



2PBA Series

Hydraulic Piston Pump

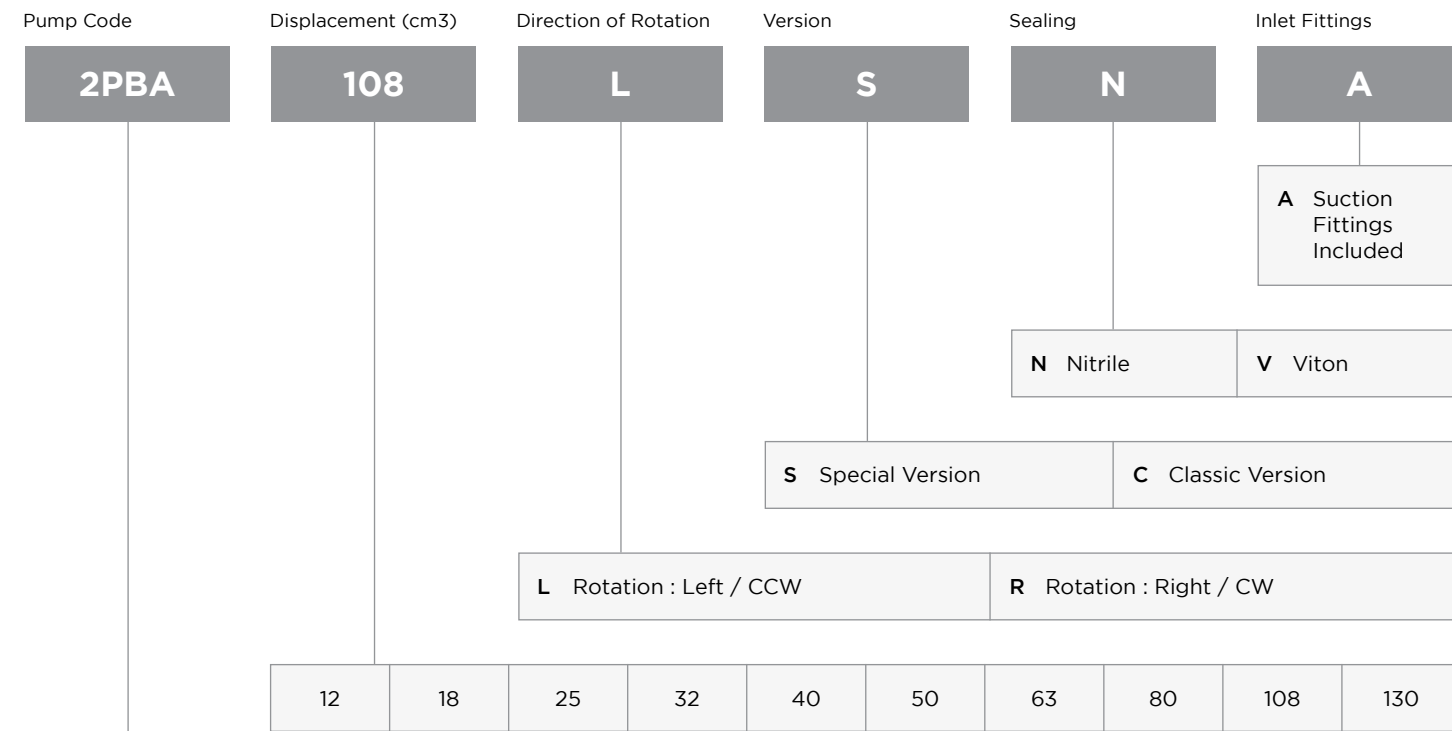


2PBA Hydraulic Piston Pump have the following advantages;

- Compact Design,
- Economical Conception,
- High Power Density,
- High Overall Efficiency,
- High Rotating Speeds,
- High Output Pressure,
- 400 bar Cont. Work. Pressure,
- 450 bar Peak Pressure,
- From 12cc to 130cc,
- Reduced Noise Level,
- Increased Reliability,
- No Drain Line Necessary,
- Smaller Installation Dimensions,
- One Piece Pistons with Piston Rings,
- Special Inlet Fittings & Accesories,
- Simple Change of Direction of Rotation

  ISO 9001:2015 - ISO 14001:2015

Ordering Code of 2PBA Hydraulic Piston Pump



2PBA Hydraulic Piston Pump, Fixed Displacement, 400 / 450 bar.

Special Version; BRONZE EDITION

Classic Version



Special Version



Technical Data I

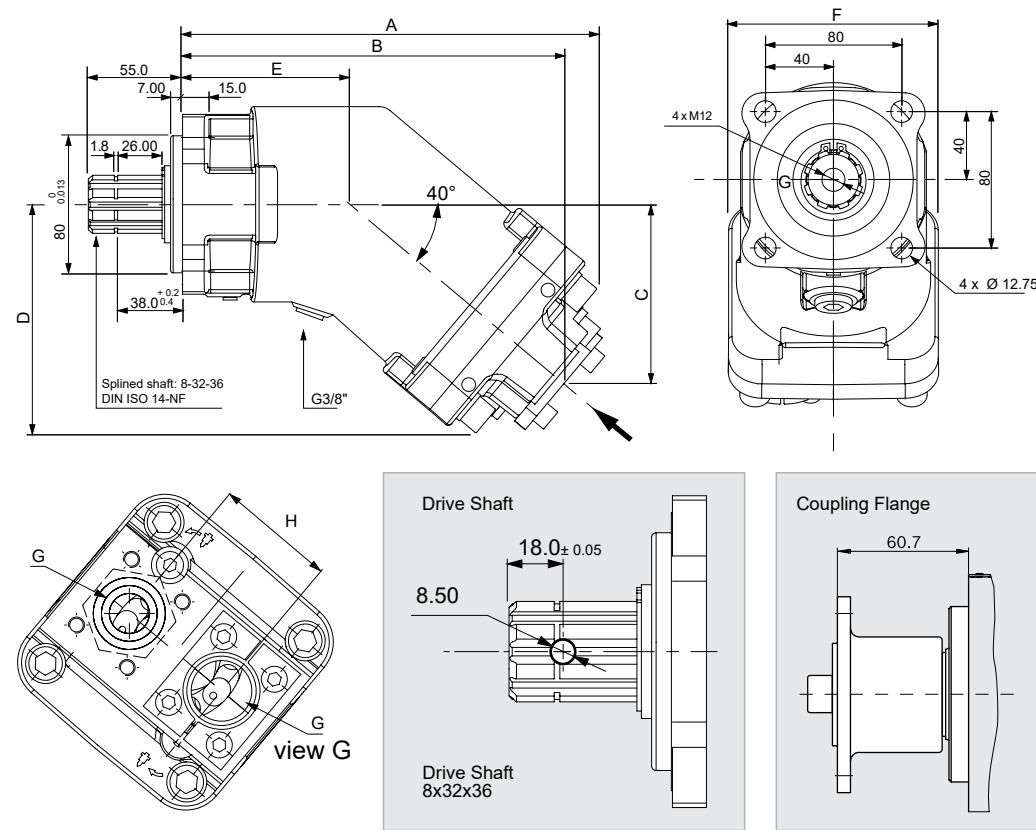
		12	18	25	32	40	50	63	80	108	130
Displacement	cc	12,00	18,00	25,00	32,00	40,20	50,00	63,00	80,00	108,4	130,0
Theoretical oil flow l/min at pump speed	1000 rpm	12,00	18,00	25,00	32,00	40,20	50,00	63,00	80,00	108,4	130,0
	1500 rpm	18,00	27,00	37,50	48,00	60,30	75,00	94,50	120,0	162,6	195,0

Maximum Pump Speed											
- Continuous	rpm	2300	2300	2300	2250	1900	1900	1900	1700	1700	1600
- Limited	rpm	3100	2900	2700	2700	2500	2500	2300	2100	1900	1750
Max. Continuous Pressure	bar	400	400	400	400	400	400	400	400	400	400
Max. Intermit. Peak Pressure	bar	450	450	450	450	450	450	450	450	450	450
Max. Torque at 350 bar	Nm	71	105	146	190	240	292	360	460	620	746

Weight											
- Without inlet fitting	kg	9,00	9,00	9,50	10,50	10,50	11,00	11,50	15,00	15,50	16,50
- With inlet fitting	kg	9,40	9,40	9,90	10,90	10,90	11,40	11,90	15,40	15,90	17,00

Rotation		CW,CCW	CW,CCW	CW,CCW	CW,CCW	CW,CCW	CW,CCW	CW,CCW	CW,CCW	CW,CCW	CW,CCW
Fluid		Mineral Based Hydraulic Oils									
Inlet & Outlet		3/4"	3/4"	3/4"	1"	1"	1"	1"	1"	1"	1"

Technical Data II



	12	18	25	32	40	50	63	80	108	130
cc	12,00	18,00	25,00	32,00	40,20	50,00	63,00	80,00	108,4	130,0
A	195,0	195,0	195,0	202,0	202,0	215,0	215,0	242,0	242,0	242,0
B	176,0	176,0	176,0	183,0	183,0	196,0	196,0	221,0	223,0	223,0
C	76,0	76,0	76,0	82,0	82,0	94,0	94,0	104,0	105,0	105,0
D	104,0	104,0	104,0	108,0	108,0	118,0	118,0	132,0	132,0	132,0
E	86,0	86,0	86,0	86,0	86,0	86,0	86,0	98,0	98,0	98,0
F	108,0	108,0	108,0	108,0	108,0	108,0	108,0	122,0	122,0	122,0
G	3/4"	3/4"	3/4"	1"	1"	1"	1"	1"	1"	1"
H	54	54	54	54	54	54	54	60	60	60

Installation & User Guide

The 2PBA Hydraulic Piston Pump fitted with a rubber front seal.

INSTALLATION

2PBA Hydraulic Piston Pump are direct mounting on the PTO.
Grease the splined shaft before installation. Do not tap the gear wheel/driver into position.

Remove any mounted screws on the pump.
The 2PBA was delivered with protective covers and plastic/threaded plugs.
It should be removed before of install. Please check seals and surfaces. If sealing or other surfaces damaged please contact your responsible Service Partner.

Start up and run the pump at medium speed (800 to 1000 rpm at the PTO) until the oil flowing out of the pump. (There are no more air bubbles.)

OIL SUPPLY

Oil and supply line should be clean, and the supply line is airtight.

SUCTION LINE

Connect the suction line, tighten the suction connection bolts in diametric pairs.
Connect the pressure line.

REPAIR

We offers a comprehensive range of services for the repair of our Hydraulic Piston Pump.
Repairs to the 2PBA Hydraulic Piston Pump may only be performed by authorized, skilled and instructed personnel.
Only use original and pre-installed our 2PBA spare parts from supplied to Manufacturer..

Tested and pre-installed 2PBA Hydraulic Piston Pump successful repair requiring only little time.

SPARE PARTS

The spare parts list and the 2PBA Hydraulic Piston Pump order specific.
When ordering spare parts, quote the material and complete Ordering code number of the 2PBA Hydraulic Piston Pump as well as the right numbers of the spare parts.

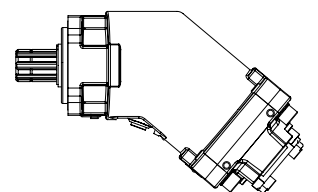
RISK OF DAMAGE!

Do not touch the drive shaft of the 2PBA Hydraulic Piston Pump
Do not touch sensor, valves and fittings
Do not touch sealing surfaces.

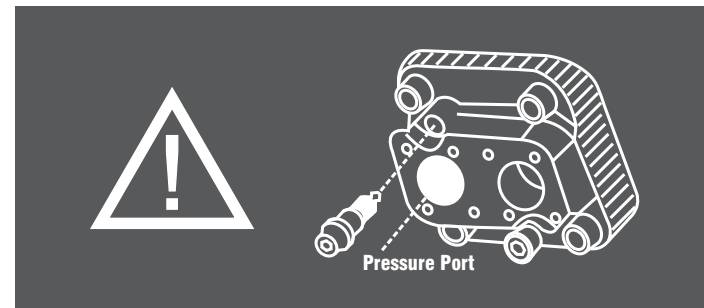
Weight														
- Without inlet fitting	kg	9,00	9,00	9,50	10,50	10,50	11,00	11,50	15,00	15,50	16,50			
- With inlet fitting	kg	9,40	9,40	9,90	10,90	10,90	11,40	11,90	15,40	15,90	17,00			

Address all questions regarding spare parts to your responsible Our Service Partner or the technical service department of the manufacture's plant / factory for the 2PBA Hydraulic Piston Pump.

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Changing the Direction of Rotation



Before of change direction of rotation on the pump, please remove suction fitting and screw it onto the other port. Pump shaft must not be rotated during this operation..

!! CHECK THE ROTATION FROM THE POWER TAKE OFF

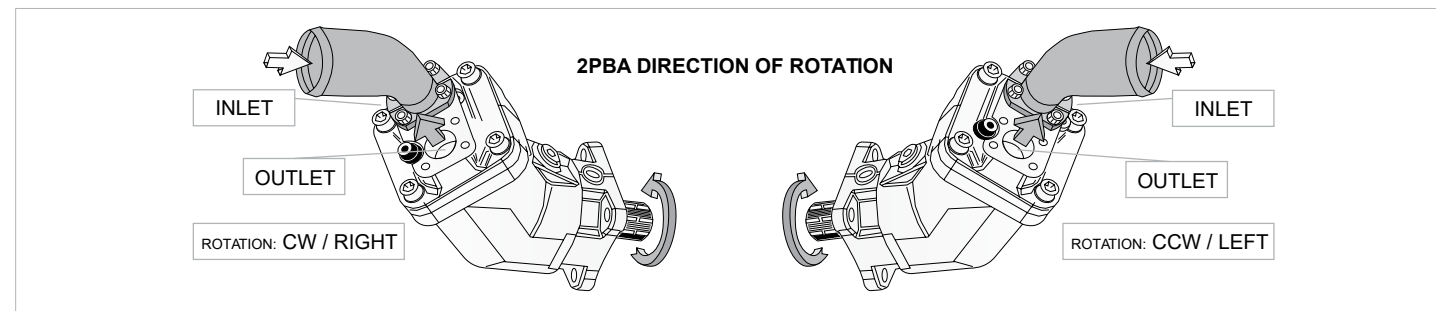
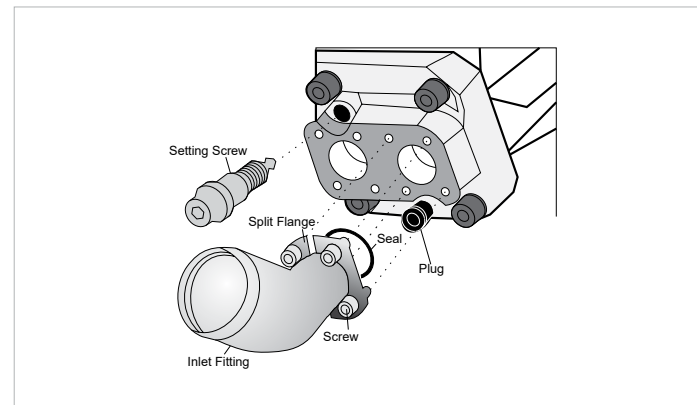
!! THE ROTATION DIRECTION OF THE PUMP

Left
Default delivered. Right
Change rotation.

HOW TO CHANGE ROTATION OF THE 2PBA HYDRAULIC PISTON PUMP;

- » Remove the inlet fitting with split flange,
- » Remove the setting screw,
- » Remove the plug,

- » Put the setting screw where the plug was,
- » Put the plug where the setting screw was,
- » Put seal on the inlet fitting, then the inlet fitting on the side where the plug is, and fix with the split flange,
- » Tighten with the screws.



NOTE I
The Inlet Fitting is pre-assembled on delivery and must be tightened to the torque specified for the thread size before installation.

NOTE II
To change the direction of rotation of the 2PBA Hydraulic Piston Pump, you must change the pressure connection from to right port to the left port.

NOTE III
If the pump drive shaft moves while making the change, the 2PBA Hydraulic Piston Pump may be damaged. After unscrewing the pressure connection, do not turn the drive shaft of the pump!

FLUID	
Please check the following recommendations: Mineral oil	
Viscosity	20 to 40 cSt
Min. viscosity	5 cSt
Viscosity for correct operation	10 to 400 cSt
Recommended filtration	10Q absolute class 9 NAS 1638 class 6 SAE class 18/15 ISO
Max temp.	100 oC

For detailed information about 2PBA Hydraulic Piston Pump, please contact with Technical Department !!!



2PS Hydraulic Piston Pump have the following advantages;

- Compact Design,
- Economical Conception,
- High Power Density,
- High Overall Efficiency,
- High Rotating Speeds,
- High Output Pressure,
- From 12cc to 130cc,
- One Piece Pistons with Piston Rings,
- Special Inlet Fittings & Accesories,
- Simple Change of Direction of Rotation,
- For Industrial & Mobile Market.
- Splined or Keyed Shaft

Ordering Code of 2PS Hydraulic Piston Pump

Motor Code	Displacement (cm ³)	Drive Shafts	Mounting Flange	Inlet & Outlet Port	Direction of Rotation	Sealing
2PS	108	K2	A	12	R	H
			A ISO 3019-2, 4 BOLT	11 Threaded (12-18cc) 12 SAE (25-108cc)	L Left/CCW R Right/CW	S Standart H High Pressure V Viton
	12 18 25 32 40 50 63 80 108 130					
		DIN 5480 SPLINED S1 S2				
		DIN 6885 PARALLEL K1 K2				
2PS Hydraulic Piston Pump - ISO, Fixed Displacement.						

Technical Data

		12	18	25	32	40	50	63	80	108	130
Displacement	cc	12,00	18,00	25,00	32,00	40,20	50,00	63,00	80,00	108,4	130,0
Theoretical oil flow l/min at pump speed	1000 rpm	12,00	18,00	25,00	32,00	40,20	50,00	63,00	80,00	108,4	130,0
	1500 rpm	18,00	27,00	37,50	48,00	60,30	75,00	94,50	120,0	162,6	195,0
Maximum Speed											
- Continuous	rpm	3100	3100	2500	2500	2300	2300	2300	2300	2000	1900
Max. Continuous Pressure	bar	400	400	400	400	400	400	400	400	400	400
Max. Peak Pressure	bar	450	450	450	450	450	450	450	450	450	450
Torque at 350 bar	m.N	66	98	141	174	225	280	350	445	600	726
Max. Flow	l/mn.	37,20	55,80	62,50	80	92,46	115,0	144,9	184,0	216,0	247,0
Weight											
- Without accessories	kg	6,00	6,00	11,50	11,50	11,50	17,50	18,00	22,00	22,50	23,50
- With accessories	kg	6,20	6,20	11,80	11,90	11,90	18,00	18,50	22,50	23,00	24,00
Pump Temperature											
- Minimum	°C	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25
- Maximum	°C	110	110	110	110	110	110	110	110	110	110
Rotation											
		cw,ccw	cw,ccw	cw,ccw	cw,ccw	cw,ccw	cw,ccw	cw,ccw	cw,ccw	cw,ccw	cw,ccw

Quick Calculation

- Q = flow, l/min
- T = torque, N•m
- N = power, kW
- V_g = displacement, ccm/rev
- n = shaft speed, rpm
- ΔP = pressure difference, bar
- η_v = volume efficiency
- η_m = hydraulic mechanical efficiency
- η_t = η_v•η_m = full efficiency coefficient

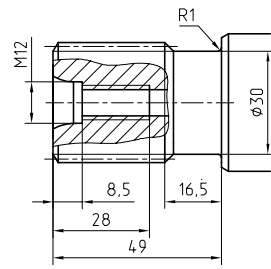
$$\text{Flow } Q = \frac{V_g \cdot n \cdot \eta_v}{1000} \text{ l/min}$$

$$\text{Torque } T = \frac{V_g \cdot \Delta P}{20 \cdot \pi \cdot \eta_m} \text{ N,m}$$

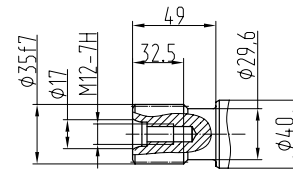
$$\text{Power } N = \frac{Q \cdot \Delta P}{612 \cdot \eta_t} \text{ kW}$$

Special Shaft Drive & Special Back Cover

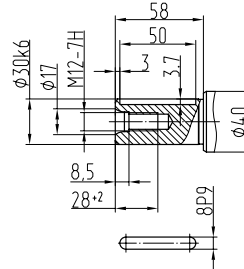
Splined shaft
35xf7x2x9g GOST 6033-80



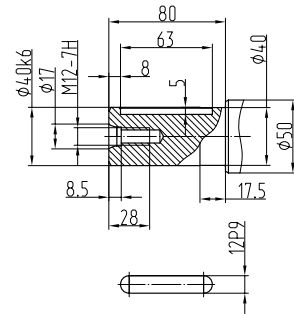
35xf7x2x9g GOCT6033



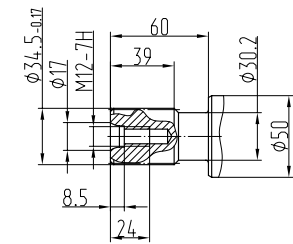
Parallel keyed shafts



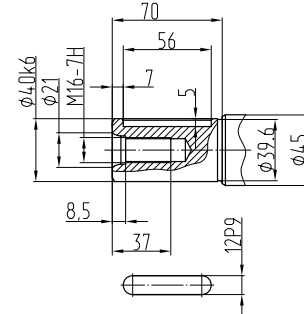
Parallel keyed shafts



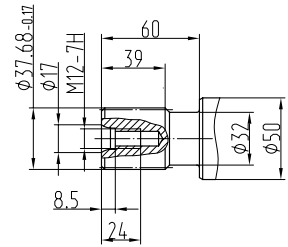
1 3/8' 21T 16/32DP ANSI B92



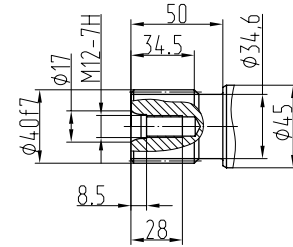
Parallel keyed shafts



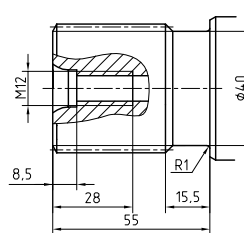
1 1/2' 23T 16/32DP ANSI B92



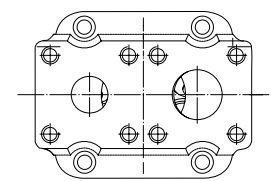
40xf7x2x9g GOST6033



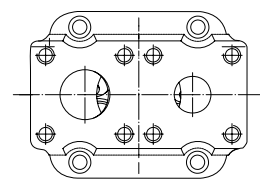
45xh8x2x9g GOST 6033-80



Special Cover / Rotation : LEFT

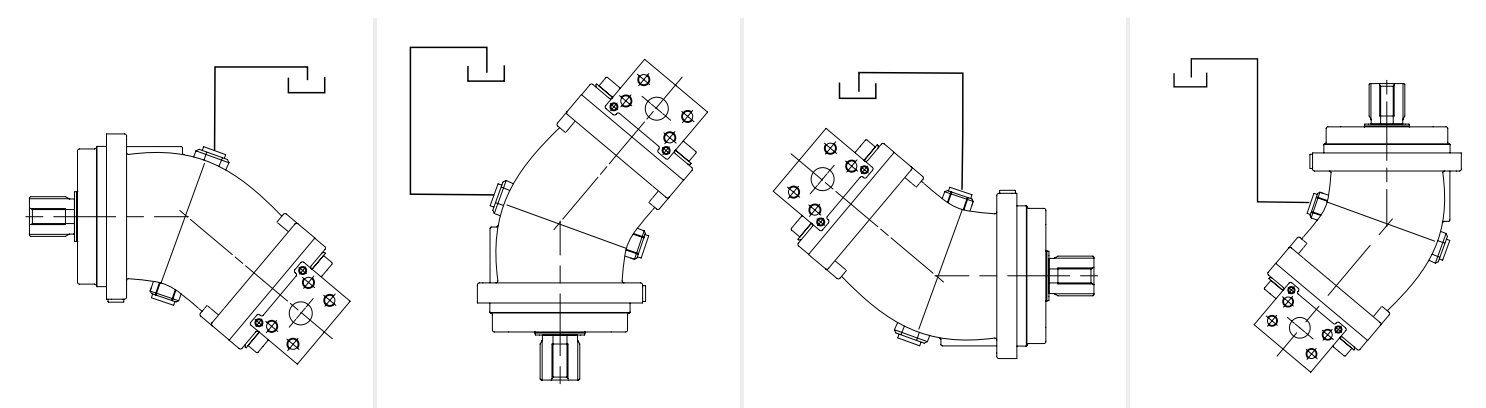


Special Cover / Rotation : RIGHT



Installation

The 2PS Pumps can be operate any position.
See following examples.



OIL SUPPLY

Oil and supply line should be clean, and the supply line is airtight.

SUCTION LINE

Connect the suction line, tighten the suction connection bolts in diametric pairs.
Connect the pressure line.

REPAIR

We offers a comprehensive range of services for the repair of our Hydraulic Piston Pump.
Repairs to the 2PS Hydraulic Piston Pump may only be performed by authorized, skilled and instructed personnel.
Only use original and pre-installed our 2PS spare parts from supplied to Manufacturer..
Tested and pre-installed 2PS pumps successful repair requiring only little time.

SPARE PARTS

The spare parts list and the 2PS pump order specific.
When ordering spare parts, quote the material and complete Ordering code number of the 2PS Hydraulic Piston Pump as well as the right numbers of the spare parts.

RISK OF DAMAGE!

Do not touch the drive shaft of the 2PS Hydraulic Piston Pump
Do not touch sensor, valves and fittings
Do not touch sealing surfaces.

Address all questions regarding spare parts to your responsible Our Service Partner or the technical service department of the manufacture's plant / factory for the 2PS Hydraulic Piston Pump.

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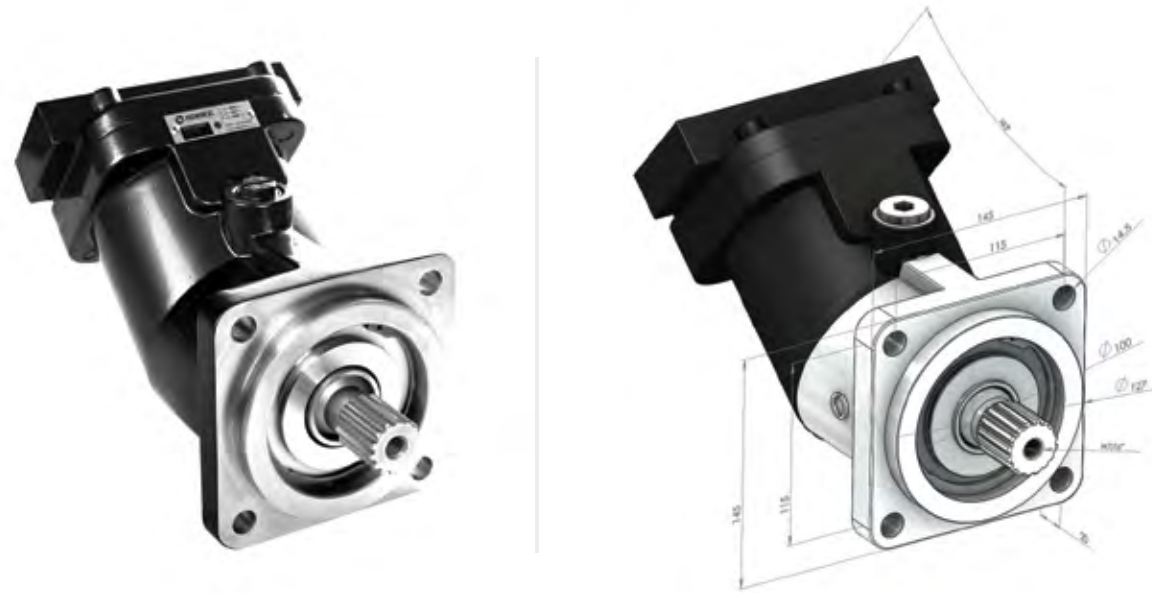
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2PE Series

2PE Series Hydraulic Piston Pump

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Hydraulic Piston Pump SAE

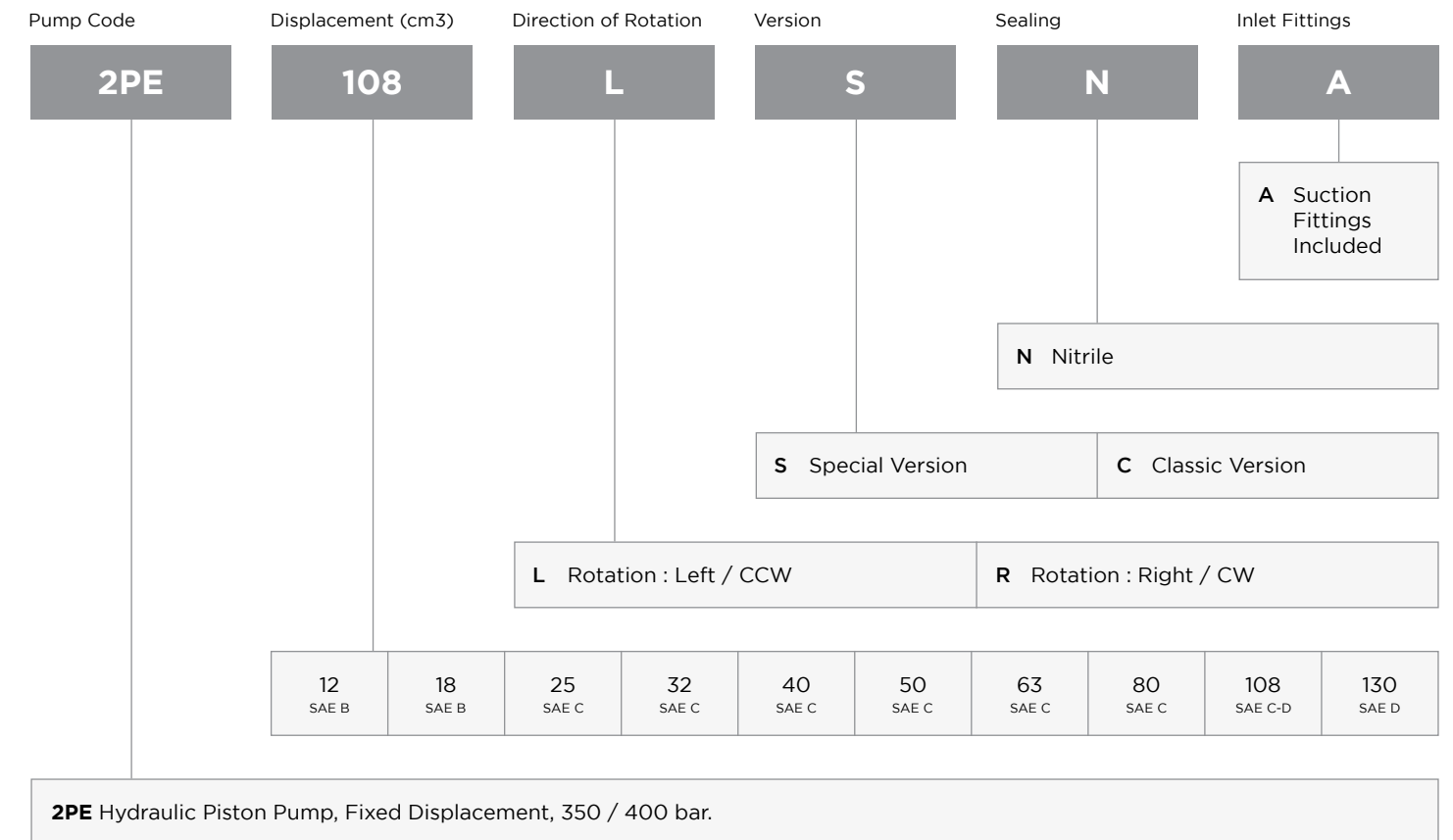


2PE Hydraulic Piston Pump have the following advantages;

- Compact Design,
- Economical Conception,
- High Power Density,
- High Overall Efficiency,
- High Rotating Speeds,
- High Output Pressure,
- 350 bar Cont. Work. Pressure,
- 400 bar Peak Pressure,
- From 12cc to 130cc,
- Reduced Noise Level,
- Increased Reliability,
- No Drain Line Necessary,
- Smaller Installation Dimensions,
- One Piece Pistons with Piston Rings,
- Special Inlet Fittings & Accesories,
- Simple Change of Direction of Rotation

CE TSEK ISO 9001:2015 - ISO 14001:2015

Ordering Code of 2PE Hydraulic Piston Pump



Special Version; BLACK COVER, DRIVE SHAFT, MOUNTING FLANGE

Technical Data

		12	18	25	32	40	50	63	80	108	130
Displacement	cc	12,00	18,00	25,00	32,00	40,20	50,00	63,00	80,00	108,4	130,0
Theoretical oil flow l/min at pump speed	1000 rpm	12,00	18,00	25,00	32,00	40,20	50,00	63,00	80,00	108,4	130,0
	1500 rpm	18,00	27,00	37,50	48,00	60,30	75,00	94,50	120,0	162,6	195,0

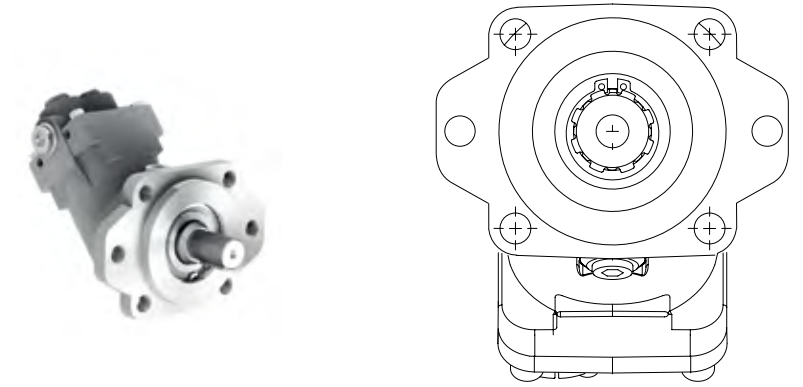
Maximum Pump Speed											
- Continuous	rpm	2300	2300	2300	2250	1900	1900	1900	1700	1700	1600
- Limited	rpm	3100	2900	2700	2700	2500	2500	2300	2100	1900	1750
Max. Continuous Pressure	bar	350	350	350	350	350	350	350	350	350	350
Max. Intermit. Peak Pressure	bar	400	400	400	400	400	400	400	400	400	400
Max. Torque at 350 bar	Nm	71	105	146	190	240	292	360	460	620	746

Weight											
- Without inlet fitting	kg	10,00	10,00	10,50	11,50	11,50	12,00	12,50	16,00	16,50	21,50
- With inlet fitting	kg	10,40	10,40	10,90	11,90	11,90	12,40	12,90	16,40	16,90	22,00

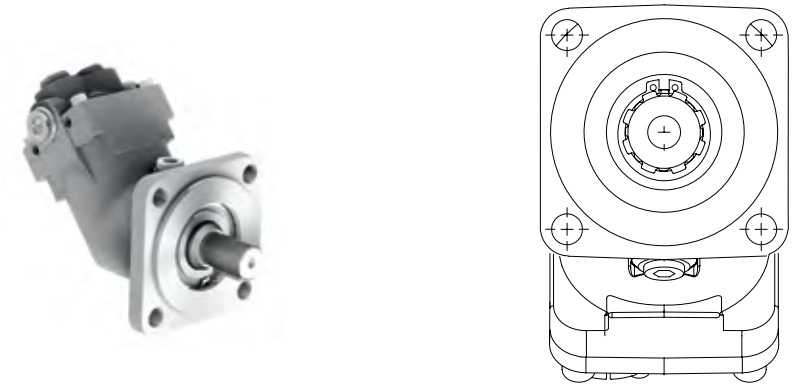
Rotation		CW,CCW	CW,CCW	CW,CCW	CW,CCW	CW,CCW	CW,CCW	CW,CCW	CW,CCW	CW,CCW	CW,CCW

Special Mounting Flanges

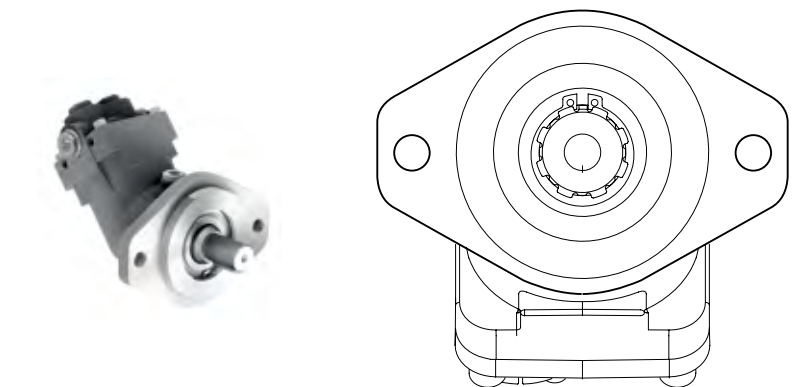
6 BOLT
Mounting Flange



SAE B4 BOLT
(SAE J744)



SAE B2 BOLT
(SAE J744)



Installation & User Guide

The 2PE Hydraulic Piston Pump fitted with a rubber front seal.

INSTALLATION

2PE Hydraulic Piston Pump are direct mounting on the PTO.
Grease the splined shaft before installation. Do not tap the gear wheel/driver into position.

Remove any mounted screws on the pump.
The 2PE was delivered with protective covers and plastic/threaded plugs.
It should be removed before of install. Please check seals and surfaces. If sealing or other surfaces damaged please contact your responsible Service Partner.

Start up and run the pump at medium speed (800 to 1000 rpm at the PTO) until the oil flowing out of the pump. (There are no more air bubbles.)

OIL SUPPLY

Oil and supply line should be clean, and the supply line is airtight.

SUCTION LINE

Connect the suction line, tighten the suction connection bolts in diametric pairs.
Connect the pressure line.

REPAIR

We offers a comprehensive range of services for the repair of our Hydraulic Piston Pump.
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Tested and pre-installed 2PE Hydraulic Piston Pump successful repair requiring only little time.

SPARE PARTS

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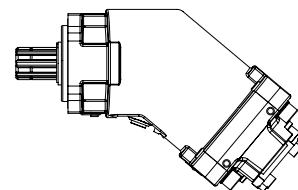
RISK OF DAMAGE!

Do not touch the drive shaft of the 2PE Hydraulic Piston Pump
Do not touch sensor, valves and fittings
Do not touch sealing surfaces.

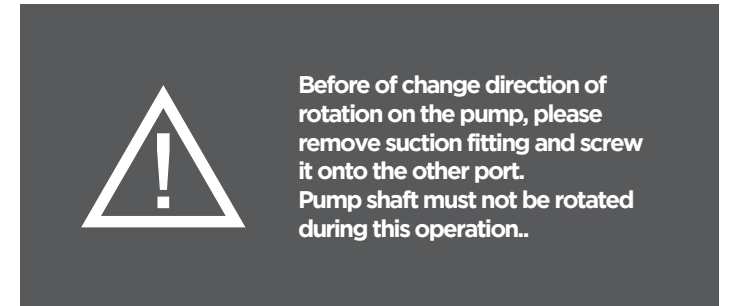
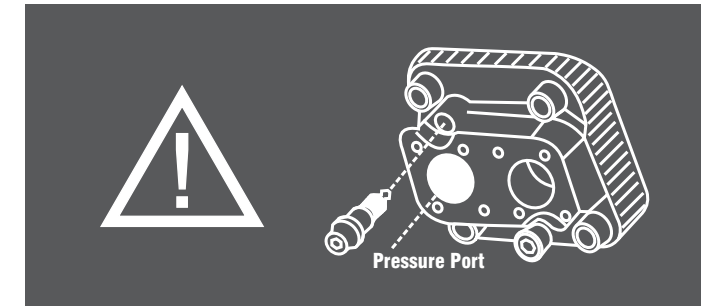
Weight											
- Without inlet fitting	kg	10,00	10,00	10,50	11,50	11,50	1200	12,50	16,00	16,50	21,50
- With inlet fitting	kg	10,40	10,40	10,90	11,90	11,90	12,40	12,90	16,40	16,90	22,00

Address all questions regarding spare parts to your responsible Our Service Partner or the technical service department of the manufacture's plant / factory for the 2PE Hydraulic Piston Pump.

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Changing the Direction of Rotation



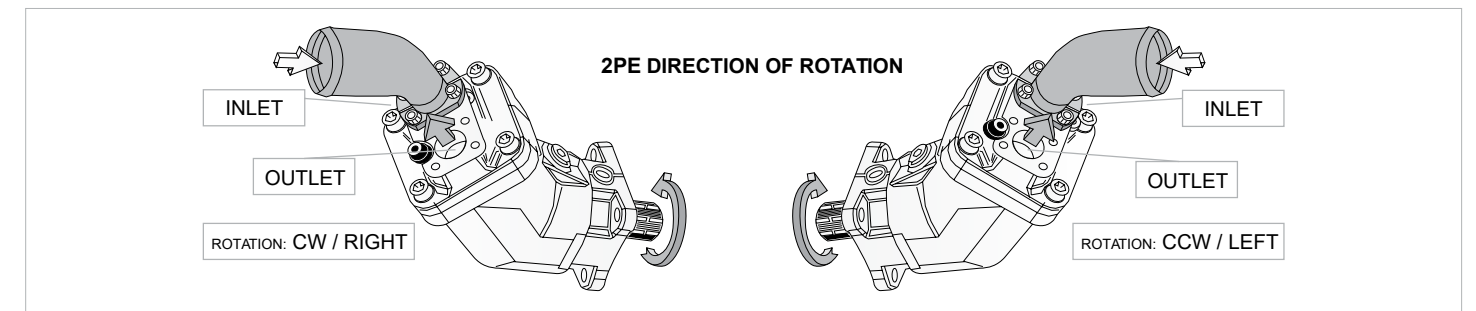
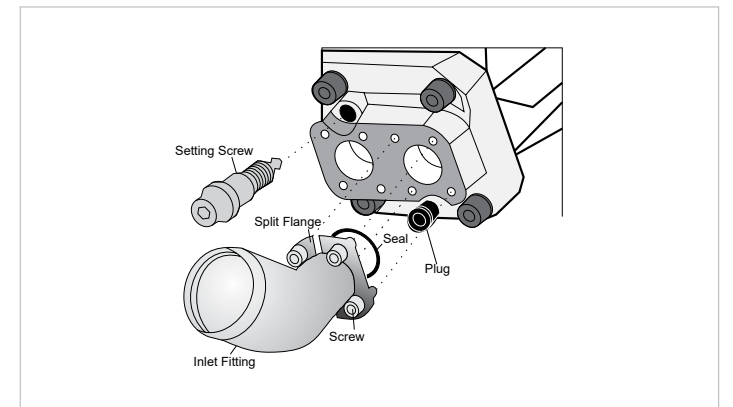
!! CHECK THE ROTATION FROM THE POWER TAKE OFF

!! THE ROTATION DIRECTION OF THE PUMP

Left Default delivered. Right Change rotation.

HOW TO CHANGE ROTATION OF THE 2PE HYDRAULIC PISTON PUMP;

- » Remove the inlet fitting with split flange,
- » Remove the setting screw,
- » Remove the plug,
- » Put the setting screw where the plug was,
- » Put the plug where the setting screw was,
- » Put seal on the inlet fitting, then the inlet fitting on the side where the plug is, and fix with the split flange,
- » Tighten with the screws.



NOTE I

The Inlet Fitting is pre-assembled on delivery and must be tightened to the torque specified for the thread size before installation.

NOTE II

To change the direction of rotation of the 2PE Hydraulic Piston Pump, you must change the pressure connection from to right port to the left port.

NOTE III

If the pump drive shaft moves while making the change, the 2PE Hydraulic Piston Pump may be damaged.
After unscrewing the pressure connection, do not turn the drive shaft of the pump!

FLUID

Please check the following recommendations:
Mineral oil

Viscosity	20 to 40 cSt
Min. viscosity	5 cSt
Viscosity for correct operation	10 to 400 cSt
Recommended filtration	10Q absolute class 9 NAS 1638 class 6 SAE class 18/15 ISO 100 oC
Max temp.	100 oC



For detailed information about 2PE Hydraulic Piston Pump, please contact with Technical Department !!!