



BEKA[®]
ONE
LUBRICATOR

Operation Manual

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All persons who are in charge in regard to the assembly, start- up, maintenance and/or operation of this device must read the instructions carefully. In the following instructions, fundamental information is listed that must be observed for installation, operation and maintenance.

Please observe the safety instructions listed in this manual carefully; please pay also attention to further safety warnings and instructions, implemented in other parts of this documentation.

Safety instructions which can result in hazard to persons in case of non-observance are marked with the general hazard symbol.

ATTENTION!

This heading is used if improper or non-observance of the procedures specified in the operation manual may result in damage.

NOTE!

This heading is to draw your attention to special characteristics.

Please also see further safety information on page 13.

Lubricant volume	120ml
Lubricant	Oil $V_{40} = 10 - 1000 \text{ mm}^2/\text{s}$ Grease up to NLGL-CI.2
Pump type	Piston pump
Output	0,24ml / stroke
No. of emptying cycles	Max. 6
No. of outlets	1
Connection	External thread G1/4"
Runtime per filling	1-24 months
Operating pressure	Max. 10bar
Temperature range	-20°C up to +60°C
Dimensions	70 x 120 mm
Weight (without filling)	Approx. 315g
Controller	Microprocessor
Pressure monitoring	Electronically
Capacity monitoring	LED display
Power supply	3,0 V Li-Battery
Grease fitting	According to DIN 71412
Protection class	IP 65
Noise level	< 70db(A)
Operation of progressive distributor	No



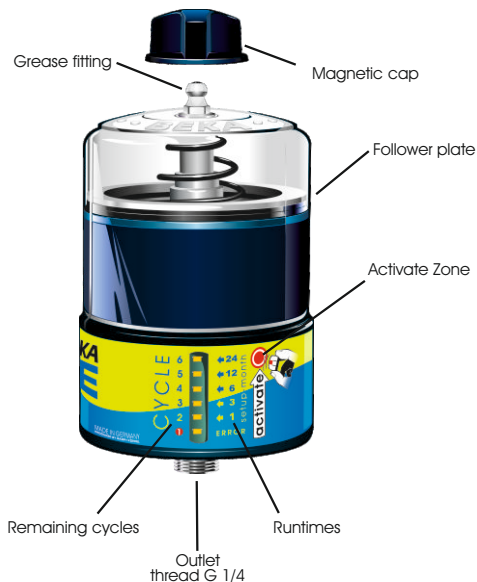
BEKAONE is designed to provide lubricants (oil or grease) to single lube points.

The lubricant is stored in a refillable reservoir with a capacity of 120ml.

Maximum output pressure is 10bar.

The lubricator is designed for autonomous operation, driven by a battery pack.

Provided the use of suitable lubricant, the battery pack lasts up to 6 drains, respectively a maximum runtime of 48 months; whatever occurs first.



Max. number of drains with hose Ø 8X1mm-length 30cm

Temperature	Universal grease Agip EP2	Low temperature grease Fuchs Stabyl LT50	High temperature grease Total Ceran XM100	High performance grease Klüberquiet BQ 72-72
60°C	6	6	6	6
40°C	6	6	6	6
20°C	6	6	6	6
0°C	6	6	6	6
-10°C	4	5	5	6
-20°C	3	4	3	4

Max. number of drains with hose Ø 8X1mm-length 60cm

Temperature	Universal grease Agip EP2	Low temperature grease Fuchs Stabyl LT50	High temperature grease Total Ceran XM100	High performance grease Klüberquiet BQ 72-72
60°C	6	6	6	6
40°C	6	6	6	6
20°C	6	6	6	6
0°C	6	6	6	6
-10°C	4	5	5	5
-20°C	2	3	3	4

Operating examples:

Application: Industrial hall with a temperature of approx +20°C
 Recommended lubricant: Multi-purpose grease => 6 emptyings

Application: Outdoor with temperatures of -20°C to +40°C
 Recommended lubricant: High performance or low temp. grease => 5 - 6 emptyings
 Improper lubricant: Multi-purpose grease => only 2 - 4 emptyings

NOTE! Keep lubrication lines as short as possible!

NOTE!

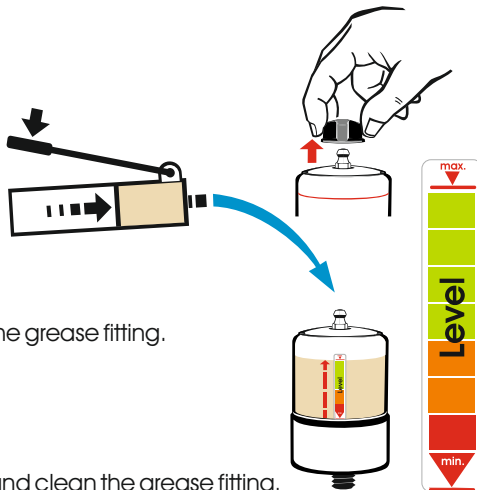
The lubricator can be refilled at any time. The pump counts the delivered amount of lubricant not the reservoir drains.

NOTE!

The lubricator should never be drained completely. Complete draining will not cause damage to the pump but may transport air into the lube line or the lubrication point.

Filling

1. Take off the magnetic cap.
2. Connect the grease gun coupler to the grease fitting.
3. Slowly fill up to the „MAX.“ marking.
4. Disconnect the grease gun coupler and clean the grease fitting.

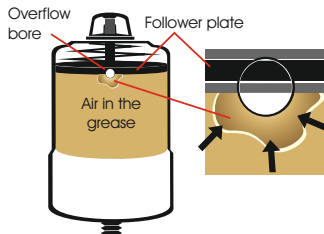


ATTENTION!

Air might get entrapped in the reservoir with the first filling. This does not affect the pump function, but air may be supplied to the lubrication point.

To remove the entrapped air, slowly fill the BEKAONE till approx. 1 mm above the 'MAX' marking.

The air is discharged via the overflow bore.

**NOTE!**

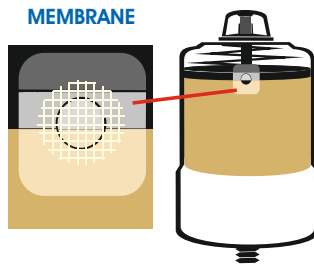
If BEKAONE is used outdoors, a membrane sticker should be placed onto the ventilation bore.

In order to do so, clean the surface around the ventilation bore after filling and ventilation.

After this, the membrane can be attached (see picture).

Membrane sticker for ventilation bore

Order number: 10100887



Possible month settings

Selected runtime in months	Amount of lubricant per month	Amount of lubricant per week
24	5 cm ²	1,1 cm ²
12	10 cm ²	2,3 cm ²
6	20 cm ²	4,6 cm ²
3	40 cm ²	9,2 cm ²
1	120 cm ²	27,5 cm ²

Correct filling

Selected month setting:	24	12	6	3	1
Ideal refilling interval:	20 months	10 months	5 months	10 weeks	4 weeks

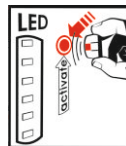
NOTE!

The lubricator should never be emptied completely. Complete emptying will not damage the pump but air may be transported to the lube point. The lube point might be lubricated insufficiently and lube lines might need to be bled again after re-filling.



The magnetic cap is necessary for the control of important functions of the lubricator, like e.g. adjustment of the lubrication cycles.

Remove the magnetic cap and direct its outer side to the Activate Zone.

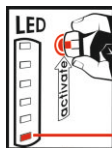


Place the cap on the Activate Zone until the red LED flashed 5 times.

Remove the cap afterwards for 1-2 seconds.

Then put the cap immediately back on the Activate Zone and hold it there to set the cycle time of the pump.

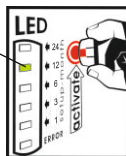
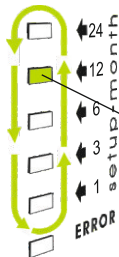
1-2 sec.



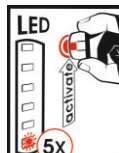
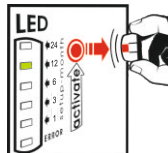
5x



The green LEDs are now flashing up in a line.



Remove the magnetic cap as soon as the requested cycle setting has flashed up (e.g. 12 months).



NOTE!

The settings can be reset in case of incorrect entries as follows:

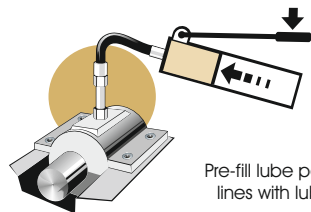
Place the magnetic cap on the Activate Field again until the red LED flashed 5 times.

The pump will stop and the red LED glows for several seconds.

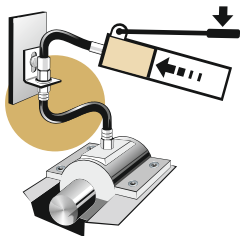
The pump can be switched on again and can be re-programmed.

Make sure that all lube lines and extensions are pre-filled with lubricant prior to putting BEKA one into operation.

This can be done with a grease gun.



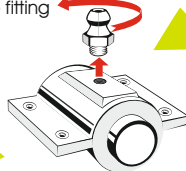
Pre-fill lube point and lines with lubricant



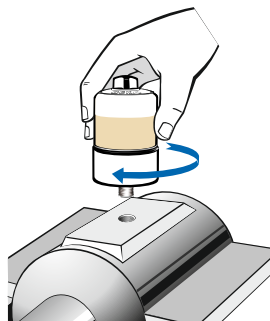
Clean the lube point



Remove the old grease fitting



Install BEKAONE



An additional lubrication cycle is necessary to bleed BEKAONE or to start an intermediate lubrication.

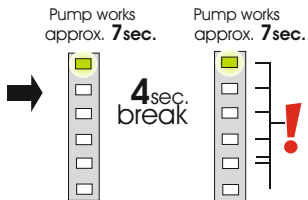
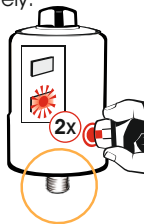
Activation of an additional lubrication:

Wait until the red LED flashed 2 times.

Remove the cap.

The pump will start an additional lubrication cycle immediately.

- Place the magnetic cap onto the Activate Zone until the red LED has flashed 2 times
- Remove the magnetic cap. The pump motor will run for approx. 7 seconds
- A break of 4 seconds follows
- The motor will operate again for 7 seconds
- The intermediate lubrication is finished



The green LED of the selected month setting will glow while the pump is running.

Repeat this procedure 5 times or until the disposed lubricant is almost free of air bubbles (in case of initial filling / ventilation).



An additional lubrication cycle must be activated to check the remaining capacity. The pump will indicate the lubricator's remaining capacity in the LED display after an additional lubrication cycle as well as after each normal lubrication cycle (see graphic and table).

	Remaining capacity	Remaining reservoir emptyings (complete)	Possible lubrication pulses (cycles)
6 →	>600ml	>5	> 2500
5 →	600ml-481ml	>4	2500-2001
4 →	480ml-361ml	>3	2000-1501
3 →	360ml-241ml	>2	1500-1001
2 →	240ml-121ml	>1	1000-501
1 →	< 120ml	<1	<500



LED Signals

LED green	LED red	Cause	Troubleshooting
ON	OFF	Pump is currently lubricating	
Flashes every 60 sec.	OFF	Function control (=ok) Unit is activated	
OFF	Flashes 2x all 5 sec.	Backpressure is too high	Switch device off, then reactivate it
OFF	Flashes all 5 sec.	max. number of cycles reached	Replace device
OFF		Low battery	Replace device

Risks in case of non-observance of the safety instructions

Non-observance of the safety instructions might lead to hazards for persons, the environment and the device.

Non-observance of the safety instructions will void any claims for indemnification.

Operator's / user's obligations

Leakages of any hazardous substances have to be discharged in an appropriate manner to avoid any risks or hazard to persons or environment.

Observe hereto the manufacturers' data sheets or safety data sheets. Keep to legal provisions.

Improper operation

The operational safety of the device is only guaranteed for the intended use, as indicated in the operation manual. The maximum technical values as stated in the technical specification must not be exceeded in any case.

General hazard warning - residual risk

All device components are designed in accordance with the regulations for the construction of technical systems regarding operational safety and accident prevention.

Also inobservance of the aforementioned, the use of the device and its components may result in hazards for the user and third parties as well as other technical equipment. The device may therefore only fulfill its intended purpose in a technically faultless condition and only under observance of the corresponding safety regulations and the operation manual. Therefore check the device and its accessories regularly for possible damage or leakages.

In case where pressurized components of the system should become leaky, fluids might escape under high pressure.

Intended use

Only the industrial use of this device is permitted. The device may only be put into operation when it is installed into or onto a machine and is operated together with it. Only lubricant according to the machine manufacturer's specifications may be used. The device may only be operated in accordance with the technical data. The maximum technical values must in no case be exceeded.

Unauthorized modifications of the device are not permitted; any liability for personal injuries or machine damage resulting thereof is not accepted.

Scope of warranty

Warranties regarding operational safety, reliability and performance are only granted by the manufacturer for the use as intended and only provided under following conditions:

- The device is used according to the provisions in the operating manual
- The maximum technical values as stated in the technical data sheet are not exceeded
- Modifications or repairs of the device may only be carried out by BEKA
- Liability shall be limited to the value of the device

Damage due to operation with unsuitable lubricant or inappropriate use in general voids any guarantee and warranty. BEKA in general does not accept any guarantees for damage caused by lubricants.

Transport and storage

Do not throw the device or expose it to shocks. The device must only be stored under cool and dry conditions.

Exchange of lubricant and disposal

Observe the disposal information of the lubricant manufacturer in case of an exchange of lubricant!

Lubricants or lubricant contaminated cloths and the like, have to be handled in an appropriate manner, following the laws and regulations of the respective country. Disposal of the device must be done in an appropriate manner, following the laws and regulations of the respective country.

The device contains batteries which can be recycled, provided their correct disposal.



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