



perma Lubrication Systems in the
Quarrying Industry

The World of Automatic Lubrication

perma[®]



Trouble-free operation with automatic lubrication systems from perma

Profitability and efficiency of a quarry are directly related to equipment reliability. One of the main requirements for reliable operation is frequent greasing to prevent the entry of contaminants into bearings. But equipment used in the quarrying industry, such as crushers, screens, fans and conveyors, are not lubricated as often as required because they are difficult or unsafe to access during operation. This results in lubricant starvation and accelerated wear of mechanical components and often leads to premature bearing failure. Extreme operating conditions, especially heavy dust, demand frequent and reliable lubrication in order to prevent costly machine downtime.

Automatic lubrication systems from perma are successfully being used in the quarrying industry worldwide. They are economical, meet technical demands and improve work place safety – a key concern in the quarrying industry.



(above left) **Crusher**

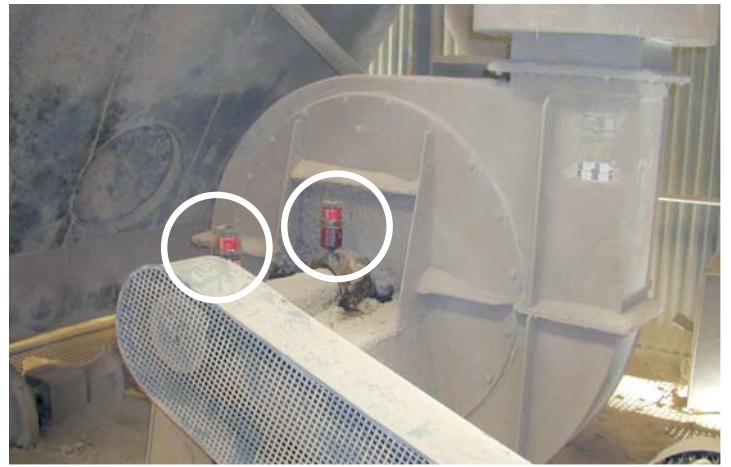
An idle crusher causes a great production loss because the whole plant stands still. perma lubrication systems extend the maintenance periods of crushers by reducing wear and therefore extending bearing service life.

(below left) **Screen**

Automatic lubrication systems from perma minimize production stoppages as screen lubrication is performed automatically, while the screen is operating.

(below right) **Fans**

Even under extreme conditions like heavy dust, fans will run smoothly with perma lubrication systems. Small amounts are injected frequently while the fan is running to ensure that over lubrication does not occur.



→ perma – for **economical** reasons

Lubrication without the need to stop production reduces downtime and therefore increases productivity. Automatic lubrication systems from perma allow maintenance personnel to achieve a better lubrication result in less time. The time it takes to do the change-outs of automatic lubrication systems per year is considerably less than the time required to manually grease.

Do more with less: Instead of manually lubricating 80 lubrication points on your conveyor equipment once a week, you only need to do ONE easy change-out every three months with automatic lubrication systems – without any tools. Especially during peak production, the time saved with automatic lubrication systems from perma can be invested into other important preventative maintenance 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) **Bearing points**

Bearings are protected against the aggressive dust generated during crushing and are effectively sealed against contaminants.

(above right) **Silo**

Bottom silo unloaders are exposed to permanent load. Automatic lubrication systems from perma extend the life of bearings even at hard to access places.

(below left) **Roller screen**

The rotating rolls of the screen are constantly moving in order to turn, loosen and transport the classifying material. With automatic lubrication systems from perma they continue to run smoothly.



(above right) **Drive systems**

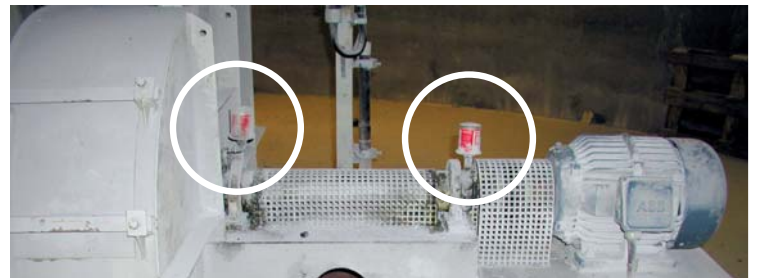
The grease points on drive systems can be dangerous to manually grease during production. The use of automatic lubrication systems from perma reduces the time that employees have to spend in dangerous areas thus increasing operational safety.

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

Working at heights is dangerous and requires particular care. Take-up pulleys on conveyors are difficult to access and cannot be lubricated while the machine is running. With automatic lubrication systems from perma workers spend less time working at heights. This reduces safety risks and accidents.

(below right) **Fans**

Automatic lubrication systems from perma reduce the exposure of maintenance personnel to the extreme dust and noise around fans.



→ perma – for **safety reasons**

Maintenance employees in quarries are regularly confronted by safety hazards: aggressive dust that irritates eyes and skin, extreme temperatures and environmental conditions, plus the usual dangers experienced when working around rotating equipment.

Automatic lubrication systems and remote mounting, away from potential hazards, minimize the time that employees spend around operating equipment. And planned exchange intervals make it easier to observe the required safety precautions via proper planning and job risk analysis.

perma lubrication systems in the quarrying industry

perma products have been used successfully in the quarrying industry worldwide for many decades. Reliable automatic lubrication ensures trouble-free operation for machinery and equipment in all areas of production – from the crushing of raw material to delivery of the finished product.

perma automatic lubrication systems – we meet your needs:

- 24 hour operation
- Simple installation
- Easy tool-free exchange
- Compact, requiring minimal mounting space
- Tough systems – no power needed
- Regular injections of small quantities of fresh grease to prevent bearing contamination

perma is the most trusted partner worldwide for all industries:

- Global leader
- Largest product range
- Many well-known satisfied customers
- Field-tested accessories for every lubrication system
- Product training, expert advice and consultation (check local supplier)



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

Conveyor equipment

Take-up pulleys

Fans

Drive systems
(including motors)

Screens

Silos

Roller screens / Feeders

Crushers

Transport systems

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.

www.perma-tec.com