

A photograph of a cement plant. In the foreground, there are large, corrugated metal pipes and structures. In the background, there are several tall, cylindrical silos and industrial buildings under a clear blue sky. The scene is an industrial setting.

**perma** Lubrication Systems in  
**Cement Plants**

**The World of Automatic Lubrication**

**perma**<sup>®</sup>



## Trouble-free operation with automatic lubrication systems from perma

Cement plant profitability is directly related to equipment reliability. One of the main requirements for reliable operation is frequent greasing to prevent the entry of contaminants inside bearings. Since many of the lubrication points in cement plants are dangerous and hard to access, they are not lubricated as often as required. This causes accelerated wear of mechanical components and often leads to premature bearing failure. Extreme operating conditions such as high temperature, vibrations, shock loads, high loads, and contaminants such as dust, dirt and water demand frequent and reliable lubrication in order to prevent costly downtime. Automatic lubrication systems from perma are successfully being used in many cement plants worldwide. They are economical, meet the technical demands and also drastically improve work place safety, a key concern in the cement industry.



**(above left) Mixing bed**

Automatic re-lubrication on the bearings of conveyor belts can be done without the need to stop production. This reduces machine downtimes to a minimum.

**(below left) Palletizer**

Automatic sliding guide lubrication ensures trouble-free operation even under extreme conditions. Repair costs and downtimes are drastically reduced.

**(below right) Mixer**

Working platforms to lubricate bearings that are located in hard to reach places (approx. 3 m high) must only be erected once a year. Automatic lubrication saves time and reduces safety hazards.



→ **perma – for economical reasons**

Lubrication without the need to stop production increases the efficiency of your equipment. Automatic lubrication systems from perma save time because they minimize lubrication maintenance runs. The time it takes to do the change-outs of automatic lubrication systems per year is considerably less than the time spent with manual greasing.

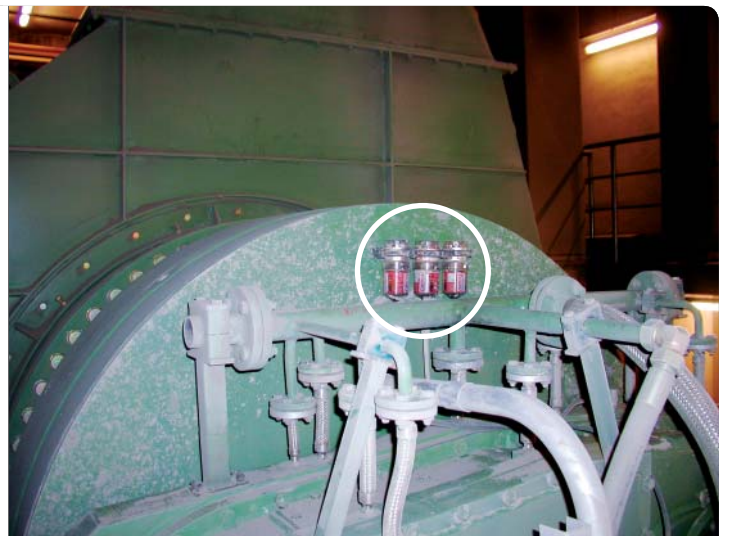
Do more with less:

Instead of manually lubricating 100 lubrication points on your conveyor equipment every 14 days, you only need to do ONE easy change-out every six months with automatic lubrication systems – without any tools. Especially during peak production, the time saved with automatic lubrication systems from perma can be effectively used for more important tasks.

## → perma – for **technical** reasons

Automatic lubrication systems ensure an uninterrupted supply of sufficient, fresh lubricant to all lubrication points. In addition, they effectively seal lubrication points and bearing seals to prevent the entry of water, dirt and dust. Even hard to access, moving, or hidden lubrication points that are often neglected are permanently lubricated without interrupting production.

**Another advantage:** The time saved with automatic lubrication systems from perma can be invested in other value-adding maintenance tasks, including regular inspections of equipment and lubrication systems, basic condition monitoring, oil sampling and filtration.



### **(above left) Bearings**

Bearings are effectively sealed against aggressive cement dust and other contaminating substances.

### **(above right) Cement mill**

perma lubrication systems on turning parts of the cement mill. Permanent lubrication during mill operation at 15.5 rpm.

### **(below left) Screw conveyor**

Screw conveyors just below hall ceilings are extremely difficult to access. perma lubrication systems ensure uninterrupted, troublefree operation with permanent re-lubrication.



**(above left) Belt conveyor /Gravity take-up pulley**

A fall can be devastating!

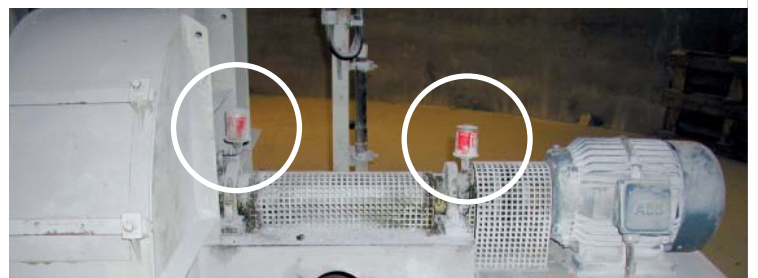
Belt pretensioners are difficult to access and cannot be lubricated while the machine is running. Automatic lubrication systems from perma minimize the time that workers spend in these dangerous areas. This drastically reduces safety risks.

**(above right) Mill**

With automatic lubrication systems, workers are exposed much less to the loud noise and aggressive dust around mills. perma lubrication systems rotate with the equipment and ensure safe bearing lubrication.

**(below right) Fans**

Maintenance personnel are exposed to extreme dust and noise. Automatic lubrication systems minimize this exposure and make it possible to schedule exchanges while the machines are down.



→ **perma – for safety reasons**

Employees in cement plants are constantly exposed to safety hazards: aggressive cement dust that irritates eyes and skin, extreme temperatures and environmental conditions, and the usual dangers experienced when working around rotating machine parts.

Reduced exchange intervals of automatic lubrication systems and remote mounting, away from potential hazards, minimize the time that employees spend in dangerous areas. And planned exchange intervals make it easier to observe the required safety precautions.

## perma Lubrication Systems in Cement Plants

perma products have been used successfully in cement plants worldwide for many decades. Reliable automatic lubrication ensures trouble-free operation for machinery and equipment in all areas of production – from quarrying to packing.

### perma automatic lubrication systems – we meet your needs:

- Simple installation
- 24/7 hands-free operation
- Easy tool-free exchange
- Minimum space requirement
- Tough systems – battery operated or machine controlled
- On demand lubrication of fresh lubricant to lubrication points

### perma is the Most Trusted Partner Worldwide for all Industries:

- Global market leader for automatic single-point lubrication systems
- Largest product range in the market
- Many well-known satisfied customers
- Field-tested accessories for every perma lubrication system
- Product training, expert advice and consultation  
(please contact your local supplier)

Automatic lubrication  
systems from perma are  
used in the following areas:

Quarrying

Mixing beds

Conveyors

Belt pretensioners

Rotary kilns

Mills

Ventilation systems

Motors

Palletizing

Pumps

Extruders

Silos

Bagging

Fans

For more information, please visit our  
website or contact your local supplier.

We will gladly send you our extensive  
product catalog for more detailed  
information.

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