

## Antriebssysteme

Commissioning and Maintenance Instructions  
for Lubricant Cartridge

Typ MD125, MD400 und Typ M60 / M150 / M250

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## Important basic information

### 1. Use of the documentation

Please read these installation and maintenance instructions carefully and observe the notes before commissioning the lubricator cartridge for lubricator type M type MD.

Please read carefully and follow the instructions.

The assembly and maintenance instructions explain the operation in detail and give necessary instructions for handling, maintenance and care. This manual may also describe versions that are not part of the equipment of your system. Warranty claims cannot be accepted for damage resulting from operating errors or improper use.

**It must be ensured that the persons responsible for the system and its operation, as well as persons who work independently on the product, have read and understood this documentation in full. Please contact us if anything is unclear or if further information is required.**





### 1.1 Change Index

Index	Date	short sign	change
V2	30.07.20	Wes	Schmierstoffkartusche Typ M
V3	15.03.21	Wes	Kapitel 12, IHVZ
V4	16.06.23	Wes	Kapitel 5.3.2 & 5.3.3


### 1.2 Structure of the safety notes

Symbols




The following table shows the grading and significance of the signal words of the warnings

symbol / signal word	meaning
	Point out the handling and impact of safety information.
 <b>DANGER</b>	Draws attention to an imminent threat that will result in a fatal injury or death if not avoided.
 <b>WARNING</b>	Draws attention to a dangerous situation that can result in a fatal injury or death if not avoided.
 <b>CAUTION</b>	Draws attention to a dangerous situation that can cause a mild to moderate injury if not avoided
<b>NOTICE</b>	Draws your attention to possible damage to property and other important information.

### 1.3 Structure of safety instructions

	symbol / signal word
	type of hazard Possible damage if you disregard the proof of safety ▪ Measure(s) to avert the hazard

### 1.4 Explanation of hazard symbols

Gefahrensymbol	Bedeutung
	General Hazardous Area
	Environmental pollution warning
	Flammable substances

### 1.5 EC Machinery Directive

Within the scope of application of the EC/EU directive, the lubricant cartridge for lubricators Type M or Type MD is a component, therefore the (re-)commissioning of a machine on which the lubricant cartridge for lubricators has been installed and/or mounted is prohibited until it has been clearly established that the machine complies with the provisions of the applicable directive.

#### Risk analysis

We strongly recommend that after project planning and at the latest after installation of the component, an analysis of the hazards emanating from the machine or system as a whole is carried out.

#### Modifications/conversions

Mechanical work on the component or components may only be carried out with the express written permission of ATLANTA Antriebssysteme GmbH.

### 1.6 Technical changes

ATLANTA Antriebssysteme GmbH reserves the right to make technical changes to improve the product.

#### Disclaimer

The manufacturer will not assume any liability for damage or injuries resulting from improper use of the unit. Any improper manipulations and other acts not in accordance with these instructions will affect the product's quality. This will lead to the loss of warranty claim for material defects against the company ATLANTA Antriebssysteme GmbH

### 1.7 Description, designation

The ATLANTA lubricant cartridge for drive unit type M or type MD will be referred to as lubricant cartridge in the following.

## 2. Safety

<p><b>NOTICE</b></p>	<p>The lubricant cartridge may only be used for relubrication in industrial applications under atmospheric conditions. The operating conditions and limits under which the lubricant cartridge may be operated can be found in section 'Fields of application'. Only lubricants approved by ATLANTA Antriebssysteme GmbH may be used.</p>
<p><b>NOTICE</b></p>	<p>Use outside these specified general conditions is considered improper use and is prohibited. Use of the lubricant cartridge is prohibited if:</p> <ul style="list-style-type: none"> <li>• It is not installed correctly (e.g. mounting)</li> <li>• It is operated with non-approved lubricant or without lubricant</li> <li>• It is not used for its intended purpose</li> <li>• It is exposed to vibrations</li> </ul>

### 2.1 Fields of application

- The operating temperature range of the lubricant cartridge is from -15°C to +60°C. Consultation with ATLANTA Antriebssysteme GmbH is mandatory if it is to be operated outside this range.

Consultation with ATLANTA Antriebssysteme GmbH

- The lubricant cartridge must not be operated under the following ambient conditions:
  - With lubricants with a higher viscosity than grease or oil of NLGI Class 2
  - With lubricants containing solids
  - UV radiation
  - Gases/vapours (hot/cold)
  - Solvents, acids, alkali

### 2.2 Reasonably foreseeable misuse

Any use outside the permissible ambient conditions (see 'Fields of application') as well as the disassembly or modification of the lubricant cartridge is prohibited.

### 2.3 Personnel requirements

The unit presents unavoidable residual risks to persons and property. For this reason, only skilled and trained personnel who are aware of the possible risks may carry out assembly, installation, commissioning and servicing work. All work may only be carried out by individuals who have a reliable understanding of the safety-related aspects based on their specialist knowledge gained from their professional training, professional experience and recent professional activities.

Qualified personnel must have current knowledge of the technology involved in the tasks to be performed and the hazards to be monitored as well as have the qualifications required for the activity to be done and be familiar with the assembly, installation, commissioning and operation of the product. In addition, they must have carefully read, understood and comply with these instructions and, in particular, the safety instructions.

	Mechanic* (2)	Electrician* (2)	Transport staff* (2)	Trainees / Interns* (3)	Third* (3)
Transport			X		
Assembly	X	X			
Installation	X	X			
Storage	X	X	X		
Disposal	X	X	X		

\*)For reasons of better readability, the simultaneous use of the language forms male, female and diverse (m/f/d) is waived. All personal terms apply equally to all genders.

1) unskilled or inexperienced, if applicable

2) qualified or instructed person

3) no training, no experience, lack of risk awareness




### 2.4 Compliance with the assembly instructions

Carefully read all of these assembly instructions before assembling/operating the unit. These include everything you need to know for assembly/commissioning and to avoid damage to persons/objects/the environment.

Carefully observe all the safety information, requirements and information in these assembly instructions.

## Residual risks and protective measures

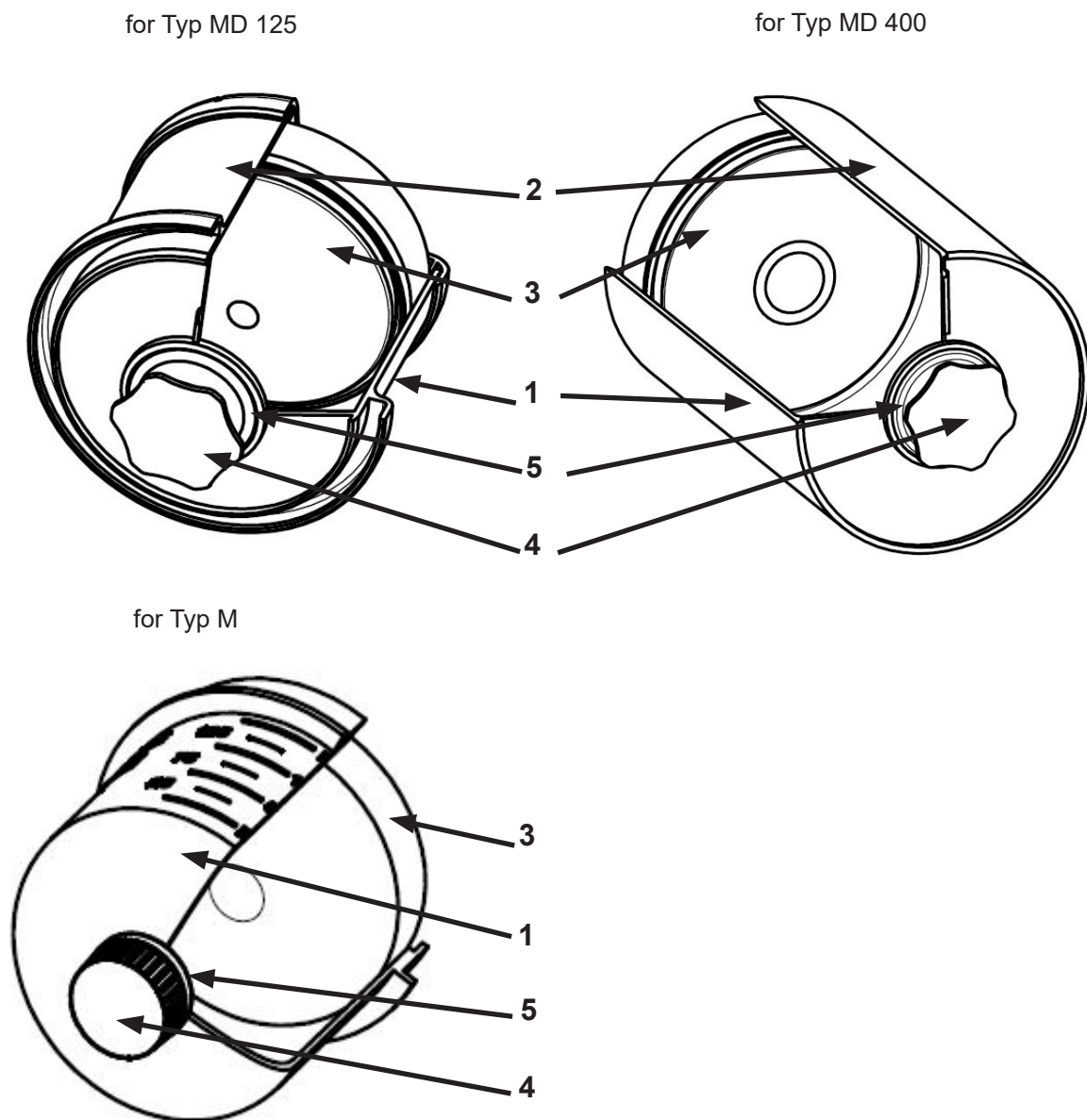
Below is an overview of all the overall residual risks and protective measures which apply to these assembly instructions. The product corresponds to the state of the art at the time of delivery and can be regarded as safe to operate

	<p><b>! WARNING</b></p> <p>Lubricants are combustible          Can cause serious or fatal injuries          Can cause damage to property or other subsequent damage</p> <ul style="list-style-type: none"> <li>▪ In case of fire, only use suitable extinguishing agents such as foam, dry chemical powder, carbon dioxide</li> <li>▪ Observe the safety advice from the lubricant manufacturer</li> <li>▪ Observe personal safety advice and instructions on how to act in the event of fire</li> </ul>
	<p><b>! CAUTION</b></p> <p>Lubricants          Can cause minor or less severe injuries as well as damage to property</p> <ul style="list-style-type: none"> <li>▪ Intensive contact with lubricants over longer periods can cause skin irritation</li> </ul>
	<p><b>NOTICE</b></p> <p>Warning against pollution of the environment</p> <ul style="list-style-type: none"> <li>▪ Lubricants (oils and greases) are hazardous substances that can pollute the contaminate soil and water</li> <li>▪ Prevent the lubricant from entering drains, drains, sewers and watercourses</li> <li>▪ Use and dispose of lubricants properly</li> </ul>

### 3. Technical data

#### 3.1 Brief description

The lubricant cartridge is required for operation of drive units of type M or MD.  
It is the lubricant reservoir of the respective lubrication system.




No.	Designation
1	Lubricant cartridge
2	Type plate with notes
3	Piston with seal
4	Transport lock
5	Mounting thread with seal

#### 3.2 Marking

The lubricant cartridge is marked with a type plate (see above). This contains the lubricant type, production date and article number as well as other information.



## 4. Delivery, internal transport, unpacking

	<b>⚠ VORSICHT</b>
	<p>Damage to the lubricant cartridge</p> <ul style="list-style-type: none"> <li>- May result in property damage or consequential damage</li> <li>▪ Inspect the delivered lubricant cartridge, if it is damaged, please</li> <li>▪ If the lubricant cartridge is damaged, please complain immediately</li> <li>▪ Prevent further use of the lubricant cartridge.</li> <li>▪ Do not throw the lubricant cartridge.</li> <li>▪ Do not drop the lubricant cartridge.</li> </ul>

The lubricant cartridge is packed in an outer packaging (cardboard box) for transport.  
We recommend removing the outer packaging of the lubricant cartridge only at the place of installation.

### 4.1 Storage

If the lubricant cartridge is not installed immediately after delivery, the following measures must be taken:

Leave the lubricant cartridge in the packaging during storage:


- Storage temperature: -10°C to +20°C
- Relative air humidity: 30-60%
- Protect the drive unit and attachment parts against environmental influences (ozone, UV light, electric welding, dust, dirt, moisture, vibrations, etc.)
- We recommend the “first in – first out” principle for the storage logistics
- The maximum storage time under these conditions is 2 years from the production date printed on the packaging

#### Unpacking

- Unpack the delivered items from the transport packaging/outer packaging.
  - Carefully remove the transport packaging/outer packaging.
  - Use suitable tools to open the packaging.
  - Check scope of delivery for completeness and damage.
- If the scope of delivery is incomplete or damaged:
- Document damage / missing parts and report to the transport company.
  - For disposal of the packaging, observe the current national regulations!
  - If necessary, dispose of the individual packaging components separately, depending on their condition and the existing country-specific regulations.

## 5. Assembly and installation

### 5.1 Assembly preparation

	<p style="text-align: center;"><b>⚠ WARNING</b></p> <p>Lubricants are combustible Can cause serious or fatal injuries Can cause damage to property or other subsequent damage</p> <ul style="list-style-type: none"> <li>▪ In case of fire, only use suitable extinguishing agents such as foam, dry chemical powder, carbon dioxide</li> <li>▪ Observe the safety advice from the lubricant manufacturer</li> <li>▪ Observe personal safety advice and instructions on how to act in the event of fire</li> </ul>
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### 5.2 Preparation for installation of the lubricant cartridge

The lubricator drive unit should be installed in an easily accessible and visible location. This facilitates the recognition of error messages and the filling level of the lubricant cartridge.

Only original, fully filled lubricant cartridges may be used.

Ensure that the same lubricant is used in the lubricant cartridge that is already in use.

During initial commissioning, lubricate the lubrication point well with a hand grease gun before connecting the lubricator.

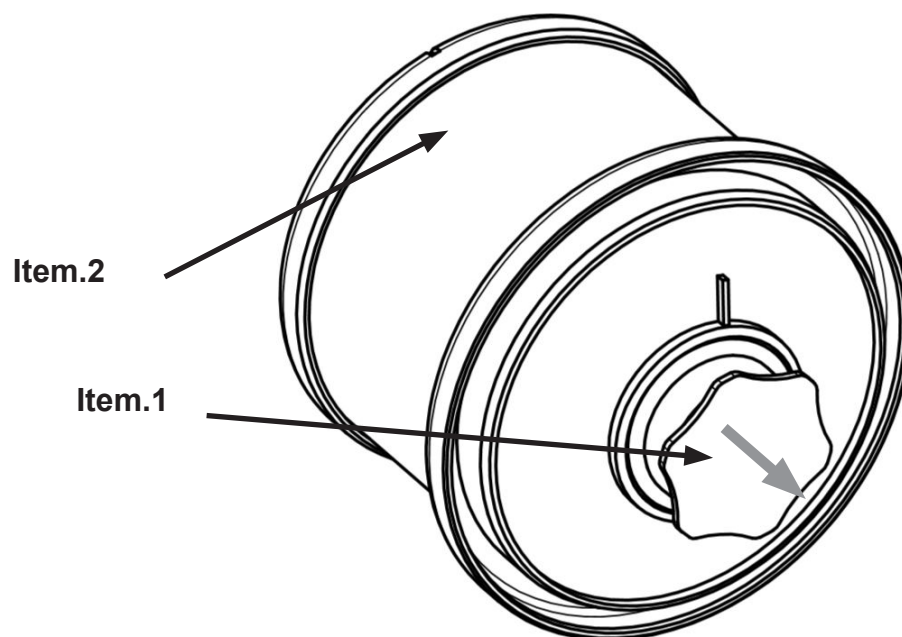
Please note: Use the same lubricant for lubrication as is used in the lubricant cartridge.

### 5.3 Installing the lubricant cartridge

Remove the screw cap of the lubricant cartridge as follows:

Turn the screw cap (Item 1) on the lubricant outlet of the lubricant cartridge (Item 2) in anti-clockwise direction and pull it off.

We recommend that the screw cap is only removed before installing on the drive unit in order to prevent foreign matter from entering..



### 5.3.1 Installation of the lubricant cartridge on the drive unit of the MD125

Remove the protective cap from the lubricant inlet of the drive unit (Figure 1).

Place the full lubricant cartridge on the drive unit (Figure 2) and turn the lubricant cartridge in clockwise direction. The end position is reached after two full turns as soon as the label of the lubricant cartridge is aligned with the front foil of the drive unit (Figure 3).

Please note that depending on the lubricant selected, the lubricant cartridge may have to be installed with the outlet pointing upwards, contrary to the illustration.

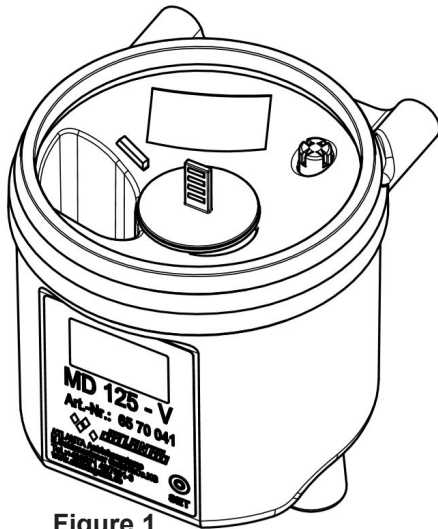


Figure 1

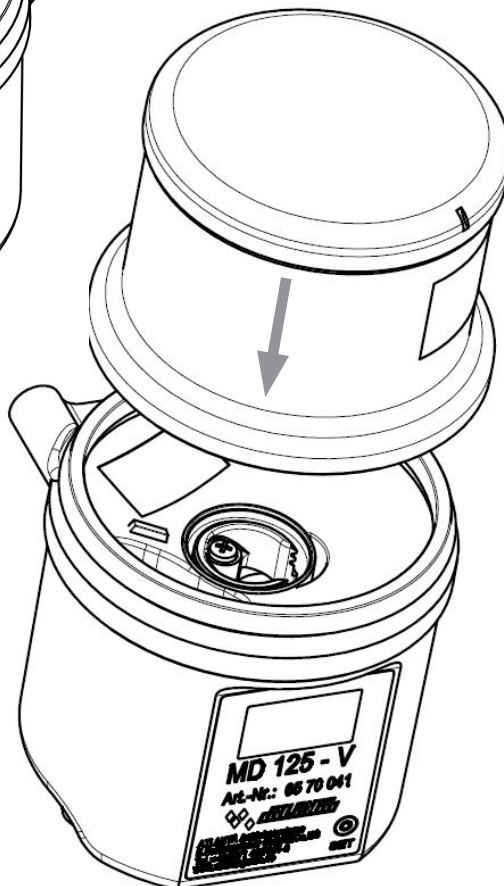


Figure 2

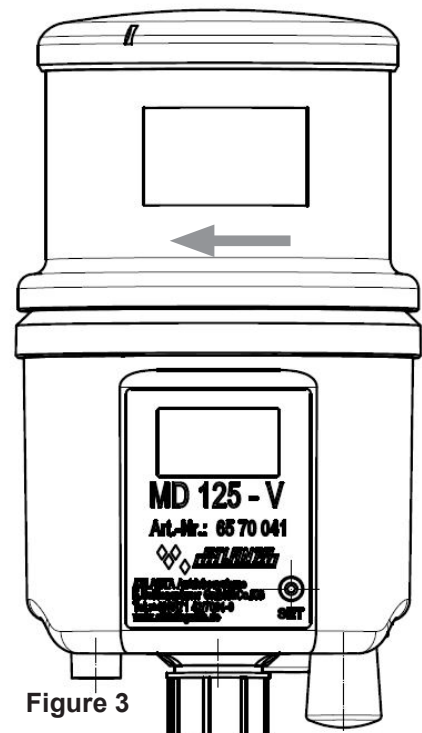


Figure 3

### 5.3.2 Fitting the lubricant cartridge to the drive unit of the MD400

First remove the protective cover. To do this, turn the union nut anti-clockwise (Fig. 1) and remove it (Fig. 2). Then pull off the protective cover (Fig. 3). Place the full lubricant cartridge very quickly on the drive unit (Fig. 4) and turn the lubricant cartridge clockwise. The end position is reached after two full rotations as soon as the label of the lubricant cartridge is aligned with the front of the drive unit (Fig. 3). Replace the removed protective cover (Fig. 3) and screw the union nut on hand-tight in a clockwise direction (Fig. 1). The union nut must engage noticeably. If you are using type 2 lubricant or oil to fill the cartridge, we recommend using PU foam and, if necessary, removing the spring as described under 5.3.3

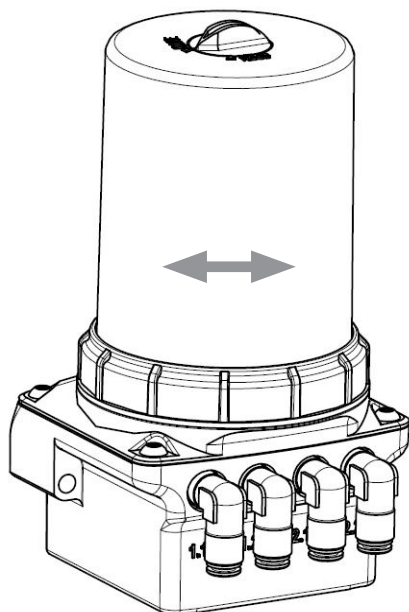


Bild 1

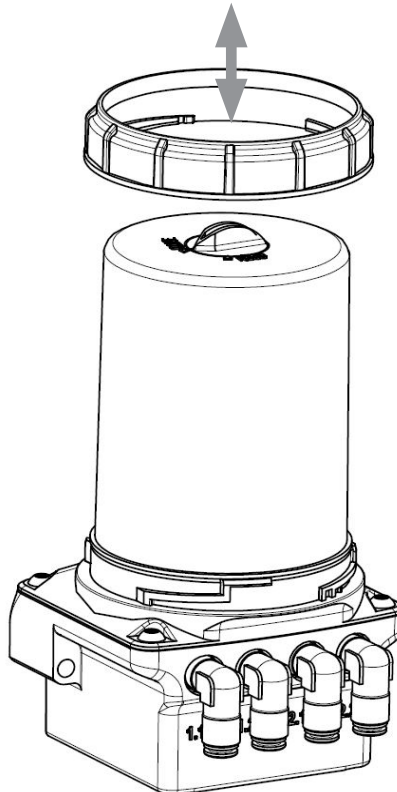


Bild 2

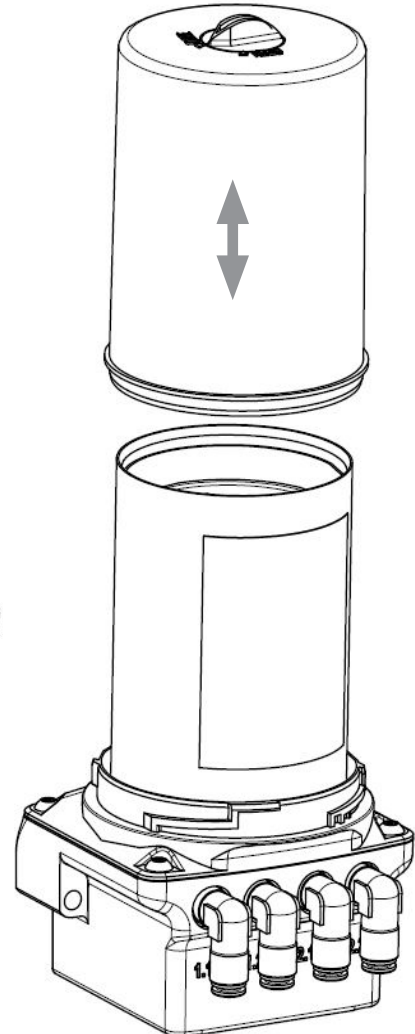


Bild 3

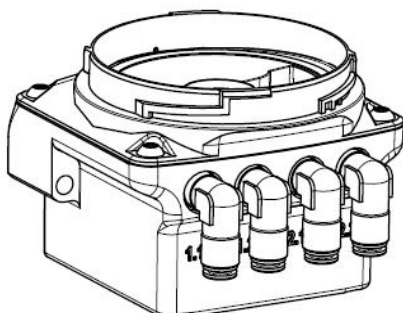
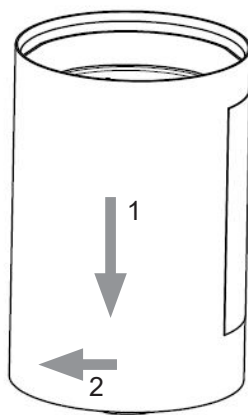


Bild 4

### 5.3.3 Filling an unused empty MD400 lubricant cartridge with grease or oil

If you want to fill the lubricant cartridge with your own lubricant,

Use the technical data of the drive unit to check whether your lubricant can be pumped.

Please note that your lubricant must not contain any solids or fibre particles.

If you have any further questions, please contact us.

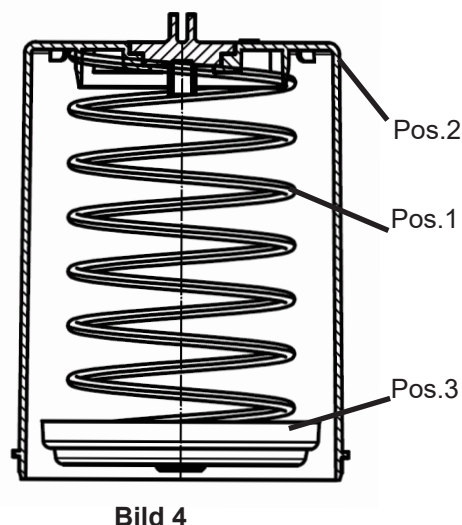
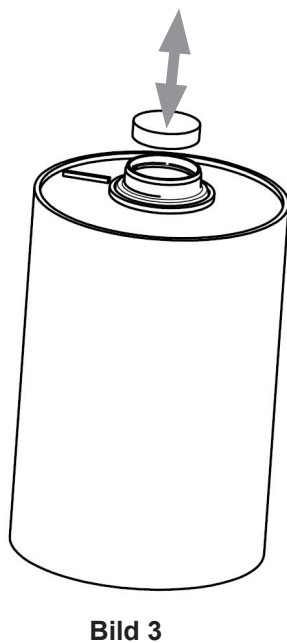
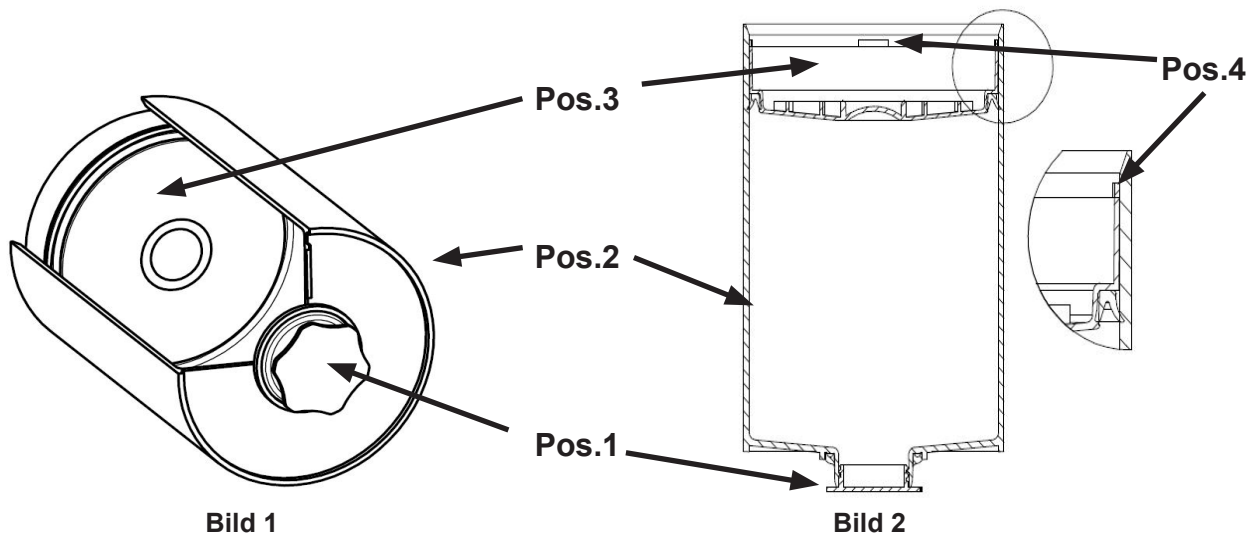
Please follow the instructions below before installation:

First remove the transport cap (pos.1 picture 1/2) of the lubricant cartridge (pos.2 picture 1/2), make sure that the piston (pos.3 picture 1/2) is in the rear end position, this is for the cartridge with 250ml or 400ml by four stops (pos.4 picture 2) at the end of the cartridge. Ensure that the piston (Pos.3 Fig. 1/2) is not tilted and that the seal and the PU foam at the end of the cartridge are in full contact with the piston. Now fill in the required amount of lubricant depending on the cartridge. Ensure that there are no air pockets in the grease or oil and that the lubricant is not filled under pressure. Do not pressurise the lubricant.

If you are using oil, the cartridge of the MD400 must be sealed at the end with the enclosed PU foam (Fig. 3) to prevent the cartridge from leaking when it is fitted.

Ensure cleanliness when carrying out the work. Avoid the ingress of dirt, liquids and dirt, liquids and foreign bodies from entering the lubricant cartridge.

If necessary, remove the pressure spring (pos. 1 fig. 4) in the protective cover (pos. 2 fig. 4) when filling with oil to prevent oil from escaping. Please place the pressure flange (pos. 3 fig. 4) on the piston of the lubricant cartridge, otherwise the empty signal cannot be given.



**5.3.4 Installation of the lubricant cartridge on the drive unit of the M60 / M150 / M250**

Before screwing the lubricant cartridge onto the drive unit, the pressure plate of the drive unit must be brought into the correct position. Turn the pressure plate carefully in clockwise direction until a slight resistance is felt (Figure 1). Screw the pre-filled lubricant cartridge without screw cap onto the drive unit until there is contact between the pressure plate and the plunger (Figure 2). Ensure that the two parts are firmly connected to one another (Figure 3). When used correctly, a small amount of lubricant should come out of the cartridge outlet.

Please note that depending on the lubricant selected, the lubricant cartridge may have to be installed with the outlet pointing upwards, contrary to the illustration.

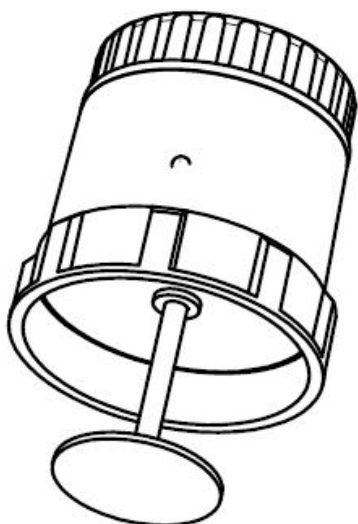


Figure 1

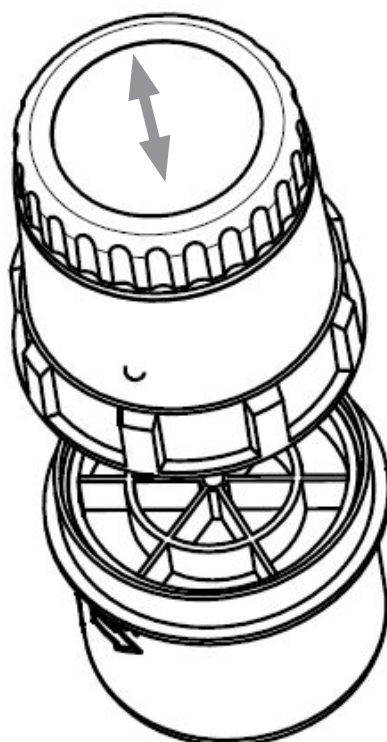


Figure 2

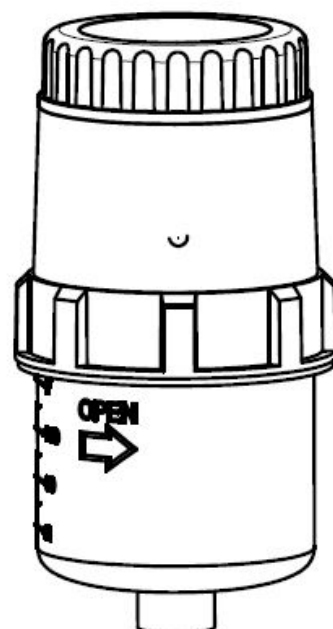


Figure 3



### 5.3.5 Filling lubricant cartridge Type M60 / M150 / M250

If you have decided to fill the lubricant cartridge yourself, please follow the instructions below before installation.

Push the plunger forward towards the outlet opening using a plastic rod (Figure 1).

We recommend using our refill nipple (65 70 001) and the stop ring (M60/M150 65 70 011, M250 65 70 021). Screw these onto the lubricant cartridge (Figure 2).

Then slowly fill the cartridge with lubricant until the plunger is pushed all the way back (Figure 3).

An ideal result is achieved if the cartridge is rotated during the filling process.

Keep the refill nipple and stop ring for later use.

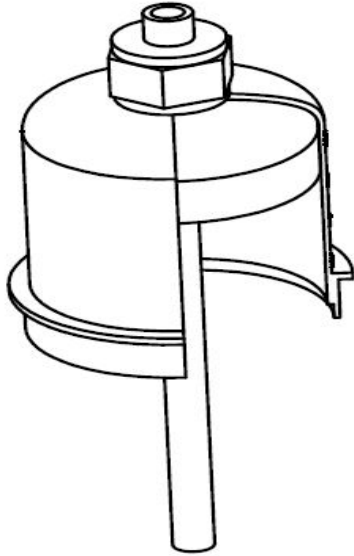


Figure 1

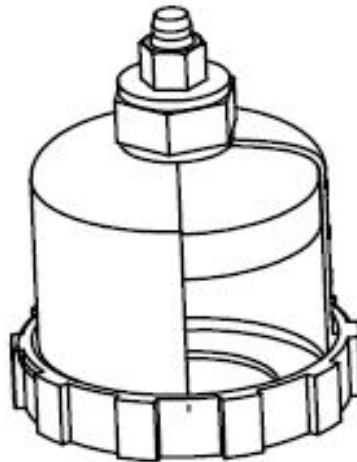


Figure 2

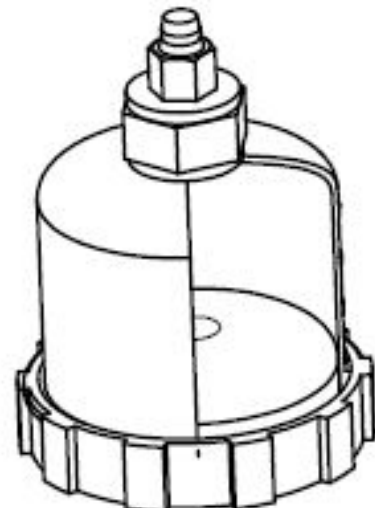


Figure 3

## 6. Initial commissioning

During initial commissioning of the lubricator (drive unit and lubricant cartridge), the FIL function of the MD125 / MD400 drive unit must be carried out in order to fill the pump bodies and lubricant outlets.

Do not connect the lubricator until lubricant emerges at the outlet(s).

## 7. Replacing the lubricant cartridges

Remove the lubricant cartridge in the reverse order to the installation.

Pay attention to cleanliness and avoid dirt and foreign matter entering the lubricant inlet at all costs. Carry out cleaning work beforehand, if necessary.


When replacing the lubricant cartridge, ensure that no air is trapped in the system.

## 8. Error messages

The precondition for trouble-free operation is the installation of a filled lubricant cartridge.

Error messages for an empty lubricant cartridge or cartridge errors can be found in the instructions for the respective drive unit.

## 9. Maintenance

	NOTICE
	<p>Maintenance / repair</p> <ul style="list-style-type: none"> <li>- Can lead to property damage or consequential damage</li> <li>▪ Only use original lubricant cartridges with approved lubricants.</li> <li>▪ Ensure that only lubricant cartridges with the same filling and filling quantity is used</li> <li>▪ It is not possible to refill empty or opened lubricant cartridges.</li> <li>▪ Do not reuse opened lubricant cartridges.</li> </ul>

The lubricant cartridge only needs to be replaced if it is empty, the battery (battery-operated version) is empty or the service life of the lubricant has been exceeded. The lubricant cartridge and battery can be changed during normal operation of the lubricator.

NOTICE	NOTICE
	<p>Cleaning</p> <p>May result in possible damage to property</p> <ul style="list-style-type: none"> <li>▪ Cleaning with compressed air or high-pressure cleaners is not permitted, this leads to damage to individual components and their premature failure.</li> <li>▪ Cleaning with any aggressive solvents/cleaning is not permitted.</li> </ul>

Only use suitable cleaning agents such as absorbent cloths and rags to clean the drive unit and lubricant cartridge. Do not use aggressive cleaners, they can attack plastics.



## 10. Disposal

Please observe the current national regulations!

If applicable, dispose of individual parts separately depending on their composition and existing country-specific provisions, e.g. as:

Metal scrap

- Attachment parts
- Reducing pieces / axles

Distributors

Plastic scrap

- Plastic housing
- Hoses

Batteries

Greases / oils (dispose of them as intended)

Operating materials contaminated by lubricants

## 11. Lubricants

Use only lubricants approved by ATLANTA Antriebssysteme GmbH in the original lubricant cartridges.

The lubricants preferred by ATLANTA are suitable for the following fields of application:

For general applications:

e.g. eccentric presses, highly loaded spur and bevel gears, slide and guide rails, sump-lubricated roller bearings, gear lubrication up to peripheral speeds of approx. 3 m/s, trapezoidal spindles.

Lubricant Type 1 (Order No. 65 90 002, 1 kg)

This is a mineral oil-based lubricant with NLGI Class 0 with a temperature range of -20 to 120°C.

It can be used for brush application as well as for felt gear wheel application.

For gear, rack and chain applications:

e.g. highly loaded spur and bevel gears, slide and guide rails, gear lubrication above peripheral speeds of 3 m/s.

Lubricant Type 2 (Order No. 65 90 003, 1 kg)

This is a highly viscous mineral oil for the temperature range from 0 to 120°C.

It is suitable for felt gear wheel lubrication.

Further information about the lubricants documentation and safety data sheets are available directly from ATLANTA Antriebssysteme GmbH.

Please feel free to contact us if you have any special requirements.





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