

LUB 5

user manual



GRUETZNER
AUTOMATIC LUBRICATION

Table of contents

- 3** **General safety instructions**
- 6** **Technical data**
- 7** **Functional description**
- 8** **Emptying**
- 9** **Filling**
- 11** **Adjustment**
- 12** **Special lubrication and ventilation**
- 13** **Assembly and start-up**
- 14** **Capacity check / LED messages**
- 15** **Recommended tube lengths**

Read all assembly and operating instructions carefully before assembling and starting-up the lubricator. Basic information provided below must be observed for assembly, operation and maintenance. Follow the general safety instructions (p. 3-5) as well as the special safety instructions in the following chapters.

Symbols and signal words



Warning of personal injury

NOTE!

Warning of property damage

Safety instructions

General hazard warning - residual risk

All components of the lubricator are designed according to the valid regulations on the construction of technical systems regarding operational safety and accident prevention. Nevertheless, the use of these components might involve risks for the operator or third parties as well as for other equipment. Therefore, only use the lubricator in a technically faultless condition and under observance of the relevant safety regulations as well as these assembly and operating instructions. Check the lubricator and its components regularly for damage and leakages. Under high pressure liquids could ooze out of leaky components.

Hazards in case of non-observance of safety instructions

Consequences of non-observance of the safety instructions can be hazards to persons, the environment and the device. Non-compliance with the safety instructions may result in the loss of any liability claims.

Intended use

The lubricator is only approved for industrial use. The lubricator may only be operated when installed into a machine's lube point connection. Only use lubricants as specified by the machine manufacturer. The lubricator may only be operated in accordance with the technical data. The respective technical values may in no case be exceeded. Unauthorized modifications to the lubricator are not permitted. Gruetzner GmbH assumes no liability for resulting personal injury or property damage.

Inadmissible modes of operation

Operational safety of the lubricator is only guaranteed for appropriate application as described in the assembly and operating instructions.

Scope of warranty

Warranty regarding operational safety, reliability and performance will only be guaranteed by the manufacturer if the lubricator is used as intended and only under the following conditions:

- The lubricator is used according to the assembly and operating instructions.
- Modifications or repairs of the lubricator may only be carried out by the manufacturer.
- Liability is limited to the value of the lubricator.
- Guarantee and warranty will expire for any damage caused by the use of improper lubricants.
- The manufacturer will generally not assume any liability for incorrect operation or adjustment of the lubricator.
- The lubricator should be protected against humidity and water.
- Use of any lubricant requested and/or provided by the customer but not yet tested for compatibility with **Lub5** is done at the customer's risk and responsibility.

Owner's / operator's obligations in case of leakages

Leakages of hazardous substances must be drained in a way that avoids risks for persons or the environment. Therefore, consider the data sheets and safety data sheets of the respective manufacturer and observe all legal regulations.

Transport and storage

Do not throw the lubricator or expose it to shocks. Store the lubricator cool and dry to avoid corrosion of components and to preserve the lubricant filling.

The maximum storage temperature should not exceed +40 °C (+104 °F). Higher temperatures decrease the battery's lifespan. The lubricator has to be activated within two years from receiving.

Exchange of lubricants and disposal

Observe the disposal information of the lubricant manufacturer when the lubricant is exchanged. Lubricants and components contaminated with lubricant shall be disposed of properly.

The professional disposal of the lubricator must follow all national and international laws and regulations.

The unit's batteries can be recycled when disposed of properly. They contain valuable raw materials.

	Lub5-120	Lub5-120 PLUS	Lub5-250
Lubricant volume	120 ml		250 ml
Lubricant	Oil ISO VG = 32 - 680 mm ² /s grease up to NLGI class 2		
Pump type	piston pump		
Dosage volume	0,24 ml / stroke		
No. of discharges	max. 6*		
No. of outlets	1		
Connection	external thread R1/4"		
Run time per filling	1-24 months		
Operating pressure	max. 10 bar (145 psi)		
Temperature range	-20 °C to +60 °C		
Dimensions (H*Ø)	70 x 127 mm	70 x 182 mm	70 x 243 mm
Weight without filling	~ 304 g	~ 490 g	~ 557 g
Control	microprocessor		
Pressure monitoring	electronical		
Capacity monitoring	LED display		
Operational voltage	Li-FeS ² 3,0 V battery		
Filling zerk	according to DIN 71412		
Protection class (with membrane sticker)	IP 65		
Sound pressure level	< 70 dB (A)		
Operation of progressive distributor	no		

* 6 discharges or an operational period of 48 months (whatever occurs first)
Please pay attention to the instructions on page 8.

Lub5 is an electromechanical lubricator designed to supply single lubrication points with oil or grease.

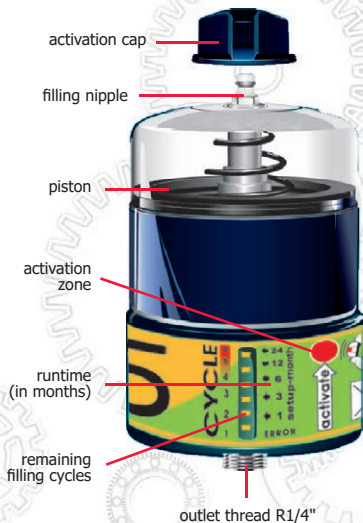
The lubricator is intended for stand-alone use as the energy supply is provided by a integrated battery pack.

The lubricant is stored in a refillable reservoir with a capacity of 120 or 250 ml. Maximum output pressure is 10 bar (145 psi).

When using suitable lubricant the battery pack enables up to 6 discharges or a maximum runtime of 48 months (whatever occurs first).

For information on accessories, please refer to the separate accessory list.

For all important information please also consult www.Lub5.de.



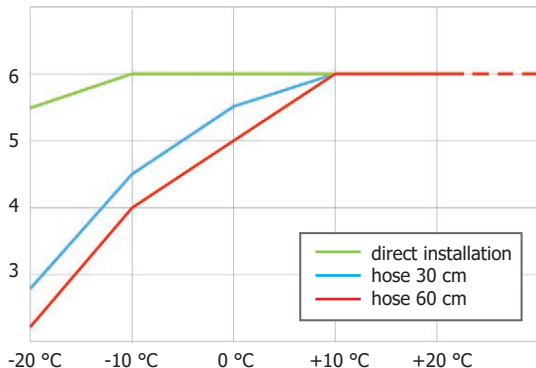
**Health risk from battery damage!
Never recharge the battery!**



**Do not open the lubricator or recharge the empty battery.
Replace the lubricator if it is defective or if the battery is empty.**

Emptying when using multipurpose grease

Temperature	Hose Ø 8x6x1 mm length 30 cm	Hose Ø 8x6x1 mm length 60 cm
+60 °C	6	6
+40 °C	6	6
+20 °C	6	6
0 °C	5,5	5
-10 °C	4,5	4,0
-20 °C	2,8	2,2



Reference values for maximal number of discharges at backpressure-less lube point

The number of possible discharges may vary depending on the backpressure of the lube point and the temperature. Therefore, regularly check the correct function of **Lub5**.

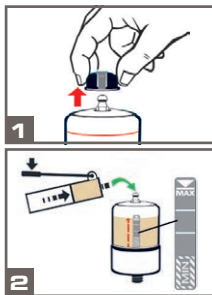
NOTE!

In case of indirect assembly, keep the lubrication lines as short as possible to avoid additional load on battery due to the backpressure in the lines.

Pay attention to utmost cleanness when refilling the reservoir.
Use a standard hand-lever grease gun (art. no. SAT3010) to fill **Lub5**:

1. Remove activation cap.
2. Put filling coupling straight onto filling nipple.
3. Slowly fill reservoir up to the marking „max.“.
4. Disconnect filling coupling and clean filling nipple.
5. Put on activation cap again.

For self-filling with oil we recommend the use of a special oil pump (art. no. SAT3005).

**NOTE!**

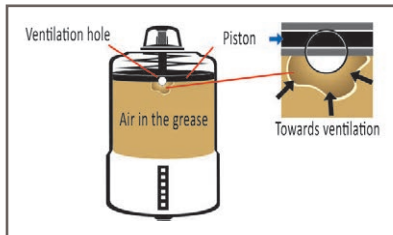
Fill the lubricator slowly up to the marking „max.“ to avoid possible pump damages due to overfilling.

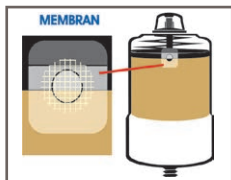
Please never remove the filling nipple!

With the **initial filling** air might get entrapped in the reservoir. These air inclusions do not affect the function of the pump, but they are transported to the lubrication point and the lubrication may possibly be delayed or interrupted.

To drain the air, fill **Lub5** during initial filling slowly up to approx. 1 mm above the marking „max.“ until the sealing lip of the piston slightly opens the ventilation hole. Then, the air escapes at the overflow hole.

During regular filling, fill the lubricator up to the marking „max.“.





If **Lub5** is used outdoors, a membrane sticker should be applied onto the ventilation hole:

1. Fill and ventilate the lubricator.
2. Clean the surface around the ventilation hole and remove residual lubricant if necessary.
3. Attach membrane sticker (see picture).

Month-setting options

Month setting	Lub5-120 Lub5-120 PLUS	Lub5-250
	lubricant quantity / week	
24	1,1 ml	2,4 ml
12	2,3 ml	4,8 ml
6	4,6 ml	9,6 ml
1	27,5 ml	57,4 ml

The delivered quantity of lubricant varies depending on the selected month setting (see table).



Example:

Lub5-120, selected setting 12 months, quantity of lubricant: 2,3 ml per week

Correct refilling

The lubricator can be refilled anytime. The pump counts the quantity of lubricant already delivered, not the reservoir drains.

Month setting	24	12	6	3	1
Ideal refilling interval, approx.	20 months	10 months	5 months	10 weeks	4 weeks

Do not discharge Lub5 completely. Complete discharging does not damage the pump, but air is transported to the lubrication point. The lubrication point might be lubricated insufficiently and you have to ventilate the lubrication lines again after refilling.



The activation cap is the key component of **Lub5**. Use the activation cap to set important functions such as power on and off or adjusting the operation time.

Switching on and adjusting the operation time

1

Remove activation cap and guide it to the red point above the activation zone.

2

Place cap on the red point and wait until the red LED has flashed 5 times. Remove cap for 1-2 s and then immediately place it back on the red point.

3

Example: setting 12 months

The green LEDs are now flashing one after another. Remove the activation cap when the required month setting is flashing (e.g. 12).
The pump is adjusted and starts lubricating immediately.

Switching off and changing the setting

Place the activation cap on the red point and wait until the red LED has flashed **5 times**. Then remove the cap.
The pump is turned off. The red LED glows for 5 seconds. After switching on the pump again, the setting can be changed as described in steps 1-3 above.



Activate the **special lubrication** to:

- ventilate **Lub5** (e.g. when filling the empty lubricator)
- perform an intermediate lubrication
- check the remaining capacity of the pump (see „Capacity check / LED messages“)



For initial filling:

Initiate special lubrication **at least 5 times** after initial filling until the lubricant exits nearly bubble-free.

Activation of special lubrication

Make sure to switch on **Lub5** before starting a special lubrication.

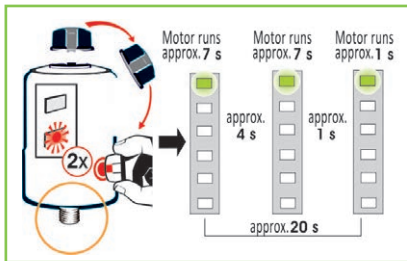
- 1) Remove activation cap and guide it to the red point above the activation zone.
- 2) Place cap on the red point and wait until the red LED has flashed 2 times.
Then remove cap.

The green LED of the selected month cycle flashes.

The pump starts a special lubrication (approx. 20 s):


- motor runs (approx. 7s)
- motor stops (approx. 4s)
- motor runs (approx. 7s)
- motor stops (approx. 1s)
- motor runs (approx. 1s)

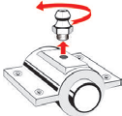
The special lubrication is finished.





Please remember to adjust and ventilate **Lub5** before assembling it.


Prior to assembly, prefill the lubrication point and lubrication lines or extensions with appropriate lubricant by using a standard hand-lever grease gun (art. no. SAT3010).

- 

Clean lubrication point
- 

Remove old fitting
- 

Prefill lubrication point and lubrication lines (if existing) with lubricant
- 

Screw in **Lub5** hand-tight, use an adapter, if necessary
- 

Tighten connection thread at hexagonal bolt

Assembly and start-up of Lub5 may only be done by qualified technical personnel with the necessary knowledge.

Take all necessary measures to properly mount Lub5 and other components to a complete machine without compromising the health and safety of those around you.

The remaining capacity of **Lub5** is indicated on the LED display after each normal lubrication cycle (see graphic and table). To check the remaining capacity explicitly, activate a special lubrication.

Display	Remaining capacity		Remaining reservoir discharges (complete reservoir)
	Lub5-120 & Lub5-120 PLUS	Lub5-250	
6	> 600 ml	> 1250 ml	> 5
5	> 481 ml	> 1000 ml	> 4
4	> 361 ml	> 750 ml	> 3
3	> 241 ml	> 500 ml	> 2
2	> 121 ml	> 250 ml	> 1
1	< 120 ml	< 250 ml	0



Example: 5 filling cycles
(>4 remaining reservoir discharges)

LED messages

LED	Status	Cause	Troubleshooting
green	ON	Device is currently lubricating	
	Flashes every 60 s	Function control (=ok), device is activated	
red	Flashes 2x shortly every 10 s	Backpressure is too high	Unscrew device, switch it off and on again: - Pump is running → check lube point for too high backpressure → correct error → screw device back in - Device does not work → replace device
	Flashes every 10 s	Max. number of cycles is reached	Replace device
		Low battery	

Tube lengths

Use only Gruetzner GmbH lubrication tubes and connectors.

Lubrication tubes must have an inner diameter of at least 6 mm.

Lub5 operates at a maximum supply pressure of 10 bar / 145 psi.

At temperatures of +20 °C / +68 °F, the lubrication tubes are not to exceed 2 m.

At lower temperatures, shorten the lubrication tubes accordingly.

The use of progressive distributors combined with **Lub5** is not possible.

All values listed above apply to the standard lubricants supplied by Gruetzner GmbH.

Please note!

The following applies for low temperatures, stiff grease with NLGI class 2 and complex uses with high back pressure:

- keep tube lengths as short as possible
- minimum inner diameter is 6 mm

This product is subject to strict production controls and fulfils our company's factory specifications. However, any guarantee of working successfully in each individual case cannot be given due to the numerous factors involved.

We therefore strongly recommend that test runs are carried out. All liability is excluded. For guarantee conditions see general terms and conditions of Gruetzner GmbH.



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LUB 5

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