perma lubrication systems for

Electric motors

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The Expert in Lubrication Solutions

perma

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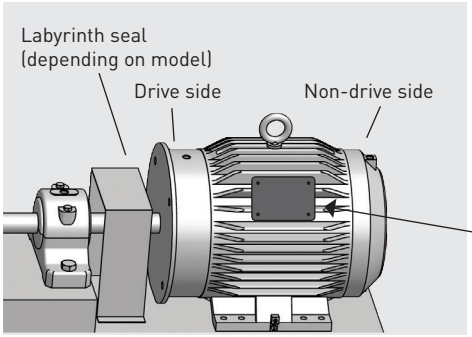
Electric motors

Electric motors are used for a variety of applications. An electric motor is designed to convert electrical into mechanical energy. Efficient lubrication and maintenance are essential for reliable operation of electric motors. Many motors are located in poorly accessible locations or in dangerous areas. They are therefore often only lubricated irregularly. Failure to adhere to manufacturer specifications frequently leads to damage and failures due to over-lubrication or lubrication starvation.

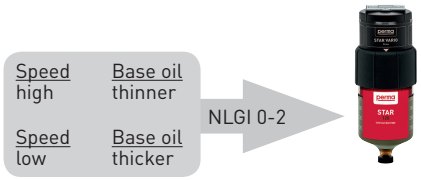
- → Mining
- → Power plants
- → Food industry
- → Recycling industry
- → Quarrying industry
- → Cement plants

Lubrication points



Lubrication points are located on the **drive** and **non-drive end of electric motors**. **Grease escape** (grease drain hole, grease relief ports or grease trap) also has to be taken into consideration. Bearings will overheat if grease cannot escape and/or if grease traps are filled up with used grease.

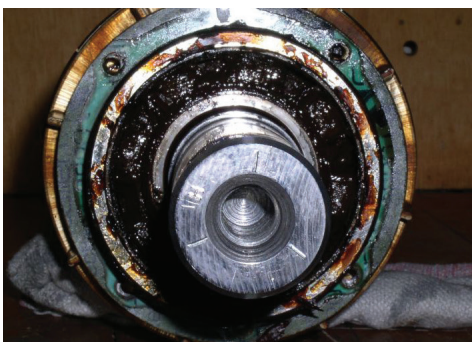
The correct lubricant
Motors with relubrication fittings come with information plates specifying grease amounts and relubrication intervals.



Challenges

During manual lubrication, the grease is **applied in uneven amounts**. A large quantity of lubricant is introduced at one time. This leads to temporary **over-lubrication of the bearings**. Non-adherence to relubrication intervals leads to **lubrication starvation**.

- → **Overheating** of bearings and **fire hazard**, since distribution of excess grease takes hours; **shut-off** by temperature monitoring
- → Bearing damage due to lubrication starvation results in unscheduled **machine downtimes** and higher production costs
- → **Increasing maintenance costs** caused by premature wear



Relubrication during running operation (manufacturer recommendation) jeopardises maintenance workers. Increased accident risk due to time spent in **dangerous** or **difficult-to-access** areas.

- → **High accident risk**
- → **Motor shut-down** when entering secured areas

HINT Electric motor lubrication manual available on request.

Advantages of automatic lubrication

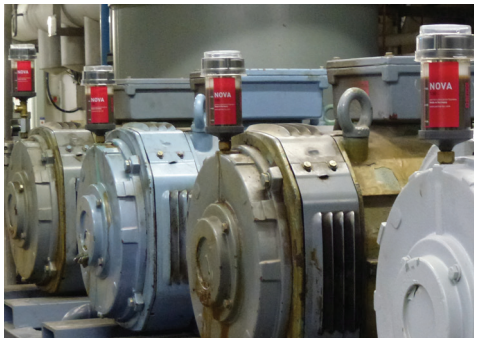
- **Relubrication during running operation** minimises overheating of bearings
- **Predictable exchange intervals** with reduced material and personnel expenditure
- **Increased workplace safety** due to automatic lubrication of hard-to-reach lubrication points
- Precise lubricant discharge **lowers** lubricant consumption and thereby **environmental impact**

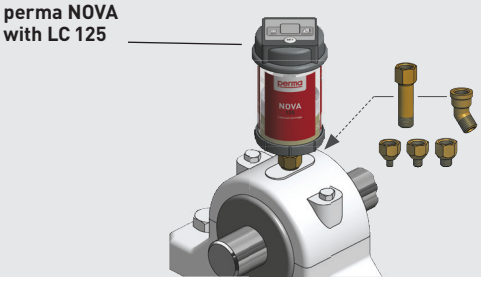
References

SALZGITTER FLACHSTAHL
Ein Unternehmen der Salzgitter Gruppe

Solutions

Direct mounting on the lubrication point: e.g. with perma NOVA
→ Easy, quick mounting
→ For lubrication points with little vibration/shocks
→ For easy-to-reach, safe lubrication points

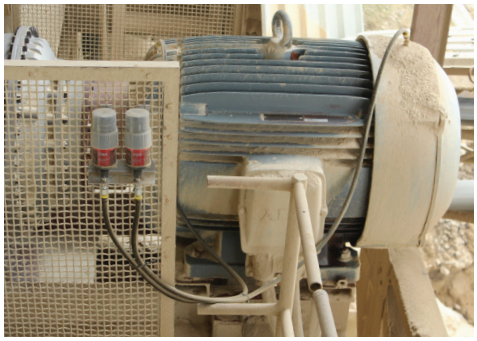


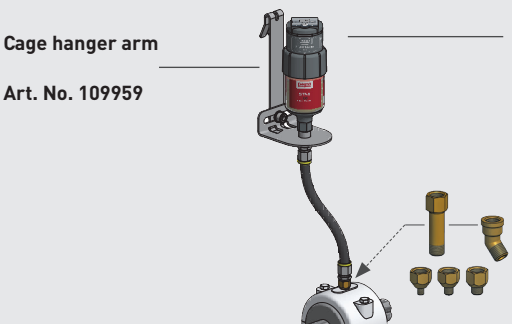


INSTALLATION KIT NOVA Direct Mounting
Use extensions, angles & reducers depending on the installation situation

Art. No. 101476

Remote mounting at lubrication point: e.g. with perma STAR VARIO
→ For lubrication points with strong vibration/shocks (isolation of lubrication system)
→ When workers' safety is at risk: Mounting in safe areas
→ For hard-to-reach lubrication points

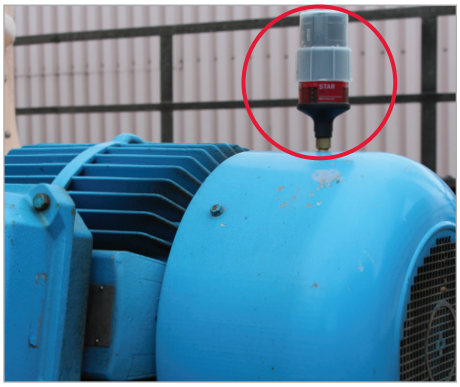
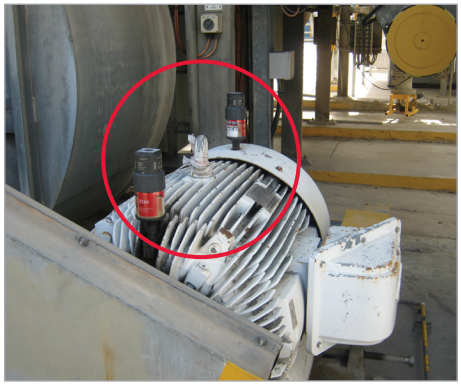


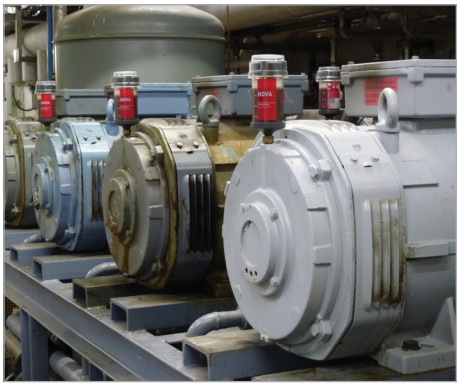
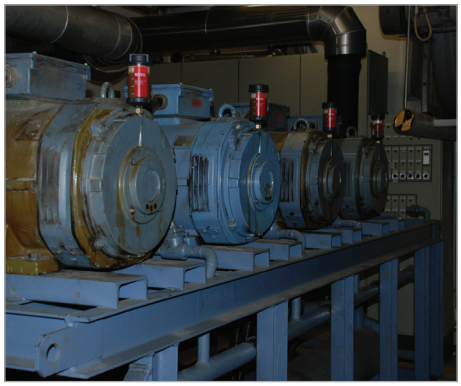
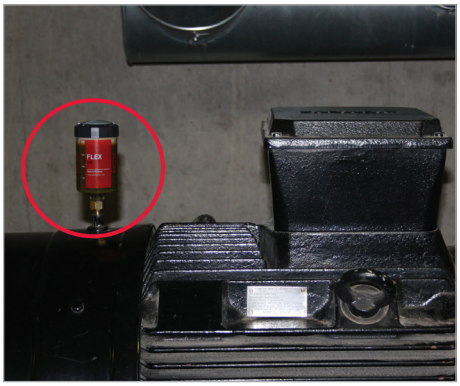


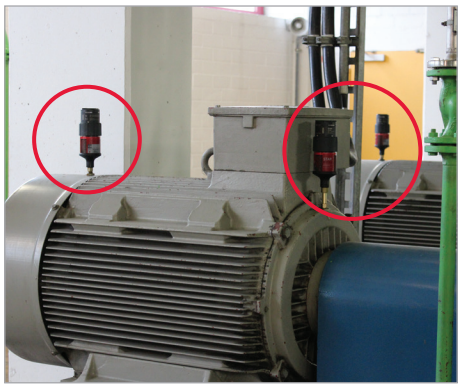
INSTALLATION KIT STAR with 3.0 m hose
Use extensions, angles & reducers depending on the installation situation

Art. No. 101482

Applications

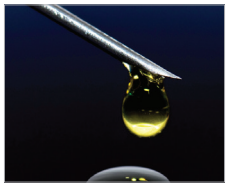



Individual solutions

perma Product portfolio

Solutions for all types of applications

perma Lubricants



Large selection of high quality lubricants to meet the requirements of your equipment

perma Accessories

Extensive range of accessories and connecting parts for your equipment

perma SERVICE

Project planning, installation and maintenance

perma SOFTWARE


Calculation of lubricant amount: • perma SELECT

Maintenance Lubrication Program: • perma MLP

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