



Customer Success Story

We pioneer motion

For Peace of Mind

No surprises with the lubricators

Westerwälder Elektro Osmose is breaking new ground and is implementing the Schaeffler OPTIME C1 for lubrication monitoring in its production facilities. Thanks to the smart technology, the maintenance management has the lubricators' filling volume in sight at all times. There is no need for manual monitoring, which saves time and reduces costs. As any faults are also displayed early with OPTIME C1.

Expected savings per mill stoppage: EUR 47,000

Benefits

- Do less, achieve more – no more manual monitoring of lubricators
- No manual work – no longer necessary to lubricate by hand
- Less unplanned downtime – incorrect lubrication virtually impossible
- Informed via app wherever you are – thanks to unrivaled OPTIME technology
- User-friendly – easy to install, refill and use
- More time for core tasks – like sustainability and customer satisfaction
- Increased safety – areas that are difficult to access do not need to be checked



Customer

Westerwälder Elektro
Osmose Müller GmbH & Co. KG

Sector

Structural ceramics

Application

Screw conveyors, bearings,
motors, presses, mills

Solution

Digital lubrication solution

What our customer does...

Challenge

High pressure during pressing and temperatures above 1,200 °C for the production of porcelain stoneware put a tremendous strain on the machines of the producer of structural ceramics. The maintenance specialists at Osmose ensure that the mills, screw conveyors, extrusion presses and important units such as fans and motors always run well and have optimum lubrication. Up to now, lubrication has been done manually. Automatic lubrication systems were only used on critical machines. Indeed neither of the methods are a satisfactory solution for the maintenance team. They also do not resolve the risk of accidents with hard-to-access machinery.

Grease guns do not precisely dose the amount of lubricant. There is always a risk of over- or under-greasing. For this reason, we also use automatic lubricators on critical machines. However, the lubrication system does not show if the line is blocked, which occurs quite often due to the high temperatures. This can quickly result in damage. Regular inspections need to be carried out, which takes up too much of our team's time,

says Peter Hannappel,
Maintenance Manager at Westerwälder Elektro Osmose.

In order to optimize lubrication processes, Osmose turned to its service provider Wälzlager-Vertrieb Wiesbaden (WVW), a certified Schaeffler distributor.



Elektro Osmose plant, Westerwald, Germany

Technical information on the machines/units

ICF-mill	CBM 40, clay processing, motor 1,400 rpm, mill 15 rpm
Screw conveyor	60 – 100 rpm
Press	EVO 3600, drive 110 kW, 3,600 tons
Fan	2,800 rpm



Particles being discharged from the spray drying tower

Customer

Westerwälder Elektro Osmose Müller GmbH & Co. KG was founded in 1916 and currently employs approximately 135 staff. The renowned company produces environmentally friendly ceramic products for buildings such as tiles and terrace solutions. In addition, the company specializes in the manufacture of stoneware and fireclay chimneys.

What Schaeffler is offering ...

Solution

Schaeffler and WVW recommended the wireless OPTIME C1. The innovative lubrication monitoring solution comprises an OPTIME C1 smart lubricator, a cartridge, a gateway and a digital service.

The data is visualized on a mobile device (e.g. smartphone) via an app. This displays the fill level of the lubricant cartridge as well as any faults such as blocked lines.

The relevant data is transferred directly from OPTIME C1 to the Schaeffler cloud. The structural ceramics manufacturer can therefore easily access the data from anywhere at any time. Inspection rounds are a thing of the past, which saves time. Furthermore, the compact design of the OPTIME C1 means it can be installed almost anywhere – even in places which are difficult to access.

This significantly reduces the risk of accidents.



What's special

No other lubricator in the world currently has the smart technology and simplicity of the OPTIME C1. Westerwälder Elektro Osmose is more than happy with the solution:

We can imagine that the number of OPTIME C1 we install will go into the three digit range,

says Maintenance Manager Peter Hannappel.

The solution is also very lucrative for service providers. The customer-specific display means any necessary action, such as the supply of new lubricators, can quickly be taken.

Technical information – OPTIME C1

Drive system	electromechanical
Communication	Wirepas Mesh 2,4 GHz NFC1356 MHz, 10 kbps
Communication range	up to 100 m
Operating temperature	-10 to +55 °C
Operating pressure	up to 10 bar
Protection class	IP68
Power supply	Battery (6 V / 2,3 Ah)
Lubricant volume	60 or 125 cm ³
Visualization	smartphone, PC, laptop



The OPTIME C1 is fitted.



The Schaeffler app is installed and OPTIME C1 started up.

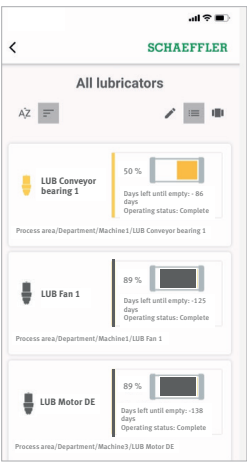


Data is visualized on the laptop.

What Schaeffler is offering ...

What the customer sees

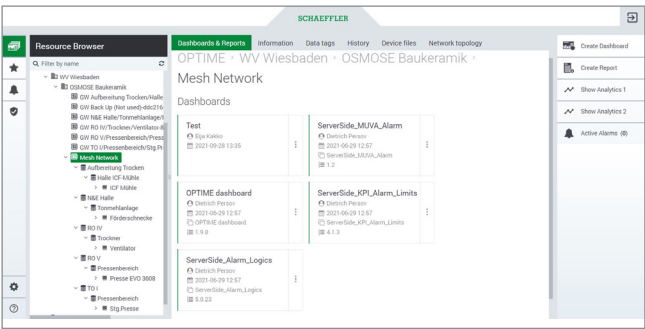
Customer-specific display: Maintenance management can view notifications and the fill level of the cartridge from anywhere with just a glance at the app on their smartphone. If necessary, relevant measures can then immediately be taken. For example, changing or purchasing new cartridges (CONCEPT1).



The customer sees the most critical lubricators at a glance.

What the service provider sees

Specific service provider display: WVW has the same view of the data as Osmose. However, the service provider can also view the data of other customers. Creating customers in the app is easy. And the display views by process area and department make it easy for the service provider to create work lists or similar documents for a customer visit.



Easy customer management, everything at a glance

Savings

Costs of unplanned downtime of the mill

Repair costs	€ 1,500
Personnel costs	€ 540
Material costs (e.g. new motor, bearings)	€ 15,000
Production loss	€ 30,000
Total costs	€ 47,040

Osmose estimates a repair time of 48 hours for an unplanned stoppage of the ICF mill alone.

Annual inspections with OPTIME C1

(no inspection rounds – only to exchange the cartridge or if there are problems with the machine)

Annual inspections without OPTIME C1

(weekly inspections of 3.5 hours each, 11 months)

€ 47,040

savings with OPTIME C1

(based on an unplanned stoppage of the mill caused by incorrect lubrication)

0 hours

154 hours

What our customer says ...



OPTIME C1 enables us to identify early on whether areas are not lubricated or if the lubrication point is empty.

When I open the app and see that everything is running smoothly, it gives me peace of mind.

Peter Hannappel
Maintenance Manager at Westerwälder Elektro Osmose

What our certified service partner advises customers ...



The message to our customers:

Unscrew all the lubrication nipples, screw on OPTIME C1 and forget about the lubrication point.

René Schmeckthal
Managing Director of Wälzlager-Vertrieb Wiesbaden

Advantages for service providers

- All customer data available at a glance with just one app
- Fewer customer visits thanks to digital data management
- More efficient planning of maintenance measures
- Easy procurement and decision making

Why Schaeffler?

- Technical know-how
- Competent customer service
- Quick assistance via large and competent network

Why precisely this solution?

- Ideal for machines that are difficult to access (wireless and compact)
- Time saving, no need for inspection rounds
- Easy to source, fit, use