

LUBRICATION PUMP

ANC 20 P1

APPLICATION

The pneumatically driven lubrication pump ANC 20 P1 is used as a source of pressurized lubricant for lubrication systems equipped with progressive distributors. Its use is recommended for lubrication circuits comprising up to 100 lubricated points. It can also be used as a lubrication pump for a direct supply of lubricant to exposed lubricated points of machines, engineering technology and equipment. It can also be used as a source of pressurized lubricant for central lubrication system circuits of lorries and other mobile machines and equipment.

The lubrication pump ANC 20 P1 is normally supplied with a transparent lubricant tank made of organic glass with a volume of 1 litre.

DESCRIPTION

Basic part of the pneumatic lubrication pump is the pneumatic pump (1), to which the lubricant tank (2) is attached. Pressurized air is delivered into the pneumatic pump cylinder from a three-way electropneumatic valve (3) by the means of pipe. Connector (10) with a bayonet thread is mounted to this valve. In the lower part of the pump a filter is mounted (5). This filter protects the pump cylinder from impurities and dirt. Lubricant tank (2) is filled through self-closing filling valve (7) with a filling end piece (8). The filling valve is protected from impurities by a cap. Lubricant gets from the lubricant tank (2) to the working cylinder (12) through a connecting hole. Piston pressed by a spring effects the lubricant in a tank and by that supports efficient filling of working cylinder at the induction cycle. The tank is made out of transparent drum which allows a visual control of the tank filling. Lubricant outlet pipe union (6) is placed on the housing side. Lubrication pumps are fitted with a mounting plate (19) for its mounting to the machine or equipment panel.

OPERATION

After opening the air input by electropneumatic valve the pressurized air flows into the air cylinder area (13) and pneumatic piston (14) connected with working piston of the pump changes its position all the way to the rubber stop ring (16). Working piston pushes the dose of lubricant from working cylinder (12) through ball valve (18) into the lubrication pump outlet (6). Air from the area between the air piston and pump housing (11) goes away through the filter (5). After closing pressurized air inlet the spring (15) returns air piston along with working piston into its original position. At that moment lubricant from the tank (2) is induced into the area of working cylinder (12). At another supply of pressurized air the whole cycle repeats and another nominal dose is supplied. Lubricant gets into the pump working cylinder under pressure generated in the tank by a piston placed under a spring leaned against the tank cover.

Working cycle of the lubrication pump, i.e. opening and closing of the pressurized air inlet by electropneumatic valve is controlled by an electric pulse from external time control, eventually from lubricated machine or equipment. The recommended control and monitoring timer is the timer EMA 194A/S.

SERVICE AND MAINTENANCE

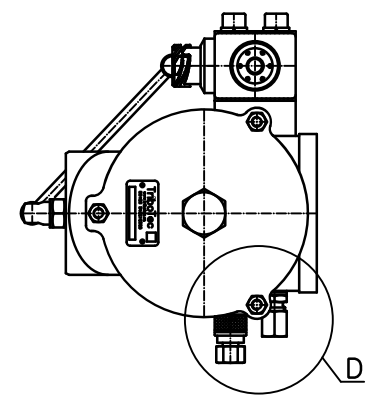
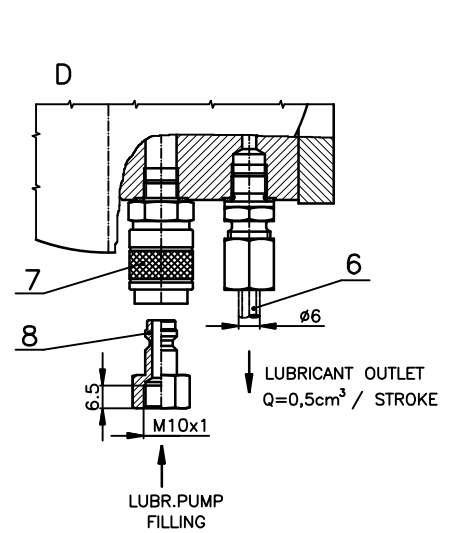
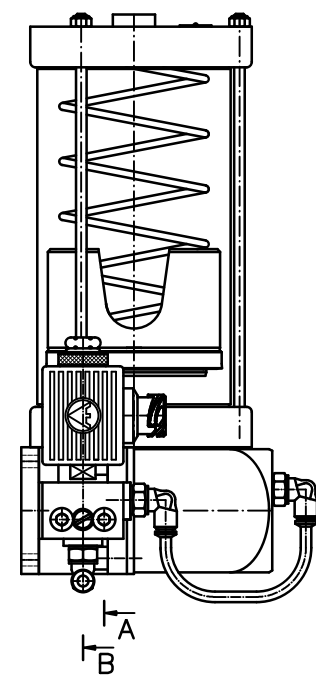
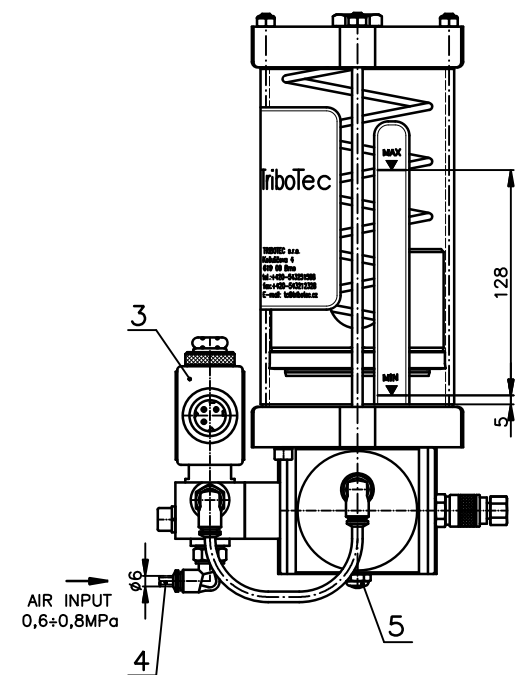
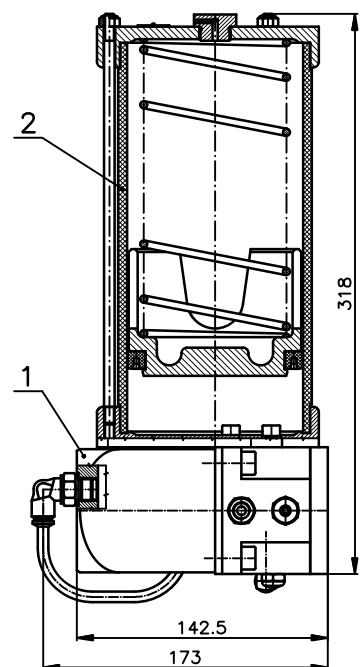
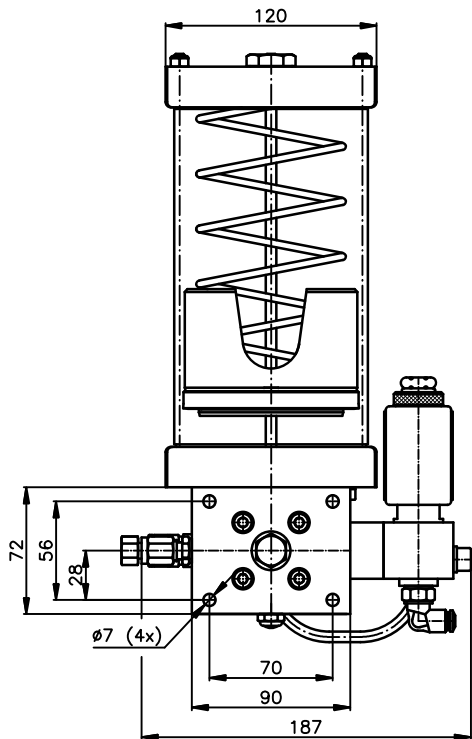
The lubrication pump can be mounted in any position by means of four M6 anchor bolts. Connect the pump to the pressure air distribution system to the inlet (4) by a nylon pipe, and electrically connect the electropneumatic valve through the connector (10). Put the lubrication pump into an operation and monitor the regularity of the lubricant flow out from the outlet. If the lubricant flows out of the outlet regularly and without air bubbles, connect piping of the lubrication circuit to the outlet (6). Lubricant tank gets filled through the filling valve (7) with an assigned lubricant up to the line of the label placed on the lubricant tank. If too much air gets to the tank (2) at the filling, it is necessary to vent the tank through vent screw (20).

To perfectly fill the tank without any air bubbles, the use of filling valve (7) is recommended. For this method even a simple hand-operated piston filling gun can be used. Efficient function of the lubrication pump is qualified by an absence of air bubbles in the tank.

We recommend to dispose the pressurized air supplied to the air cylinder of moisture and to oil the air. If the lubrication pump is to operate in fairly impure environment, it is necessary to control the filter (5) patency. The pump does not need any further maintenance except for the replenishment of the lubricant into the tank.

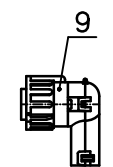
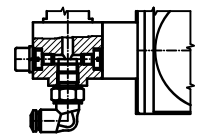
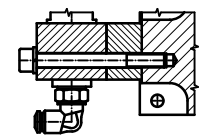
TECHNICAL DATA

Maximum pressure	210 bar	
Working pressure	160 bar	
Nominal supplied quantity	0.5 cm ³ /stroke/outlet	
Lubricant tank capacity	1 dm ³	
Number of outlets	1	
Outlet pipe union	M10x1, for tube outside dia. 6 mm	
Air pressure	6 to 8 bar	
Pressure air consumption	70 cm ³ /stroke	
Pressure air inlet pipe union	M12x1.5 mm, for tube outside dia. 6 mm	
Lubricant	grease	max. NLGI-2
	oil	min. 50 mm ² /sec.
EM pneumatic valve connector	4-pin DIN 72585	
EM pneumatic valve voltage	24V DC	
EM pneumatic valve current	0.45A	
Connector protection	IP67	
Working environment temperature	-20 to 80°C	
Weight	6.2 kg	
Assembly position	vertical	

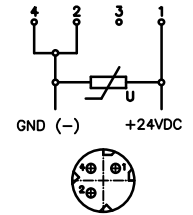


A-A

B-B

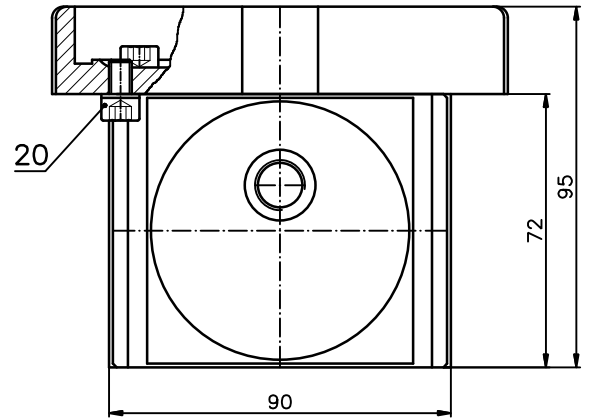
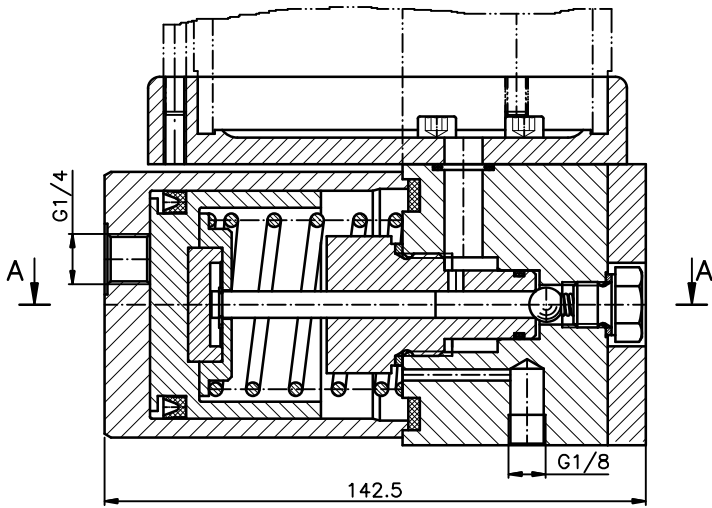


ELECTRIC WIRING SCHEMA

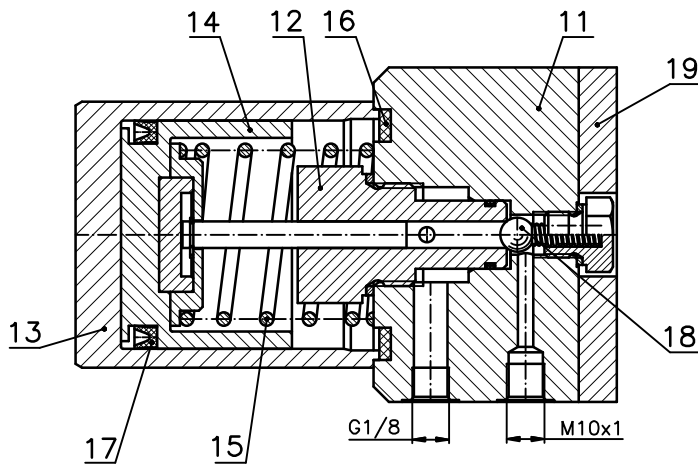


Pos	Name
1	Pump
2	Lubricant tank (PMMA)
3	Electropneumatic valve
4	Pressure air supply
5	Silencing device
6	Outlet pipe union
7	Filling valve
8	Filling socket
9	Connector

Name	LUBRICATION PUMP		Tribotec s.r.o. Košuličova 4 Brno www.tribotec.cz +420 543 425 611
Type	ANC 20 P1		
Code	9 45 0675		



A-A



Pos	Name
11	Pump housing
12	Working cylinder with piston
13	Air cylinder
14	Air piston
15	Spring
16	Rubber stop ring
17	Sleeve
18	Ball valve
19	Mouting plate
20	Vent screw

Name	PUMP	
Type	ANC 20 P1	
Code	8 45 0671	
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