

# Prevent **Workplace Accidents!**



The World of Automatic Lubrication



Safety - it's in **your** hands!

## Stop unsafe acts before they stop you

\*About 20% of all accidents are maintenance related: falls from heights, crushing by moving machinery, falling objects, excessive heat or cold, explosion, fire, contact with dangerous substances, etc. Workplace accidents result in worker distress and possibly permanent injury or, in the most tragic circumstances, worker death. For your company, it means lost working time, lost production, compensation costs and rehabilitation costs.

But, is it possible to increase workplace safety without decreasing economic efficiency?

Automatic lubrication systems from perma can actively improve workplace safety AND support preventive maintenance efforts. The „hands-off, brains-on“ approach to the lubrication of bearings and chains improves preventative maintenance practices and reduces accidents. Remote mounted lubrication systems are safe and easy to access. They minimize the interface between maintenance staff and dangerous operating equipment - a key element of occupational safety. At the same time, perma lubrication systems are more economical than manual lubrication practices as system exchanges can be planned to take place during regular plant shutdowns.

\* Source: European Agency for Safety and Health at Work "Campaign Guide Healthy Workplaces"

# Benefits for you and your company

Advantages	Benefits
<p>perma lubrication systems reduce the risk of workplace accidents in your area by up to 90%*.</p> <p><small>* Internal evaluation of maintenance work (reduction of maintenance runs)</small></p>	<p>With perma lubrication systems you will improve working conditions and the image of your company. You will be respected as an innovative, motivated, and far-sighted employee.</p>
<p>Machine downtime required for manual lubrication will be reduced.</p>	<p>Less machine downtime will increase productivity of the whole company.</p>
<p>Considerably reduces costs for equipment like lifting platforms or scaffolds that are required for manual lubrication.</p>	<p>You will increase the economic efficiency of your department and the company. At the same time you will reduce your maintenance costs.</p>
<p>Your maintenance department can plan the exchange of perma lubrication systems well in advance (i.e. exchange can be carried out during scheduled plant shutdowns).</p>	<p>With set exchange cycles you improve the planning of lubrication runs and company compliance with local workplace safety regulations (e.g. protective gear etc.).</p>

## Practical examples:



The remote installation of **perma STAR VARIO** lubricators to this conveyor pulley bearing at a cement plant has allowed the hole in the guarding to be repaired. The lubricators can be inspected and serviced safely while equipment is running which has improved safe work practices and saved time.



The remote installation of **perma CLASSIC** lubricator to this conveyor pulley bearing at a quarry has eliminated the need for safety cages to be lifted off for the purpose of lubrication. This reduces the chance of back strains associated with lifting safety cages and allows the lubricator to be inspected and serviced while the conveyor is operating.











**Lubrication of various bearings on a coal crusher.** perma STAR made it possible to install the lubrication point outside the danger zone.

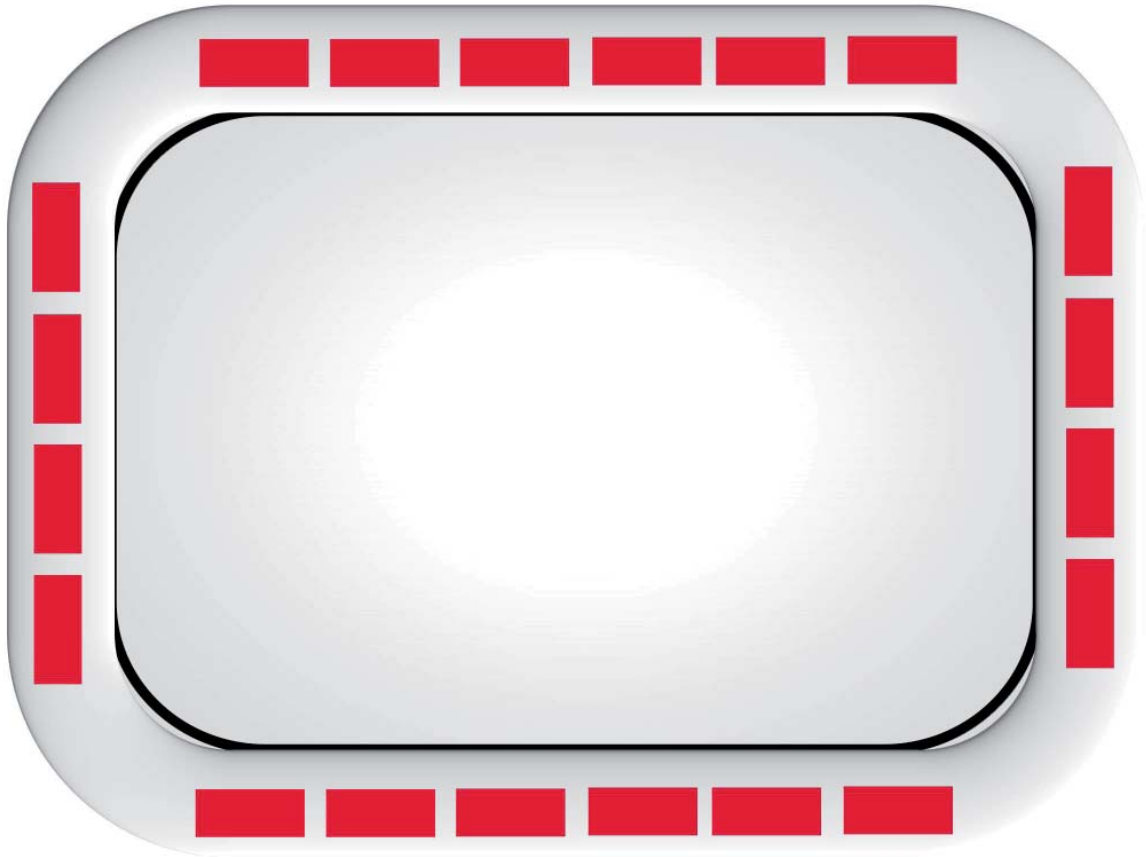


**Permanent lubrication of various bearings and gear racks** in the automotive industry. perma PRO guarantees safe, clean and efficient lubrication without the need to stop the equipment.

# Risk analysis

Hazards (examples)	Risks	Preventive measures	Solutions
<p>Hard to access lubrication points are manually lubricated with a grease gun either in weekly intervals or twice per month.</p>	 <p><b>Very high!</b></p>	<p>The installation of a perma CLASSIC lubrication system drastically reduces the need to access dangerous areas. The lubrication system requires only one change-out every 6 months.</p>	
<p>Equipment with 24 hour / 7 day per week operation. Lubrication points must be lubricated at regular intervals (every 2 weeks), but equipment cannot be stopped. This puts maintenance staff at great risk to get burned, crushed or sheared by rotating or hot machine parts.</p>	 <p><b>Very high!</b></p>	<p>Remote installation of the lubrication system perma STAR VARIO makes it possible to continuously supply the machine with fresh lubricant while the machine is running. At this safe location, maintenance personnel can exchange the LC unit at any time.</p>	
<p>Equipment with 5 lubrication points 3.5 m high must be lubricated weekly. The machine parts cannot be reached with a scaffold. Maintenance workers must climb up a ladder with a grease gun to manually lubricate the grease points. Since one hand is holding the grease gun, there is only one hand left to hold onto the ladder.</p>	 <p><b>Very high!</b></p>	<p><b>One</b> perma PRO MP-6 lubrication system can permanently lubricate all 5 lubrication points via grease lines. Maintenance workers can exchange the LC unit on the ground while the machine is running, without the use of any technical aids-never getting close to the danger zone.</p>	
<p>3 open chains on a machine must be oiled daily with an oil that can cause extreme skin irritations. The equipment cannot be stopped as there is no buffer in the production stages that follow.</p>	 <p><b>Very high!</b></p>	<p>The oil lubrication system perma ECOSY permanently lubricates these chains with the required oil amount. The oil is applied with special brushes. An oil refill is only required every 3 years and can be done outside of dangerous areas.</p>	

# Who is responsible for **workplace safety** in your company?



## **Protect your workers and your company**

**from the distress and costs which result from preventable workplace accidents!**

Well lubricated equipment is important to productive and profitable companies, but lubrication tasks should never put workers' safety at risk.

Improving the safety at work will have a positive impact on working conditions, productivity and economic as well as social development.

It is important for employers to observe Health, Safety and Environmental (HSE) laws, but they should do more than just meet legal obligations: Employers have a moral duty to protect their staff. They should lead by example and demonstrate their commitment to health and safety.

**Good safety management is a distinguished feature of efficient organizations!**

# perma – receives award from government safety agency



## AWARD

perma-tec took part in the SAFETY ideas competition of the German Workers' Compensation Board and received an award for their accident prevention project „Safety with Automatic perma Lubrication“

perma lubrication systems tremendously reduce the risk of tripping, sliding and falling. The danger of being crushed by rotating machine parts is eliminated. Exact lubricant dosing minimizes consumption which is environmentally friendly and reduces maintenance costs.

Mainz May 2005

## 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)

perma-tec is a member of the German Association of Safety Engineers



## Applications for perma products

Bagging equipment

Bearings

Belt pretensioners

Chain drives

Escalators

Linear drive systems

Mills / crushers

Open gears

Paint finishing systems

Presses

Pumps

Silos

Sliding guides

Storage equipment

Transport systems

Do you have any questions?

Please visit our website or contact your local supplier. We will gladly send you our extensive catalog for more detailed information.

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