

# Stationary track lubrication

## head/groove rail



 **Tribotec**

Central lubrication / Hydraulics

Systems for Rail vehicles



# Stationary track lubrication MKO

Nowadays high requirements are placed on efficiency, cost reduction and environmental protection in demanding operating conditions of rail transport. High requirements are also placed on reducing the rail track repairs, noise reduction of rail transport as well as on wheels re-profiling. Special lubrication systems have become a perfect solution, which significantly eliminate the amount of wear wheels and rails, and also reduce the noise of vehicles at the same time.

TRIBOTEC produces Wheel flange lubrication systems as effective and economic solutions for wide range of applications across the whole spectrum of rail vehicles and type of rails.



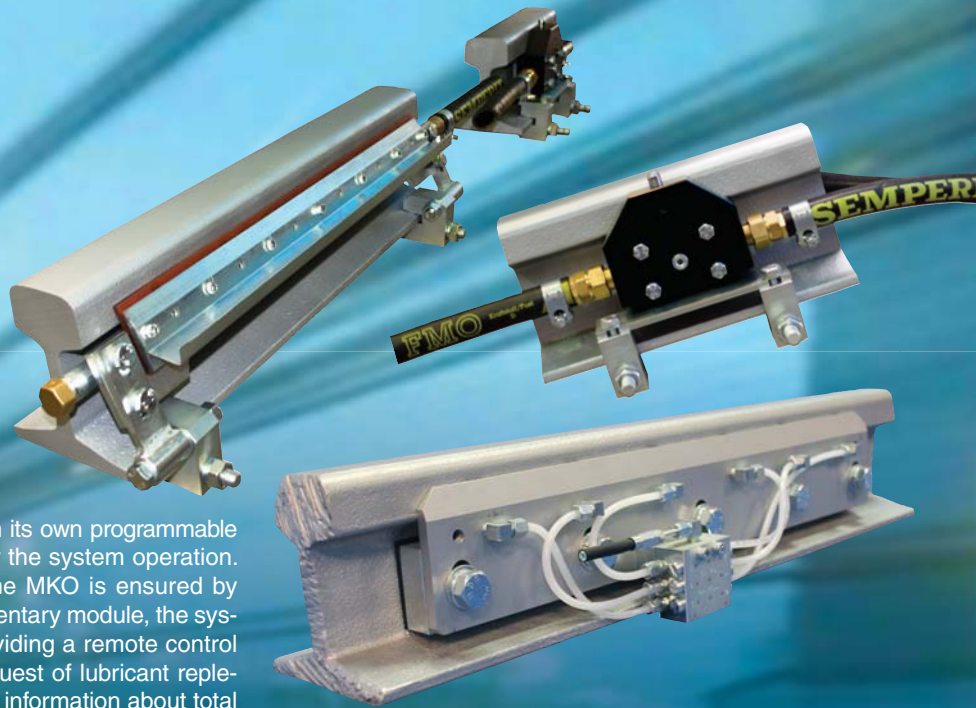
MKO wayside railroad lubrication system is used for lubrication of rail curves where the rails get damaged during operation, but also for lubrication of train and tram flanges. The lubricant is automatically applied by a steel lube strip to the flanges of the passing trains, thus reducing grinding of the rails' sides, the train's rolling resistance and the noise. It is a universal product for several types of channel and grooved rails. Its modern ecological system excels in fully automatic operation adjustable in line with the route's needs (frequency of vehicles, curve radiuses, weather conditions, etc.). Besides supplementing the lubricant, the system is maintenance-free and very reliable.

MKO system is adapted to using with higher consistency plastic lubricants, mineral lubricants and with biologically degradable lubricants as well. The system is conceived as a modular unit where it is possible to utilize various quantities of supplied lubricant, continuous control of lubricant dose and various volumes of lubricant reservoirs as per specific requirements of the customer. The system is adapted to external operation in a wide range of weather conditions and in heavy duty operational environment; it is delivered in fully water-resistant and dust-resistant construction of the box, with heating or ventilation for extreme ambient conditions.

The system utilizes electric power for the available power supply system, it is possible to adapt it to various voltages without substantial modifications. Independent power supply module based on solar energy is delivered as a supplementary module. Furthermore, the rail lubricators come in versions with mechanical drive and a compressed air or gas drive from its own source of pressure (tank of compressed air or gas).







Stationary track lubrication MKO is equipped with its own programmable control unit to ensure control and to check over the system operation. Identification of the vehicle passing through the MKO is ensured by electronic or mechanical switches. As a supplementary module, the system can be equipped with a GSM gateway providing a remote control of the system state, automatic signalling on request of lubricant replenishment, identification and reporting the failure, information about total moto hours and warning of supply voltage outage in the form of SMS to maintenance staff cellular phone or to the user's control software.

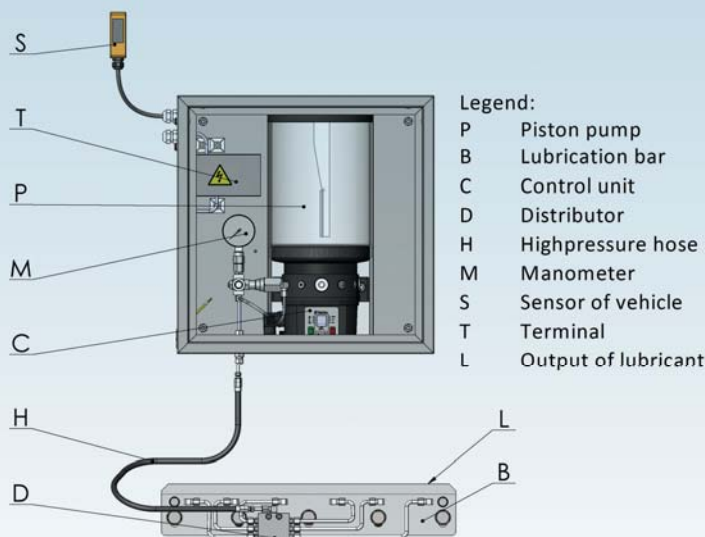
# Benefits

## Basic technical data

Drive type	electrical, solar modul, mechanical, pneumatic
Supply voltage	24V DC, 600V DC, 230V AC, 400V AC
Maximum current	acc. to the voltage
Lubricant tank capacity	8 / 12 / 20 / 30 / 60 liters
Lubricant dose	1.3 cm <sup>3</sup> / cycle
Lubricant	grease NLGI 000 ÷ 2, others on request*
Weight	according to design, 35 ÷ 110 kg
Working environment temperature	-35 °C až +70 °C
Service life	15 years

\* Using the biodegradable grease is possible. In case of using grease containing solid particles contact our specialists. The list of grease is available on request.

- Significant reduction of noise from passing vehicle, especially at railway switches and on bends
- Significant reduction of wear and deformation of rails at the exposed section of railway track
- Reduced risk of a vehicle derailling
- Reduction of costs connected with replacement of wheels due to the wear of flanges
- Shortening of frequency and length of the vehicles' idle time due to repairs of vehicles or rail track
- Saving of energy by reducing friction between the flange and the rail
- Lubrication times and intervals adapt to the local rail conditions
- Economic grease consumption
- Using biodegradable grease, environmentally friendly
- Easy to apply, low demands on maintenance





TRIBOTEC is a Czech manufacturing company concentrating on deliveries of central lubrication systems, lubrication technology, hydraulic systems and special systems for rail transport.

The company produces central lubrication systems, multi-line, progressive, two-line and single-line systems for lube oils and plastic lubricants up to the consistency NLGI-3, systems for oil re-circulation lubrication and oil cooling, spray lubrication systems with application for plastic lubricants and oils, oil-air lubricating systems, mobile and portable lubricating pumps.

In hydraulic systems, the company concentrates on production of hydraulic aggregates in the customer's design and a complex solution incorporating the project, production and delivery of the hydraulic systems, including special hydraulic systems for rail vehicles and rail transport.

As special products for railways TRIBOTEC produces systems of Wheel flange lubrication for trams and locomotives, Sanding systems for trams and locomotives and Stationary track lubrication for lubricating rail curves.

Both sale and manufacture activities are based on a mutual cooperation and on processing each individual project according to the customer's demands. The company provides installations and assemblies in the customer's destination, including commissioning and optimizing the operation, with after-sales service, preventive maintenance and consultations.

Its products are designed as a building kit, which enables wide modifications according to the specific technical data without increasing the project's costs. The company designs all drawings in 3D modelling and has established SW sharing the customer's documentation in order to implement the models directly in their documentations.

All business activities are in conformity with the quality management system ISO 9001:2008



[www.tribotec.cz](http://www.tribotec.cz)

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