

PPU, PHU Piston Pumps

for progressive grease and oil systems, pneumatically or hydraulically actuated



These piston pumps are available with two different delivery rate ranges.

The pumps can either be flanged directly onto BF-2.5 and BF-5 grease reservoirs or connected to a grease or oil reservoir via a line of tubing (ø12 x1).



The pumps have two pairs of fastening holes for mounting “separate from the reservoir” on the wall of a machine – one pair for mounting on the left and right.

The delivery rate can be set by changing the pump’s stroke. The setting screw is located on the side of the pump opposite the actuating cylinder and is covered by a cap. A built-in rupture disc serves to protect the pump and system.

PPU, PHU Piston Pumps for Progressive Systems, pneumatically or hydraulically actuated

To enhance their functional reliability, the pumps are equipped with two outlet valves behind each other.

Pumps PPU-35 and PHU-35 come with a venting screw **E** between the valves so that the pump chamber can be vented during the first start-up; pumps PPU-5 and PHU-5 come with a venting valve **E***) connected directly to the pump chamber.

Pumps PPU-5 and PHU-5 can be operated with priming pressures ****)** of up to 30 bars. The piston simultaneously performs a valve function, which keeps the lubricant from passing by the piston.

All the pumps have a reset spring for the actuating piston so they can be optionally

- actuated via a $3/2$ -way valve pressurized on one side or
- actuated via a $4/2$ -way valve pressurized on both sides. When grease is used, pressurization of the actuating piston on both sides is recommended.

***)** To vent the pump chamber, actuate venting valve (**E**) until bubble-free lubricant emerges. Push the valve pin in while the pump is actuated (pressure stroke), and release when pump is not under pressure (suction stroke).

****)** That priming pressures dispense with a respective lubricant reservoir in the case of systems with several pumps, since the lubricant can be delivered by a central priming pump under the pressure of the individual pump's suction side (preferred when grease is used).

See important product usage information on the back cover.

PPU-5 / PHU-5



PPU-35 / PHU-35



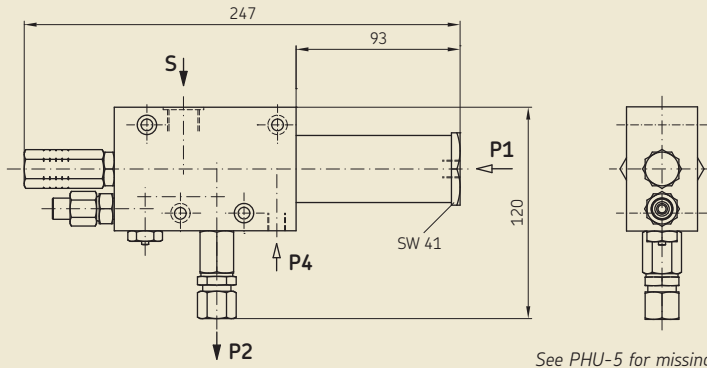
Piston pumps

Order No.	Type of actuation	Delivery rate adjustable [cm ³ /stroke]	Actuating pressure P1 [bar]	Gear-ratio ...i	Priming pressure max. [bar]	Outlet pressure P2 max. [bar]	Lubricant	Drawing
PPU-5 PHU-5	pneumatic hydraulic	0.1 - 0.5	4,5 - 10 20 - 50	1 : 28 1 : 5.4	30	160 ¹⁾	Oil, grease up to NLGI grade 2	1 2
PPU-35 PHU-35	pneumatic hydraulic	0.7 - 3.5	4,5 - 10 20 - 50	1 : 25 1 : 5	30	160 ¹⁾	Oil, grease up to NLGI grade 2	3 4

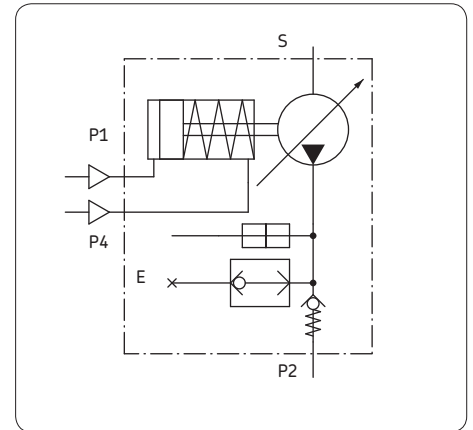
¹⁾ Rupture pressure of normal rupture disc

PPU-5 pneumatically actuated

Drawing 1

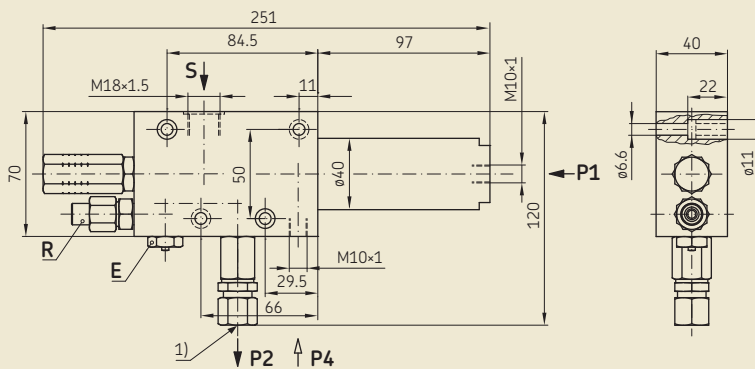


See PHU-5 for missing dimensions.



PHU-5 hydraulically actuated

Drawing 2

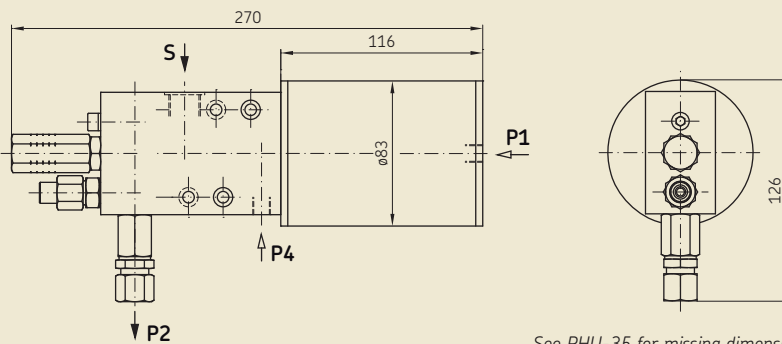


Rupture discs

Order No.	Rupture pressure [bar]	Color	Thickness [mm]
PPU-BS60	60	black	0.152
PPU-BS80	80	green	0.203
PPU-BS100	100	yellow	0.254
PPU-BS120	120	red	0.305
PPU-BS140	140	orange	0.356
PPU-BS160	160	silver	0.406
PPU-BS180	180	pink	0.457

PPU-35 pneumatically actuated

Drawing 3



See PHU-35 for missing dimensions.

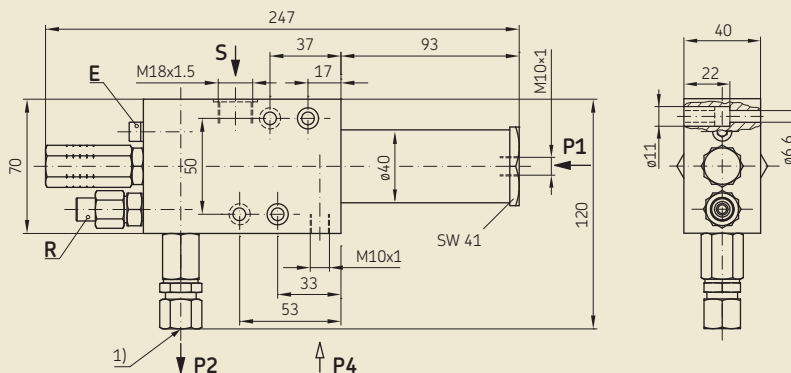
P1 = Pneumatic or hydraulic connection port M10x1
P2 = Mainline connection port (tube-dia.10mm)
P4 = Connection for air compensation for spring chamber
 – when using a 3/2-way valve
 – for pneumatic connection in combination with a 4/2-way valve

S = Suction port M18x1.5
E = Pneumatic connection port M18x1.5
R = Blowout disc with connection for return line (dia 6mm)

¹⁾ Cutting sleeve screw unions acc. to DIN 2353 for tube-dia.10mm

PHU-35 hydraulically actuated

Drawing 4

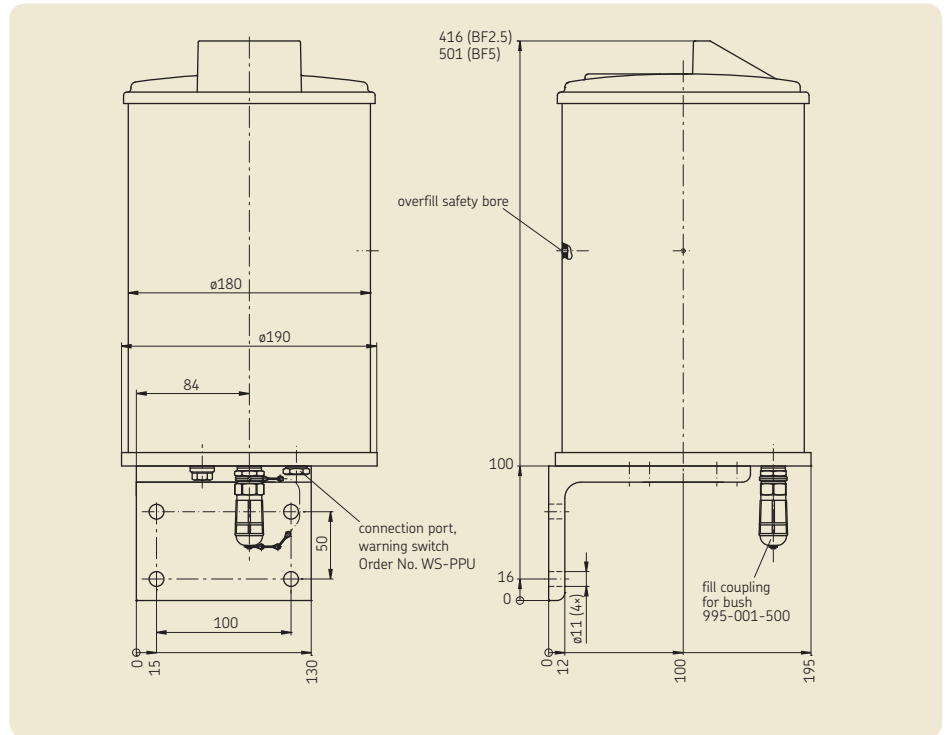


Grease reservoirs BF...

2.5 and 5 kg

These reservoirs, intended exclusively for up to NLGI grade 2 grease, come with the following features:

- Aspring-loaded follower piston presses down on the grease to support the suction.
- The reservoir's casing of acrylic glass makes it easy to see the level of grease
- The reservoir rests on a stable angle iron and is designed for wall mounting.
- Pumps PPU-5, PHU-5, PPU-35, PHU-35 can be flanged onto the bottom of the reservoir with an intermediate plate.
- Optionally, the pumps can also be set up separately from the reservoir.
A suction-tubing port is provided for in the reservoir's bottom for this purpose. Provide for M18x1.5 threaded hole.



Use connection fittings with cutting-sleeve screw unions to DIN 2353.

Grease topped up via filler coupling port **F**.

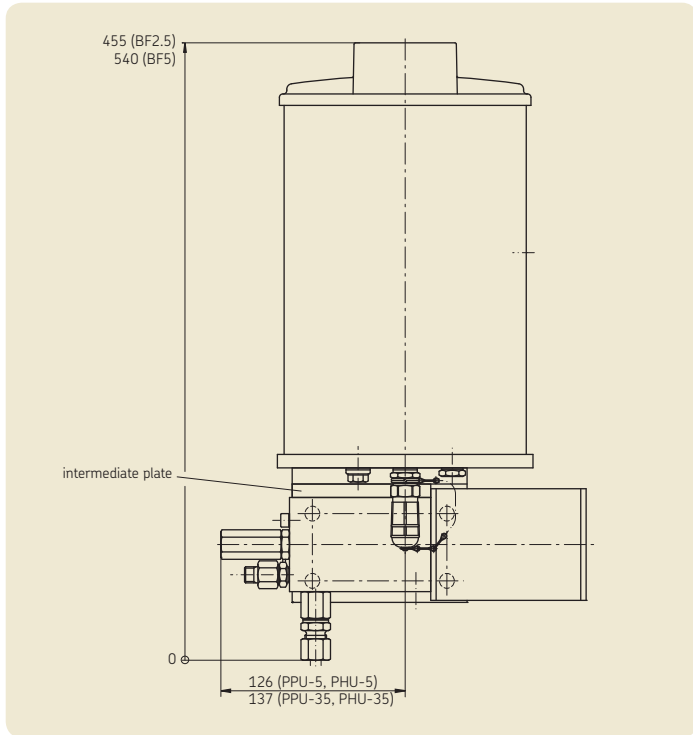
Coupling socket,
order No. 995-001-500

Grease topping-up pump,
order No. 169-000-004

Grease reservoirs

Order No.	Reservoir capacity [kg]	with warning switch for critical level	Order No.
BF2.5	2.5		BF2.5W
BF5	5		BF5W

Piston pump with reservoir, complete



Intermediate plate

to screw piston pump onto grease reservoir BF..

Order No.	for pump models
PPU-5FL	PPU-5, PHU-5
PPU-35FL	PPU-35, PHU-35

When "piston pump with reservoir, complete" is ordered, the intermediate plate is included in the delivery.

Order example for a piston pump, complete with reservoir

Pump model _____ **PPU - 35 - 2.5 W**
 Pump size _____
 Reservoir size _____
 with warning switch for critical lubricant level _____

Order No. 1-0107-5-EN

Subject to change without notice! (07/2014)

Important product usage information

All products from SKF may be used only for their intended purpose as described in this brochure and in any instructions. If operating instructions are supplied with the products, they must be read and followed.

Not all lubricants are suitable for use in centralized lubrication systems. SKF does offer an inspection service to test customer supplied lubricant to determine if it can be used in a centralized system. SKF lubrication systems or their components are not approved for use with gases, liquefied gases, pressurized gases in solution and fluids with a vapor pressure exceeding normal atmospheric pressure (1013 mbars) by more than 0.5 bar at their maximum permissible temperature.

Hazardous materials of any kind, especially the materials classified as hazardous by European Community Directive EC 67/548/EEC, Article 2, Par. 2, may only be used to fill SKF centralized lubrication systems and components and delivered and/or distributed with the same after consulting with and receiving written approval from SKF.

Further brochures

1-9201-EN Transport of Lubricants in Centralized Lubrication Systems

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