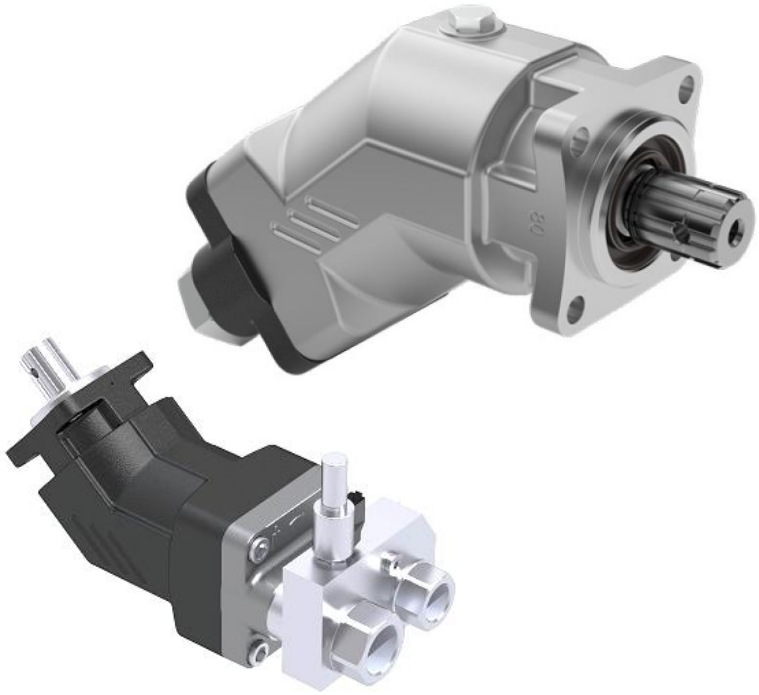
Bent-Axis Piston Pump

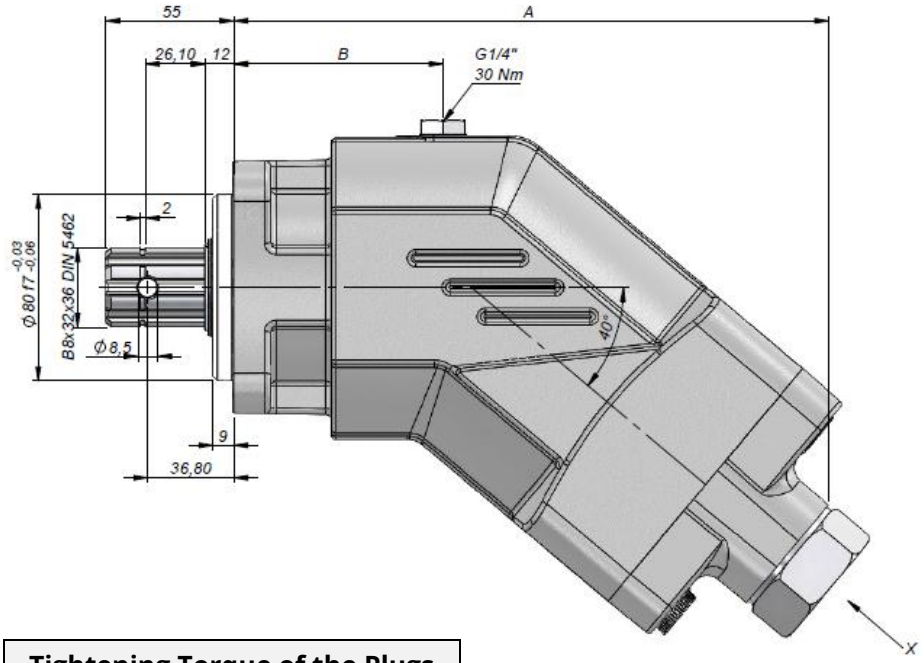
- Bi-Directional Rotation
- Bent axis fixed displacement
- Aluminum Body
- BSP threaded ports
- By-Pass Valve Option
- DIN 5462 Mount
- SAE B/BB optional

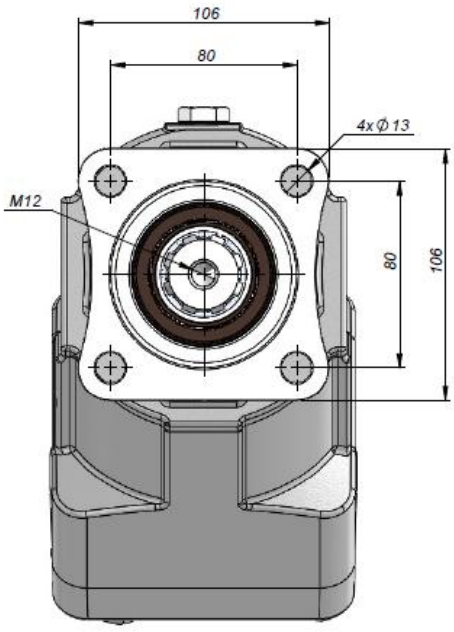


Note: ProDrive is constantly engaged in improving its products and, therefore, reserves itself the right to modify without any further notice the characteristics shown in this material.

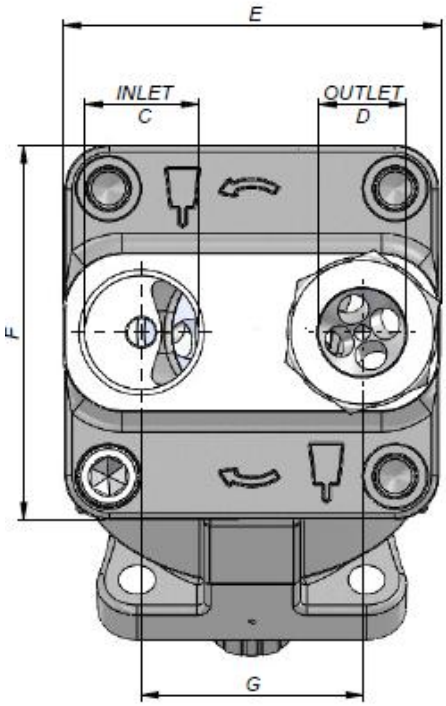
Order Code	Displac.	Max Continuous Pressure	Max Peak Pressure	Max Speed (RPM)		Min Speed	C	D
Right Hand Rotation	(cm3/rev)	(%100)-bar	(6 sec max)-bar	Nom	max	RPM	Inlet	Outlet
KH03070220142R-2A	22	350	400	3050	4300	300	G3/4"	G1/2"
KH03070330142R-2A	33			2750	3900			
KH03070450142R-2A	45			2650	3800		G1"	G3/4"
KH03070560142R-2A	56			2550	3700			
KH03070650142R-2A	65			2200	3200			
KH03070800142R-2A	80			2150	3100		G1 ¼"	G1"
KH03071070142R-2A	107			2000	2800			
KH03071250142R-2A	125	250	300	1750	2500			

DIMENSIONS (mm)





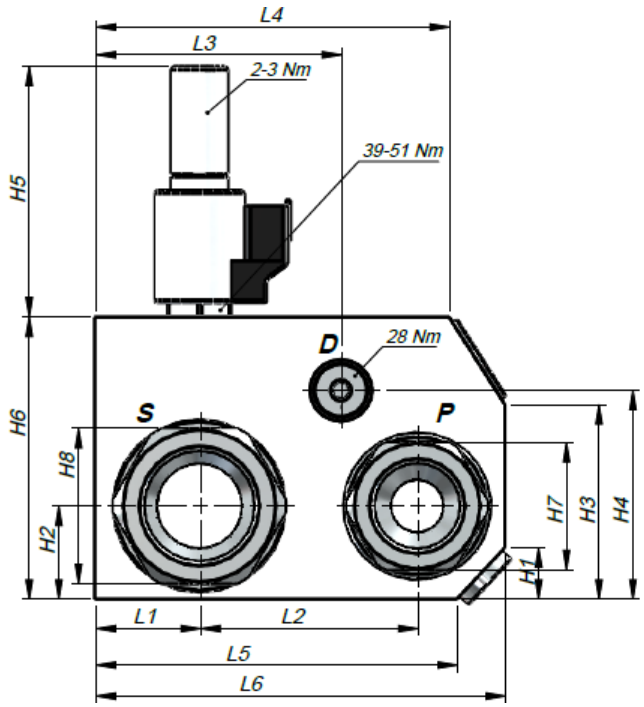
Tightening Torque of the Plugs	
G1/2"	55-65 Nm
G3/4"	90-100 Nm
G1"	135-160 Nm
G1 ¼"	200-230 Nm

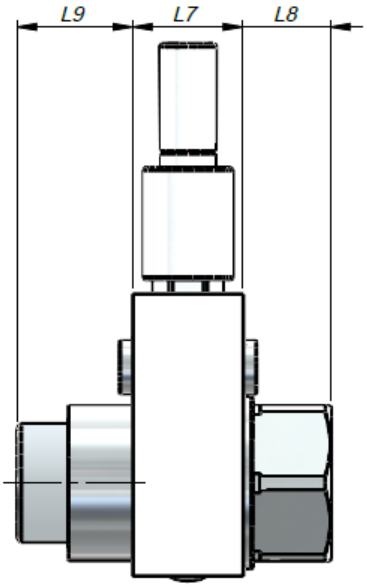


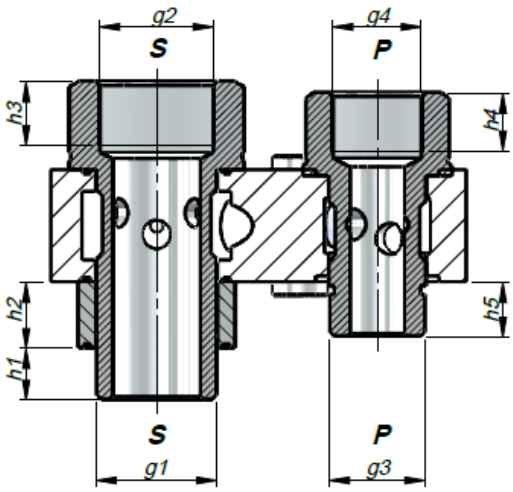
Displac.	A	B	C	D	E	F	E
(cm3/rev)	mm	mm	Inlet	Outlet	mm	mm	mm
22	180	58	G3/4"	G1/2"	89	89	52
33					89	89	52
45	210	78	G1"	G3/4"	108.7	108.7	59
56	218	80			110.5	108	64
65					110.5	108	64
80	245	94	G1 ¼"	G1"	127	118	69
107	256				131.6	130	77
125					131.6	130	77

By-Pass Valve

Part Number	Description
VBY056/063	12v, for KH series 56 and 63cc
VBY080/090	12v, for KH series 80 and 90cc
VBY107/125	12v, for KH series 107 and 125cc



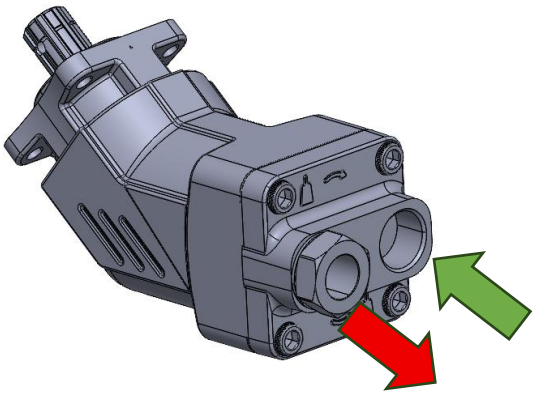




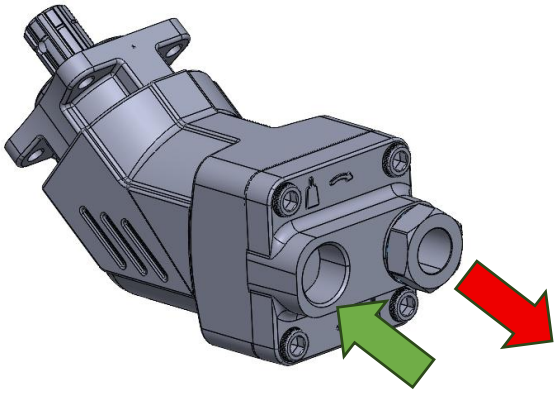
19	19	21	23	18	G1	G1	G 1-1/4	G 1-1/4	250 (66)	107-125
17	19	21	23	18	G1	G1	G 1-1/4	G 1-1/4	250 (66)	80
17	17	19	21	18	G 3/4	G 3/4	G1	G1	140 (37)	56-63
h5	h4	h3	h2	h1	g4	g3	g2	g1	Max. Flow l/min. (gpm)	Pump size

Rotation Change

Pumps are shipped with right hand rotation setup as standard, to change to left hand rotation, simply remove the pressure port reducer fitting from the right port and attach it to the left port as shown in this picture.

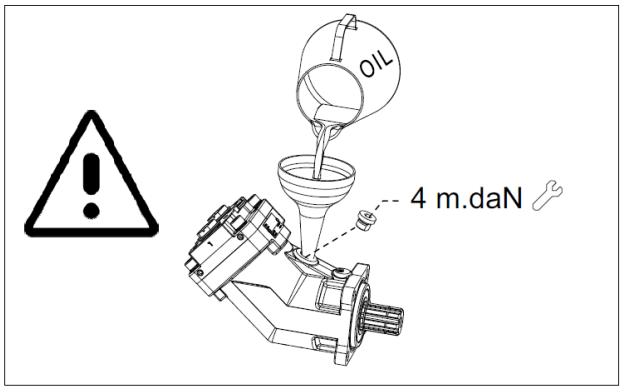


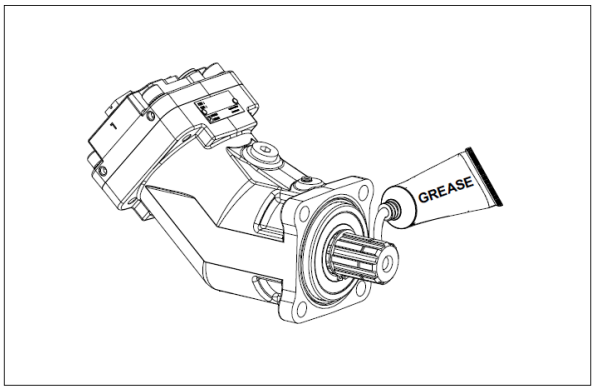
LEFT HAND (CCW)

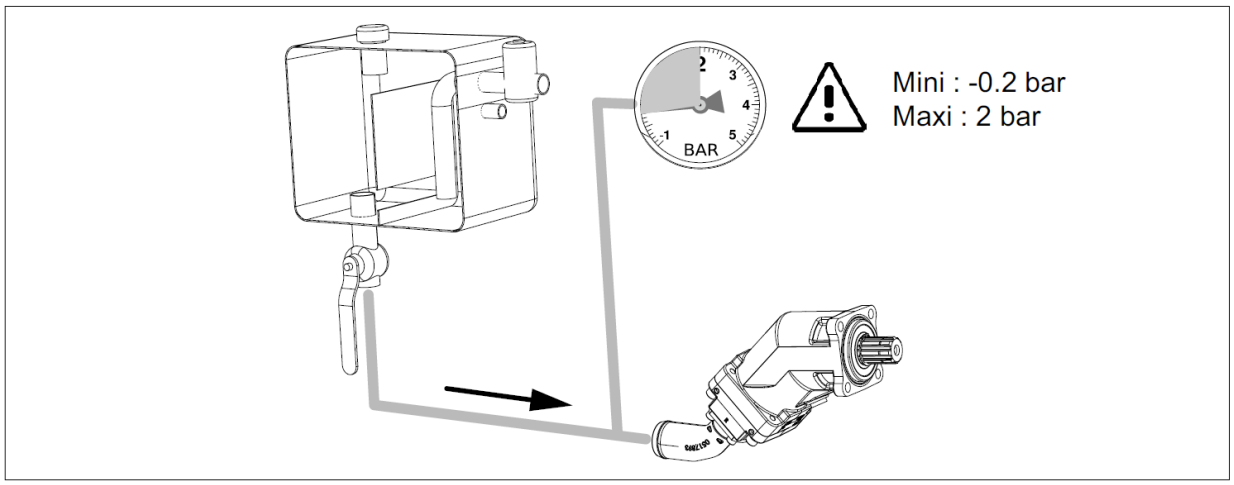


RIGHT HAND (CW)

Start-Up Recommendations

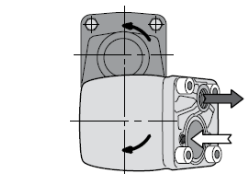






Bearing Life

Fig.1 provides the lowest bearing life and the highest is obtained when installed according to fig.3



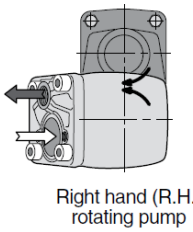


Fig. 1.

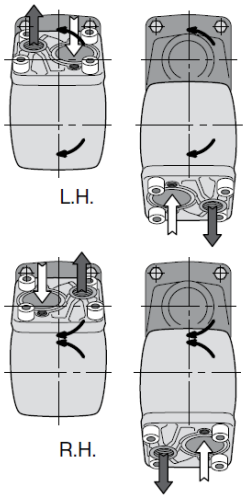


Fig. 2.

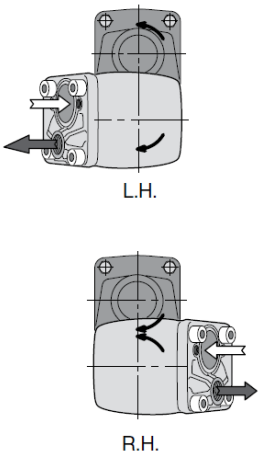


Fig. 3.

Operating Characteristics

Flow	q_v	$=$	$\frac{V_g \times n \times \eta_v}{1000}$		[l/min]
Torque	T	$=$	$\frac{V_g \times \Delta p}{20 \times \pi \times \eta_{hm}}$		[Nm]
Power	P	$=$	$\frac{2 \pi \times T \times n}{60000}$	$= \frac{q_v \times \Delta p}{600 \times \eta_t}$	[kW]

Key

V_g	Displacement per revolution [cm^3]
Δp	Differential pressure [bar]
n	Speed [rpm]
η_v	Volumetric efficiency
η_{hm}	Hydraulic-mechanical efficiency
η_t	Total efficiency ($\eta_t = \eta_v \times \eta_{hm}$)

Shaft Sealing Tube Installation

Recommendations for mounting the protective tube:

● make a siphon with the tube so as to avoid any introduction of:

dirt from road;

water or damp from high pressure washing of vehicle;

●put the end of the tube downwards, or in a place sheltered from any projections

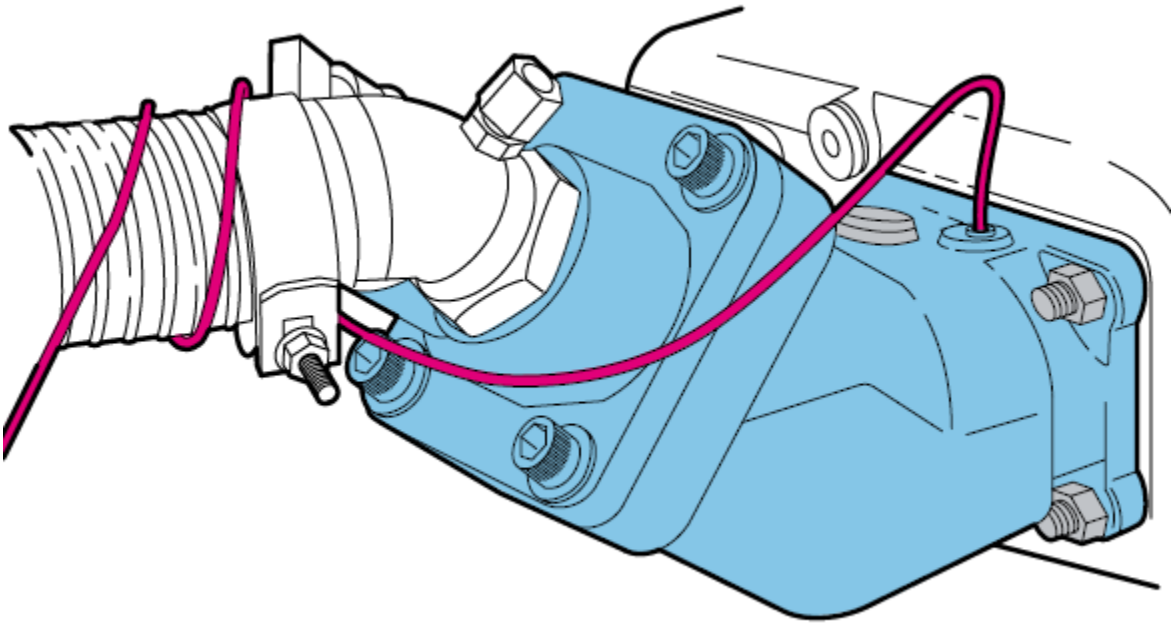
●fix the tube in place using a collar/clip.

Avoid:

●attaching the tube to any parts which may move, this could lead to it being damaged or torn off

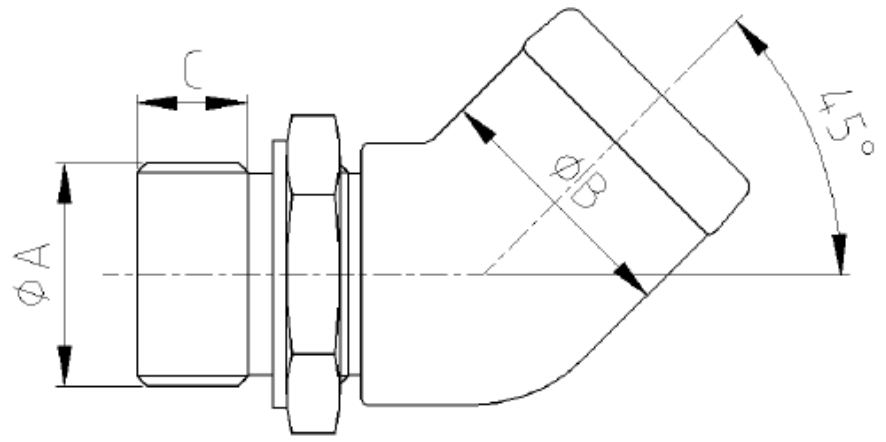
●any pinching or folds in the tube when fixing it in place

●any obturation of the end of the tube.



Suction Fittings

Main Dimensions



(Dimensions in mm)

Order Code	A (BSPP)	B (inch)	C (cm)
A45034112	¾″	1 ½″	16.5
A45100112	1″	1 ½″	16.5
A45100200	1″	2″	16.5
A45114112	1 ¼″	1 ½″	16.5
A45114200	1 ¼″	2″	16.5