## **Grease Pump Units**

# for progressive and multiline systems, manually, pneumatically or hydraulically actuated







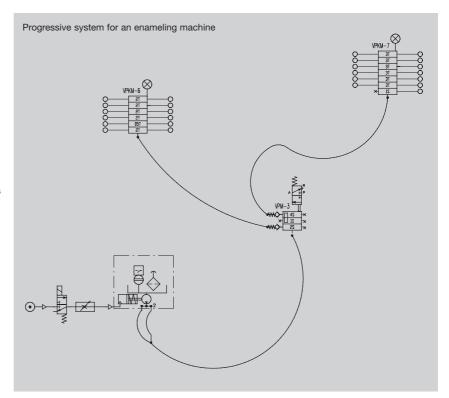
Single- and dual-circuit piston pumps are designed for the operation of central lubrication systems with progressive feeders on small and medium-size machines and equipment.

The follower piston employed under atmos- pheric pressure in the lubricant reservoirs makes it possible to use grease up to NLGI grade 2 at temperatures ranging from +10 °C to +60 °C.

Please note! At temperatures below +10°C it is necessary to use pumps equipped with follower pistons pressurized by compressed air, PFP-23-2-S1 and PFP-23-22-S1 on page 4.

#### **Practical example**

Due to the degree of explosion-proofing it must be remembered that no current-conducting components may be used in the area of the installation. Signaling equipment like float switches in the pumps and cycle switches on master progressive feeders are pneumatic actuators. The air signal emitted is converted to an electrical signal outside the explosion-hazard area.







#### PF-23-2, PF-23-22 with follower pistons at atmospheric pressure

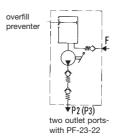
Delivery rate (ccm)

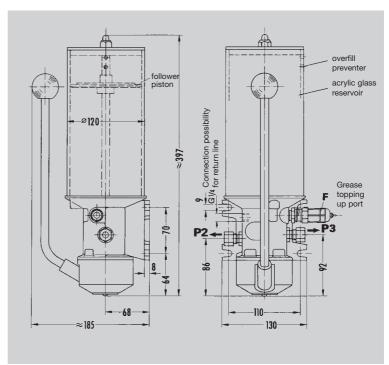
per port/stroke

#### manually actuated

Order No.	outlet ports	P2	P3
PF-23-2	1	2.	5 *
PF-23-22	2	1.25 **	1.25 **
Reservoir cap	pacity		1.5 kg
Reservoir ma	terial	a	crylic glass
Operating pre	essure with		
manual force	≈ 20 kg	ma	x. 100 bars
Lubricant	gr	ease up to NL	.GI grade 2
Temperature	range	+10	to +60 °C
Mounting pos	sition		vertical

Number of





- optional with P2 or P3 (one outlet port closed by plug)
- \*\* both outlet ports have to be used.

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

P2, P3 = main lines to system (ø 10 tubing)

Grease topped up via connection port F

Order No. for coupling socket: 995-001-500
Order No. for grease topping-up pump: 169-000-004

#### Notice!

All products from VOGEL may be used only for their intended purpose. If operating instructions are supplied together with the products, the provisions and information therein of specific relevance to the equipment must be observed as well.

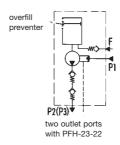
In particular, we call your attention to the fact that hazardous materials of any kind, especially the materials classified as hazardous by EC Directive 67/548/EEC, Article 2, Par. 2, may only be filled into VOGEL central lubrication systems and components and delivered and/or distributed with the same after consultation with and written approval from VOGEL.

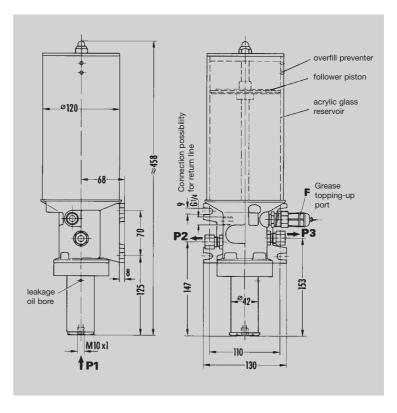
All products manufactured by VOGEL are not approved for use in conjunction with gases, liquefied gases, pressurized gases in solution and fluids with a vapor pressure exceeding normal atmospheric pressure (1013 mbars) by more than 0.5 bar at their maximum permissible temperature.

### PFH-23-.., PFP-23-.. with follower pistons at atmospheric pressure

#### hydraulically actuated

		Delivery rate (ccm)	
	Number of outlet ports	per port/stroke	
Order No.		P2	P3
PFH-23-2	1	2.5 *	
PFH-23-22	2	1.25 **	1.25 **
Reservoir ca	pacity		1.5 kg
Reservoir ma	aterial	a	crvlic glass
	essure as a funct		, 0
	essure P1		
	ston with resettir		to oo baro
Area ratio: fo	rce/lubrication		7:1
Lubricant	gr	ease up to NL	GI grade 2
	range		-
•	sition		
mounting po			vortioui





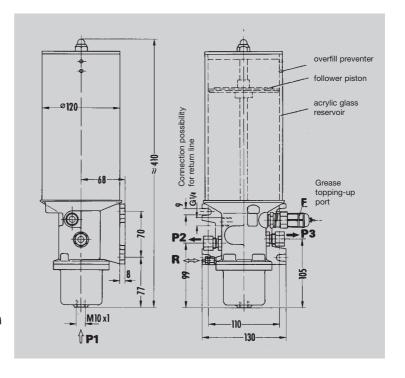
#### pneumatically actuated

	Number of	Delivery rate (ccm) per port/stroke	
Order No.	outlet ports	<b>P2</b>	P3
PFP-23-2	1	2.5 *	
PFP-23-22	2	1.25 **	1.25 **
Reservoir ma Operating pr		a	crylic glass
Actuating pro	of the air presso essure for pump ston with resettir	6	
Lubricant Temperature	orce/lubrication gro range sition	ease up to NL +10 °C	GI grade 2 to +60 °C

optional with P2 or P3 (one outlet port closed by plug)

Use connection fittings with cutting-sleeve screw unions to DIN 2353.  $\label{eq:connection} % \begin{subarray}{ll} \end{subarray} % \begin{suba$ 

two outlet ports with PFP-23-22



P1 = pressurized oil or compressed-air port
P2, P3 = main line to system (ø 10 tube)
R = air compensation line

Grease topped up via port  $\, {f F} \,$ 

Order No. for coupling socket: 995-001-500
Order No. for grease topping-up pump: 169-000-004

 $<sup>^{\</sup>star\star}$  both outlet ports have to be used.

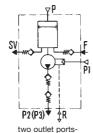
#### PFP-23-2-S1, PFP-23-22-S1 with piston pumps pressurized by compressed air

#### pneumatically actuated

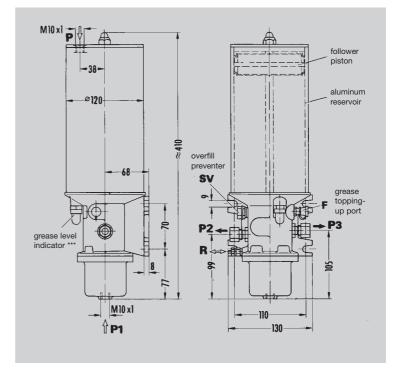
These pumps have to be used at temperatures below +10 °C.

Temperature range: - 25 to + 80 °C

	Number	<b>Delivery rate</b> (ccm) per port/stroke	
	of outlet		
Order No.	ports	P2	P3
PFP-23-2-S1	1	2.	5 *
PFP-23-22-S1	2	1.25 **	1.25 **
Reservoir capa	city		1.5 kg
Reservoir mate	•		-
Operating pres	sure		Ü
as a function of	f the air press	ure ma:	x. 190 bars
Actuating press	sure for		
pump and follo	wer piston		6-10 bars
Actuating pisto	n with resettir	ng spring	
Area ratio: force	e/lubrication		20:1
Lubricant			
Temperature ra	•	•	-
Mounting posit			
would thing posit	1011	. vertical and	i nonzoniai



with PFP-23-22-



- optional with P2 or P3 (one outlet port closed by plug)
- both outlet ports have to be used.
- pin protrudes in sight glass when grease at minimum level. An electric warning switch can be used in addition.

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

= line from compressed-air network to load follower piston (max. 10 bars)

P1 = compressed-air port

P2, P3 = main line to system (ø 10 tubing) R

= air compensation line

= grease topping-up port

sv = overfill preventer

Grease topped up via conical head nipple DIN 71412-AM10x1

Topping-up pump: Customary low-pressure grease gun, pneumatically actuated, with button-head fitting for conical head nipple DIN 71412

#### Warning switch

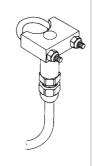
Supplementary unit for emission of an electrical signal when grease drops to minimum level.

Can be retrofitted to pumps PFP-23-2-S1 and PFP-23-22-S1

#### Sensor section

Reed contact load ..... 12 W, 18 VA Switching voltage . . . . max. 220 V AC/DC Switching current ..... max 0.8 A AC/DC 2-core cable ..... length  $\approx 5 \text{ m}$ 

Order No. WS298



A brand of the SKF Group

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#### Leaflet information

1-0107-1-US Progressive Feeders

1-0107-2-US Grease Pump Units (models KFA, KFG, KFGS)

1-4002-1-US Motor-driven Pump Unit (model GSJB)

1-0107-5-US Piston Pumps (models PPU, PHU)

1-0107-6-US Accessories for Progressive Systems

DSK 2-005-00-US Grease-lubricating Pump (model FB)

DSK 2-008-00-US Grease-lubricating Pump (model FF)

DSK 0-003-02 E Modular Feeder PSG 2

DSK 0-003-03 E Modular Feeder PSG 3

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