

perma lubrication systems for

## Wastewater Treatment

### H-T-L perma USA LP

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The Expert in Lubrication Solutions

**perma**

perma lubrication systems for

# Wastewater Treatment

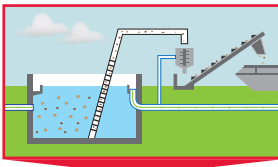
Wastewater treatment plants are highly specialized and complex facilities. Safe and trouble-free operation is of utmost importance during the complete process. Important equipment parts like roller- and sliding bearings, chains and spindles are constantly exposed to dirt, water, phosphates and other chemicals. Continuous relubrication can prevent premature equipment wear and breakdowns.

## Lubrication points

1 Roller bearings

2 Sliding bearings / Sliding guides

3 Chains



### Physical treatment

→ **Screening**

Chain guide roller

✓

✓

→ **Grit / grease removal**

Scraper

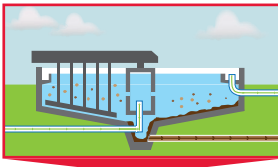
✓

→ **Sedimentation tank**

Impeller wheel

✓

✓



### Biological treatment

→ **Aerated tank**

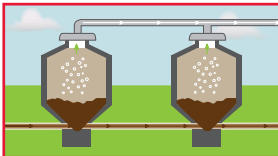
Surface aerator

✓

→ **Clarification tank**

Circular scraper

✓



### Sludge treatment

→ **Sludge thickening**

Sludge belt conveyer

✓

→ **Sludge dewatering**

Screw press

✓

## Challenges



- Dirt, chemicals, water
- High energy costs



- Hard-to-reach and dangerous lubrication points



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

## Advantages of automatic lubrication

- ✔ perma lubrication systems **seal and protect** lubrication points **against contamination**.
- ✔ **Less maintenance runs** minimize the time that workers spend in dangerous areas and **increase workplace safety**.
- ✔ Different sizes and precise settings, based on manufacturer recommendations, **prevent lubricant starvation and save lubricant**.
- ✔ **Environmentally friendly, bio-degradable lubricants** in closed systems.

### perma SELECT APP

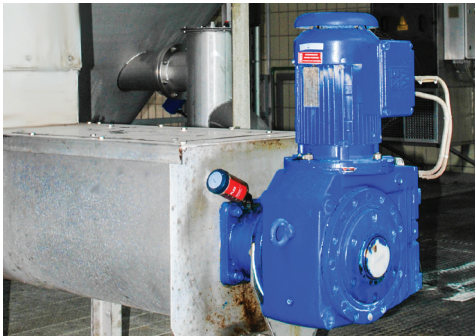
FREE



## Solutions

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

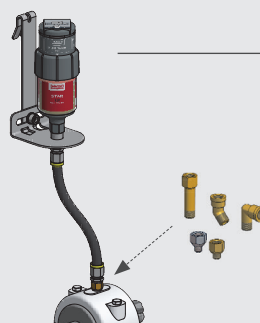
- Easy, quick mounting
- For lube-points with little vibration / shocks
- For easy-to-access and safe lubrication points



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

### Remote mounting to the 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](http://www.permausa.com)**

## Applications



**Screening:**  
Lubrication of chain guide rollers



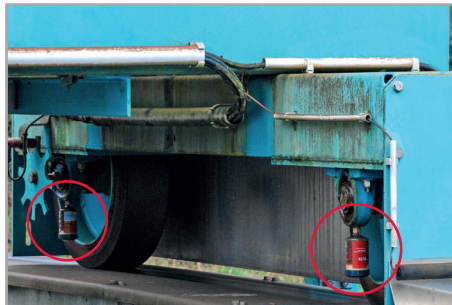
**Grit and grease removal:**  
Lubrication of flanged housing units at the scraper



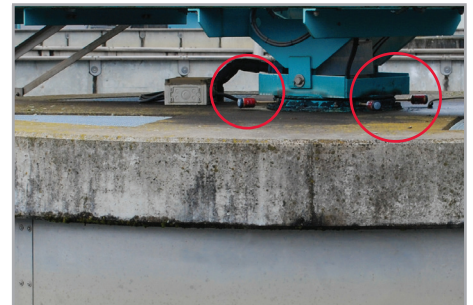
**Primary sedimentation tank:**  
Lubrication of impeller wheel bearing



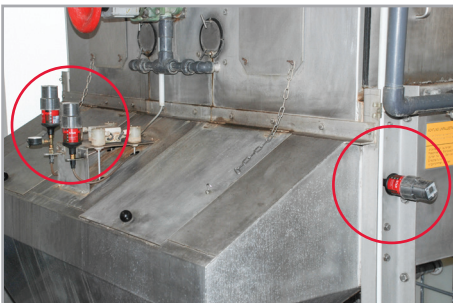
**Aeration tank:**  
Lubrication of bearing at surface aerator



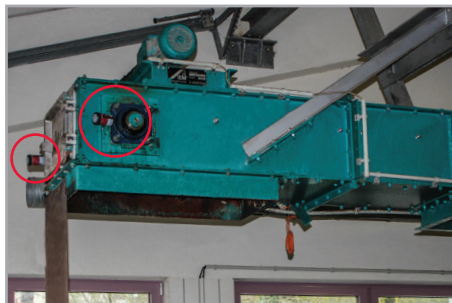
**Clarifier tank:**  
Bearing lubrication at the wheel of the circular scraper



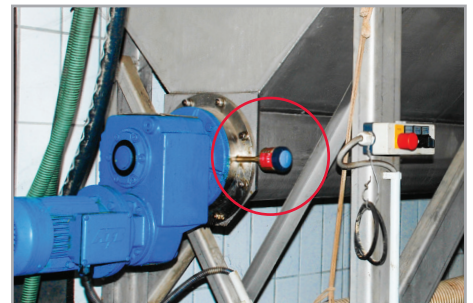
**Clarifier tank:**  
Lubrication of pivot bearing at circular scraper



**Sludge thickening process:**  
Bearing lubrication at excess sludge densifier



**Sludge dewatering:**  
Lubrication of flanged bearing at sludge belt conveyor



**Sludge thickening process:**  
Lubrication of bearing at screw press

## 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