



perma Lubrication Systems for  
**Escalators**

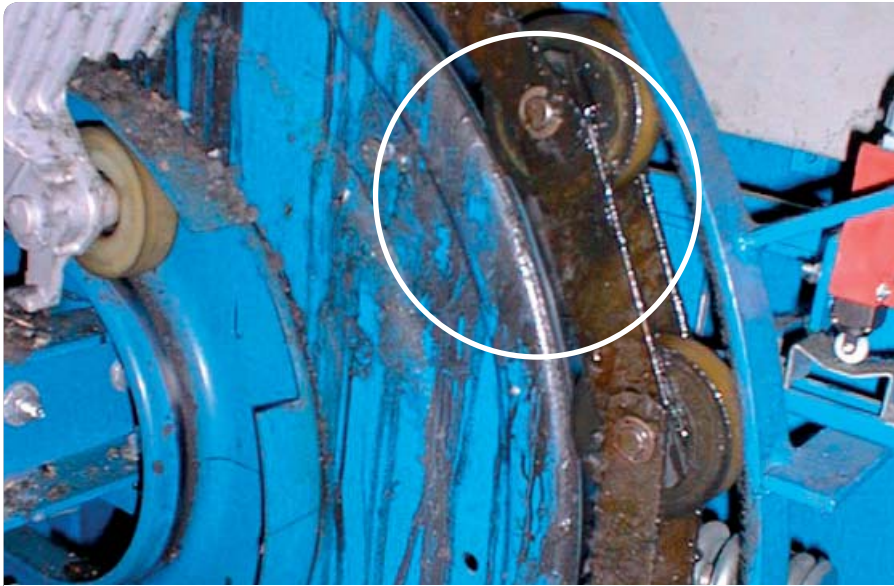
The World of Automatic Lubrication

**perma**<sup>®</sup>



## **Trouble-free operation with perma ECOSY**

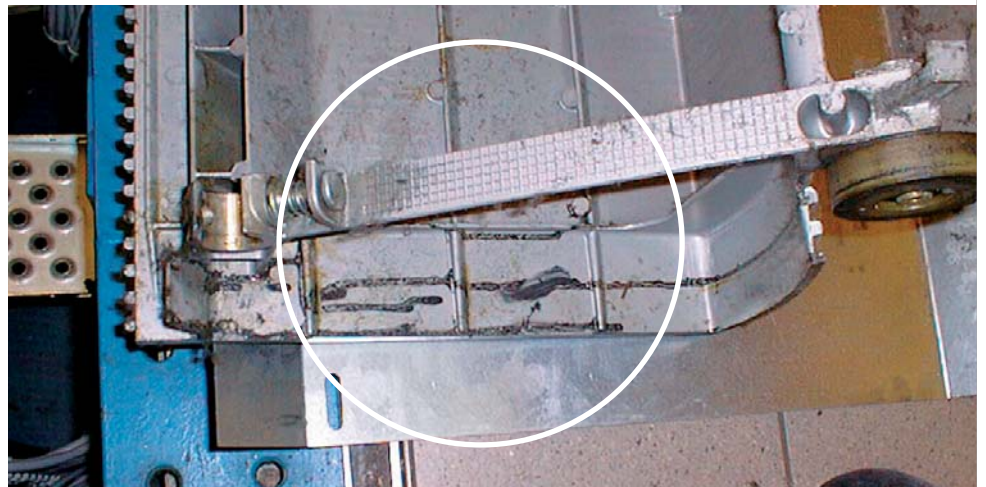
The oil-lubrication system perma ECOSY is a preventive maintenance method for escalators. It connects to the escalator control and provides exact and individual chain lubrication. The result is maximum escalator availability and prevention of unnecessary down-time. Operational reliability is increased and disruptions to service are avoided.



(above left)  
**Soiled system from over-lubrication**

(bottom left)  
**Oil spills on escalator steps**

(bottom right)  
**Oil spills on back of steps**



## → Challenges

### Common escalator lubrication problems

Over-lubrication causes oil spills on steps and landing platform.

- **Passengers can slip and fall**
- **Pollutes the environment**



Insufficient lubrication causes wear which results in unpleasant noises and escalator jerking during operation.

- **Leads to chain wear**
- **Makes passengers feel uneasy**



Lubrication and cleaning of the escalator system is not always possible or desired, all of the time.

- **Cleaning of escalator steps is extremely time consuming**
- **Additional over-time increases costs**




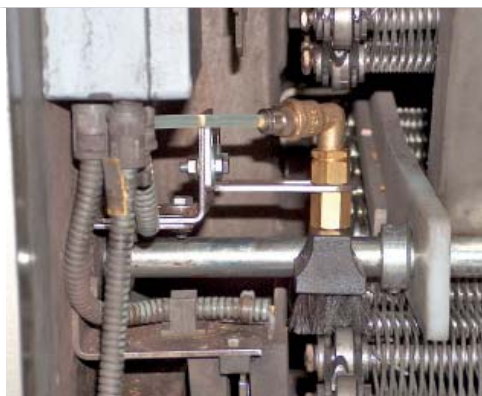
# → Solutions

## perma ECOSY

perma ECOSY was designed especially for the lubrication of chains. With its interval lubrication, it supplies all contact areas of chains with the right, customized amount of lubricant. perma ECOSY both optimizes and minimizes the oil consumption in oil lubricated applications. The system can individually lubricate up to 6 lubrication points, independently of each other, with an exact amount of oil.

The perma ECOSY can easily be programmed to meet the lubrication requirements of all escalator types. An extensive selection of accessories is available.

Technical data	ECOSY	
Filling capacity	7 liters	
Discharge period	PLC / sensor controlled	
Discharge amount	0 – 9999 ml / 1000 h (each outlet can be individually programmed)	
Operating temperature	-20 °C up to +60 °C / -4 °F up to +140°F	
Pressure build-up	max. 10 bar / 145 psi	
Input supply voltage	85 – 240 V AC 50/60 Hz / typ. 20 W	
Lubricants	For oil up to 2000 mm <sup>2</sup> /s	



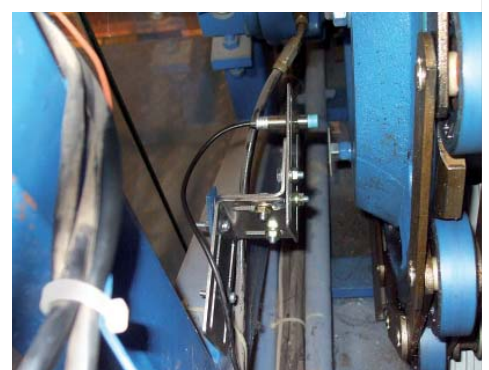
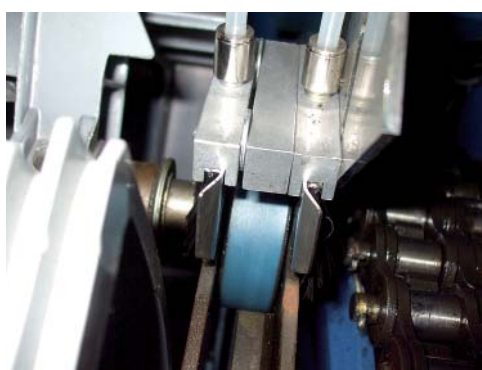
(above left)  
**perma ECOSY installation**

(above right)  
**Lubrication of the main chain**

(bottom left)  
**Handrail drive chain on left side**

(bottom middle)  
**Special lubrication brush on a left step chain**

(bottom right)  
**Built in control sensor**



## → Benefits

- Better protection against corrosion and contamination with less wear
- Up to 75 % reduction of oil consumption
- Less down-time
- Active contribution to environmental protection and work-place safety

Product characteristics	Advantages	Benefits
<b>economical aspects</b>		
Adjustable oil discharge amount 0 – 9999 ml / 1000 h →	Oil amount can be adjusted to meet escalator requirements	<ul style="list-style-type: none"> <li>- Reduces total oil consumption by up to 75 %</li> <li>- Reduces cleaning costs</li> </ul>
Each one of the 6 outlets can discharge a different amount of oil →	The oil amount can be programmed to meet individual chain requirements	<ul style="list-style-type: none"> <li>- Increases the service life of your chains</li> </ul>
Tank capacity up to 7 liters →	Extended Service intervals	<ul style="list-style-type: none"> <li>- Must only be refilled once about every 2 years (depending on operating hours)</li> <li>- Reduces maintenance costs</li> </ul>
Installation kits available for different escalator systems →	Installation takes only about 2 hours	<ul style="list-style-type: none"> <li>- Simple Installation</li> <li>- Low installation costs</li> </ul>
<b>technical aspects</b>		
Large oil reservoir, minimal lubricant consumption, and individually adjustable oil amount →	Reduces total oil consumption	<ul style="list-style-type: none"> <li>- No dripping of excess oil, thus no soiling of escalator</li> <li>- Active contribution to environmental protection</li> <li>- Meets DIN ISO 14000 requirements for escalator manufacturers and operators</li> </ul>
Special brushes for different chains →	Optimized oil application	<ul style="list-style-type: none"> <li>- The right quality and the ideal amount of oil applied at the right place</li> </ul>
Can be connected to PLC control →	Easy to adjust	<ul style="list-style-type: none"> <li>- No programming skills necessary</li> </ul>
Clear user menu with direct display of data and parameters →	Feedback and control via PLC possible	<ul style="list-style-type: none"> <li>- Complete ECOSY control via PLC</li> <li>- Easy connection to a fault monitoring system</li> </ul>
<b>work-place safety aspects</b>		
Up to 6 outlets can be programmed with different discharge amounts →	Guarantees precise lubrication and eliminates over-lubrication	<ul style="list-style-type: none"> <li>- Increases safety by minimizing the risk of passengers slipping on oil soiled steps and equipment</li> </ul>

## perma lubrication systems for escalators

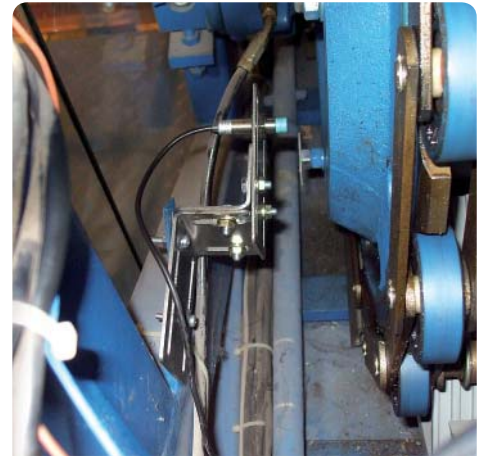
perma products have been used successfully on escalators all over the world for several decades. They guarantee reliable automatic re-lubrication of step chains, main drive chains and handrail drive chains.

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

- 24 hour operation
- Simple installation
- Easy exchange
- Requires little mounting space
- Tough systems – either 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)



Do you have any questions about perma products for escalators?

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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