

LUBRICATION PUMP

UCD

APPLICATION

UCD lubrication pumps are used as a source of pressure lubricant for dual-line lubricating systems equipped with dual-line distributors for permanent, regular lubrication of various machines, engineering technologies and equipment. In the dual-line lubrication system, it is possible to use it for lubrication of a small or medium quantity of lubricated places, for circuits with shorter lengths of piping distribution systems and lower consumption of lubricant. Based on the type and the quantity of dual-line distributors, the pump can supply the lubricant up to a hundred of lubricated places.

In the combined system when also progressive distributors are used in dual-line system, the pump can be utilised for lubrication of a large number of lubricated places with a requirement for a small batch of lubricant and concentrated in one part of the machine or technological equipment. By using progressive distributors, it is possible to increase the number of lubricated places up to two hundred. In this case, the progressive distributors are connected at the dual-line distributors and they distribute the lubricant dispensed by the dual-line distributor to individual lubricated places.

DESCRIPTION

The lubrication pump UCD is driven by an electric motor. The reciprocal supply of lubricant to the appropriate piping is provided by the dual-line change-over valve. Pressure regulators for each lubricating branch are part of the change-over valve. The change-over pressure for individual branch can be adjusted separately. There are two pressure gauges in the given branch on the change-over valve to check the pressure visually. The change-over valve can be made in the version without signalling the operation, or possibly, with visual or electrical signalling.

The lubrication pumps typically work with plastic lubricants (lubricant greases) with a consistency degree up to NLGI-2 and with lubricating oils having the minimum kinematic viscosity of 50 mm²/sec. Consult the usability of lubricating media with different specifications with the manufacturer.

The lubrication pump UCD is delivered in variant models with lubricant tanks of 6, 8, 12, 30 and 63 litres. The tanks are made of steel sheets. The indicated models of UCD lubrication pump do not eliminate modification and production of specific models by customer's request.

OPERATION

The lubrication pump supplies the lubricant continuously for the entire period during which the electric motor is under voltage.

The hydraulic change-over mechanism provides for alternate supply of lubricant into both branches of the lubricating circuit. The working pressure is adjusted using the adjusting nut on the bypass valve.

Furthermore, the following can be used for the lubrication pump:

- controlling through a separate automatic control system located at the lubrication pump (refer to Lubrication system elements),
- controlling the lubrication pump from the machine control system or from the unit in which the lubrication system is installed, or from the central control room for the process equipment or from the manufacturing plant.

SERVICE AND MAINTENANCE

The lubrication pump is installed on a horizontal concrete or steel base using four anchor bolts. The pitch of anchor bolts is indicated in the drawing.

TECHNICAL DATA

Maximum working pressure		300 bar
Working pressure		250 bar
Regulating range of working pressure		50 to 280 bar
Nominal output		40 cm ³ /min.
Lubricant reservoir capacity		6, 8, 12, 30, 63 dm ³
Number of outlets		2
Outlet pipe union		M16x1.5 mm, for tube Ø 10 mm
Electric motor		230VD/400VY, 50Hz//460VY, 60Hz; 0.37kW 500VY, 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		30 kg

NOTE:

Signalling of minimum and maximum levels of lubricant in the tank (it is not possible for 6 dm³ reservoirs),

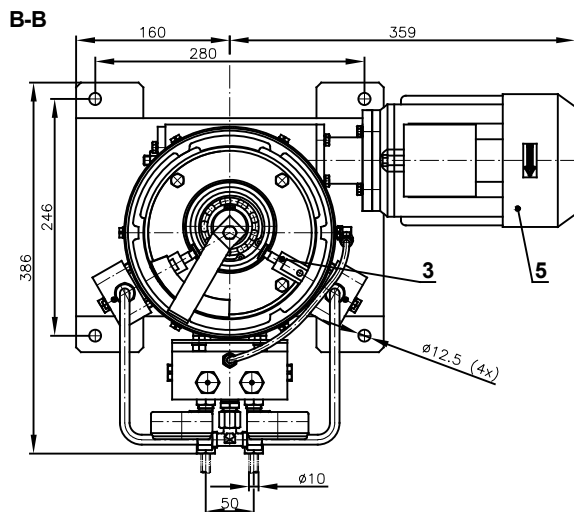
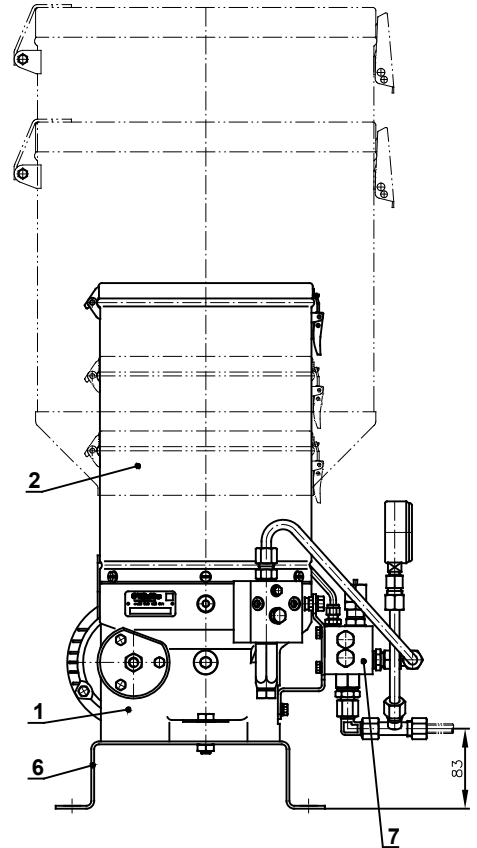
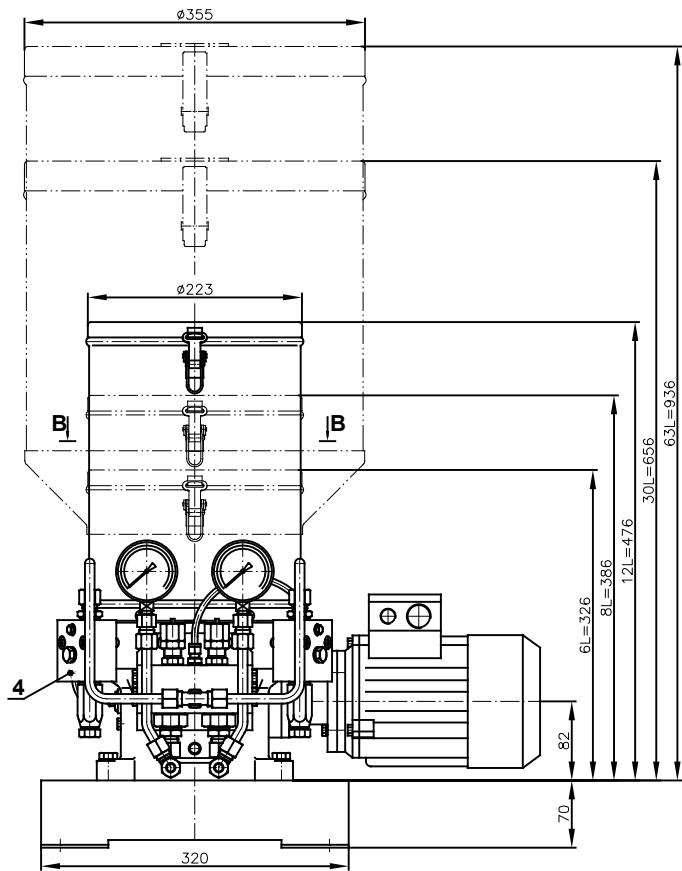
Signalling the operation of dual-line hydraulic change-over valve is possible visually - with indication pin or electrically - with inductive sensor.

TYPE IDENTIFICATION KEY UCD


	Code symbol	UCD	a	b	d	e	f	c
	Example of code	UCD	3	7	1	0	0	0
Type designation								
type of lubrication pump-----	UCD							
Lubricant reservoir capacity								
6 dm ³ -----	1							
12 dm ³ -----	2							
30 dm ³ -----	3							
63 dm ³ -----	4							
8 dm ³ -----	5							
Lubricant level signalling								
without signalling-----	0							
signalling MIN and MAX - grease (ultrasonic) -----	7							
another variant (as per order specifications)-----	9							
Electric motor operating voltage								
230/400V, 50Hz-----	1							
500V, 50Hz-----	2							
415V, 50Hz-----	4							
other voltages (as per order specifications)-----	9							
Working environment								
standard-----	0							
MWDr/Wda-----	1							
Type of drive								
standard-----	0							
non-explosive-----	1							
degree of protection IP65 -----	2							
Change-over valve operation signalling								
without signalling-----	0							
visual signalling-----	1							
electrical signalling -----	2							

EXAMPLE OF CODE: UCD 3 - 7 - 100 - 0

Lubrication pump UCD with reservoir capacity 30 dm³, ultrasonic signalling for maximum and minimum levels in reservoir, electric motor 230/400V, 50Hz, standard working environment, standard type of drive, dual-line change-over valve without signalling the operation.



Pos	Name
1	Lubrication body
2	Lubrication pump
3	Working unit
4	Regulating working unit
5	Electricmotor
6	Foundation frame
7	Hydraulic change-over valve

Name	LUBRICATION PUMP	
Type	UCD	
Code		
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