LUBRICATION PUMP

VEG

APPLICATION

Lubrication pump VEG is used as a source of pressure-lubricant for multi-line central lubrication systems. Due to a variable number of outlets and in combination with progressive distributors, the lubrication pumps are also recommended for application in large circuits, i.e. for circuits of several tens of lubricated points. Lubrication pumps VEG are usually used for permanent and regular lubrication of various machines, mechanical technologies and equipment.

VEG lubricators are available with a lubricant reservoir of 6, 8, 12, 15, 30 or 63 litres. The reservoir is made of sheet steel. The number of outlets can be selected from 1 to 20. Nominal output is 3 cm^3/min./outlet with a possibility of continuous regulation from 1.2 up to 3 cm^3/min./outlet. Next variant is pump with number of outlets from 1 up to 12. Nominal output is 14.5 cm^3/min./outlet with a possibility of continuous regulation from 0 up to 14.5 cm^3/min./outlet. The possibility of regulating the dose of lubricant is also used electric motor with frequency converter, which converts the nominal speed of the electric motor and thus the volume of the delivered quantity of lubricant. Standard electric motors are 230/400V, 415V and 500V for other voltages consult the supplier.

DESCRIPTION

The lubrication pump consists of an iron body and built-in worm gear which can be fitted with dosing and working units. One outlet of a pipe union of 10mm outside dia. runs out of each unit. The electric motor and the lubricant reservoir are flange-mounted on the body. In order to improve suction of plastic lubricant into dosing units, the lubricator is provided with a tilting scraper which automatically follows direction of rotation (right-left). The lubricant reservoir can be provided with an alarm for max. and min. level of oil or grease. Reservoirs of volume 6 l are not normally equipped with the alarm. The lubricator body is provided with a footing containing 10.5 mm holes used to attach the lubricator to the base and filling hole M16x1.5 mm for refilling of lubricant.

OPERATION

After switching the electric motor on (regardless of rotation direction), the eccentric shaft, driven from the worm shaft, carries pistons of the dosing units by means of a couple of rings. The units are positioned in two lines along the lubricator circumference. Suction takes place when the piston moves towards the centre of axis of the eccentric shaft; in the opposite direction the lubricant is discharged. Then the lubricant forces off the control piston and proceeds through the one-way valve to the outlet. The position of the control piston can be adjusted by means of the control nut. To do it, remove the plug in the rear of dosing unit. Screw the control nut in to set the minimum dose and out to set the maximum dose (left-right). Other values can be adjusted by turning the nut one quarter turn. The positions are detented. The alarm of lubricant level can be used for automatic refilling of lubricator through filling hole M16x1.5 mm in the pump base.

SERVICE AND MAINTENANCE

The lubricator is installed in horizontal position by means of anchoring holes of diameter 10.5 mm. The electric motor is attached to the power supply and, if needed, the electric circuit to level indicator according to existing standards.

Fill the lubricator with prescribed lubricant, set it into operation and check the lubricator for smooth running regardless of the electric motor direction of rotation.
Lubricant that remained in the lubricator after pressure test is discharged. When the lubricant flows out smoothly and without air bubbles, close the outlet by attaching it to the lubricating circuit piping. To adjust the amount of lubricant supplied, apply hexagonal wrench. When screwing in the control nut – the amount decreases, when screwing it out, the amount increases. The lubricator does not require any maintenance except for topping up the lubricant.
The lubricant should be topped up so as to have enough lubricant in the lubricator body. If this condition is not met, the proper operation of the lubricator cannot be guaranteed, especially nominal doses, because of non-homogeneity of lubricant and air leakage into the dosing and working unit.
The lubricant should be topped up through the filling valve hole located on the lubricator body. The lubricant can also be topped up directly after removing the reservoir cover. In such a case check the quality of the lubricant. Check piping for leakage once a month.

TECHNICAL DATA

Maximum working pressure		300 bar
Working pressure		250 bar
Nominal output		3 cm^3/min./outlet 14.5 cm^3/min./outlet
Regulating range of nominal dose		1.2 to 3 cm^3/min. 0 to 14.5 cm^3/min.
Lubricant reservoir capacity		6, 8, 12, 15, 30, 63 dm^3
Number of outlets		1 to 20
Outlet pipe union		1 - 20 outlet M16x1.5 mm, for tube outside dia. 10 mm (1.2 to 3 cm^3/min.) 1 - 12 outlet G1/4", for tube outside dia. 10 mm (0 to 14.5 cm^3/min.)
Electric motor		230/400V, 50Hz, 0.37kW 500V, 50Hz, 0.37kW 415V, 50Hz, 0.37kW
Alarm nominal voltage		24V DC, 2A
Lubricant	grease	max. NLGI-2
	oil	min. 50 mm^2/sec.
Temperature of working environment		-25 to 40°C
Weight		35 kg (depending on execution)

NOTE:
The outlets are usually fitted with dosing units in clockwise direction to ensure the smooth running of the lubricator. If special outlets are required, it is necessary to send to the supplier a list of outlets which are to be fitted with dosing units (see the drawing).If required, the standard model of lubrication pump VEG can be fitted with a safety valve allowing the setting of the operating pressure. The safety valve also serves as a protecting element preventing the lubricant pressure from exceeding the operating pressure in the lubricating circuit as set with the regulating screw. The set pressure value can be checked visually on the connected pressure gauge. In this case it is necessary to specify in an order which outlets (working units) are to be fitted with safety valve and pressure gauge. Apply if only selected outlets are to be furnished.
The smallest size of standard reservoir of the VEG lubrication pump is 6 dm^3. If minimum level signalling is required, the installed dimensions and delivery of a lubrication pump with an 8 dm^3 reservoir must be taken into account.

TYPE IDENTIFICATION KEY

Model code	VEG	a	b	x	-	c	-	d	e	f	-	g
Code example	VEG	2	09	1	-	7	-	1	0	0	-	0

Type designation

type of lubrication pump ---------- VEG

Lubricant reservoir capacity

6 dm^3 ---------- 1
12 dm^3 ---------- 2
30 dm^3 ---------- 3
63 dm^3 ---------- 4
8 dm^3 ---------- 5
15 dm^3 ---------- 6

Number of outlets (working units)

1 ---------- 01
2 ---------- 02
3 ---------- 03
...
20 ---------- 20

Lubricant output

3 cm^3/min. (1 - 20 outlets) ---------- 1
14.5 cm^3/min. (1 - 12 outlets) ---------- 2

Lubricant level signalling

without signalling ---------- 0
signalling MIN a MAX - oil ---------- 3
signalling MIN - oil ---------- 4
signalling MIN a MAX - grease (ultrasonic) ---------- 7
another variant (upon request) ---------- 9

Operating voltage of electric motor

230/400V, 50Hz ---------- 1
500V, 50Hz ---------- 2
415V, 50Hz ---------- 4
another variant (upon request) ---------- 9

Working environment*

standard ---------- 0
MWDr/Wda ---------- 1

Type of drive**

standard ---------- 0
non-explosive ---------- 1

Safety valve with pressure gauge

none ---------- 0
all ---------- 1
selected outlets (specification in order) ---------- 2

Explanatory note to type identification key:

* Standard working environment – code – 0 - The maximum absolute humidity 30 g of water per 1 m^3 air.

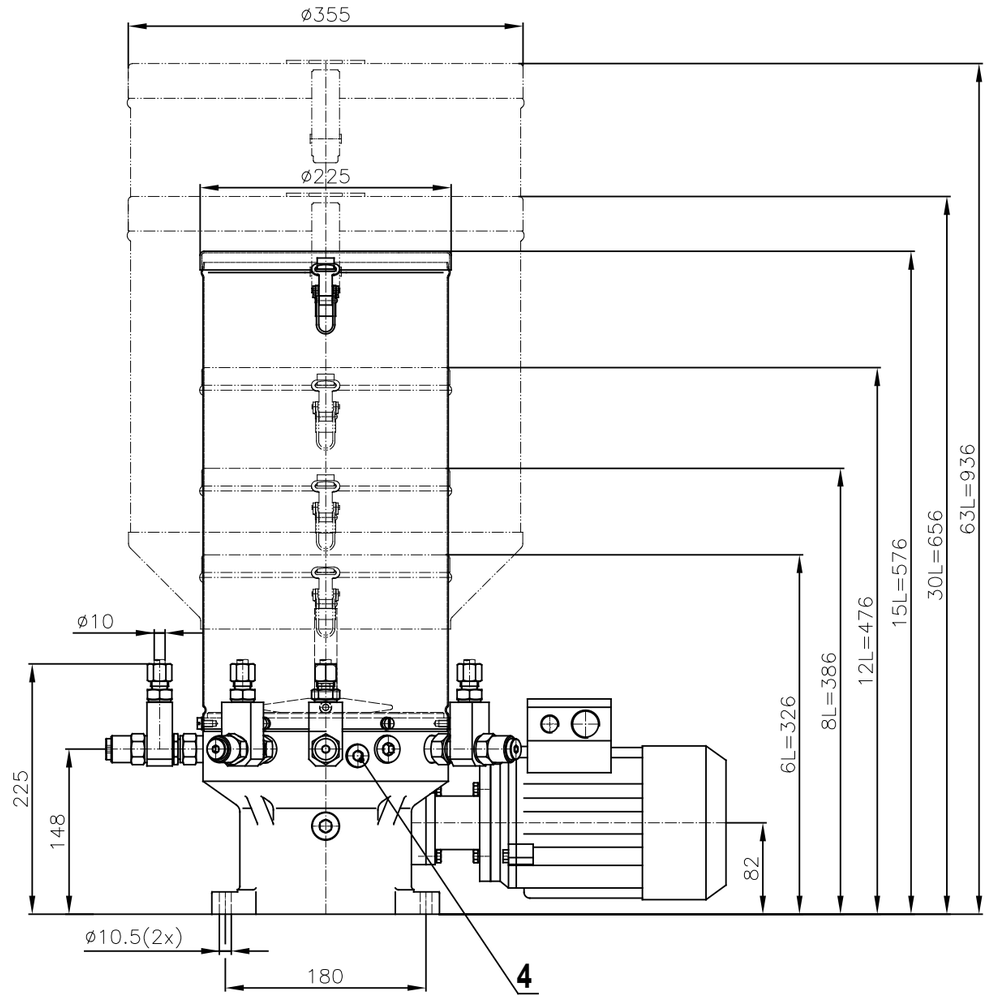
* Working environment MWDr/WDa – code – 1 - Absolute humidity from 30 g to 60 g of water per 1 m^3 air. For the determination of humidity for the specific use of the drive is recommended to use the values specified in ČSN IEC 721-2-1. Higher values of absolute humidity than 60 g of water per 1 m^3 air upon the agreement with the manufacturer.

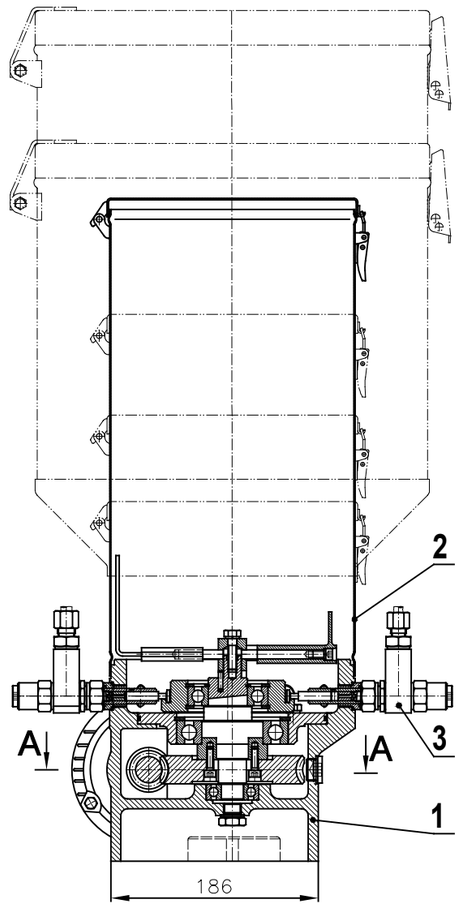
** Standard type of drive – code – 0 - Rated motor voltage 230VD/400VY, 50Hz//460VD, 60Hz. The electric motor closed with degree of protection IP55, insulation 155 (F) with warming in B classification, working environment temperature from -20°C to 40°C.

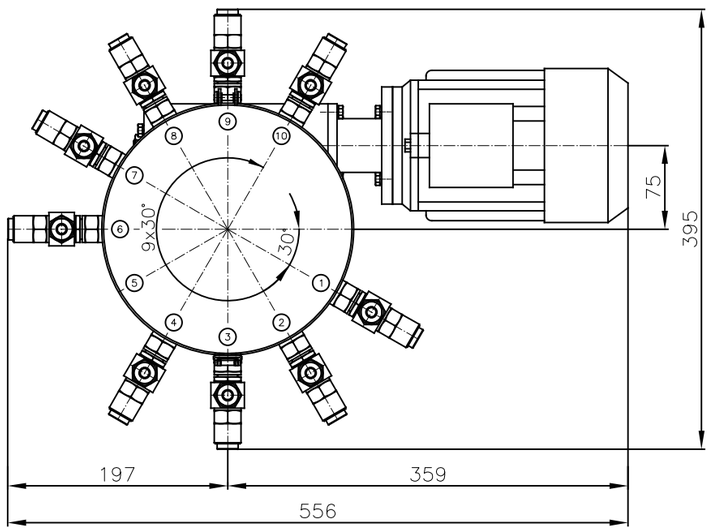
** None-explosive type of drive – code – 1- The specific type upon the agreement with the manufacturer.

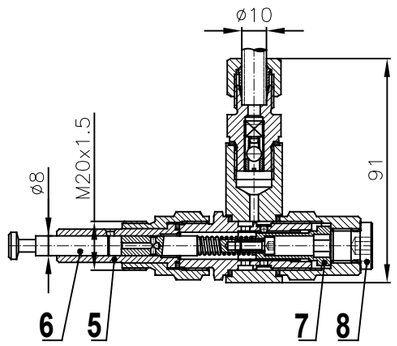
MODEL CODE EXAMPLE: VEG 2091 - 7 - 100 - 0

Lubrication pump VEG with reservoir capacity 12 dm^3, 9 outlets, with nominal output 3 cm^3/min., ultrasonic lubricant level signalling MIN and MAX for grease, electric motor 230/400V - 50Hz, standard working environment, standard type of drive, without safety valves.





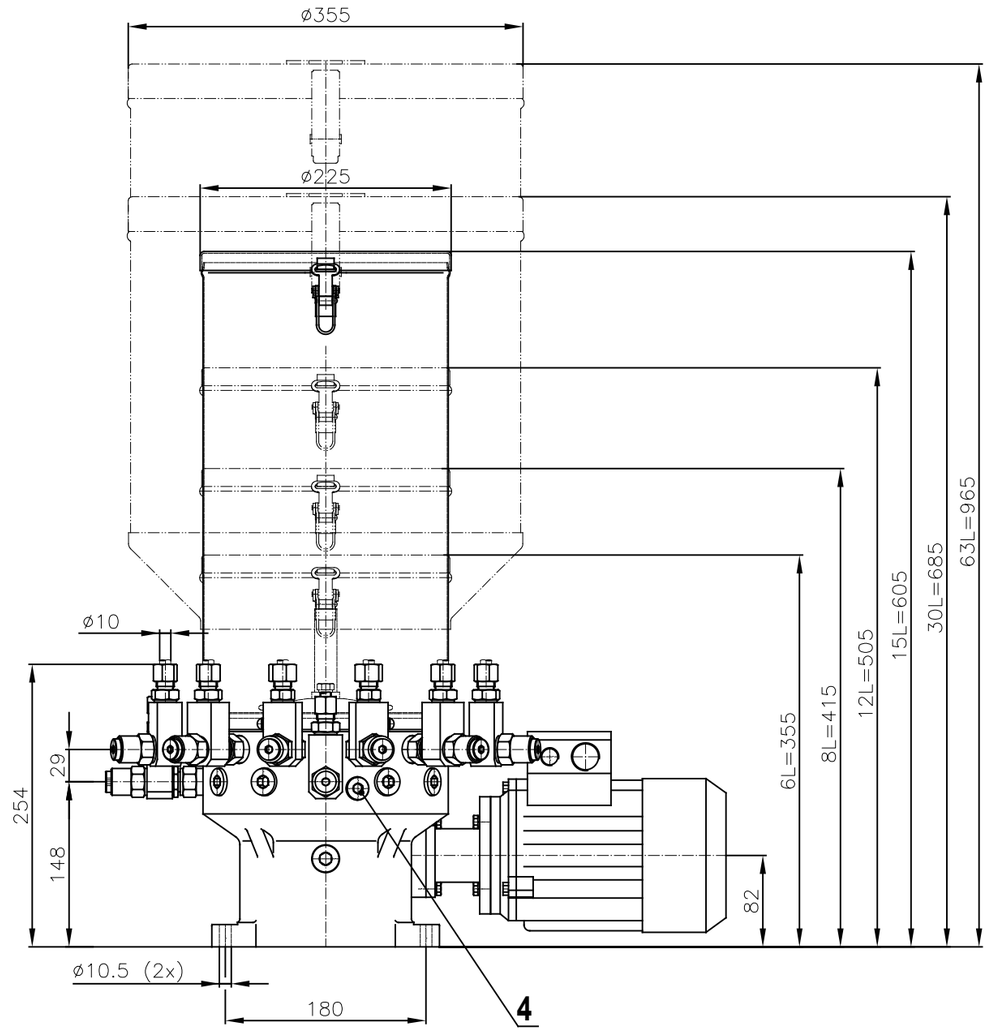


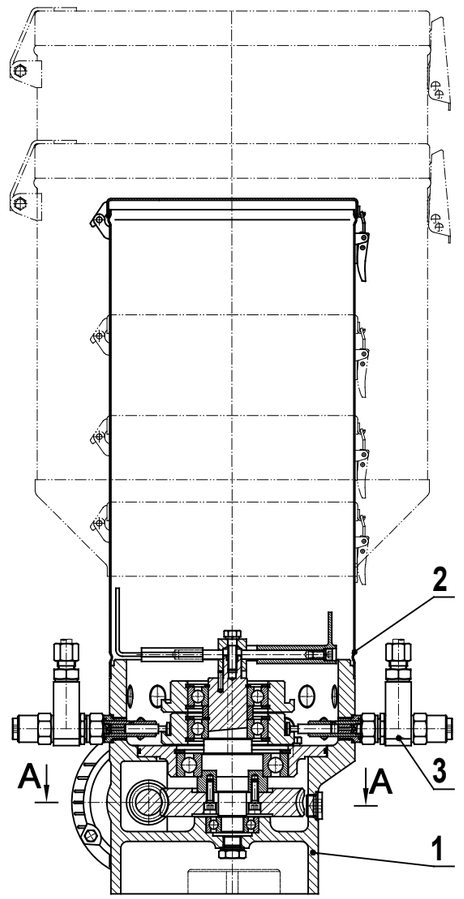


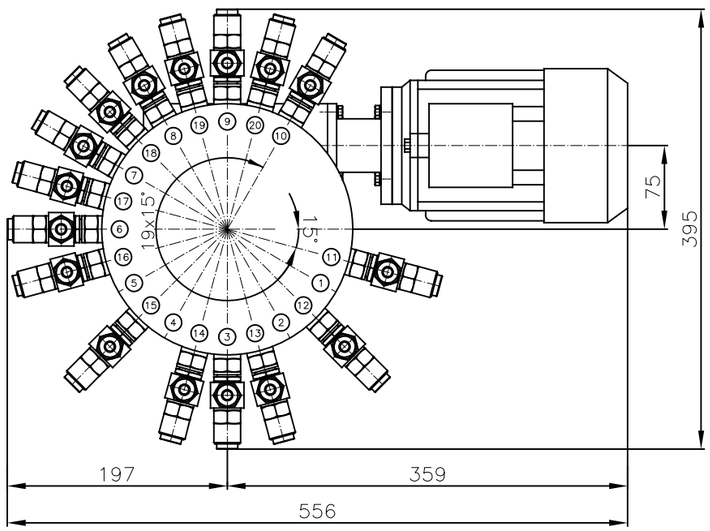
Pos	Name
1	Pump body
2	Lubricant tank
3	Working unit (1,2-3 cm^3/min.)
4	Filling hole
5	Operating cylindr
6	Operating piston
7	Regulating screw
8	Regulating plug

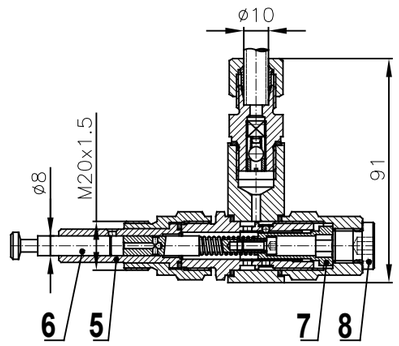
Name	LUBRICATION PUMP
Type	VEG 2091-0-100-0
Code	

Tribotec s.r.o.
Košuličova 4 Brno
www.tribotec.cz
+420 543 425 611









Pos	Name
1	Pump body
2	Lubricant tank
3	Working unit (1,2-3 cm^3/min.)
4	Filling hole
5	Operating cylindr
6	Operating piston
7	Regulating screw
8	Regulating plug

Name	**LUBRICATION PUMP**
Type	**VEG 2161-0-100-0**
Code	

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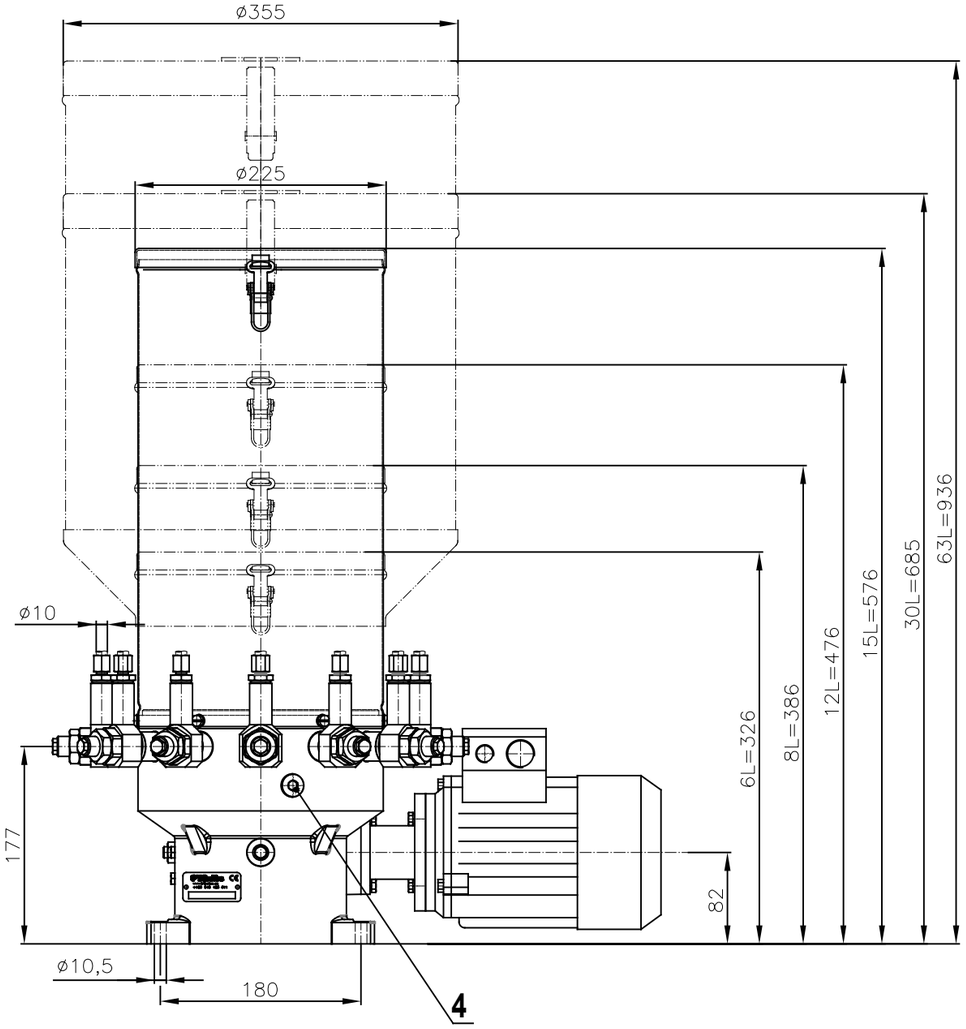

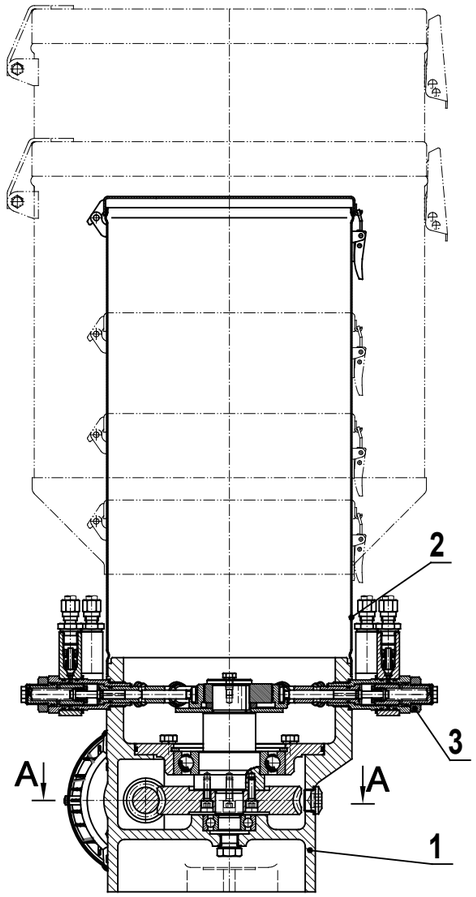

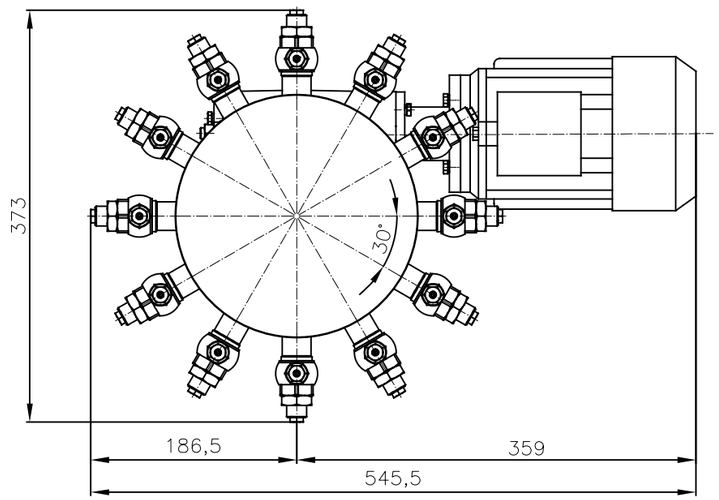

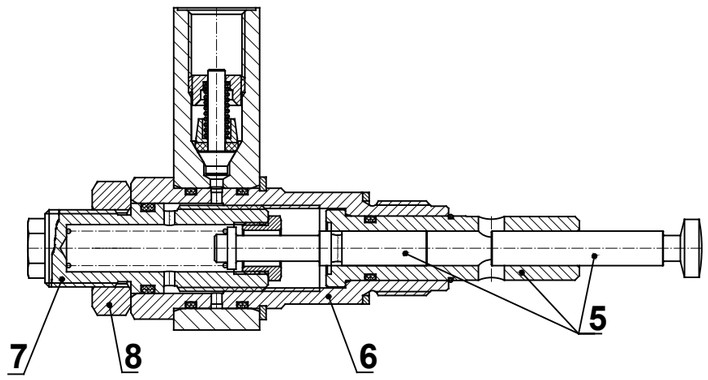

Pos	Name
1	Pump body
2	Lubricant tank
3	Working unit (0-14,5 cm^3/min.)
4	Filling hole
5	Operating piston
6	Operating cylindr
7	Regulating screw
8	Locknut

Name	**LUBRICATION PUMP**
Type	**VEG 6122-0-100-0**
Code	

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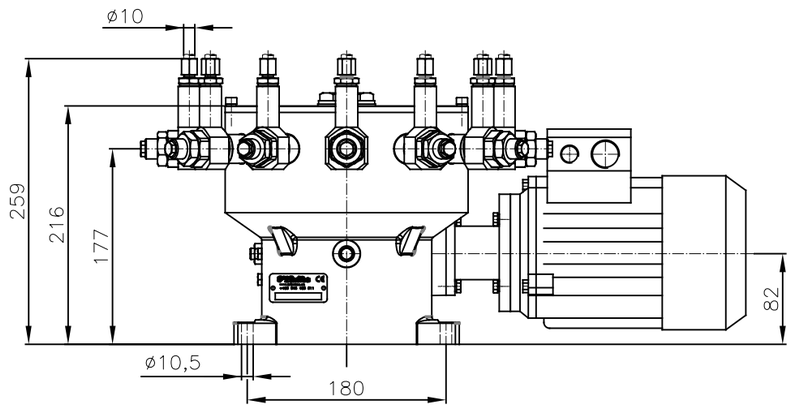
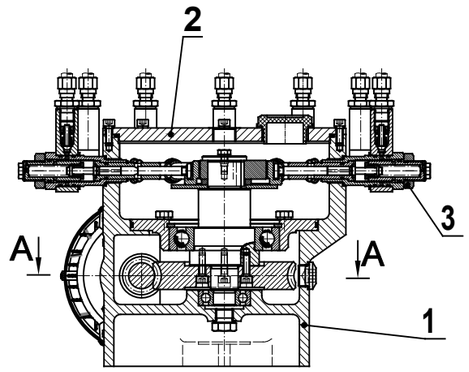
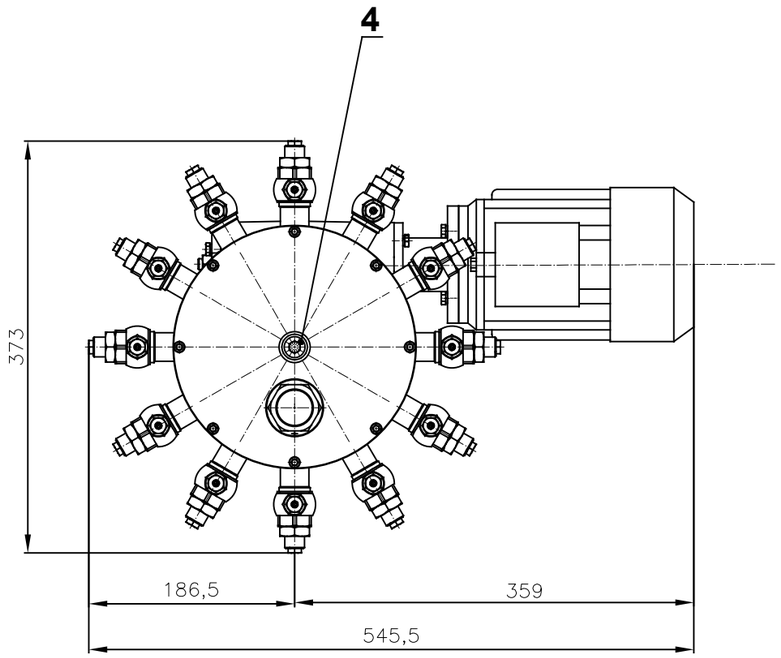
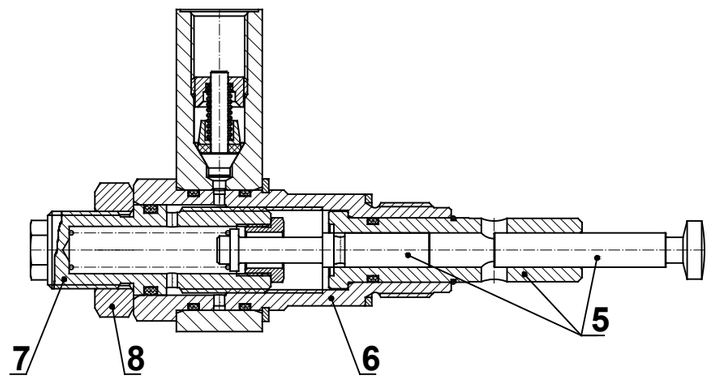




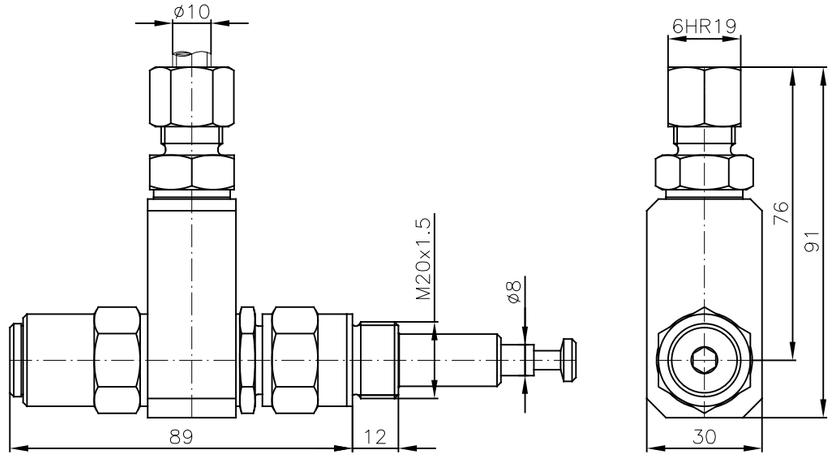




Pos	Name
1	Pump body
2	Cover plate
3	Working unit (0-14,5 cm^3/min.)
4	Filling hole
5	Operating piston
6	Operating cylindr
7	Regulating screw
8	Locknut

Name	LUBRICATION PUMP	Tribotec s.r.o. Košuličova 4 Brno www.tribotec.cz +420 543 425 611
Type	VEG 0122-0-100-0	
Code		

Kód: 8 50 1064



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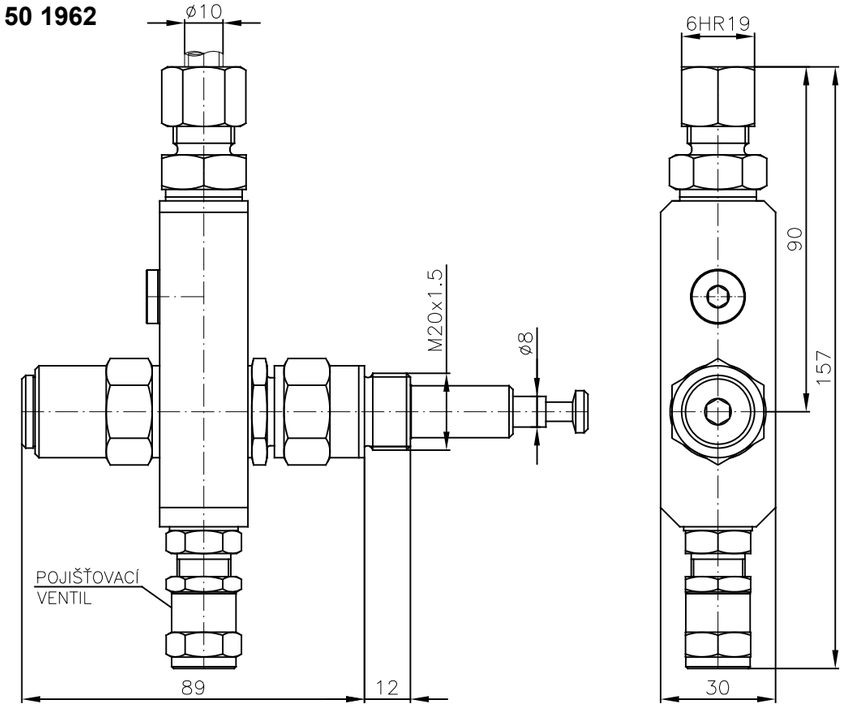

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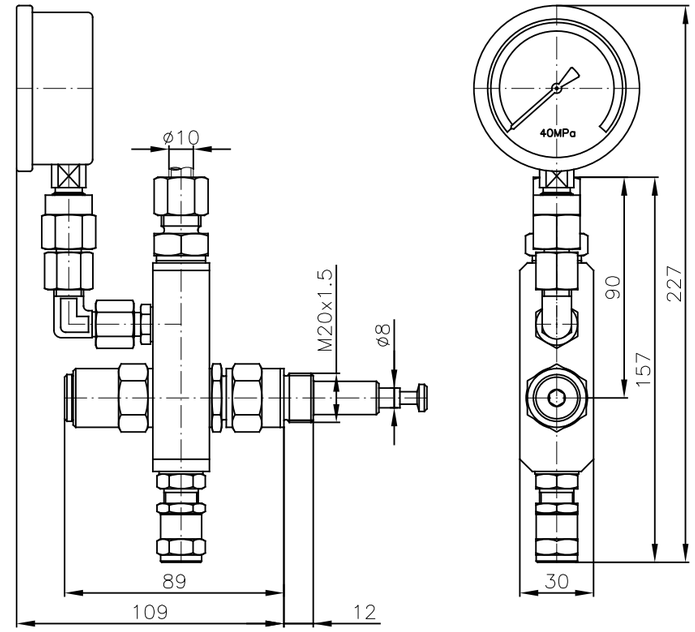

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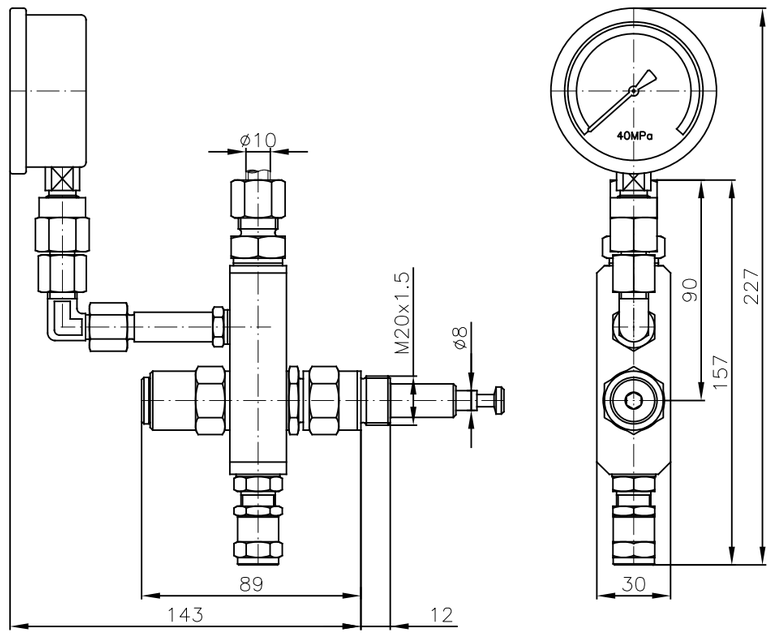

Name	**WORKING UNIT - DOSE 1,2-3 cm³/min.**
Type	**VEG**
Code	

Tribotec s.r.o.
Košuličova 4 Brno
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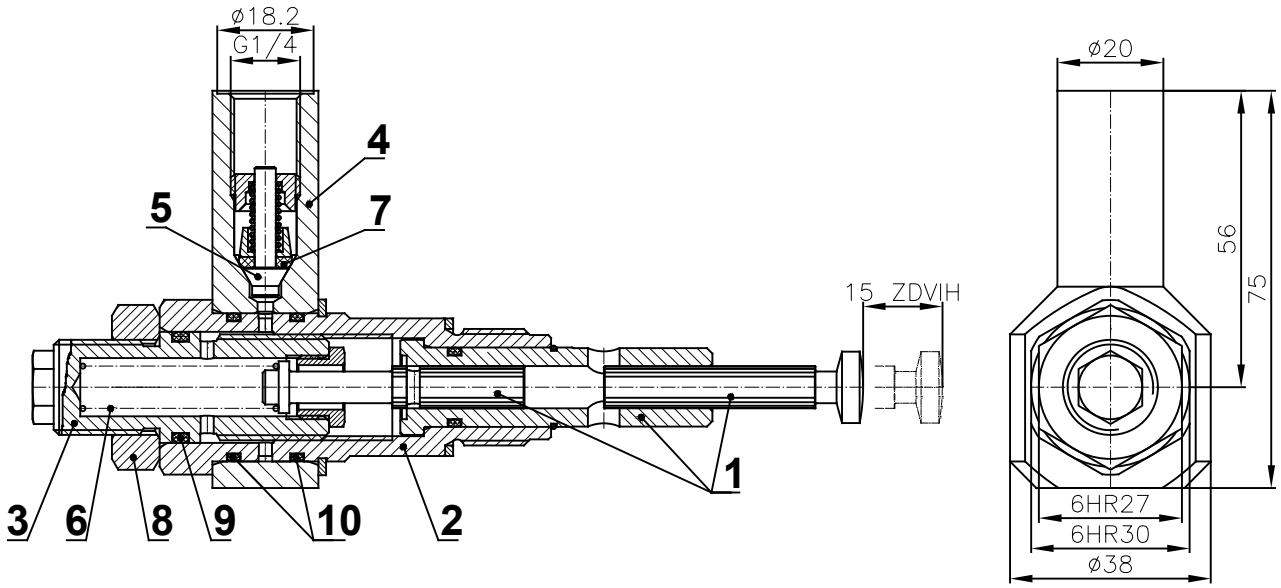
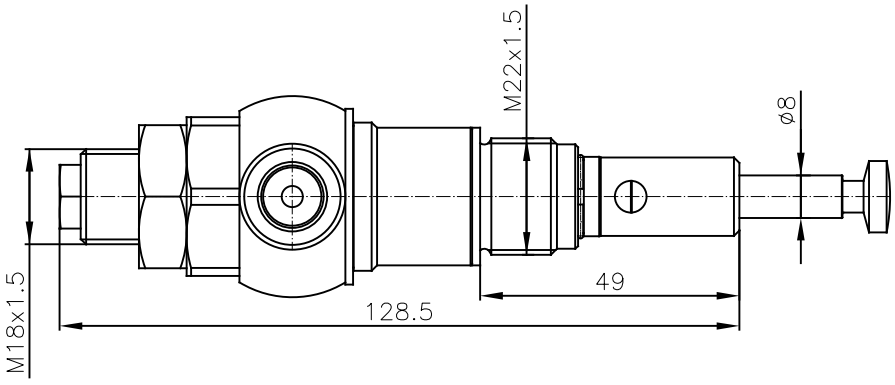
+420 543 425 611





Pos	Name
1	Operating piston
2	Operating cylindr
3	Regulating screw
4	Eye
5	Cone
6	Spring
7	Sealing ring
8	Lock nut
9	O-ring 16,6x2,5
10	O-ring 24,5x2

Name	**WORKING UNIT VEG 150-G1/4**	Tribotec s.r.o. Košuličova 4 Brno www.tribotec.cz +420 543 425 611
Type	**VEG**	
Code	**8 50 2436**	