

perma lubrication systems for

Gypsum, Lime, Cement

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The Expert in Lubrication Solutions

perma

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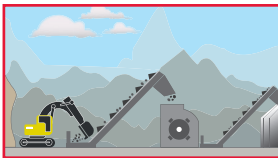
There are hundreds of rotating machine parts in gypsum, lime and cement plants. All of this equipment must function reliably under the most difficult operating conditions. 80% of the equipment fails due to mechanical wear caused by dust and dirt. perma Automatic lubrication systems ensure optimum lubrication and sealing to prevent the ingress of dirt.

Lubrication points

❶ Roller bearings

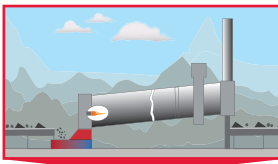
❷ Sliding bearings / Sliding guides

❸ Chains



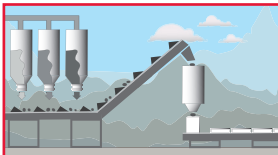
Raw material processing

		❶	❷	❸
→ Crushing	Crusher	✓	✓	
→ Transport	Conveyor systems	✓		
→ Drying and grinding	Raw mill	✓	✓	



Processing to final product

		❶	❷	❸
→ Heating	Rotary kiln	✓		
→ Fine grinding	Cement mill, fine screen	✓	✓	
→ Cleaning	Dust removal equipment	✓		



Storage and packing

		❶	❷	❸
→ Storage	Conveyor systems	✓		✓
→ Packing	Palletizer			✓

Challenges



- Dust, dirt, vibration
- High energy costs



- High maintenance costs, staff shortage, spread out equipment and lubrication points



- Hard-to-reach lubrication points
- High temperatures
- Safety hazards

Advantages of automatic lubrication

- ✔ **Continuous relubrication** at short intervals **reduces wear** and **seals** lubrication points **to prevent contamination from dust and dirt**.
- ✔ **Scheduled exchanges** of lubrication systems while machines are running **reduces staff and material costs** and increases economic efficiency.
- ✔ Automatic lubrication away from dangerous areas **increases workplace safety**.
- ✔ Individual lubrication **reduces energy costs by up to 10%**.

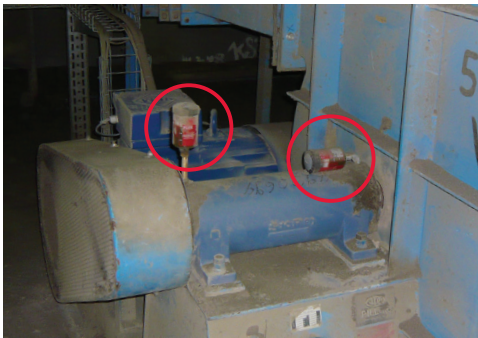
perma SELECT APP



Solutions

Direct mounting on lubrication point: e.g. perma CLASSIC / FUTURA / FLEX / NOVA

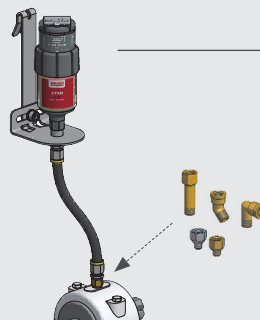
- Easy, quick mounting
- For lube-points with little vibration / shocks
- For easy-to-access and safe lubrication points



Direct Mounting Solution
Use extensions, angles & reducers depending on the installation situation

Remote mounting to lubrication point: e.g. perma STAR VARIO

- For lube-points with strong vibration / shocks (isolation of lubrication system)
- When workers' safety is at risk: Mounting in safe areas
- For hard-to-access lubrication points



**perma STAR VARIO
with LC 120**

Remote Mounting Solution
Use extensions, angles & reducers depending on the installation situation

Would you like more information on perma products?

- Detailed product information in our **perma catalog**
- Visit our website **www.permausa.com**

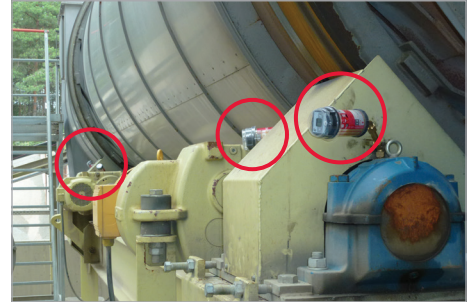
Applications



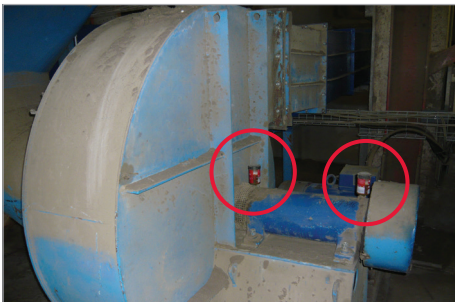
Lubrication of motor on a vibrating screen



Lubrication of pillow block bearing on a fan shaft



Lubrication of pillow block bearing on a rotary dryer



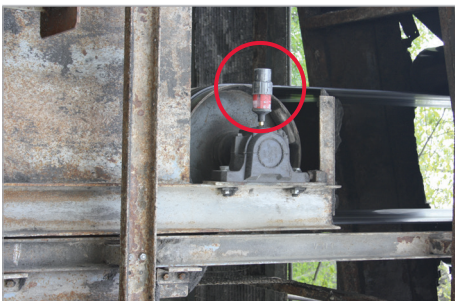
Lubrication of bearing unit on a fan



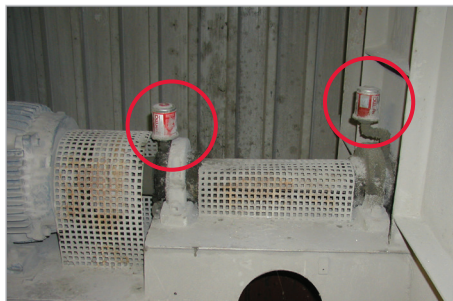
Lubrication of track roller



Lubrication on mixer shaft



Lubrication of shaft bearing on a conveyor belt drum



Lubrication of drive shaft on a blower



Lubrication of roller bearing on a mixer

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