

# **INSTRUCTIONS**

Air driven hydraulic pump, PP-1000CAG-series



PP150-1000CAG | PP227-1000CAG

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**REHOBOT Hydraulics AB** Skjulstagatan 11 A, 632

# GB

Thank you for the faith you have shown in us by choosing a REHOBOT product. REHOBOT stands for products of high quality and it is our conviction that this product will give you many years of use.

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To avoid operational problems, we recommend that you read these instructions carefully before using the product.

# Technical description (Fig. 1, 2A-C)

Max.	working	pressure:
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PP150-1000CAG PP227-1000CAG	150 MPa (1500 bar, 21756 psi) 227 MPa (2275 bar, 33000 psi)				
Required air pressure:	Fig. 2A				
Air consumption:	Fig. 2B				
Capacity:	Fig. 2C				
Total oil capacity:	1050 cm <sup>3</sup> (64 in <sup>3</sup> )				
Effective oil capacity:	1000 cm <sup>3</sup> (61 in <sup>3</sup> )				
<b>Weight incl. oil:</b> PP150-1000CAG PP227-1000CAG	11.8 kg (26.0 lb) 12.1 kg (26.7 lb)				
Hydraulic oil type:	ISO VG 10 or equivalent				

The pump has a rubber bladder fitted inside the tank and can be used either horizontally or vertically.

## Safety feature

The pump is equipped with a safety valve which regulates the output pressure. The safety valve is factory set at maximum working pressure. The oil filler plug, Fig. 1, pos. F, is equipped with an overflow-valve. If the oil reservoir is overfilled, the excess oil is diverted away through the oil filler plug.

## **Connections and regulation**

### Connecting compressed air

Connect compressed air with a G1/4" coupling, as shown in Fig. 1, pos. E. Make sure that the air pressure does not exceed 10 bar (1.0Mpa, 145 psi) as this could damage the pump. To ensure efficient operation and long service-life, use clean compressed air with a water trap.

### Air pressure regulation

The pump is equipped with a compressed air regulator, Fig. 1, pos. G, which allows adjustment of the incoming air pressure between 1.2 bar (0.12 MPa, 17.4 psi) and 7 bar (0.7 MPa, 100 psi)

For the relationship between the incoming air pressure and the output hydraulic pressure, see Fig. 2A.

Incoming air pressure can be read on the pressure gauge, Fig. 1, pos. H.

#### Connecting the hydraulic hose

The hydraulic hose for output hydraulic pressure is connected in accordance with P1, Fig. 1, pos. D1. If measurement of hydraulic pressure at the final stage of a hydraulic circuit (e.g. a ring with bolt tensioners) is desired, the hydraulic hose shall be connected from the last component in the circuit back to P2, as shown in Fig. 1, pos. D2. Connectors P1 and P2 have G 1/4" internal thread with 120° internal sealing cone. To make things easier, use REHOBOT's quick couplings.

#### Locking of hydraulic pressure

The pump is equipped with an integrated shut-off valve which allows for the mechanical locking of hydraulic pressure in connected tools, Fig. 1, pos. I. To activate locking at the desired pressure, turn the knob clockwise until it stops. In this mode, the releasing of the pump can be activated without affecting the pressure in connected tools.

In order to change the knob position without activating this function, pull the knob upwards whilst turning it to the desired position.

The hydraulic pressure can be read on the pressure gauge, Fig. 1, pos. J.

#### Switching the pressure gauge bracket

The following settings determine whether the pressure gauge shows the hydraulic pressure first or last in the circuit:

- If measurement of hydraulic pressure at the last stage of the circuit is desired, turn the lobe knob (Fig. 1, pos K) clockwise until stop, Fig. 3A. Accordingly, a hose must be connected from the last component in the circuit back to port P2 for the pressure gauge to show any pressure measurement. (If no hose is connected to P2, the pressure gauge will remain at 0 and will not indicate any pressure.)
- If measurement of hydraulic pressure at the first stage of the circuit, (P1), is desired, turn the lobe knob (Fig. 1, pos K) counterclockwise ~180° from stop, Fig. 3B.

#### Bleeding the hydraulic system

When hoses or tools are connected to the pump, they can introduce air into the hydraulic system, which could lead to operating problems. Bleed the system by running the tool/cylinder through 3-4 cycles (by pumping out until fully extended, and then releasing) with no load. Make sure that the tool or cylinder is kept lower than the pump to allow the air to flow back into the oil reservoir of the pump. Then hold the pump with the oil reservoir at the top while pressing the pump pedal and release pedal at the same time (Fig. 4) for around 15 seconds. It may be necessary to top up the oil, depending on the volume of air that is present in the connected hoses or tool, see Filling with oil.

#### Accessories

It is possible to connect a return pipe. All cylinders, accessories and tools that are connected to the pump must be designed for a working pressure that is equal to, or higher than, the maximum working pressure of the pump. NOTE! The pump is equipped with a safety valve on the hydraulic side. It has been factory-set for maximum working pressure. The safety valve may only be adjusted by REHOBOT or by a workshop authorised by REHOBOT.

## Use

### Start

To pump out the cylinder/tool, press the pump's foot-pedal (Fig. 5, pos. A). The pump will stop and maintain the achieved hydraulic pressure when the pedal is released in the neutral position.

#### Releasing

To release the cylinder/tool, press the release pedal (Fig. 5, pos. B). Hold the pedal down until the cylinder has returned to the desired position.

## Maintenance

To ensure efficient operation and a long service-life, it is important that maintenance is carried out according to approved maintenance procedures. Always make sure that:

- The pump is cleaned and dried prior to storage. A high-pressure washer must NOT be used on the pump.
- Lubricate moving parts. For the lubrication of pneumatic piston and air valve, we recommend silicone grease OKS 1110 or similar.
- Check that there is no external leakage of hydraulic oil.
- Check that the pump has not been subjected to external rough treatment.

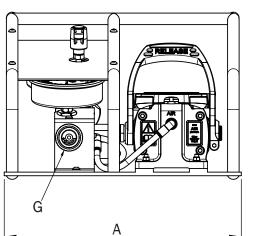
## Service

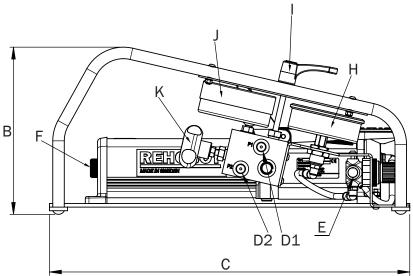
## Filling with oil

Check the oil level before use. Always measure the oil level with the cylinder/tool in the lowest or retracted position. To ensure efficient operation, use a hydraulic oil equivalent to ISO VG 10.

- Stand the pump up with the pneumatic motor lowermost (Fig 6).
- Unscrew the oil filler plug (Fig. 6, pos. A).
- Fill the oil reservoir through the filler hole until the oil reservoir is completely full (1050 cm 3, 64 in<sup>3</sup>).
- Screw the oil filler plug back into place.

For safety reasons, service and repair of this product must be performed by a competent person. If there is the slightest doubt, contact your distributor for information about the nearest authorised workshop.





	٩	E	B C		D*	F	
mm	in	mm	in	mm	in		Ŀ
329	13.0	232	9.13	500	19.7	G1/4"	G1/4"

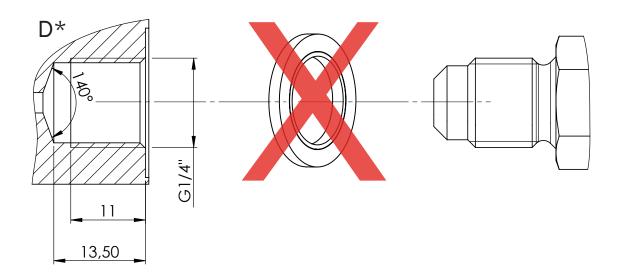
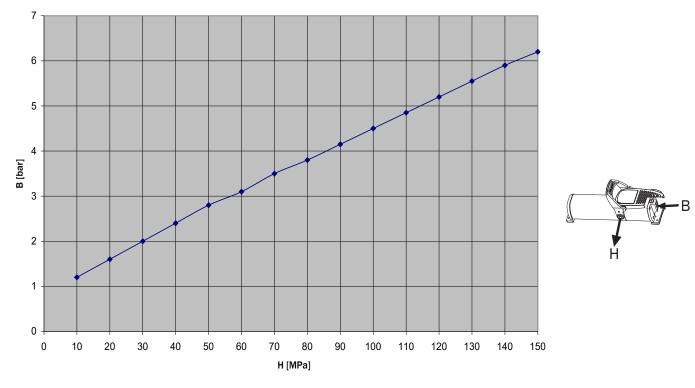
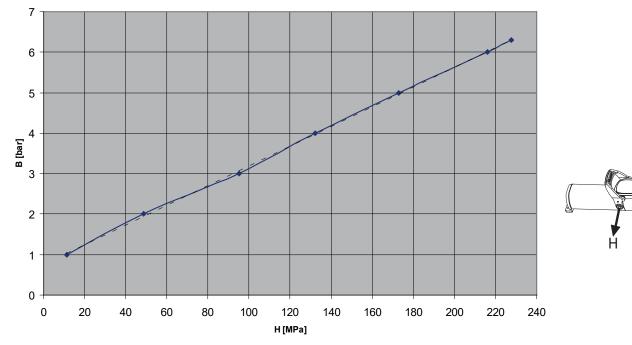


Fig. 1

Erforderligt lufttryck/ Nødvendig lufttrykk/ Påkrævet lufttryk/ Tarvittava ilmanpaine/ Required air pressure/Erforderlicher Luftdruck/ Pression d'air nécessaire/Benodigde luchtdruk/ Pressione dell'aria necessaria/ Presión de aire exigida/ Pressão de ar necessária



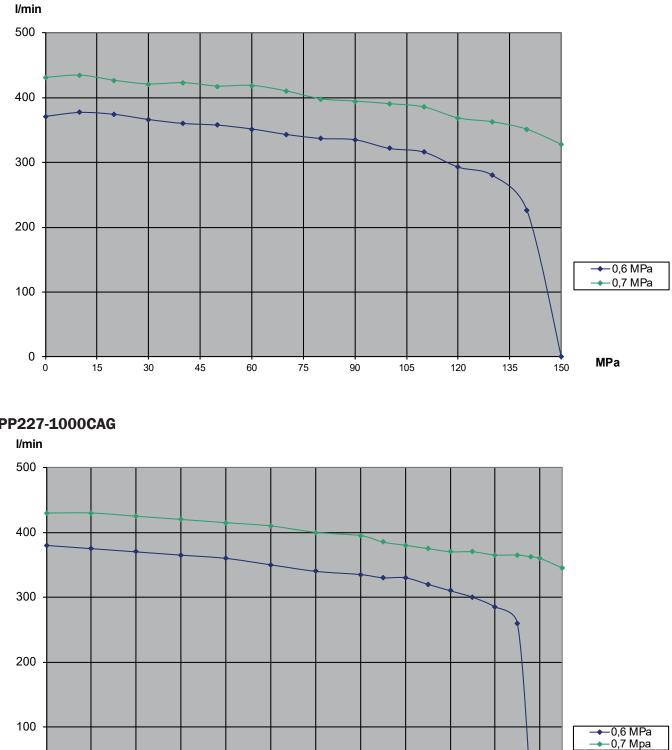
## PP150-1000CAG



# PP227-1000CAG

Fig. 2A

Luftförbrukning/Luftforbruk/Luftforbrug/Ilmankulutus/Air consumption/Luftverbrauch/ Consommation d'air/Luchtverbruik/Consumo d'aria/Consumo de aire/Consumo de ar



## PP150-1000CAG

# PP227-1000CAG

0

0

20

40

60

80

100

120

140

160

180

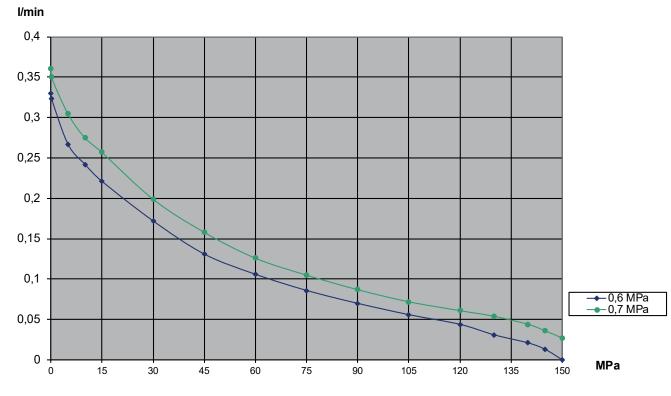
200

220

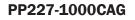
MPa

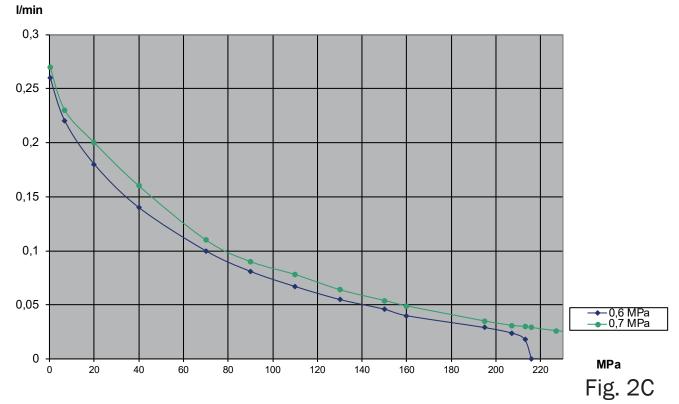
Fig. 2B

Kapacitet/Kapasitet/Kapacitet/Tuotto/Capacity/Kapazität/Capacité/ Capaciteit/Portata/Capacidad/ Capacidade



## PP150-1000CAG





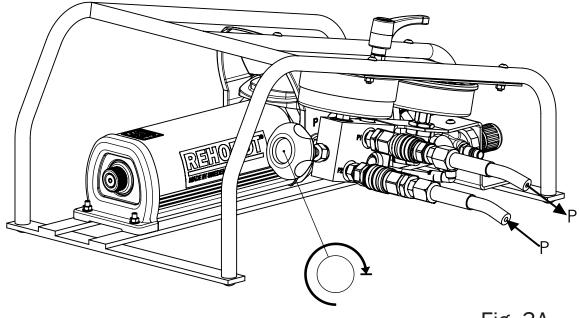


Fig. 3A

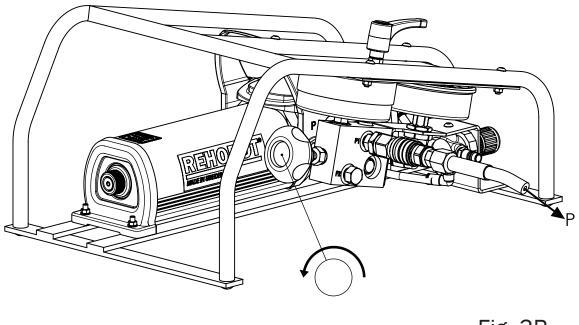


Fig. 3B

