



## Customer Success Story

We pioneer motion

# Keep things going with appropriate lubrication & lubricator

The operator of a large hardwood sawmill was looking for a lubrication solution for the manual lubrication of his wide belt sanding machine. On the one hand, the solution should minimize the risk of accidents for employees during lubrication, on the other hand, the operator was looking for a lubricant that could withstand thermal loads.

By switching to the Schaeffler lubricant Arcanol MULTITOP and using the automatic lubricator CONCEPT8, the operator has now found a proper solution.

**Avoid production downtimes with daily downtime costs of several thousands of euros.**

#### Customer benefits

- Better machine availability
- Less bearing damage after switching to a suitable lubricant
- Less maintenance effort
- Better protection against accidents in hazardous work environments by switching to automatic lubrication

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#### Customer

Hardwood sawmill operator, Germany

#### Sector

Wood processing

#### Application

Motor of wide belt sanding machine

#### Solution

Lubrication

**SCHAEFFLER**

# What drives our customer ...



## Challenge

The availability of the wide belt sander is crucial for the completion of wooden boards. Lubricant failure, however, repeatedly caused premature bearing failures of the bearings in the tension and contact rolls.

One important aspect were the maintenance requirements of the sanding machine, which for safety reasons could only be relubricated in idle mode. Upon restarting the machine, a thermal overload of the grease was caused as a result of lack of grease distribution. The lubricant contained bentonite thickener, which, due to the overheating, very quickly hardened and thus quickly led to premature bearing failures.

### Technical information – wide belt sanding machine

Working width	Maximum 1,900 mm
Bearings of tension & contact rolls	Spherical roller bearings
Speed value	420 000 n x d <sub>m</sub>



### Customer

At various locations in Germany, the customer operates some of the most modern and efficient hardwood sawmills in Europe.

The company is known for their high-quality sawn wood, construction beech, solid wood panels and wood briquettes.

# What Schaeffler offers ...



The overgreasing of the bearings results in thermal overload and thus in bearing failure

## Solution

Schaeffler recommended switching from manual to automatic lubrication and a change of lubricant. Since then, the CONCEPT8 automatic lubrication system – filled with the lubricant Arcanol MULTITOP – has been used for relubrication during operation. Due to its semi-synthetic base oil, the lithium thickener and the special EP additive, Arcanol MULTITOP is much more suitable for use in high-speed spherical roller bearings than the original grease. The CONCEPT8 lubrication system supplies the spherical roller bearings with the optimum amount of lubricant at short lubrication intervals, which ensures that the lubricant is refreshed regularly. Unnecessary temperature rises that could damage the grease and thus the bearings are avoided.

## What's special

Greases that contain bentonite thickener have a continuous limit temperature of approximately 70 °C. In this case, the machine manufacturer's maintenance instructions recommended that the bearings be relubricated with 40 grams of grease after 1,200 hours of operation with the machine in idle mode. This equals half the initial greasing quantity. If this is carried out as directed, the bearing will be overgreased. The resulting thermal overload of the bentonite grease then leads to grease failure and thus to bearing failure.

All Arcanol lubricants are subjected to quality and performance tests. In our own analytical laboratory, each grease batch undergoes a 100% quality control and is tested for their properties according to strict testing guidelines. We thus ensure the highest quality on a permanent basis.

As a result, there is less wear on roller bearings, a longer grease service life, increased efficiency and ultimately less machine and plant downtime.

The CONCEPT8 (ARCALUB-C8-4P) is suitable for relubrication with grease or oil. It has a maximum of eight lubricant supply line outlets that can be controlled in separate pairs. The outlets are fed by piston pumps that carry out one dispensing operation per actuation. The dispensing process can be triggered by internal or external impulses. The empty cartridges are environmentally friendly as they can be filled up to three times, both with Arcanol lubricants and with your own lubricant.

# What Schaeffler offers ...



## arcanol MULTITOP



### Information on multi-purpose grease Arcanol MULTITOP

Worked penetration / 0.1 mm	265–295
Drop point	≥ 190
Copper corrosion after 24 h/120 °C (T2 copper, 100 °C/24 h)	≤ 2
Base oil viscosity 40 °C	82 mm <sup>2</sup> /s
Base oil viscosity 100 °C	12,5 mm <sup>2</sup> /s
Water resistance (79 °C, 1 h)	≤1–90 %
Corrosion Emcor test	≤ 0 / 0
FE8 (536048,7.5/80-RT)	≤ 35 mg
FE9 – bearing life (A/1500/6000-140 °C)	≥ 200 h
Maximum speed (ball bearing and cylindrical roller bearing)	800 000 mm/min

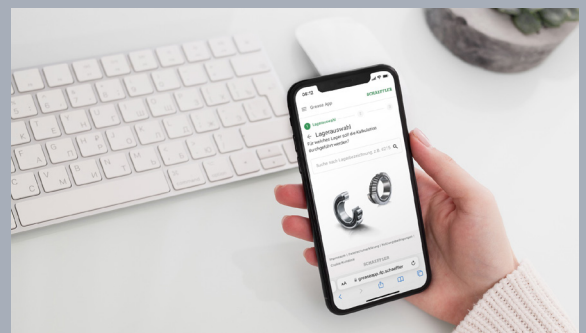
### Information on CONCEPT8 (ARCALUB-C8-4P)

Pump body	4
Outlets	8 (each 2)
Lubricant supply	800 cm <sup>3</sup>
Dosing quantity per pump stroke	0.15 cm <sup>3</sup>
Maximum pressurization	70 bar
Operating temperature range	-20 °C – +70 °C
Protection class	IP65

### Suitable lubrication specifications – Easy to access and free of charge

The intuitive Schaeffler Grease App tells you when and how to lubricate. The app is available in web based form or as an app for smartphones. With just a few entries and clicks, you will always have the most suitable type of Arcanol grease, grease service life, the relubrication interval, and the lubricant quantity for initial lubrication and relubrication of your bearings. In other words: One less thing to worry about ...

[Link](#)

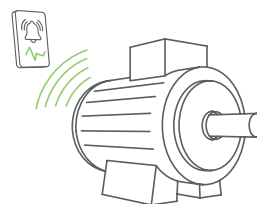


Arcanol MULTITOP and CONCEPT8 are part of the Schaeffler Lifetime Solutions portfolio, which offers a comprehensive range of products, services and solutions for industrial maintenance. It is designed to support maintenance engineers over the entire lifetime of a machine.

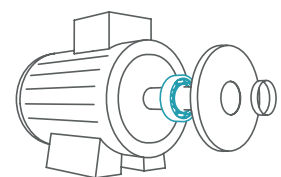
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Lubricate



Monitor



Mount