

# WHEEL FLANGE LUBRICATION Locomotive

- Wear reduction of wheels and rails
- Reduction of the drive power
- Low Life Cycle Costs
- Lubrication depending on time, distance or curves
- Steady mixing of the lubricant
- Spray nozzle with only one feed line



## Wheel flange lubrication

FluiLub wheel flange lubrication systems reduce the wear of rail and wheel as well as the noise load in curves in a very efficient way. FluiLub wheel flange lubrication systems offer innovative technology with tried-and-tested components and best cost-benefit-ratio.

The FluiLub wheel flange lubrication system is designed as single line system. This means: Less wear, little maintenance requirements and therefore low life-cycle costs.

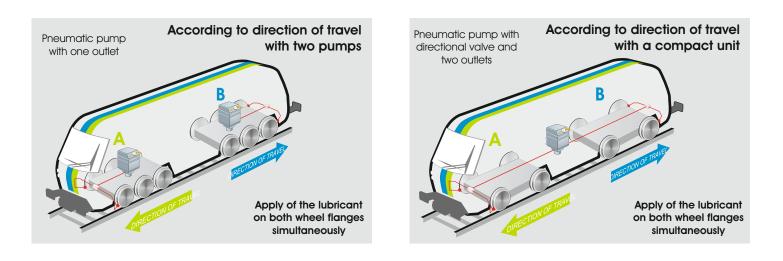
**Operating principle:** A 3/2-way control valve activates the pneumatic pump for a pre-selected spraying time. During this spraying time, a defined quantity of wheel flange lubricant is delivered by the pump and will be mixed with the spraying air.

Depending on the type of the locomotive, different systems are available:

Lubrication according to direction of travel with two pumps: The mixture of lubricant and compressed air is applied over a mixing distributor on wheel flanges according to the direction of travel.

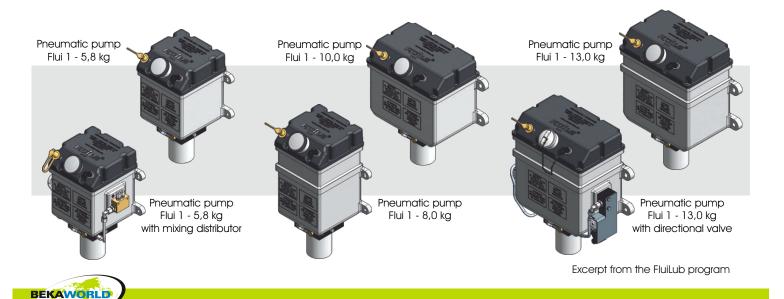
Lubrication according to direction of travel with a compact unit: The mixture of lubricant and compressed air is spread over a directional valve and a mixing distributor on wheel flanges according to the direction of travel.

Further system designs are available depending on requirements like e.g. service life and wear pattern.

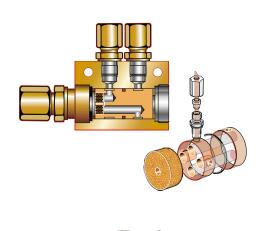


### FluiLub pumps

- Extremely rugged pneumatic pump
- Admission according to DIN EN 61 373 cat. 2
- Reservoir made of aluminium, steel or special steel
- Level monitoring with dipstick, optional electronic
- Delivery rate 50 1000 mm<sup>3</sup>/stroke
- Special design possible







#### FluiLub mixing distributor

The splitting insert of the FluiLub mixing distributor cares for the division of the mixture of lubricant and compressed air. A porous insert collects the liquid particles and distributes them like a drizzle to the airstream.

This principle guarantees a homogeneous mixing ratio even with several spray nozzles.

#### FluiLub directional valve

The directional valve is required for the activation of the wheell flange lubrication system according to direction of travel. It can be installed directly at the pump reservoir or externally. With this option, both directions of travel can be supplied with one pump.

#### FluiLub spray nozzles

The FluiLub spray nozzles guarantee the lubrication of the wheel flanges even with very high velocities, without polluting other components like the brakes. The design of the spray nozzles depends on the application.

#### FluiLub controller

With the compact control unit Fluicontrol, the FluiLub wheel flange lubrication system can be operated best. Activation and evaluation of the system can be adapted to the required operating conditions.

The optional curve sensor allows the curve-dependant activation of the system. Conventional devices use inclination and centrifugal force, but the FluiLub sensor detects the effective rotary motion in °/sec.



#### The complete product program around rails:

Wheel flange lubrication systems for Light Rail and Heavy Rail, EMU, DMU and Highspeed

BEKAWORLD

- Rail Head Maintenance
- Special Lubricants



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