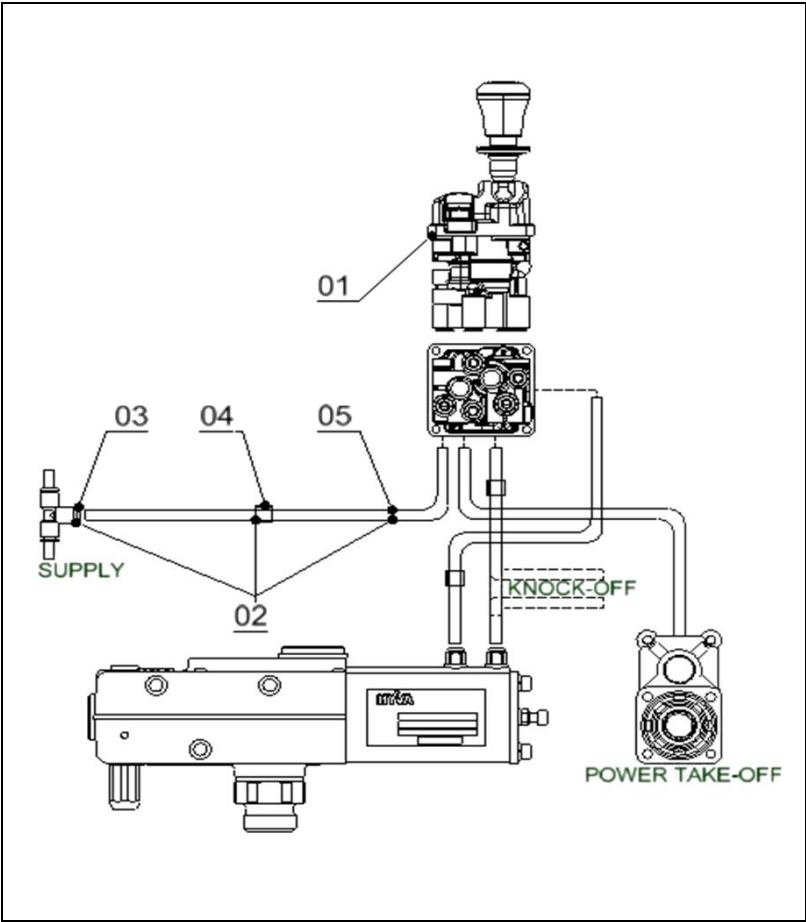
Technical notes

- When used with a compatible tipping valve with proportional lowering, the speed of descent of the body can be regulated by the proportional movement of the air control lever.
- The air control includes an electrical indicator to show P.T.O. engagement.
- The functions of Hyva air controls are clearly indicated on the type plate.
- Make sure inlet air is dry.

Related documentation

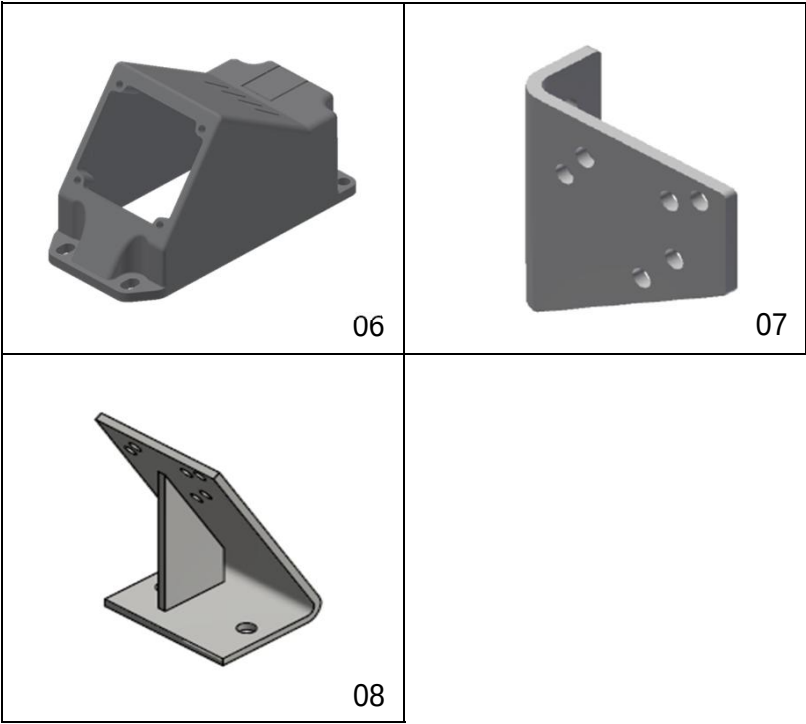
Mounting instructions: AIR- 0002

Options



POS	Part no.	Description	Qty.
01	021190xx	Air control	1
02	14750119K	Air tube kit 6mm 25 meter single tube	1
02	14750120K	Air tube kit 6mm 9 meter (3 in 1)	1
02	14750121K	Air tube kit 6mm 9 meter (2 in 1)	1
03	09225005	T-piece 6mm	1
04	14875500	Air tube tie-wrap	8
05	1487500715	Air tube 15m - 4x6 mm	1
05	1487500720	Air tube 20m - 4x6 mm	1
05	1487500725	Air tube 25m - 4x6 mm	1
05	1487500735	Air tube 35m - 4x6 mm	1

Mounting Support



POS	Part no.	Description	Weigth (kg)
06	02119000	Bracket kit for air control	0,15
07	09232002	Support tip control	0,18
08	09205002	Support tip control	0,44

ALPHA Series presents front end tipping solutions capable of operating at pressures up to 250 bar.



ALL NEW front end tipping solution in which hydraulic cylinders are smaller, lighter, stronger, operate at higher pressure and consume less oil. Brackets are stronger, lighter and can be maintenance free.

Wet kits have improved knock-off and control options, cylinder mounted tipping valves, new tank and filter options, and, pumps operating at up to 250 bar.

New cylinder diameters (118, 137, 157 and 179mm) in combination with the operating pressure at 250 bar have not only increased the range but also the optimisation of tipping solutions to specific applications.

The range includes Standard and Heavy Duty (HD) cylinders. HD cylinders have larger overlaps and stop and lift faces which have been redesigned to permit exceptionally high tipping and lowering speeds.

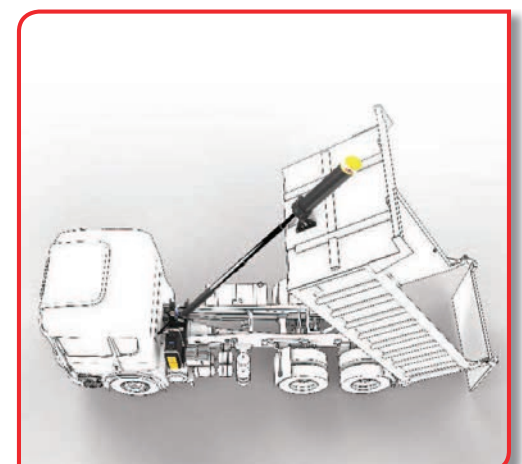
These improvements deliver faster tipping, shorter cycle times and reduced system size and weight which can translate into more efficient working routines, increased payloads and reduced operating costs.

Smaller space installations, quick connections of valves, cylinders and hoses, maintenance free seals and longer service intervals all contribute to lower levels of downtime.

Performance improvement has been achieved through re-design and re-engineering of the complete hydraulic system, down to the component and sub-assembly level, together with improvements to installation and service procedures.

New cylinder diameters

110	118	129	137	149
157	169	179	191	214



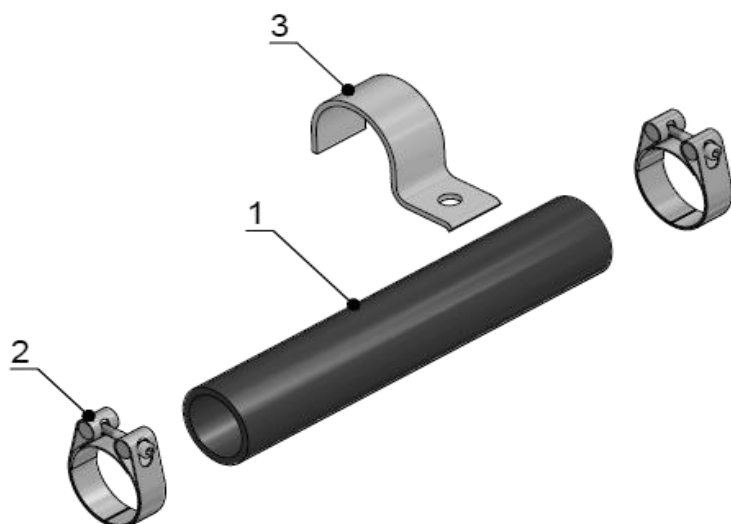


LIGHTER Reduced components weight through a combination of new materials and improved design has produced a lighter hydraulic system which can translate into higher payloads and can reduce operating costs.

FASTER Higher operating pressures, up to 250 bar, enable faster tipping and lowering and can deliver shorter cycle times.

SAFER Enhanced safety with re-designed cylinder overlaps and guide systems and new cylinder mounted HT tipping valves.

MORE EFFICIENT Reduced weight, increased operating speed, more reliable components, longer service intervals and lower fuel and oil consumption all contribute to improved efficiency and environmental performance.



- 1 Hose
- 2 Hose clip
- 3 Bracket

Specification

Type	Size ID	Working pressure (bar)	Min. Bending radius (mm)
LP-20	1 1/4" (31,75mm)	14	205
LP-28	1 3/4" (44,45mm)	7	280
LP-32	2" (50,8mm)	7	305

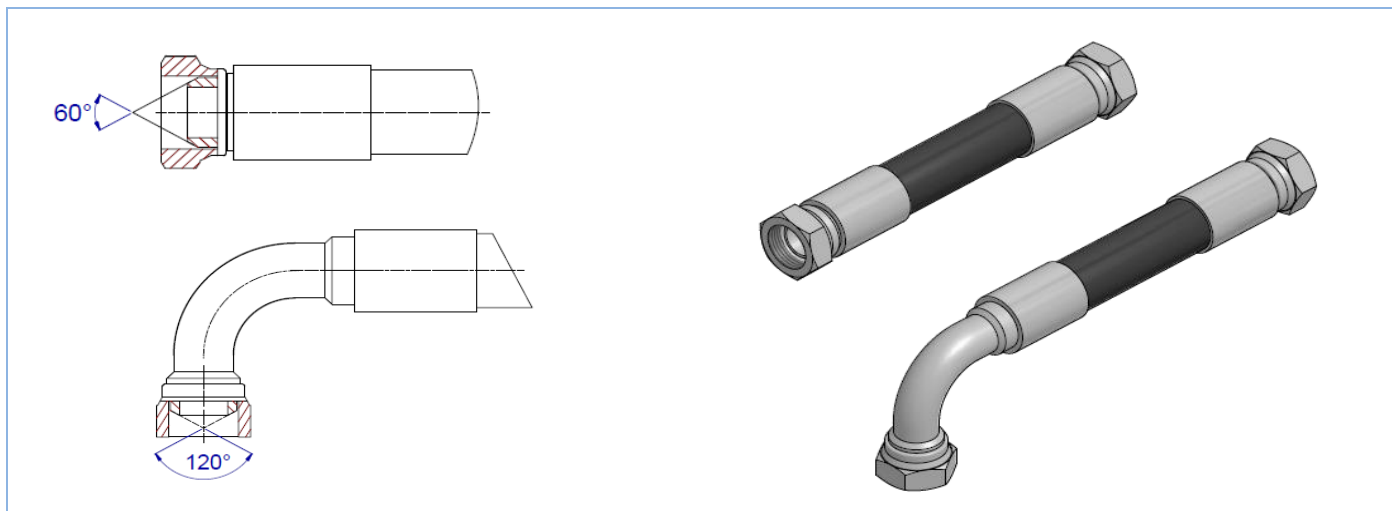
Hose	Length (mm)	Part no. (1)	Hose clip (2)	Bracket hose fixing (3)	Weight (kg)
			14796594 14796600 14796612	09223006 09223001	
LP-20	500	14795030	•	•	0.9
	1000	14795032	•	•	1.5
	1500	14795034	•	•	2.2
	2000	14795036	•	•	2.9
	2250	14795038	•	•	3.2
	2500	14795040	•	•	3.5
LP-28	1000	14795116	•	•	1.8
	1380	14795137	•	•	2.4
	1500	14795118	•	•	2.6
	2000	14795120	•	•	3.3
	2250	14795130	•	•	3.7
	2500	14795131	•	•	4.1
	3000	14795132	•	•	4.8

Hose	Length (mm)	Part no. (1)	Hose clip (2)	Bracket hose fixing (3)	Weight (kg)
			14796594 14796600 14796612	09223006 09223001	
LP-32	1500	14795852	•	•	3.2
	2000	14795853	•	•	4.1
	2225	14795860	•	•	4.5
	2500	14795854	•	•	5.0
	3000	14795855	•	•	5.9
	3500	14795856	•	•	6.8

Related documentation

Mounting instructions: HOS- 0020

Oil specifications: OIL-0011



Specification

Type	Size ID	Thread	Max pressure (bar)	Min. Bending radius (mm)
HP-08	1/2" (12,7mm)	BSP	310	145
HP-12	3/4" (19,0mm)	BSP	280	195

Hose	Pressure	Length (mm)	Connections		Part no.	Weight (kg)
			Straight	Straight & Elbow		
HP-08	310 bar	700	•	•	14789483	0.6
					14789589	0.6
		1000	•	•	14789486	0.8
					14789570	0.9
		1500	•	•	14789504	1.0
					14789582	1.0
		2000	•	•	14789510	1.2
					14789583	1.3
		2500	•	•	14789530	1.6
					14789535	1.6
		3000	•	•	14789549	1.7
					14789550	1.8
		3500	•	•	14789553	2.2
					14789591	2.0
HP-12	280 bar	4000	•	•	14789555	2.4
					14789592	2.5
		500	•	•	14790010	0.5
					14790011	0.6
		700	•	•	14790014	0.9
					14790017	1.0

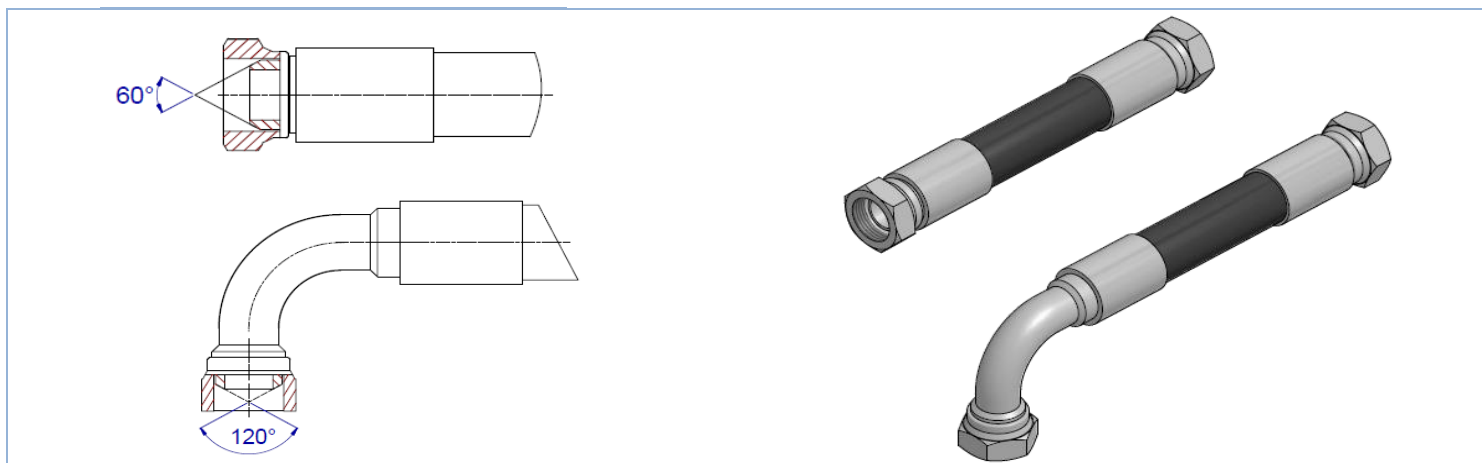
Hose	Pressure	Length (mm)	Connections		Part no.	Weight (kg)
			Straight	Straight & Elbow		
HP-12	280 bar	1000	•	•	14790026	1.1
					14790129	1.2
		1500	•	•	14790038	1.5
					14790130	1.6
		2000	•	•	14790040	1.9
					14790142	2.0
		2500	•	•	14790051	2.3
					14790154	2.4
		3000	•	•	14790063	2.7
					14790166	2.9
		3500	•	•	14790087	3.2
					14790170	3.4
		4000	•	•	14790075	3.6
					14790178	3.8
		4500	•	•	14790078	4.1
					14790079	4.3
		5000	•	•	14790081	4.5
					14790191	4.8
		6000	•	•	14790086	5.4
					14790195	5.8

See next page for more types

Related documentation

Mounting instructions: HOS- 0020

Oil specifications: OIL-0011



Specification

Type	Size ID	Thread	Max pressure (bar)	Min. Bending radius (mm)
HP-16	1" (25,4mm)	Metric (M36x2)	88	230
HP-16	1" (25,4mm)	BSP	250	240

Hose	Pressure	Length (mm)	Connections		Part no.
			Straight	Straight & Elbow	
HP-16	88 bar	700	•	•	14790452
					14794513
		1000	•	•	14790450
					14794515
		1500	•	•	14790455
					14790335
		2000	•	•	14790460
					14794525
		2500	•	•	14790465
					14794530
		3000	•	•	14790470
					14794535
		3500	•	•	14790475
					14794540
		4000	•	•	14790480
					14794545

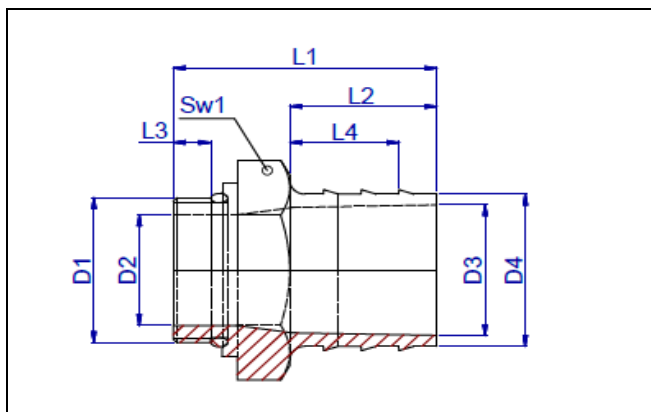
Hose	Pressure	Length (mm)	Connections		Part no.
			Straight	Straight & Elbow	
HP-16	250 bar	700	•	•	14790484
					14790486
		1000	•	•	14790485
					14794432
		1500	•	•	14790490
					14794434
		2000	•	•	14790495
					14794436
		2500	•	•	14790500
					14794437
		3000	•	•	14790505
					14794438
		3500	•	•	14790510
					14794439
		4000	•	•	14790515
					14794440

Related documentation

Mounting instructions: HOS- 0020

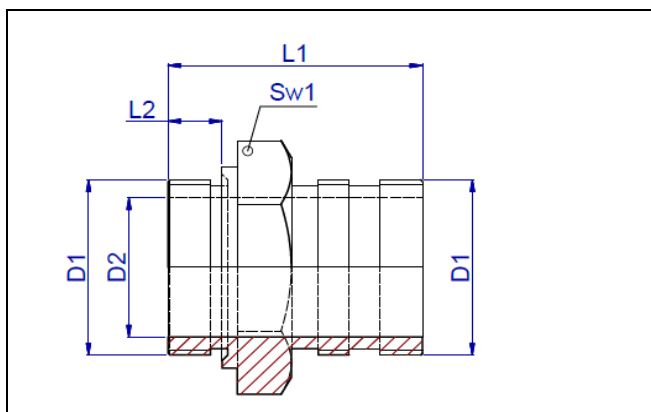
Oil specifications: OIL-0011

Straight hose pillar BSPOT



Part no.	Description	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	D1 (inch)	D2 (mm)	D3 (mm)	D4 (mm)	Sw1 (mm)	Weight (KG)
14500587	Hose pillar LP20-00-1"-NYLON	70	39	14	29	1	22	24	33	46	0.04
14500589	Hose pillar LP20-00-1"	82	50	17	37	1	23	26	32	41	0.27
14500585	Hose pillar LP20-00-1 1/4"-NYLON	67	39	11	29	1 1/4	24	24	33	50	0.05
14799310	Hose pillar LP28-00-1"-NYLON	70	39	13	29	1	23	38	44	50	0.05
14799000	Hose pillar LP28-00-1"	70	40	11	30	1	23	38	44	50	0.13
14799312	Hose pillar LP28-00-1 1/4"-NYLON	70	39	13	29	1 1/4	32	38	44	55	0.06
14799005	Hose pillar LP28-00-1 1/4"	70	40	11	30	1 1/4	32	38	44	55	0.16
14799314	Hose pillar LP28-00-1 1/2"-NYLON	70	39	13	29	1 1/2	36	38	44	60	0.07
14799015	Hose pillar LP28-00-1 1/2"	70	40	11	30	1 1/2	36	38	44	60	0.16
14535328	Hose pillar LP32-00-1 1/4"	79	45	19	27	1 1/4	32	44	50	55	0.45
14500492	Hose pillar LP32-00-1 1/2"	84	52	11	35	1 1/2	38	43	50	60	0.51

Straight adapter BSPOT-BSPOT



Part no.	Description	L1 (mm)	L2 (mm)	D1 (inch)	D2 (mm)	Sw1 (mm)	Weight (KG)
14799038	Adapter LP-00-1 1/2"-1 1/2"	66	12	1 1/2"	38	60	0.64

O-ring straight adapter

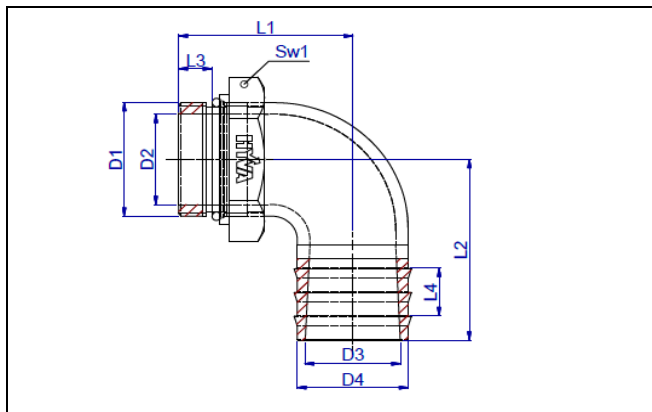
Part no.	Description
01226165	O-ring 1" -3,53mm
01226185	O-ring 1 1/4"-3,53mm
01225650	O-ring 1 1/2"-3,53mm

Related documentation

Mounting instructions: HOS- 0020

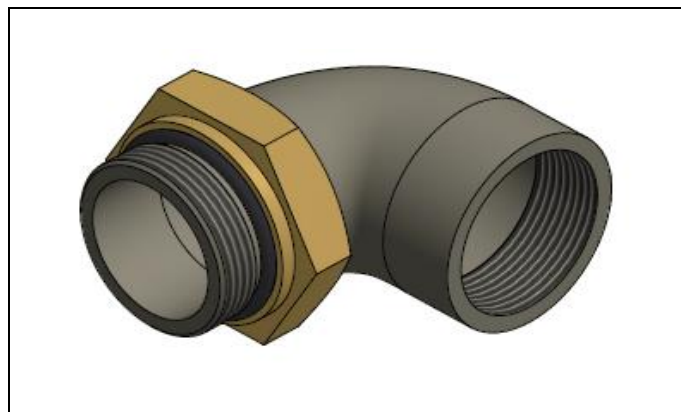
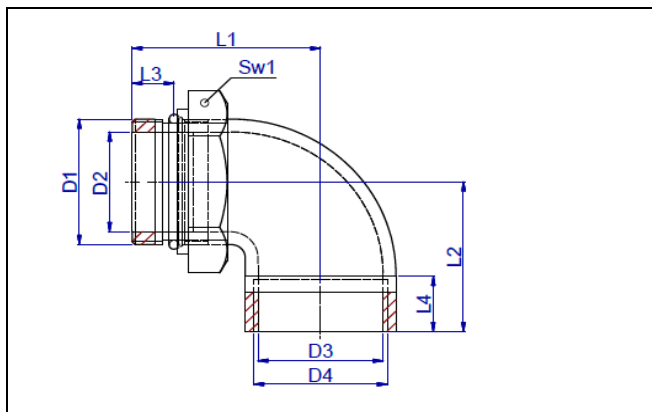
Oil specifications: OIL-0011

90° Hose Pillar BSPOT



Part no.	Description	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	D1 (inch)	D2 (mm)	D3 (mm)	D4 (mm)	Sw1 (mm)	Weight (KG)
14799284	Hose pillar LP20-90-1/2"	65	65	11	30	1/2"	13	27	30	40	0.34
14799322	Hose pillar LP20-90-1 1/4"-NYLON	70	71	16	25	1 1/4"	32	24	33	55	0.08
14799028	Hose pillar LP20-90-1 1/4"	70	75	11	25	1 1/4"	32	27	32	55	0.32
14799316	Hose pillar LP28-90-1"-NYLON	76	79	16	40	1"	23	38	44	50	0.10
14799020	Hose pillar LP28-90-1"	77	80	11	30	1"	23	38	44	50	0.63
14799318	Hose pillar LP28-90-1 1/4"-NYLON	72	79	16	40	1 1/4"	32	38	44	55	0.11
14799025	Hose pillar LP28-90-1 1/4"	77	77	11	30	1 1/4"	32	38	44	55	0.70
14799320	Hose pillar LP28-90-1 1/2"-NYLON	76	69	16	40	1 1/2"	32	38	44	60	0.12
14799050	Hose pillar LP28-90-1 1/2"	77	75	11	30	1 1/2"	32	38	44	60	0.69
14500625	Hose pillar LP32-90-1"	63	80	18	35	1"	26	43	50	41	0.50
14535327	Hose pillar LP32-90-1 1/4"	60	81	18	20	1 1/4"	19	30	50	38	1.70

90° Adapter BSPIT-BSPOT



Part no.	Description	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	D1 (inch)	D2 (mm)	D3 (mm)	D4 (inch)	Sw1 (mm)	Weight (KG)
14799035	Adapter LP-90-1/2"-1/2"	66	62	11	20	1 1/2"	38	45	1 1/2"	60	0.71

O-ring 45° & 90° adapter

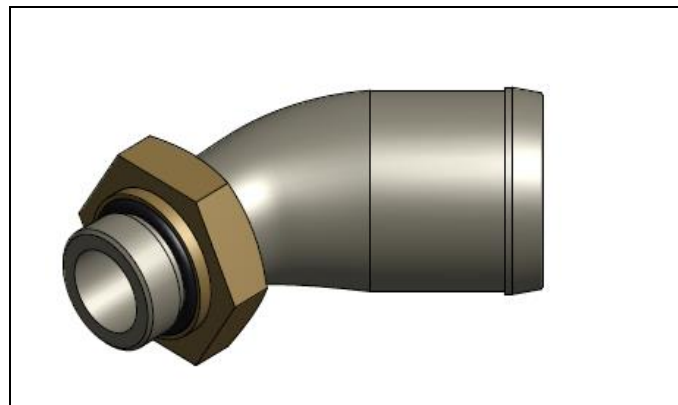
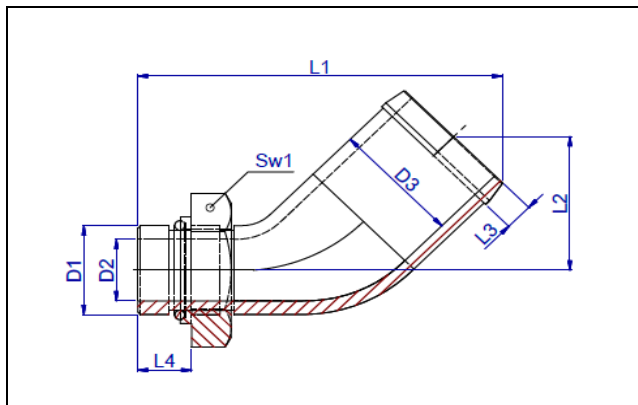
Part no.	Description
01226165	O-ring 1" -3,53mm
01226185	O-ring 1 1/4"-3,53mm
01225650	O-ring 1 1/2"-3,53mm

Related documentation

Mounting instructions: HOS- 0020

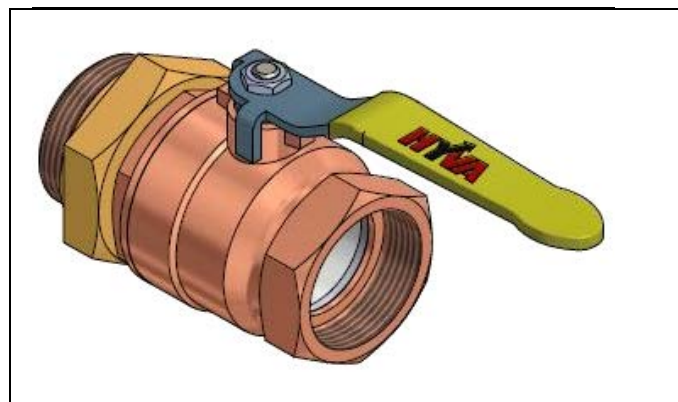
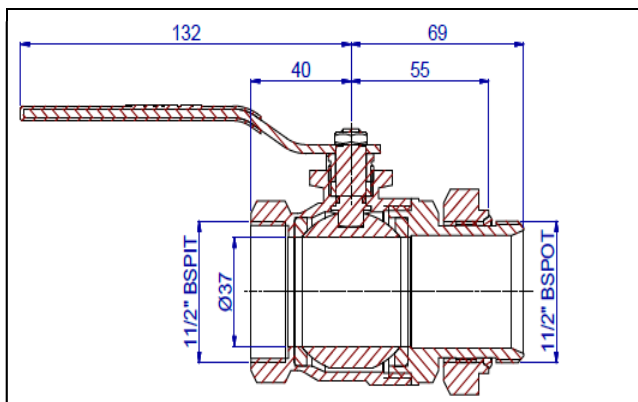
Oil specifications: OIL-0011

45° Hose pillar BSPOT



Part no.	Description	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	D1 (inch)	D2 (mm)	D3 (mm)	D4 (mm)	Sw1 (mm)	Weight (KG)
14799043	Hose pillar LP32-45-1"	112	50	11	35	1"	23	41	50	50	0.36
14799044	Hose pillar LP32-45-1 1/4"	112	50	11	35	1 1/4"	33	41	50	50	0.40

Ball valve BSPIT-BSPOT



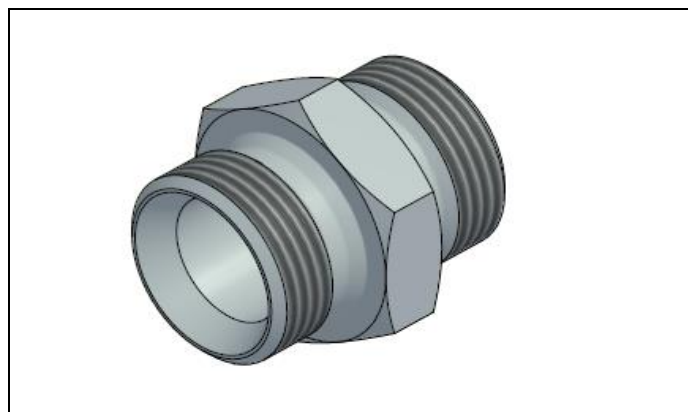
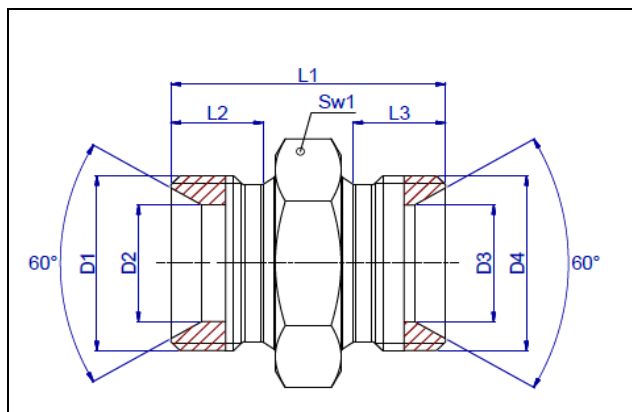
Part no.	Description	SW	Weight
14780981	Ball valve 1 1/2"-1 1/2"	60	1.20

Related documentation

Mounting instructions: HOS- 0020

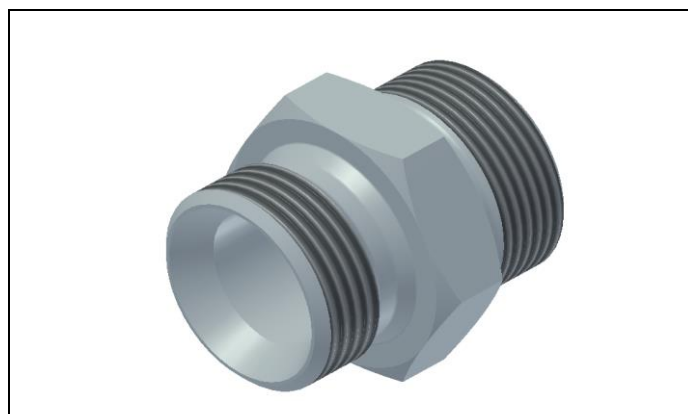
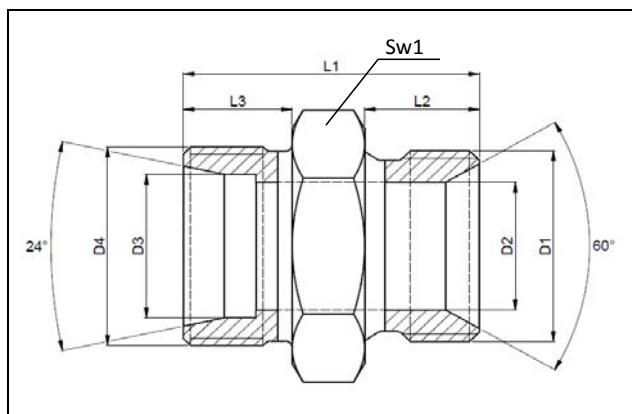
Oil specifications: OIL-0011

Straight adapter BSPOT



Part no.	Description	L1 (mm)	L2 (mm)	L3 (mm)	D1 (inch)	D2 (mm)	D3 (mm)	D4 (mm)	Sw1 (mm)	Weight (KG)
01317690	Adapter HP-00-3/8"-3/8"	34	11	11	3/8"	9.5	9.5	3/8"	22	0,04
01317805	Adapter HP-00-3/8"-1/2"	38	12	14	3/8"	7.9	11	1/2"	27	0,07
01317700	Adapter HP-00-3/8"-3/4"	40	12	16	3/8"	7.9	16.5	3/4"	32	0,06
01317704	Adapter HP-00-1/2"-1/4"	35	13	14	1/4"	7	11	1/2"	27	0,06
01221838	Adapter HP-00-1/2"-1/2"	40	14	14	1/2"	11	11	1/2"	27	0,07
01317714	Adapter HP-00-1/2"-3/4"	42	14	16	1/2"	11	16.5	3/4"	32	0,10
01222105	Adapter HP-00-3/4"-1/4"	41	13	16	1/4"	7	16.5	3/4"	32	0,09
01222661	Adapter HP-00-3/4"-3/4"	44	16	16	3/4"	16.5	16.5	3/4"	32	0,12
14799080	Adapter HP-00-3/4"-1"	47	16	19	3/4"	16.5	22	1"	41	0,17
01317959	Adapter HP-00-3/4"-1 1/4"	48	16	20	3/4"	16.5	28.5	1 1/4"	50	0,28
01317933	Adapter HP-00-1"-1"	50	19	19	1"	22	22	1"	41	0,18
01222107	Adapter HP-00-1"-1 1/4"	51	19	20	1"	22	28.5	1 1/4"	50	0,28
14799093	Adapter HP-00-1 1/4"-1 1/4"	52	20	20	1 1/4"	28.5	28.5	1 1/4"	50	0,28

M- Thread BSP



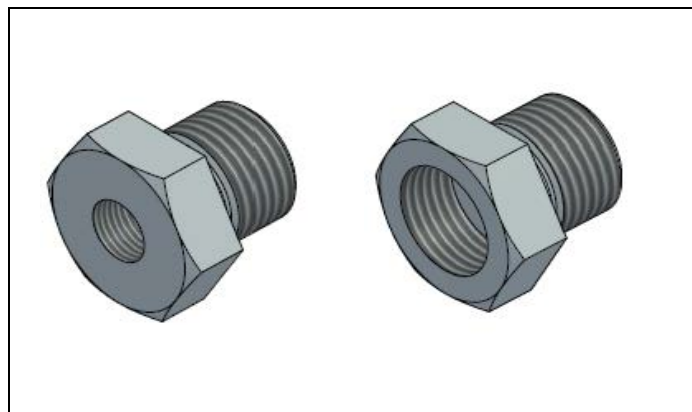
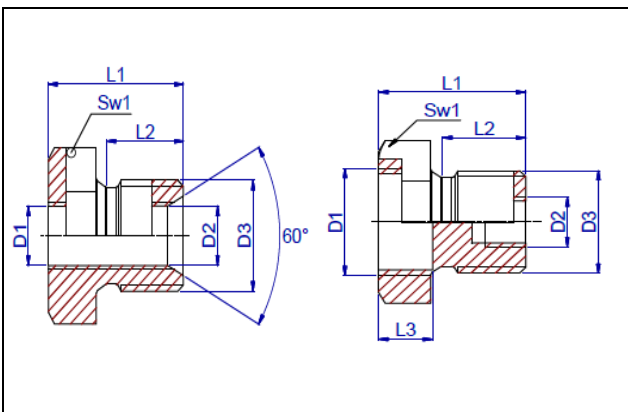
Part no.	Description	L1 (mm)	L2 (mm)	L3 (mm)	D1 (inch)	D2 (mm)	D3 (mm)	D4 (mm)	Sw1 (mm)	Weight (KG)
01317920	Adapter HP-00-3/4"-M36	46	16	18	3/4"	17	25	M36	41	0.22
01317921	Adapter HP-00-1"-M36	49	19	18	1"	22	25	M36	41	0.22
01317922	Adapter HP-00-1-1/4"-M36	50	20	18	1-1/4"	29	25	M36	50	0.31

Related documentation

Mounting instructions: HOS- 0020

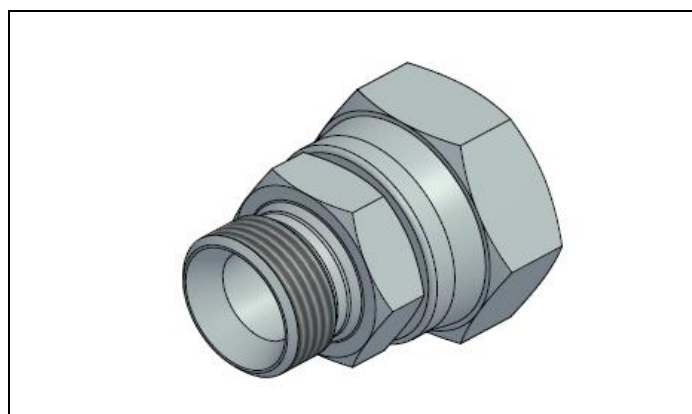
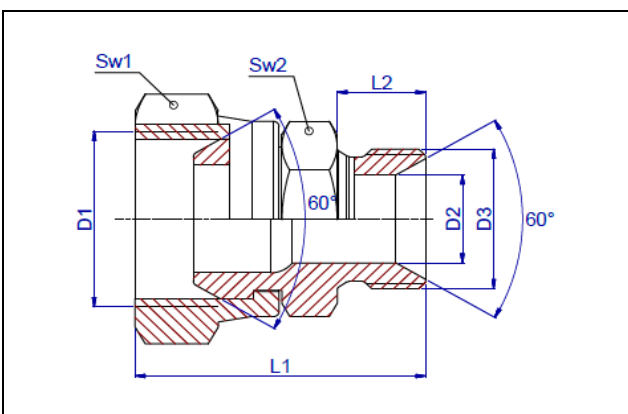
Oil specifications: OIL-0011

Straight adapter BSPOT-BSPIT



Part no.	Description	L1 (mm)	L2 (mm)	L3 (mm)	D1 (inch)	D2 (mm)	D3 (mm)	Sw1 (mm)	Weight (KG)
14958010	Adapter HP-00-1/2"-1/4"	24	14	-	1/2"	12	1/4"	27	0,06
14958000	Adapter HP-00-3/4"-3/8"	26	15	-	3/4"	15	3/8"	32	0,08
14958112	Adapter HP-00-3/4"-1/2"	26	15	-	3/4"	16	1/2"	32	0,15
14958095	Adapter HP-00-1"-1/4"	29	18	-	1"	11.5	1/4"	41	0,19
14958100	Adapter HP-00-1"-1/2"	29	18	-	1"	19	1/2"	41	0,15
14958102	Adapter HP-00-1"-3/4"	49	19	21	1"	30	3/4"	41	0,28
14958120	Adapter HP-00-1 1/4"-1"	52	20	24	1 1/4"	25	1"	50	0,45

Straight Swivel adapter BSPIT-BSPOT



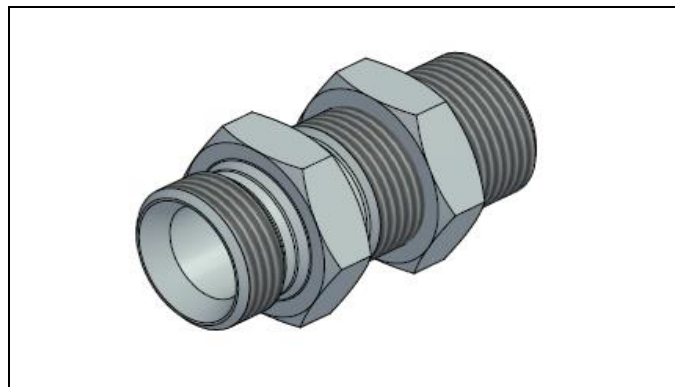
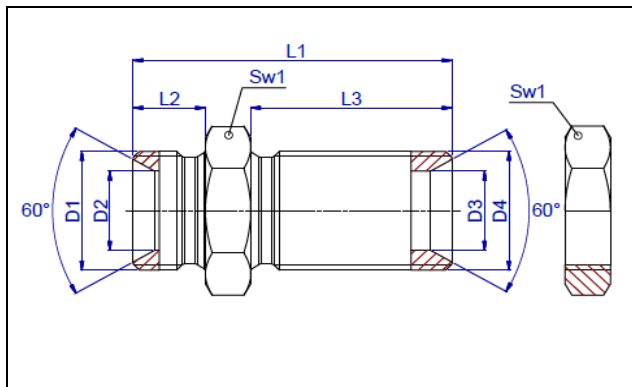
Part no.	Description	L1 (mm)	L2 (mm)	D1 (inch)	D2 (mm)	D3 (inch)	Sw1 (mm)	Sw2 (mm)	Weight (KG)
01223648	Adapter HP-00-SW-1/2"-3/8"	46	11	1/2"	9.5	3/8"	27	22	0,10
01223650	Adapter HP-00-SW-3/4"-1/2"	49	15	3/4"	11	1/2"	32	27	0,15
01222909	Adapter HP-00-SW-3/4"-3/4"	51	17	3/4"	17	3/4"	32	32	0,17
01223660	Adapter HP-00-SW-3/4"-1"	54	17	3/4"	17	1"	32	41	0,25
01223675	Adapter HP-00-SW-1"-1/2"	60	18	1"	11	1/2"	41	27	0,20
01223677	Adapter HP-00-SW-1"-3/4"	53	18	1"	17	3/4"	41	32	0,22
14799108	Adapter HP-00-SW-1"-1"	56	19	1"	22	1"	41	41	0,26

Related documentation

Mounting instructions: HOS- 0020

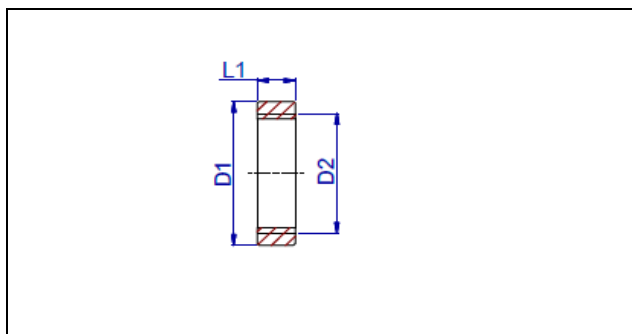
Oil specifications: OIL-0011

Straight bulkhead adapter BSPOT-BSPOT



Part no.	Description	L1 (mm)	L2 (mm)	L3 (mm)	D1 (inch)	D2 (mm)	D3 (mm)	D4 (inch)	Sw1 (mm)	Weight (KG)
14950180	Adapter HP-00-3/4"-3/4"-BH	65	16	38	3/4"	16	16	3/4"	32	0,18
01317946	Adapter HP-00-1"-1"-BH	84	19	53	1"	22	22	1"	41	0,35
14950182	Adapter HP-00-1 1/4"-1 1/4"-BH	74	20	40	1 1/4"	29	29	1 1/4"	52	0,47

Threaded bush BSPIT



Part no.	Description	L1 (mm)	D1 (mm)	D2 (inch)	Weight (KG)
09223010	Threaded bush HP-00-3/4"-L=37	37	32	3/4"	0,10
09223002	Threaded bush HP-00-1"-L=70	70	45	1"	0,40
09223003	Threaded bush HP-00-1"-L=25	25	45	1"	0,15

Bonded seal

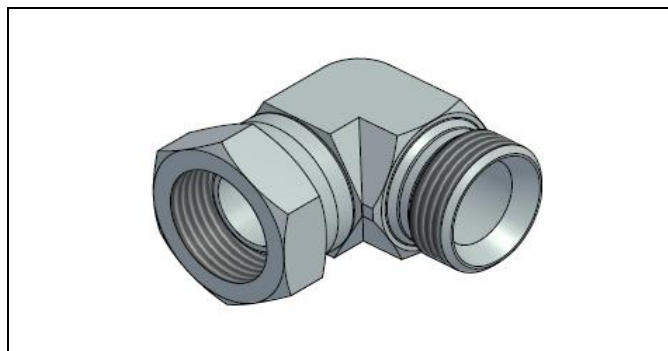
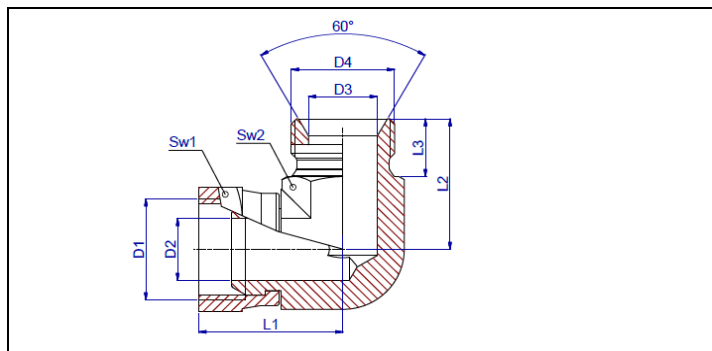
Part no.	Description
01206801	Bonded seal 1/8"
01206825	Bonded seal 3/8"
01206837	Bonded seal 1/2"
01206850	Bonded seal 3/4"
01313848	Bonded seal 1"
01206874	Bonded seal 1 1/4"
01206898	Bonded seal 1 1/2"

Related documentation

Mounting instructions: HOS- 0020

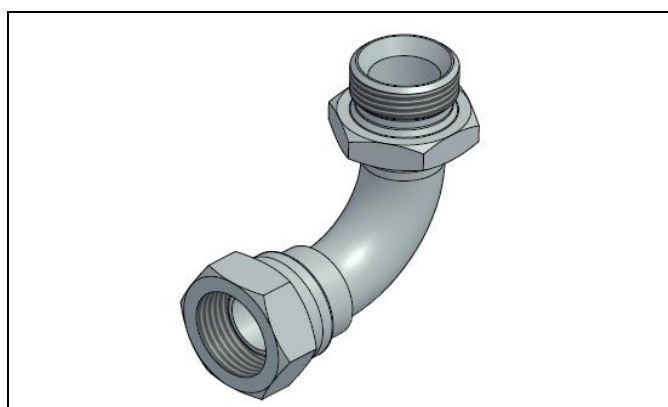
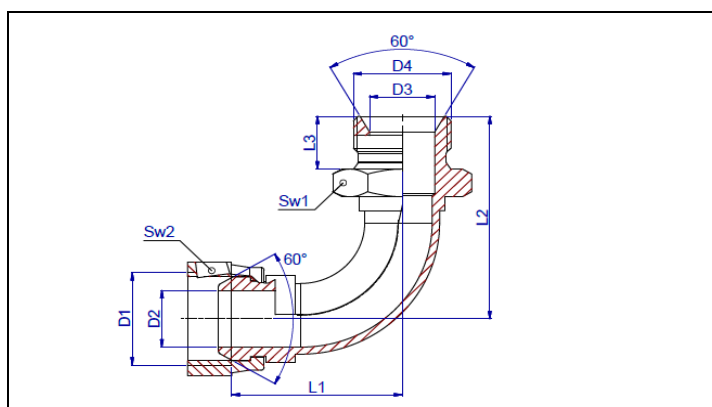
Oil specifications: OIL-0011

90° Swivel adapter BSPIT-BSPOT



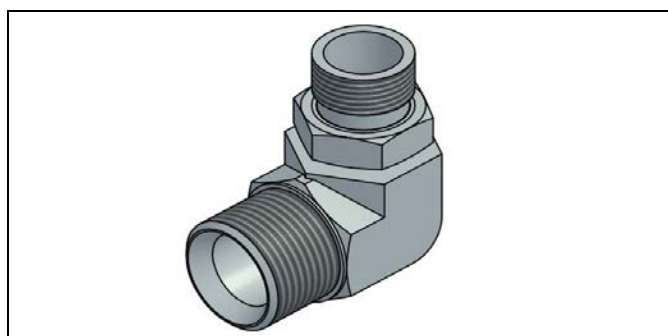
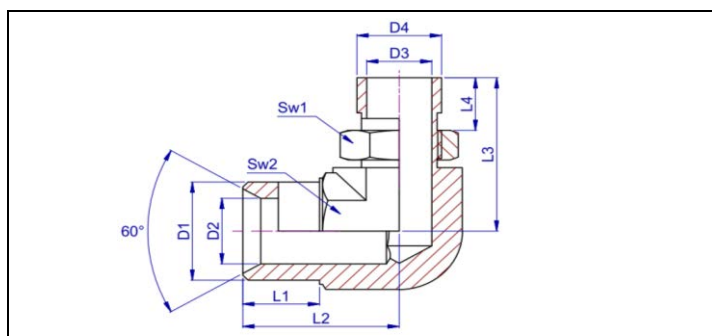
Part no.	Description	L1 (mm)	L2 (mm)	L3 (mm)	D1 (inch)	D2 (mm)	D3 (mm)	D4 (inch)	Sw1 (mm)	Sw2 (mm)	Weight (KG)
01317971	Adapter HP-90-SW-1/2"-1/2"	39	30.5	14	1/2"	10	11	1/2"	27	24	0,17
01317969	Adapter HP-90-SW-3/4"-3/4"	41	37	16	3/4"	15.5	17	3/4"	32	27	0,22
14799054	Adapter HP-90-SW-1"-3/4"	45	40	17	1"	21.5	17	3/4"	41	41	0,45
01317982	Adapter HP-90-SW-1"-1"	46.5	43	19	1"	20.5	22	1"	41	36	0,45

Elbow swivel adapter BSPIT-BSPOT



Part no.	Description	L1 (mm)	L2 (mm)	L3 (mm)	D1 (inch)	D2 (mm)	D3 (mm)	D4 (inch)	Sw1 (mm)	Sw2 (mm)	Weight (KG)
01317962	Adapter HP-90-SW-3/8"-3/8"-EL	35	58	13	3/8"	8	9	3/8"	22	22	0,09
01317970	Adapter HP-90-SW-1/2"-1/2"-EL	52	50	14	1/2"	10	11	1/2"	27	27	0,15
01317973	Adapter HP-90-SW-3/4"-3/4"-EL	57	65	16	3/4"	15.5	17	3/4"	32	32	0,24
01317974	Adapter HP-90-SW-1"-1"-EL	73	73	19	1"	20.5	22	1"	41	41	0,41
01317975	Adapter HP-90-SW-1 1/4"-1 1/4"-EL	81	76	20	1 1/4"	27.5	28.5	1 1/4"	50	50	0,55

45° Swivel adapter BSPIT-BSPOT



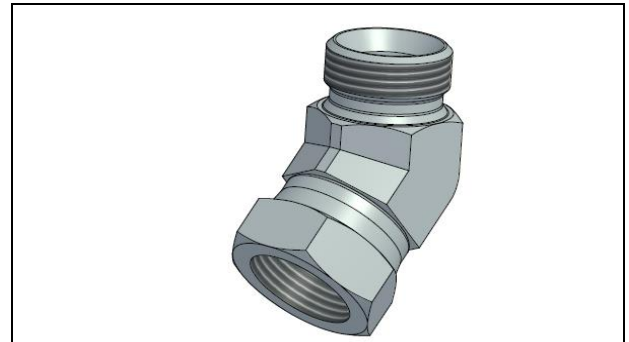
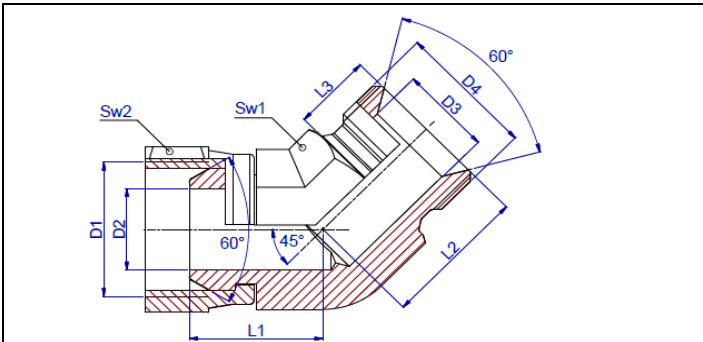
Part no.	Description	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	D1 (inch)	D2 (mm)	D3 (mm)	D4 (inch)	Sw1 (mm)	Sw2 (mm)	Weight (KG)
01317997	Adapter HP- 90 – SW 3/4" BSPOTC – 3/4" BSPOTF	20	40	50	16	3/4"	16	16	3/4"	32	27	0.31
01317998	Adapter HP- 90 – SW 1" BSPOTC – 1" BSPOTF	24	45	52	19	1"	21	21	1"	41	36	0.46

Related documentation

Mounting instructions: HOS- 0020

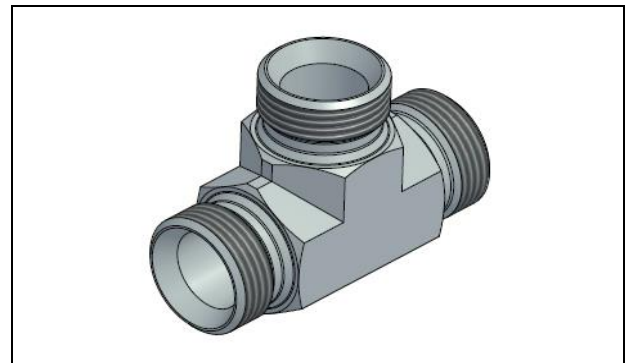
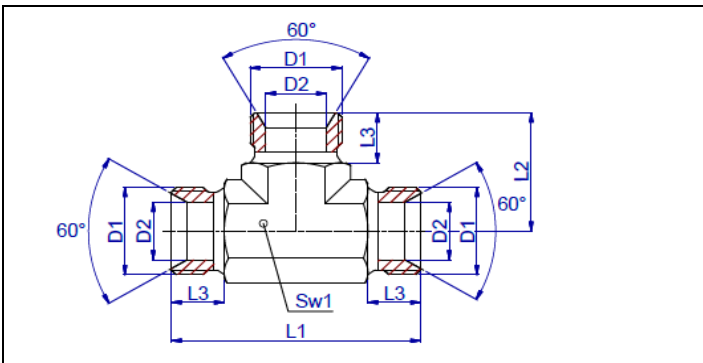
Oil specifications: OIL-0011

45° Swivel adapter BSPIT-BSPOT



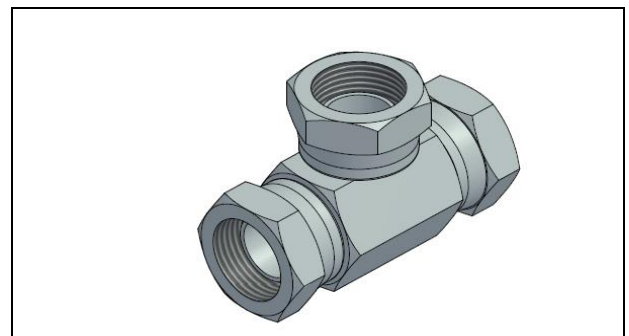
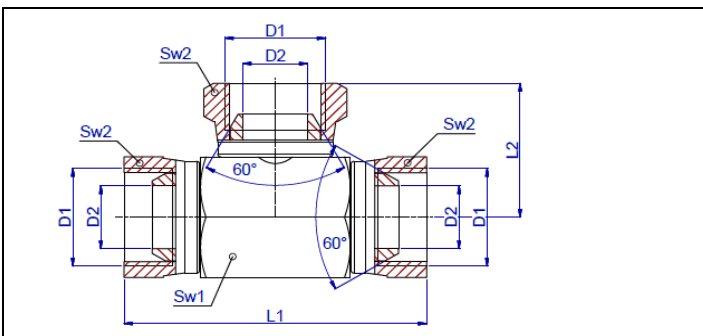
Part no.	Description	L1 (mm)	L2 (mm)	L3 (mm)	D1 (inch)	D2 (mm)	D3 (mm)	D4 (inch)	Sw1 (mm)	Sw2 (mm)	Weight (KG)
01318410	Adapter HP-45-SW-3/4"-3/4"	39	32	16	3/4"	15.5	17	3/4"	32	27	0,11
01317815	Adapter HP-45-SW-1"-1"	42.5	35	19	1"	20.5	22	1"	41	36	0,38

T-piece BSPOT



Part no.	Description	L1 (mm)	L2 (mm)	L3 (mm)	D1 (inch)	D2 (mm)	Sw1 (mm)	Weight (KG)
01318292	Adapter HP-T-3/8" (3x)	46	28	11	3/8"	8	17	0,07
01318295	Adapter HP-T-1/2" (3x)	68	34	14	1/2"	11	22	0,17
01318300	Adapter HP-T-3/4" (3x)	80	40	16	3/4"	16.5	27	0,24
01318310	Adapter HP-T-1" (3x)	84	42	19	1"	22	36	0,42
01318315	Adapter HP-T-1 1/4" (3x)	104	52	20	1 1/4"	28.5	50	0,55

T-piece BSPIT



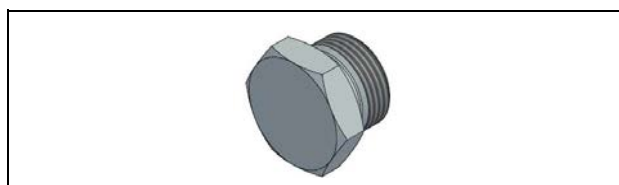
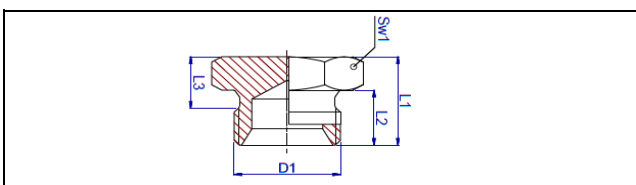
Part no.	Description	L1 (mm)	L2 (mm)	D1 (inch)	D2 (mm)	Sw1 (mm)	Sw2 (mm)	Weight (KG)
01318293	Adapter HP-T-SW-3/8" (3x)	66	33	3/8"	8	22	19	0,11
01318297	Adapter HP-T-SW-1/2" (3x)	80	40	1/2"	11	27	22	0,26
01318240	Adapter HP-T-SW-3/4" (3x)	80	40	3/4"	15.5	32	27	0,38
01318251	Adapter HP-T-SW-1" (3x)	100	45	1"	21.5	41	36	0,78

Related documentation

Mounting instructions: HOS- 0020

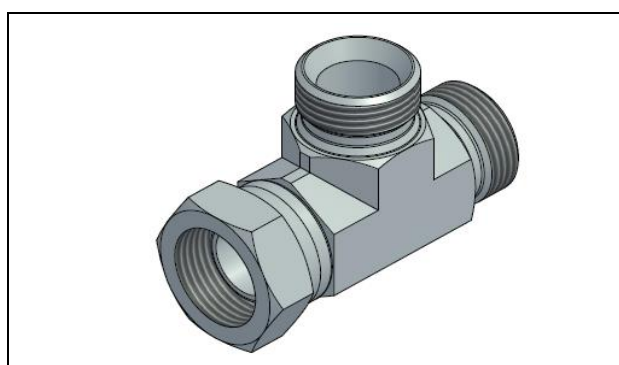
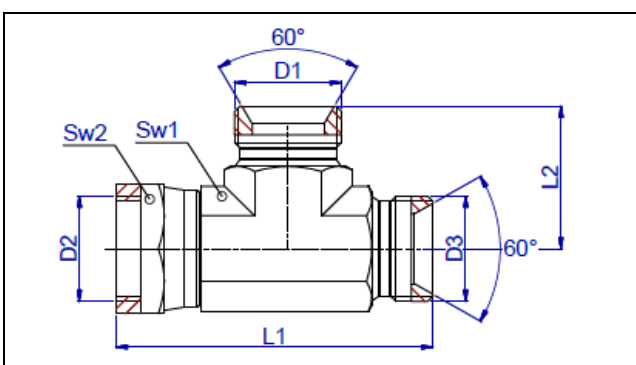
Oil specifications: OIL-0011

Plug BSPOT



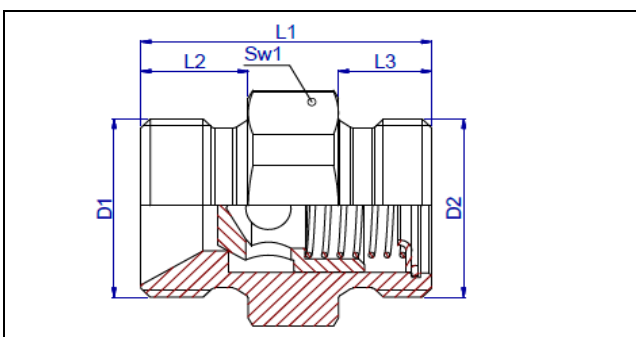
Part no.	Description	L1 (mm)	L2 (mm)	L3 (mm)	D1 (inch)	Sw1 (mm)	Allen (mm)	Weight (KG)
14799176	Adapter HP-00-1/4"-plug	10	10	-	1/4"	-	7	0,01
14799175	Adapter HP-00-1/2"-plug	10	10	-	1/2"	-	10	0,02
14799180	Adapter HP-00-1/2"-plug	18	13	8	1/2"	-	10	0,04
01702838	Adapter HP-00-1/2"-plug	27	12	17	1/2"	27	-	0,06
01702841	Adapter HP-00-3/4"-plug	28	18	15	3/4"	32	-	0,12
01702853	Adapter HP-00-1"-plug	30	19	16	1"	41	-	0,18
14799190	Adapter HP-00-1"-plug	21	16	9	1"	-	17	0,12
01702856	Adapter HP-00-1 1/4"-plug	32	20	17	1 1/4"	20	-	0,30

T-piece Swivel BSPIT-BSPOT



Part no.	Description	L1 (mm)	L2 (mm)	D1 (inch)	D2 (mm)	D3 (mm)	Sw1 (mm)	Sw2 (mm)	Weight (KG)
01318303	Adapter -HP-T-SW-3/4"-3/4"(2x)	88	40	BSPOT	BSPIT	BSPOT	32	27	0,34
01318305	Adapter -HP-T-SW-3/4"-3/4"(2x)	92	40	BSPOT	BSPIT	BSPIT	32	27	0,34
01318195	Adapter -HP-T-SW-1"-1"(2x)	90	48	BSPIT	BSPOT	BSPOT	41	36	0,59
01318253	Adapter -HP-T-SW-1"-1"(2x)	94	44	BSPOT	BSPIT	BSPOT	41	36	0,60
01318307	Adapter -HP-T-SW-1"(2x)-1"	98	40	BSPOT	BSPIT	BSPIT	41	36	0,60

Non-return valve BSPOT



Part no.	Description	L1 (mm)	L2 (mm)	L3 (mm)	D1 (inch)	D2 (inch)	Sw1 (mm)	Weight (KG)
14739980	Non return valve 1"-3/4"	57.5	16.5	16	1"	3/4"	41	0,21
14739975A	Non return valve 1"	51.5	19	16.5	1"	1"	41	0,25

Related documentation

Mounting instructions: HOS- 0020

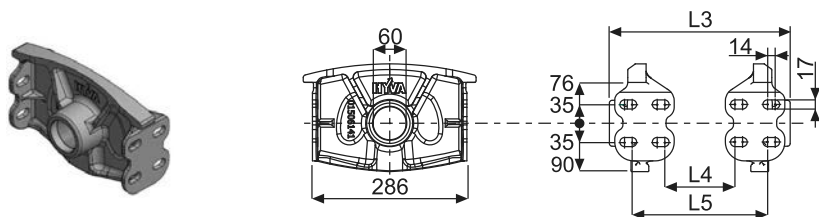
Oil specifications: OIL-0011

Chassis Brackets

Front end cylinder chassis brackets

Note : Please verify quoted dimensions with your local Hyva subsidiary or agent prior to use

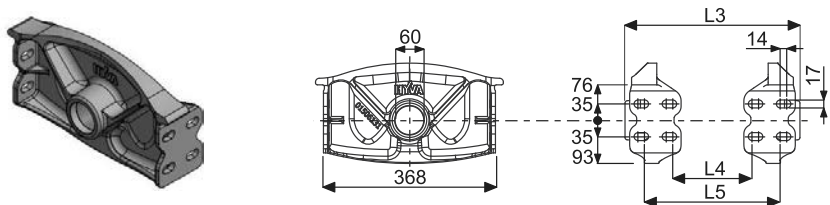
Chassis bracket for cylinder type: FC/FE 110/118/129/137/149



Cylinder type	L3 (mm)	L4 (mm)	L5 (mm)
FC/FE 110	307	103	223
FC/FE 118	324	120	240
FC/FE 129	345	141	261
FC/FE 137	345	141	261
FC/FE 149	345	141	261

Bracket Type	Part no. Bracket	Mass (Kg)	Part no. Replacement bush
Maintenance free	015 06 141	7.5	017 94 240
Greased version	015 06 146	7.7	017 94 020

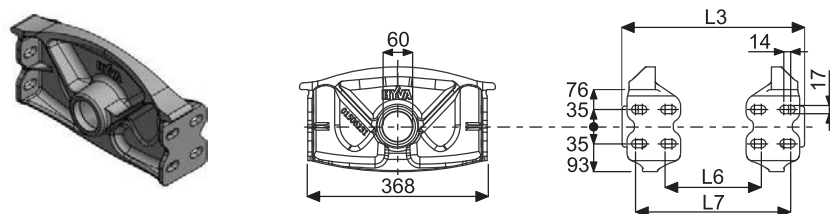
Chassis bracket for cylinder type FC/FE 137/149



Cylinder type	L3 (mm)	L4 (mm)	L5 (mm)
FC/FE 137	345	141	261
FC/FE 149	345	141	261

Bracket Type	Part no. Bracket	Mass (Kg)	Part no. Replacement bush
Maintenance free	015 06 131	11.0	017 94 240
Greased version	015 06 136	11.2	017 94 020

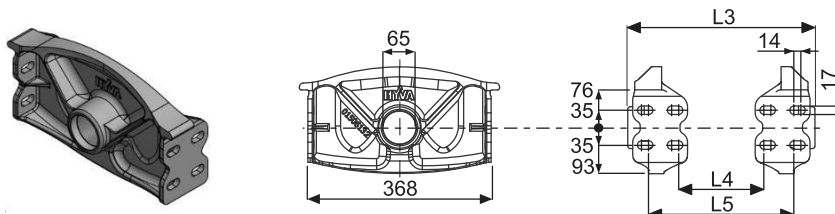
Chassis bracket for cylinder type FC/FE 157/169/179/191



Cylinder type	L3 (mm)	L6 (mm)	L7 (mm)
FC/FE 157	387	211	331
FC/FE 169	387	211	331
FC/FE 179	387	211	331
FC/FE 191	387	211	331

Bracket Type	Part no. Bracket	Mass (Kg)	Part no. Replacement bush
Maintenance free	015 06 131	11.0	017 94 240
Greased version	015 06 136	11.2	017 94 020

Chassis bracket for cylinder type FC/FE 214



Cylinder type	L3 (mm)	L4 (mm)	L5 (mm)
FC/FE 214	412	211	331

Bracket Type	Part no. Bracket	Mass (Kg)	Part no. Replacement bush
Maintenance free	015 06 132	10.8	017 94 210
Greased version	015 06 133	11.0	017 94 025

General information

For all chassis brackets use:

- Bolts M16x1.5 Property Class 8.8 or higher.
- Self-locking nuts M16 Property Class 8 or higher.
- Washer 17x30 over slotted holes in the bracket.

Bolts kits are available:

- Q005: 16 bolts M16x50, nuts and washers for chassis brackets (2.3 kg).

Note:

- Brackets are painted black (RAL 9005 / gloss 25%).
- Weight can vary as per casting process.
- Greased versions includes M8x1 grease nipple.
- For mounting, see instructions CYL-0030 or CYL-0031.
- For bush replacement, see instruction BRA-0002.

Cylinder load Specifications

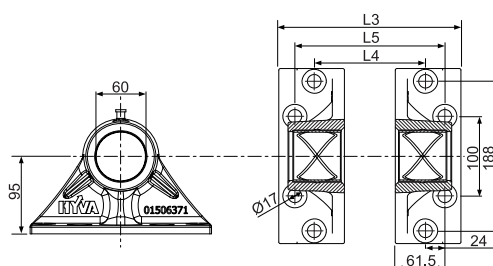
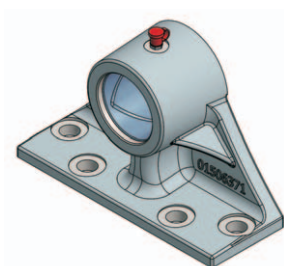
Part no. Bracket	Max. Cylinder Load (kN)
015 06 131 / 141	235
015 06 132	255
015 06 146	290
015 06 133 / 136	440

Chassis Brackets

Front end cylinder chassis brackets

Note : Please verify quoted dimensions with your local Hyva subsidiary or agent prior to use

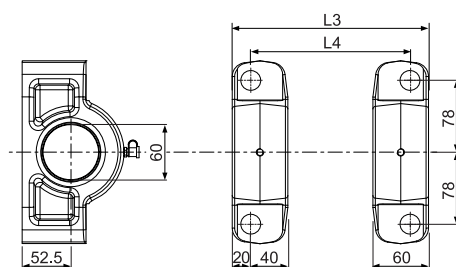
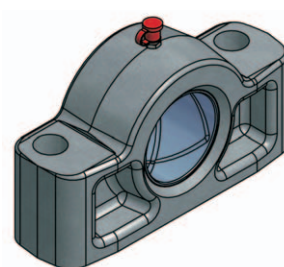
Chassis bracket for cylinder type FC/FE 110 - 191



Cylinder Type	L3 (mm)	L4 (mm)	L5 (mm)
110	328	240	288
118	345	257	305
129	366	278	326
137	366	278	326
149	366	278	326
157	410	322	370
169	410	322	370
179	410	322	370
191	410	322	370

Bracket Type	Part no. Bracket	Mass (Kg)	Part no. Replacement bush
Greased version	015 06 371	4.4	017 94 020

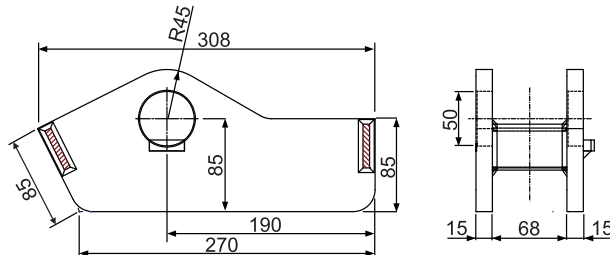
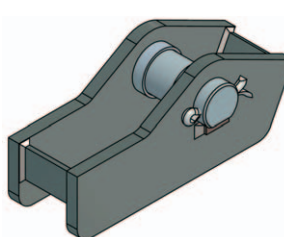
Chassis bracket for cylinder type FC/FE 110 - 191



Cylinder Type	L3 (mm)	L4 (mm)
110	284	244
118	301	261
129	322	282
137	322	282
149	322	282
157	366	326
169	366	326
179	366	326
191	366	326

Bracket Type	Part no. Bracket	Mass (Kg)	Part no. Replacement bush
Greased version	015 06 166	4.6	017 94 020

Chassis bracket for cylinder type FSE 110 - 191



Bracket Type	Part no. Bracket	Mass (Kg)	Part no. Replacement axle kit
Welded chassis bracket	015 06 206	8.9	015 06 776

General information

For all chassis brackets use:

- Bolts M16x1.5 Property Class 8.8 or higher.
- Self-locking nuts M16 Property Class 8 or higher.

Note:

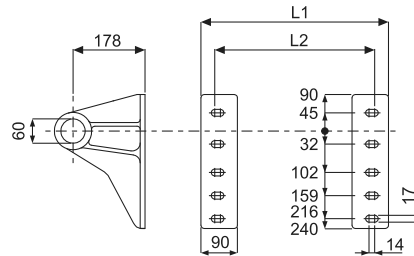
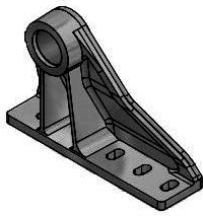
- Brackets are painted black (RAL 9005 / gloss 25%).
- Weight can vary as per casting process.
- Greased versions includes M8x1 grease nipple.
- For mounting, see instructions CYL-0030, CYL-0031 or CYL-0033.
- For bush replacements, see instruction BRA-0002.

Lifting Brackets

Front end cylinder lifting brackets

Note : Please verify quoted dimensions with your local Hyva subsidiary or agent prior to use

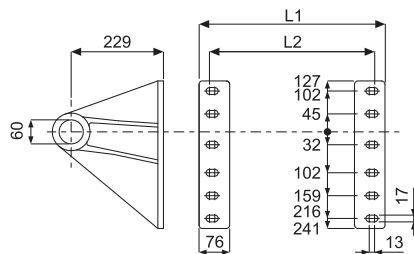
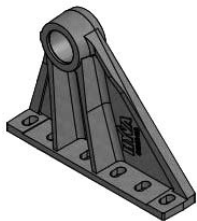
Lifting bracket for cylinder type: FC 110/118/129



Cover	A-dimension	L1 (mm)	L2 (mm)
168	201	305	237
219	340	444	376
241	340	444	376
242	340	444	376

Bracket Type	Part no. Bracket Right	Part no. Bracket Left	Mass (Kg)	Part no. Replacement bush
Maintenance free	015 09 120	015 09 121	7.7	017 94 230
Greased version	015 09 124	015 09 125	7.9	None

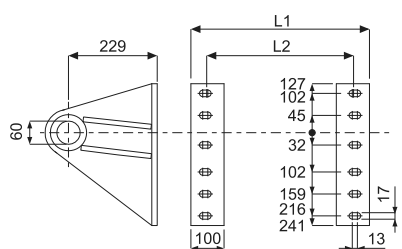
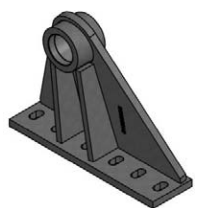
Lifting bracket for cylinder type: FC 118/129/137/149/157/169/179/191



Cover	A-dimension	L1 (mm)	L2 (mm)
219	340	462	410
241	340	462	410
242	340	462	410

Bracket Type	Part no. Bracket Right	Part no. Bracket Left	Mass (Kg)	Part no. Replacement bush
Maintenance free	015 09 130	015 09 131	9.8	017 94 240
Greased version	015 09 136	015 09 137	10.0	None

Lifting bracket for cylinder type: FC 191/214



Cover	A-dimension	L1 (mm)	L2 (mm)
241	340	490	386
242	340	490	386
273	360	510	410

Bracket Type	Part no. Bracket Right	Part no. Bracket Left	Mass (Kg)	Part no. Replacement bush
Maintenance free	015 06 728	015 06 726	13.5	017 94 240
Greased version	5629 800 122	5629 800 123	13.7	017 94 020

General information

For all lifting brackets use:

- Bolts M16x1.5 Property Class 8.8 or higher.
- Self-locking nuts M16 Property Class 8 or higher.
- Washer 17x30 over slotted holes in the bracket.

Bolts kits are available:

- Q006: 12 bolts M16x60, nuts and washers for lifting brackets (2.0 kg).
- Q007: 12 bolts M16x70, nuts and washers for lifting brackets (2.2 kg).

Note:

- Brackets are painted black (RAL 9005 / gloss 25%).
- Weight can vary as per casting process.
- Greased versions includes grease nipple.
- For mounting, see instructions CYL-0030.
- For bush replacement, see instruction BRA-0002.

Cylinder load Specifications

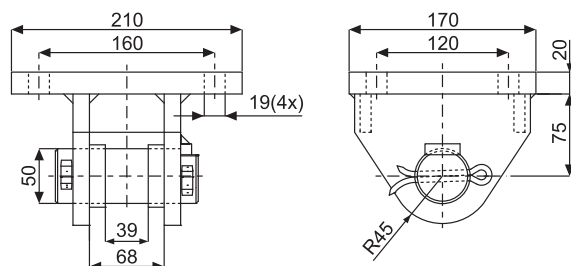
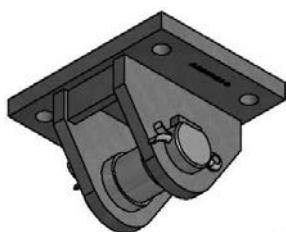
Part no. Bracket	Max. Cylinder Load (kN)
015 06 120	190
015 06 130 / 015 06 728	235
015 09 124	255
015 09 134	290
5629 000 0123	440

Top Brackets

Front end cylinder Top brackets

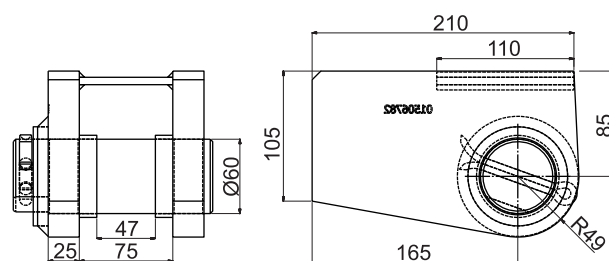
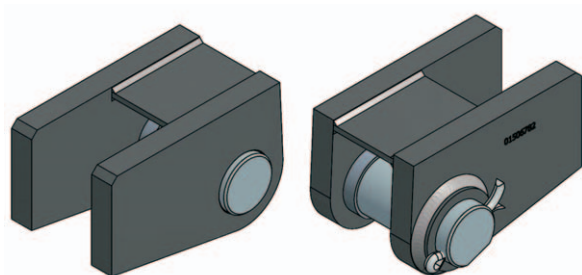
Note : Please verify quoted dimensions with your local Hyva subsidiary or agent prior to use

Top bracket for cylinder type FE/FEE/FSE with eye Ø 50 mm



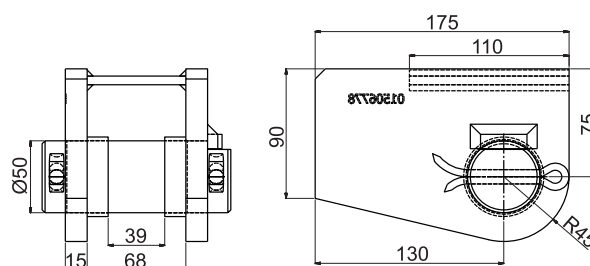
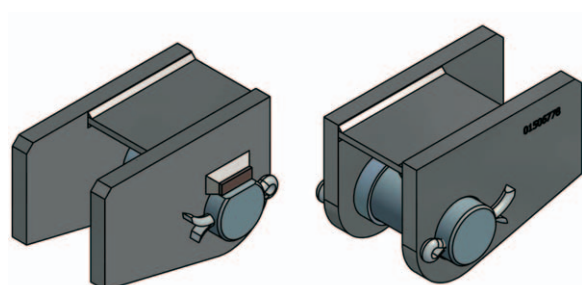
Bracket Type	Part no. Bracket	Mass (Kg)	Part no. Replacement axle kit
Top bracket	015 06 777	11.0	015 06 776

Top bracket for cylinder type FE/FEE/FSE with eye Ø 60 mm



Bracket Type	Part no. Bracket	Mass (Kg)	Part no. Replacement axle kit
Top bracket	015 06 782	13.4	015 06 781

Top bracket for cylinder type FE/FEE/FSE with eye Ø 50 mm



Bracket Type	Part no. Bracket	Mass (Kg)	Part no. Replacement axle kit
Top bracket	015 06 778	6.7	015 06 776

General information

Note:

- The filler rings, pin and split pins are included.
- Brackets are painted black (RAL 9005 / gloss 25%).
- Weight can vary as per production process.
- For mounting, see instructions CYL-0031, CYL-0032 or CYL-0033.

ALPHA Series offers front end tipping solutions for Construction, Transportation and Mining.

Tailored solutions

There is no single solution which can efficiently serve the full range of applications in all market segments. Extensive **research and consultation** with customers has been conducted to **optimise transport efficiency, safety and reliability** for the typical duty and conditions in all market segments.

CONSTRUCTION

Solutions, with the standard operating pressure up to 250bar, providing best all round performance through the combination of **reduced weight, increased tipping speed** and the stability required for the application.

Maximum performance and more payload from a smaller package.



TRANSPORTATION

Solutions designed to maximise payload in standard, silo and heavy duty trailers. **Weight saving** derived from lightweight brackets and from the new cylinders with lighter internal components.

The reduced weight of cover tubes on FC cylinders can achieve savings of up to 40kg. ALPHA tractor kits are ideally suited to all the latest Euro 6 truck chassis.



MINING

Solutions designed to perform at **high speed in heavy duty conditions**. The solutions consist of high quality filters, heavy duty knock-off and heavy duty brackets.

The heavy duty ALPHA Series cylinder has larger overlaps and the stop and lift faces are redesigned to permit exceptionally high tipping and lowering increases up to 50%. For extra safety, the tipping valve is now mounted directly onto the base of the tipping cylinder.



DEALER STAMP

