Block feeder SPVS

Used in oil or grease lubrication systems

Block feeders of the SPVS series are used in grease and oil total loss lubrication systems. They are used to either increase the number of outlets of a lubricating pump

or to portion the volume flow and deliver it to the lube points, without any influence on the operating system pressure.

Fields of application are, for example, metal-forming machines, diesel engines and packaging machines.

Advantages

- Very compact design

- Robust and good value

- Universally usable for grease and oil

- Central function monitoring with electrical stroke monitoring device possible

- Defined volume portion per cycle and outlet of:
  - 0,32 cm^3 with SPVS25
  - 0,16 cm^3 with SPVS1

- Accurate lubricant distribution, even with back pressure at the lubrication points, due to fitted pistons.

- The feeders are available with either 2 or 4 outlets

- Available in metric or inch and steel or brass design

SKF

Block feeder SPVS, basic design

for oil or grease, without attachments
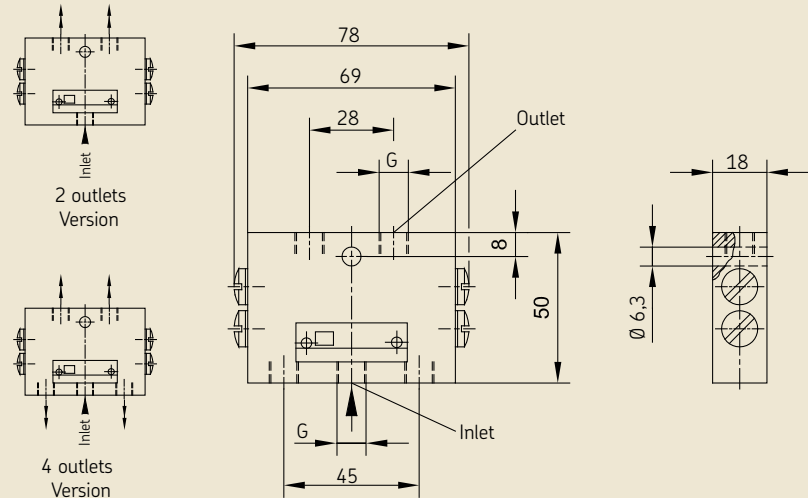
Note!
Oil and grease of different viscosity or penetration can be used.
Their operating limits concerning volume flow and pipe diameter, have to be taken into consideration. Inlet and outlet couplings (see page 5) have to be ordered seperately.

Fig. 6 Block feeder SPVS, basic design

2 outlets Version

4 outlets Version

Technical data

Style	hydraulically controlled
Mounting position	discretionary
Quantity of outlets.	2, 4
Screw connection	I/O: M12x1 or G1/8"
Housing material	with M12x1 = CuZn, with G1/8" = St
Ambient temperature range	-10 to +100 °C
Hydraulic	
Operating pressure max.:	100 bar
Lubricant temperature range	-10 to +100 °C
Max. permissible pressure difference	
of any two outlets	oil 20 bar, grease 30 bar
Max volume flow inlet.	45 cm^3/min
Volume per outlet and cycle	0,32 cm^3 at SPVS25
. . . .	0,16 cm^3 at SPVS1
Lubricant	Mineral oils, greases based on mineral oil, environmentally friendly and synthetic oils and greases
Operating viscosity	> 12 mm^2/s
Worked penetration	≥ 265 × 0.1 mm (up to NLGI grade 2)

SPVS Basic design

Outlets	Thread	monitoring switch	Wight [kg]	Order code	Order no.
2	G 1/8	without	0.45	SPVS25-2-ST-G1/8Z	44-2578-6321
4	G 1/8	without	0.45	SPVS1-4-ST-G1/8Z	44-2578-6323
2	M 12x1	without	0.46	SPVS25S1Z-2-MS-M12x1	44-2578-6110
4	M 12x1	without	0.46	SPVS1S9Z-4-MS-M12x1	44-2578-6201

Block feeder SPVS with monitoring switch
for oil und grease

Fig. 7 Block feeder SPVS with monitoting switch
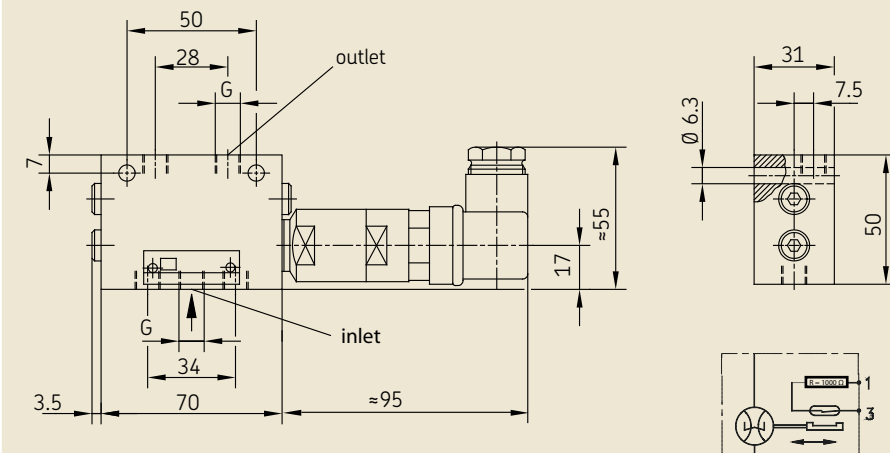
Technical data

Block feeder SPVS
For further technical data, see "SPVS Basic Design", page 3
Thread connection . . . . Inlet/outlet: G1/8"
Housing material . . . . GGC 25

Electric

Ambient and lubricant temperature range	–15 to +70 °C
one electrical impuls (Cyclus)	to correspond to 0,64 cm^3
Electrical connection	Plug / DIN 43650
Rated voltage U_i.	30 V
load current I_i	0,02 A
Output function	NO (normaly open)
Switching element/contact type	reed contact
Type of protection	IP 65 [1])

1) Available in ATEX design, on demand.

					SPVS with monitoring switch
Outlets	Thread	Monitoring switch	Wight [kg]	Order code	**Order no.**
2	G 1/8	electrical	0.60	SPVS25-2-A-G1/8Z	**44-2578-6360**
4	G 1/8	electrical	0.65	SPVS1-4-A-G1/8Z	**44-2578-6350**

Accessories for Block feeder SPVS

Overview progressive feeders

Accessoroies	
Inlet couplings	
for feeders with connecting threads M12x1	Order no.
Pipe ø 4, Conical nipple	44-0405-6532
Socket union	44-0159-7101
Pipe ø 6, Conical nipple	44-0405-6531
Socket union	44-0159-7102
Pipe ø 8, Inlet coupling	24-0159-6010
Pipe ø 10, Screwed coupling	24-0159-6011
for feeder with connecting threads R1/8"	
	Order no.
Pipe ø 4, Conical nipple	44-0405-2003
Socket union	44-0709-2040
Straight coupling 4_LLR	404-403W
Elbow coupling WE 4_LLR	404-405W
Swivelling screw fitting SWVE 4-LLR	96-7004-0058
Pipe ø 6, Conical nipple	406-001
Socket union	44-0709-2041
Straight coupling GE 6_LLR	406-423W
Elbow coupling WE 6_LLR	96-6106-0058
Swivelling screw fitting SWVE 6-LLR	96-7006-0058
Pipe ø 8, **Straight** coupling GE 8_LLR	408-423W
Elbow coupling WE 8_LLR	96-6108-0058
Swivelling screw fitting SWVE 8-LLR	96-7008-0058

Progressive feeders

Overview designs and sizes

Installation conical nipple

How they operate

The lubricant delivered by the pump passes through the inlet port into the feeder and flows through the light-colored ducts into the individual outlet chambers

The piston presses the lubricant out of the respective outlet chamber through the dark colored ducts to the individual outlet ports.

Figure 1

The lubricant flows to the upper left outlet chamber and shoves the piston to the right. As a result, the lubricant is pressed out of the upper right outlet chamber to outlet port 4, and the balls are displaced in such a way that they block the lower piston.

Figure 2

The lubricant flows to the lower left outlet chamber and shoves the piston to the right. As a result, the lubricant is pressed out of the lower right outlet chamber to outlet port 1, and the balls are displaced in such a way that they block the upper piston.

Figure 3

The lubricant flows to the upper right outlet chamber and shoves the piston to the left. As a result, the lubricant is pressed out of the upper left outlet chamber to outlet port 3, and the balls are displaced in such a way that they block the lower piston.

Figure 4

The lubricant flows to the lower right outlet chamber and shoves the piston to the left. As a result, the lubricant is pressed out of the lower left outlet chamber to outlet port 2, and the balls are displaced in such a way that they block the upper piston (cf.Fig.5).

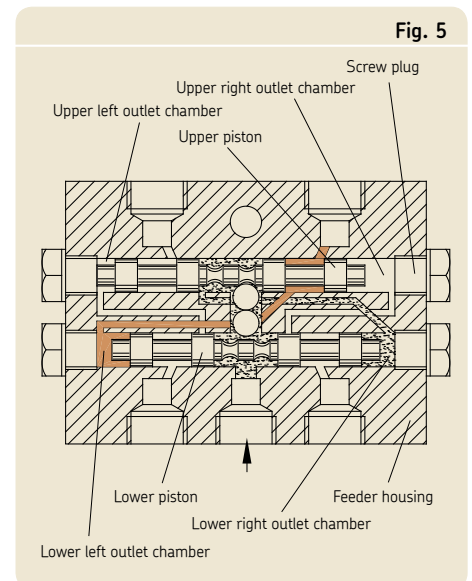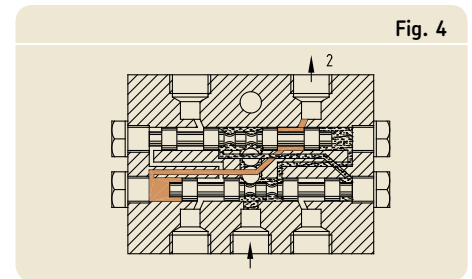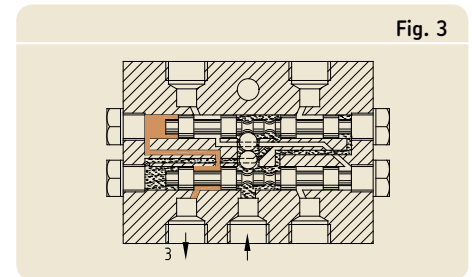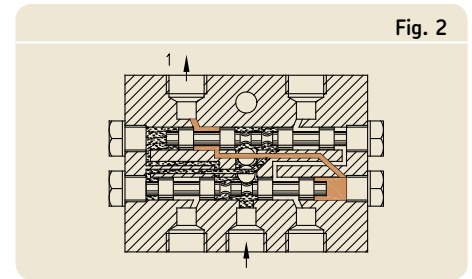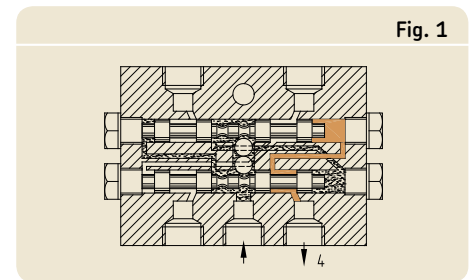This sequence is constantly repeated on a forced basis (progressive).

The advantage of sequential phase control is that if just one single outlet port is closed, the entire feeder is blocked.

Figure 5

The upper piston is held fast by the two balls until the lower piston has reach its end position on the left. As a result, a forced and uniform apportionment of the delivered lubricant is achieved.

Please note: In the case of feeders with two outlet ports, ports 1 and 3 as well as 2 and 4 are internally combined; only ports 1 and 2 are effective.

The mode of operation is identical for feeders with 2 or 4 outlet ports.

See important product usage information on the back cover.

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Screw plug
Upper right outlet chamber
Upper left outlet chamber
Upper piston
Lower piston
Feeder housing
Lower right outlet chamber
Lower left outlet chamber

Notes

Notes

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.

Brochure note
1-3010-EN Progressive modular feeder PSG
1-3015-EN Progressive sectional feederVPK
1-3016-EN Progressive sectional feeder VP
1-3017-EN Progressive block feeder VPB
1-3029-EN Progressive block feeder SPVS

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