A photograph of a large industrial facility, likely a pump station or water treatment plant. The scene is filled with rows of large, blue-painted centrifugal pumps. Each pump is mounted on a sturdy metal frame and is connected to a network of pipes and conduits. The pumps are arranged in a long line, receding into the background. The ceiling is high and features a complex network of steel beams, pipes, and electrical conduits. The lighting is industrial, with some areas appearing dimly lit while others are brightly lit by overhead fixtures. The overall atmosphere is one of a busy, functional industrial environment.

perma Lubrication Systems for
Pumps

The World of Automatic Lubrication



Trouble-free operation with perma automatic lubrication systems

Profitability and efficiency of pumps are directly related to equipment reliability. Correct lubrication is one of the main requirements for reliable operation and higher efficiency. Many pumps are not lubricated as often as required because they are located in hard to access or dangerous areas. But insufficient and incorrect lubrication of bearings and seals results in accelerated bearing wear and the development of impeller gland leaks.

All over the world perma automatic lubrication systems are being used to extend the service life of pumps. They are economical, meet technical demands and tremendously improve workplace safety.

→ Challenges

Common pump lubrication problems

Direct contact of abrasive particles and moving parts inside the pump causes premature wear. Pumps are often operated under extreme conditions. A regular injection of fresh, clean grease provides extra protection against ingress of dirt and water and will extend the service life of your pumps.



- **Water / dirt entering bearing**
- **Impeller gland leaks**

Manufacturer recommended lubrication intervals for pumps are very labor intensive and often impractical. But if pumps are not sufficiently lubricated they will suffer from premature bearing wear due to entry of contaminants via under-lubricated seals.



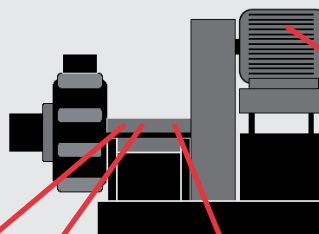
- **Costly pump repairs and equipment downtime**

Re-lubrication work carried out in dangerous or hard to access places exposes maintenance staff to high safety risks.



- **High risk of workplace accidents**

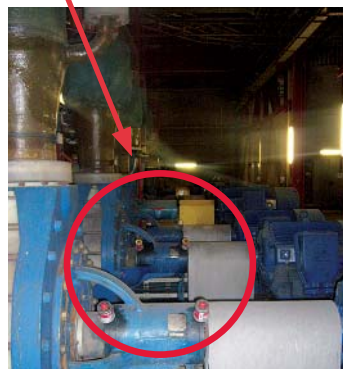
Lubrication points on pumps:



Gland lubrication
(1 point)



Labyrinth lubrication
(2 points)



Bearing lubrication
(2 points)



Electric motor lubrication
(please refer to flyer)

→ Solutions

perma CLASSIC / perma FUTURA

- Housing: perma CLASSIC - Metal / perma FUTURA - Transparent plastics
- Electrochemical reaction for grease and oil - depending on temperature
- Operating temperature 0 to +40 °C
- Discharge period at 20°C with SF01: 1, 3, 6 or 12 months
- Pressure built-up: Max. 4 bar
- Lubricant volume: 120 cm³



perma NOVA

- Housing: Transparent plastics
- Electrochemical reaction for grease and oil
- Operating temperature -20 °C to +60 °C
- Discharge period: 1, 2, 3,...12 months
- Pressure built-up: Max. 6 bar
- Lubricant volume: 130 cm³



perma STAR

- Housing: Transparent plastics
- Electrochemical reaction for grease and oil
- Operating temperature -10 °C to +50 °C
- Discharge period: 1, 3, 6, 12 months or individual
- Pressure built-up: Max. 5 bar
- Lubricant volume: 60 cm³, 120 cm³, 250 cm³



perma PRO MP-2 / PRO MP-6

- Electrochemical reaction for grease
- Operating temperature -20 °C to +60 °C
- Discharge period: 1 day till 24 months or individual
- Pressure built-up: Max. 25 bar
- Lubricant volume: 250 cm³, 500 cm³
- Number of lubrication points: 2-6



Lubrication system:
2 STAR CONTROL 120 cm³ each



Lubrication system:
5 STAR VARIO 250 cm³



Lubrication system:
2 STAR VARIO 250 cm³

→ Benefits

- Reduced premature wear
- Less equipment downtime
- Improved workplace safety

Product characteristics	Advantages	Benefits
economical aspects		
perma CLASSIC / perma FUTURA: Durable, reliable and easy to use single-point lubrication system Discharge period: up to 12 months →	<ul style="list-style-type: none"> - Reliable bearing lubrication for normal ambient temperatures - Hands-free supply of fresh, clean lubricant - Works under water 	<ul style="list-style-type: none"> - Reduced maintenance costs - Higher equipment availability - Easy to install and use - Reliable, controlled lubrication
perma FUTURA: Translucent, non-corrosive housing →	<ul style="list-style-type: none"> - Meets hygienic and environmental regulations 	<ul style="list-style-type: none"> - Can be used in areas which are hygienically sensitive
Electromechanical lubrication system perma STAR product range: Discharge period: 1, 3, 6 or 12 months perma PRO product range: Discharge period: 1 day to 24 months Systems consist of a drive unit and a lubricant cartridge (LC unit) →	<ul style="list-style-type: none"> - Precise and customized discharge - Ideal for high grade lubricants - Drive units can be re-used 	<ul style="list-style-type: none"> - Less equipment downtime, lower maintenance costs - Optimized lubrication saves lubricant and reduces material costs - Short ROI due to reduced follow-up costs
perma PRO MP-2 / perma PRO MP-6: Multi-point lubrication systems →	<ul style="list-style-type: none"> - One lubrication systems can lubricate up to 6 lubrication points 	<ul style="list-style-type: none"> - Saves time and reduces maintenance costs
technical aspects		
perma STAR range Battery operated or machine controlled / 3 different sizes / LED alert system →	<ul style="list-style-type: none"> - Fast, safe mounting at exposed places possible - Temperature independent - Monitoring of lubricator via LEDs 	<ul style="list-style-type: none"> - Reliable lubrication at hard to access lubrication points / Simple retro-fitting - Precise discharge at -10 °C to +50 °C - Reduces costly repairs
perma PRO MP-2 / perma PRO MP-6: Stand-alone battery operated or machine controlled version / High pressure / Display →	<ul style="list-style-type: none"> - System does not shut down if one or more grease points become blocked - Function control via display 	<ul style="list-style-type: none"> - Increases pump service life - Lowers maintenance costs - Lubrication of critical pumps can be easily monitored
workplace safety aspects		
perma CLASSIC: Ex-Proof certification →	<ul style="list-style-type: none"> - Can be used in areas where explosive atmospheres may occur 	<ul style="list-style-type: none"> - Save and reliable lubrication in dangerous areas
perma STAR / perma PRO range Remote mounting possible →	<ul style="list-style-type: none"> - Lubrication systems can be installed away from dangerous or hard to access lubrication points (grease lines up to 5 m possible) 	<ul style="list-style-type: none"> - Tremendously reduces the risk of accidents - Increases workplace safety

perma lubrication systems for pumps

perma products are used on all types of pumps worldwide. They guarantee reliable, automatic re-lubrication of bearings and labyrinth or gland seals.

perma automatic lubrication systems - we meet your needs:

- 24-hour operation
- Simple installation
- Easy tool-free exchange
- Requires little mounting space
- Tough systems: battery operated or machine controlled
- Customized supply of fresh lubricants 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)

Applications for perma products

Bagging equipment

Electric motors

Transport systems

Sliding guides

Belt pretensioners

Chain drives

Paint finishing systems

Linear drive systems

Mills/crushers

Open gears

Presses

Escalators

Storage equipment

Silos

Ventilation systems

Blowers

Do you have any questions about perma products for pumps?

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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