

FZ-B Lubricator

Electric, Oil & Grease



General

The FZ-B Lubricator is primarily designed for use with multiline progressive lubrication systems. The lubricators are supplied with pump bodies comprising either a single outlet discharging up to 1.2cc (0.073 cu. in.) per rotation of the piston plunger, or two outlets, each discharging up to 0.6cc (0.0365 cu. in.) per rotation of the piston plunger. Discharge is adjustable for each outlet or set of outlets via adjusting spindles located at the top of the pump body. FZ-B lubricators are typically driven by a flange mounted motor or via the machine being lubricated through either a ratchet or rotary drive. Maximum permissible speed of the piston plunger is 10 rpm for rotary drive lubricators and 6 rpm for ratchet drive. A wide range of transmission ratios are available making this lubricator adaptable to meet a diversity of machine requirements.

Application

The FZ-B Lubricator is designed as a single-piston pump with maximum 2 outlets. It is predominantly intended for multiline progressive lubrication systems. The pump is usually driven by the flange motor or by the machine to be lubricated via an oscillating lever or coupling. The FZ-B lubricator has either one combined single outlet with a maximum delivery of 12 x 0.1 cm³ or with 2 outlets respectively delivering 6 times the quantity of lubricant.

Operation

The FZ-B lubricator incorporates a single piston plunger connected to a cam plate. Rotation of the cam plate and contact with a pressure cam allows for the suction and pressure stroke of a grooved piston. The vertical grooves align themselves with each outlet or set of outlets during the pressure stroke discharging up to 0.073 cu. in. (1.2cc) of lubricant from a single outlet per rotation of piston plunger or 0.0365 cu. in. (0.6cc) from each of two outlets. Adjusting spindles (6 locations) can be turned clockwise to reduce the volume discharged from a working outlet.

Adjustment of Discharge Rate

The figures 0-4 are stamped on the adjusting spindles. The maximum delivery is obtained in position 4. The volume delivered is reduced by turning the adjusting spindles clockwise. To ensure reliable delivery from the lubricator, output should be no less than 1/4 of the maximum rating.

Features

- + Robust components for harsh and severe applications
- + Grease agitator and reservoir wedge plate assure delivery of grease to piston chamber
- + Adaptability to various drive speeds of the machine to be lubricated, eliminating the need for additional control systems
- + Automatic refill capabilities utilizing ultrasonic high/low level switch and fill port connection
- + Adaptable to gear spray systems



ATTENTION

Working outlets should never be plugged. Plugging a working outlet will result in pump damage. Contact Bijur Delimon representatives for consultation.

Refer to Operators Manual: FZ-B.

BIJUR DELIMON INTERNATIONAL

(919) 465 4448 LOCAL
(800) 631 0168 TOLL-FREE
(919) 465 0516 FAX

WWW.BIJURDELIMON.COM

2100 Gateway Centre Blvd., Suite 109
Morrisville, NC 27560

Technical Data

Reservoir Capacity	8 liter (16.5 lb) – Additional sizes available upon request.	
Permissible Lubricants	Suitable for oil and grease up to NLGI grade 000-2	
Number of Outlets (Optional)	1 to 2	
Maximum Permissible Feed Pressure	2900 psi (200 bar) 3625 psi (250 bar) for short periods only	
Maximum Permissible Piston Speed	6 rpm (with ratchet drive) 10 rpm (with running drive) 16 rpm (with oscillating drive)	
Delivery Volume Per Outlet for One Rotation of Piston Plunger	0 to 0.6cc (0 to 0.0365 cu. in.) Adjustable 0 to 1.2cc (0 to 0.073 cu. in.) Adjustable	
Maximum Delivery Volume Per Outlet Per Hour*	Single outlet	720cc (43.9 cu. in.), ratchet drive max. 432cc (26.4 cu. in.)
	Dual outlet	360cc (21.97 cu. in.) 216cc (13.18 cu. in.) – ratchet drive
Operating Temperature	-4°F to 176°F (-20°C to 80°C)	
Outlet Thread Connection	1/4" BSPP	
Drive Type and Transmission Ratios	Ratchet	3:1, 12:1, 25:1, 50:1
	Free shaft	3:1, 12:1, 25:1, 50:1
	Transmission gear	95:1, 215:1, 345:1, 710:1, 1420:1, 2880:1
	Transmission gear w/ flange motor	215:1, 345:1, 710:1, 1420:1, 2880:1
Filler Valve	Optional (Fill the grease reservoir by means of a forced-fed barrel pump.)	
Low Level Switch (Optional)	Ultrasonic	

* Delivery volume from all outlets can be reduced by selecting a lower driving speed or higher gear ratio, so that the piston plunger rotates at less than 10 rpm and 6 rpm, respectively.

Start Up Instructions

Installing and Connecting the Lubricating Pump

The pump should be installed and mounted vertically. Connection of the motor to the control box must be carried out in accordance with the circuit diagram.

Filling the Lubricant Tank and Piping

All piping must be carefully cleaned before descaling and blowing through and filled with clean grease using a grease gun. For initial start-up, the grease tank is first filled up to the strainer with oil and then with grease, because otherwise a longer start-up time is required to allow venting. Before connecting the piping the pump must operate long enough at full capacity to ensure that the grease emerges evenly and without air from each outlet. Next, the piping should be connected (use sealing washers), until air-free grease emerges at the ends of the piping. Once the bearings to be lubricated are also filled with grease, the piping can be connected to the lubricating points. The system can be started after adjustment of the required lubricant quantity.

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Setting the Delivery Rate

At full capacity, corresponding to 0.1cc lubricant per discharge and piston stroke, an arrow on the discharge identification points to the number 4 stamped on the head of the setting spindle. By turning the spindle clockwise the delivery is reduced. Reduction below 1/4 of the maximum delivery (setting 1) should be avoided. In case of pumps with 7 to 12 outlets, the delivery rate of two vertically arranged outlets is adjusted by means of an adjusting spindle. The second arrow of the discharge identification points to the outlet bore relating to the setting spindle. By changing the drive speed or the internal gear ratio of the pump or also by changing the altitude of the oscillating lever, the output volume of all outlets and thus the overall output volume is changed.

ATTENTION

Customer should specify 1 or 2 outlets at time of order.

WARNING

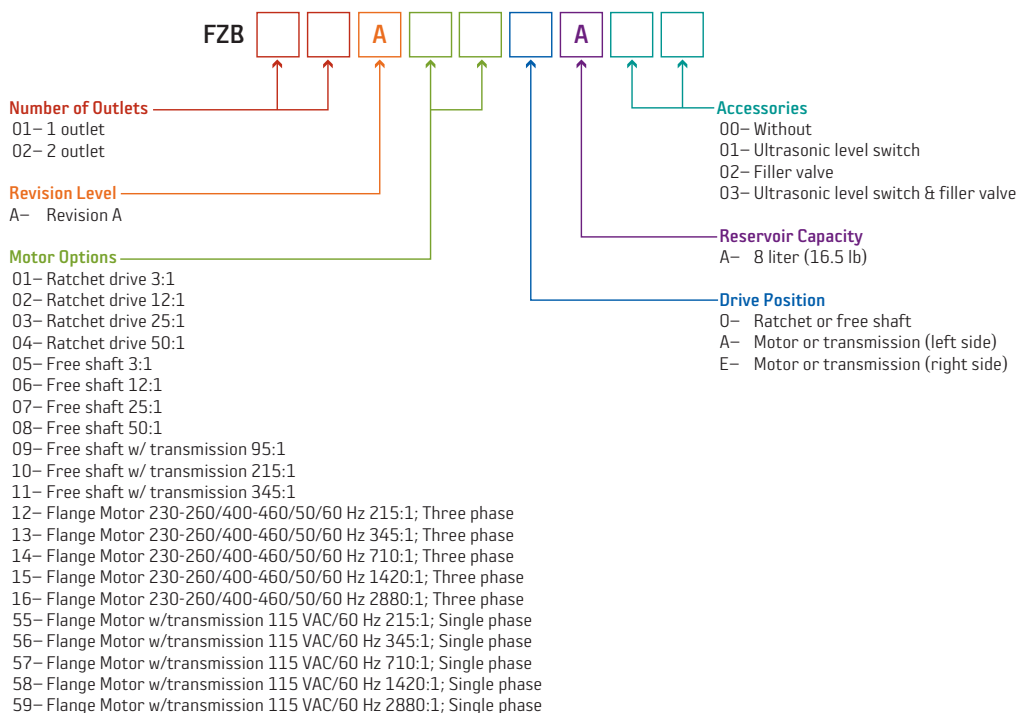
Do not attempt to simply plug an outlet as this may damage the pump.

Maintenance

Filling the Grease Tank

As soon as approximately 3/4 of the tank capacity are consumed, the grease tank should be refilled. The grease level should never drop to a level where the feed screw is visible, because air may otherwise penetrate into the piping. During filling, care should be taken to ensure that only clean grease is used and no dirt penetrates into the tank when the cover is opened, because this may result in malfunctioning. Filling via a filling valve and firmly installed pipelines is at all events to be preferred.

How to Order



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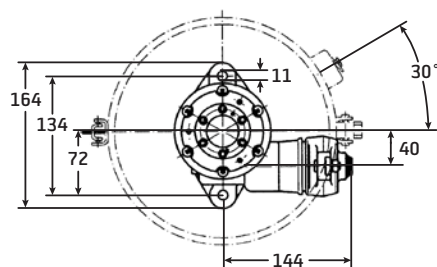
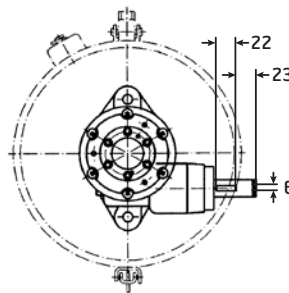
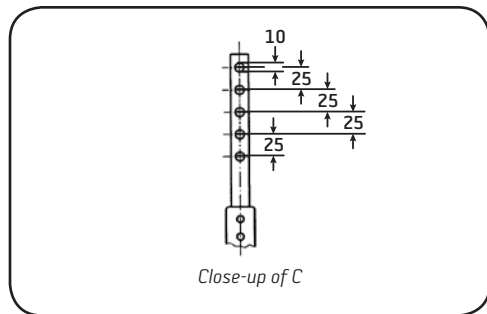
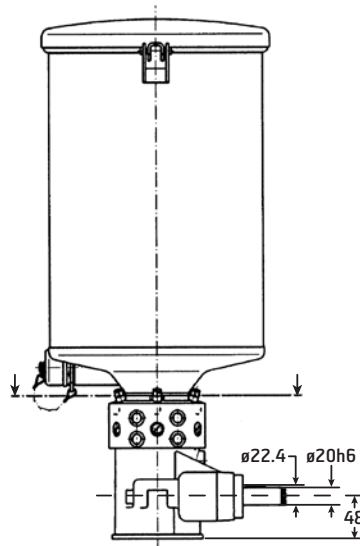
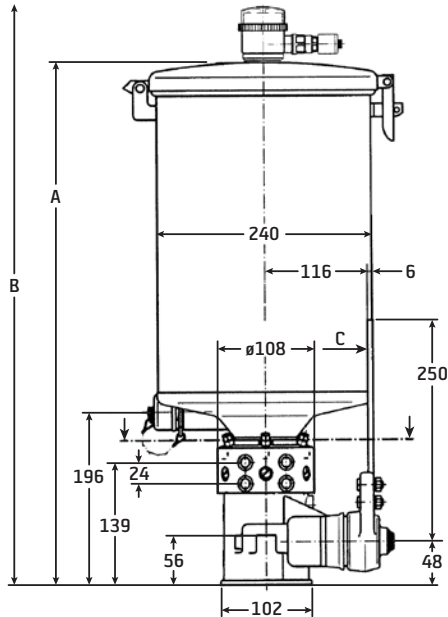
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Dimensional Schematics

Measurements shown in millimeters.

Ratchet Drive

Free Shaft



Reservoir Capacity	A	B*
2.5 liter	330mm	540mm
8 liter	555mm	765mm

* Height with the lid open.

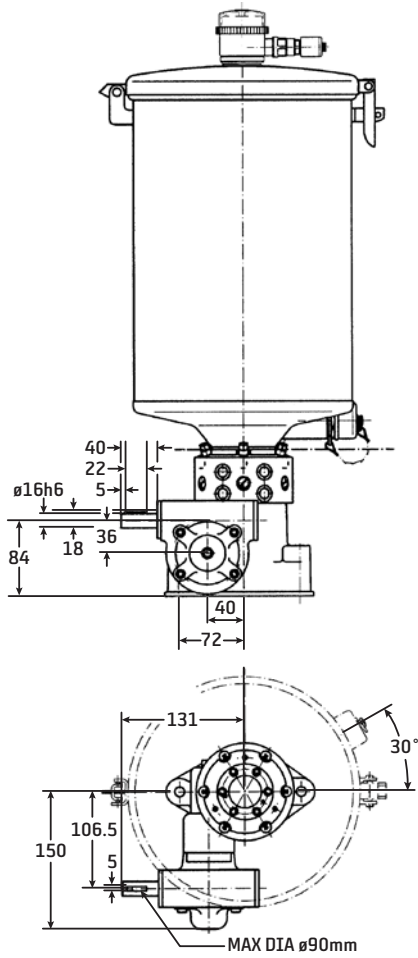
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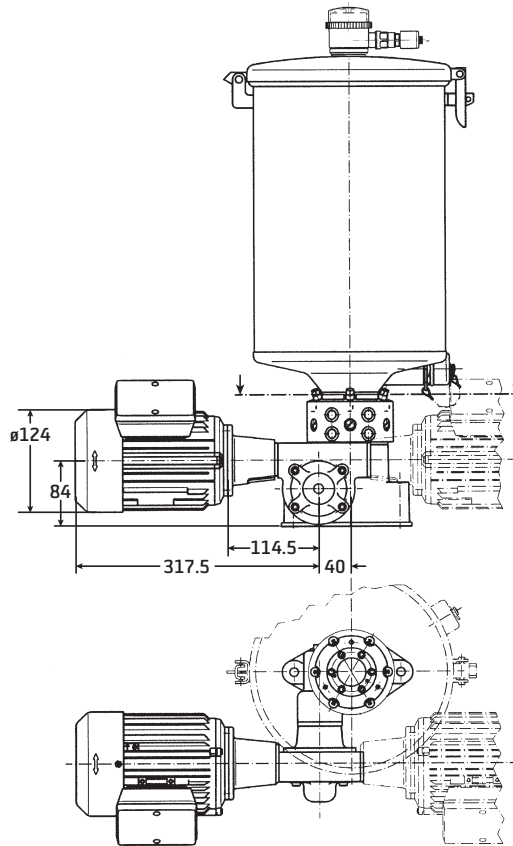
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Free Shaft with Transmission



Flange Motor



Measurements shown in millimeters.

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