

We pioneer motion

OPTIME C1

The world's first smart lubricator





**LUBRICATION
WORKLOAD:
A COMMON
PROBLEM,
WITHOUT A
SOLUTION...
UNTIL NOW!**

OPTIME Digital Service

- Easy-to-use mobile app
- Powerful, web-based dashboard for desktop PCs

Concept1 cartridge

- OPTIME C1 is compatible with Concept1 cartridges
- Can be refilled with our ARCANOL high-performance lubricant or your own alternative



OPTIME C1 – the smart lubricator

- NFC, giving you plug-and-play capability
- Mesh communication, allowing for a robust, easily manageable network
- Replaceable battery
- Increased pressure up to 10 bar via an electrical pump

Gateway

- Mobile communication via SIM or Ethernet

The job of manually managing lubrication across a production line, factory hall or plant is filled with all sorts of repetitive tasks that steal time employees could put to better use elsewhere. Nevertheless, these tasks are necessary. Downtime triggered by inadequate machine lubrication is both common and expensive. It creates a situa-

tion that puts valuable machines at risk. Given the number of components that have to be checked and the number of different cartridge replacements required, the task of monitoring machines is virtually a full-time job – until now, that is!



We are proud to present the world’s first smart lubricator. It is a device that streamlines lubrication management via alerts sent by a mobile app or web-based dashboard. It is also a product based on the three principles of our OPTIME philosophy:



Transparency

The solution enables your maintenance team to monitor all lubrication points regardless of location – on site, in the office, at home, or even on the other side of the world.



Simplicity

Plug-and-play functionality means that all the guesswork is taken out of installation and operation. You pick it up, you screw it on, and when you get an alert, you replace the lubrication cartridge. Simple and scalable!



Uptime

Lubrication avoids dreaded production line downtime and helps you fulfill orders and keep things moving with as little manual work as possible. Work smart, not hard!



Customer Success Story: Simplification in action

Founded in 1916, this German company is a manufacturer of high-quality ceramic products for buildings as well as vitrified clay pipes for the water and wastewater industry.

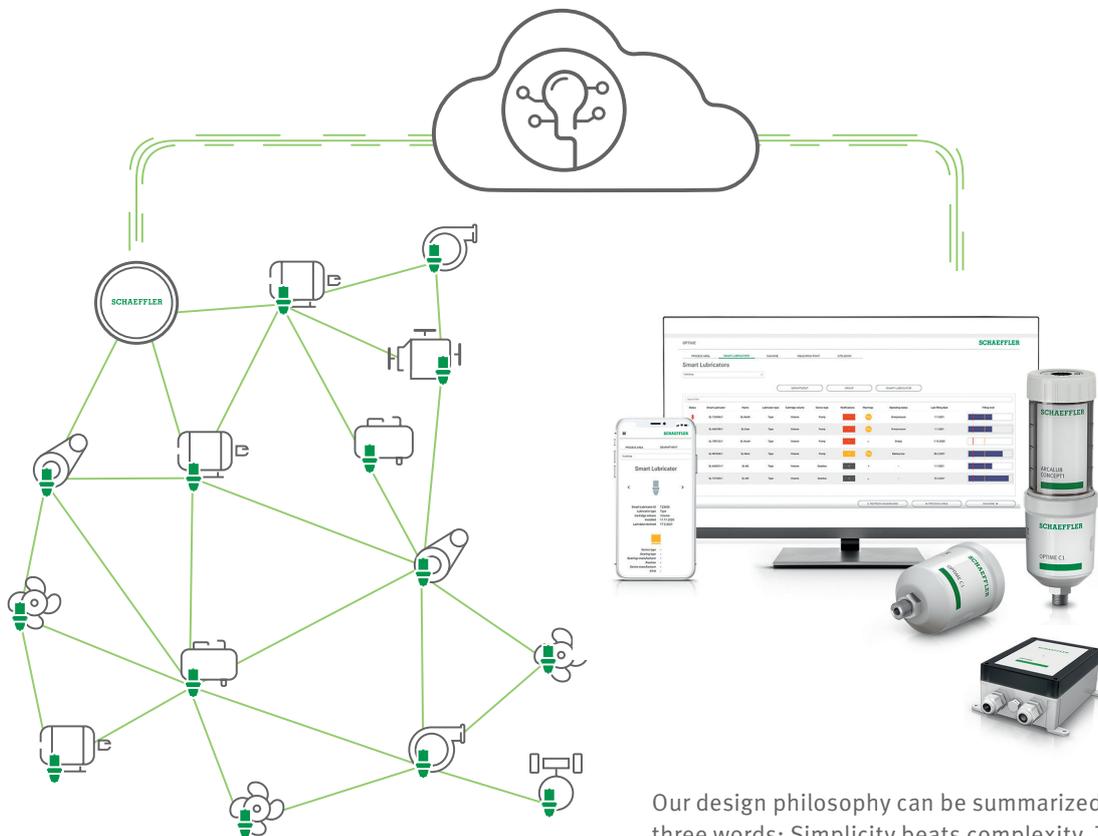
Our work with this company enabled it to avoid mill failures that generate costs of EUR 47,000 – all in a factory environment where components operate at up to 1,200°C.

The smart functionality in the device warned them of any impending lubrication shortage, saving them time and money.

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

Peter Hannappel
Maintenance Manager
Westerwälder Elektro Osmose

So how does it work?



Our design philosophy can be summarized in just three words: Simplicity beats complexity. The fewer components, the better the quality, the better the value proposition, and the better the final product.

Challenge? Accepted.

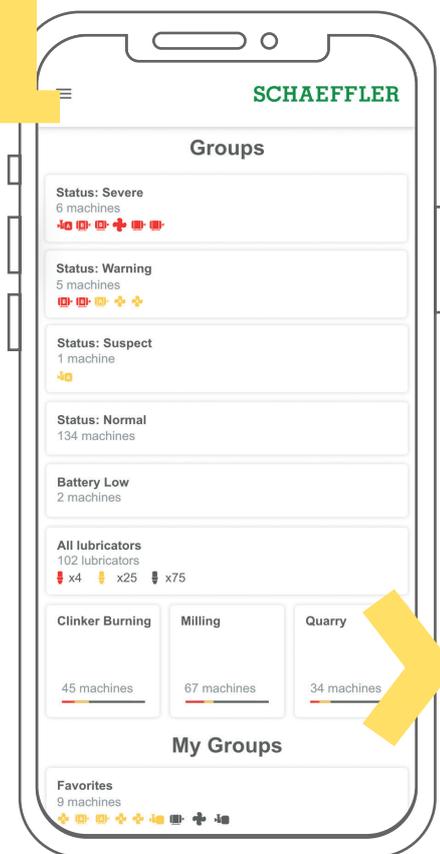
You may have trouble imagining how a product like OPTIME C1 could fit into your workflow. Here are three common ways that our award-winning solution can help you:



You have hundreds of lubrication points that need constant monitoring

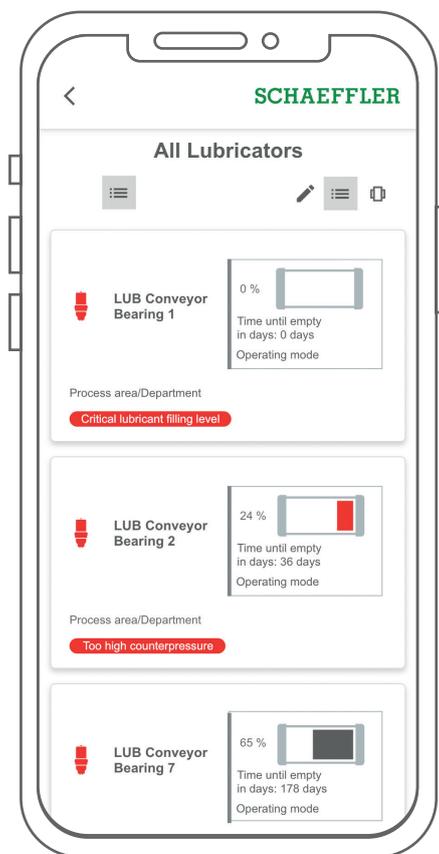
You can bid farewell to those days when your maintenance team checked the lubrication status of machinery on a daily or weekly basis. All you have to do now is connect OPTIME to the IIoT. You will then have component status and fill-level information at your fingertips. But that is hardly all. Should a malfunction occur, automatic alarms will be sent to you.

01



Group view

Our solution creates clear groups for your machines and lubrication points – a feature that lets you keep an eye on every one of those lubrication points.



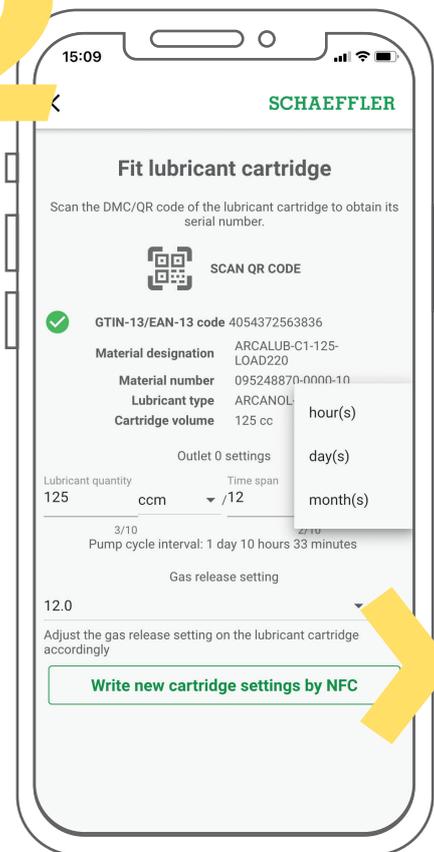
“All lubricators” group view

All lubrication points within the groups are sorted by urgency. You will always know which lubricator needs your attention next. Easy-to-understand information is provided about critical lubricant-filling levels, high temperatures, and high pressures. You immediately know what the problem is – and can act accordingly.

Your maintenance team does not know which lubricant cartridge to use

Eliminate manual errors from your lubrication workflow. Thanks to its intuitive screw-on functionality, OPTIME C1 prevents incorrect cartridges from being installed and dispensing lubricant – hindering expensive damage in the process.

02



Replace lubricant cartridge

The solution provides assisted input about lubrication parameters, lubricant quantity and time period. You can use this vital information to correctly set up each of your lubricators correctly.

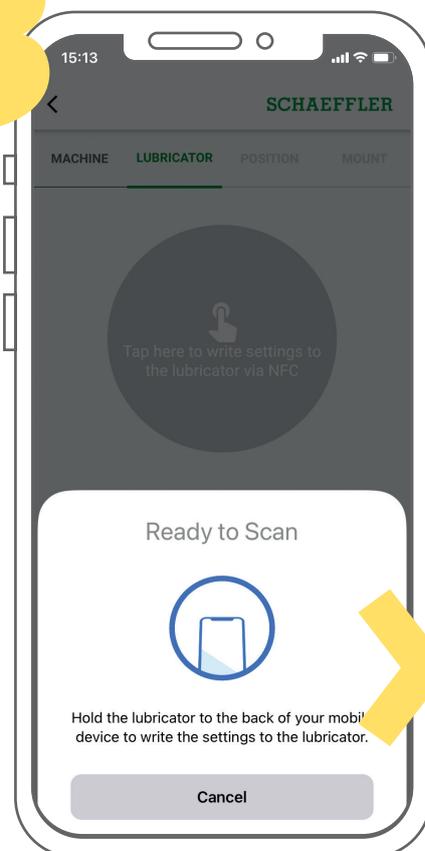
Scan QR code

Scan the QR code on the cartridge to ensure that you are using the right lubricant at the right lubrication point.

You want to get started, but don't know how

We have designed OPTIME C1 to be as easy to install as possible. Its plug-and-play functionality facilitates seamless scalability and does not require extensive worker training. Our lubrication management system will also eliminate the need for costly new bearings – great news for your profit margins.

03



Provisioning lubricator

A simple NFC scan of the OPTIME C1 activates and configures it. This ensures that you can save your resources for more important tasks.

Feature rich, cost efficient

Product specifications

Description	Value	Unit
OPTIME C1 function		
Drive system	Electro-mechanical	–
Operating pressure	< 10	bar
Metering volume per lubrication interval	0.5	cm ³
Metering volume per day (dependent on size and setting of CONCEPT1)	0.17 up to 8.3	cm ³
Commissioning	NFC	–
CONCEPT1 lubricator		
Dispensing time (steplessly adjustable)	1 up to 12	months
Lubricant volume	60 or 125	cm ³
Lubricant	Grease	< NLGI 2
	Oil	> 68
Communication		
Wirepas Mesh (ISM band)	2.4	GHz
Range with line of sight	100	m
Electrical characteristics		
Power supply (battery pack)	6	V
	2.3	Ah

Our key features at a glance:

- Status and fill-level information available via the OPTIME app or desktop dashboard
- Automatic alarm notification in the case of an adverse event
- Simple installation and maintenance
- Ability to adjust each lubricator individually
- Optimized maintenance and routing
- Pressure allowance of up to 10 bar
- Rapid and easy screw-on cartridge replacement
- User guidance available in several languages

Description		Value	Unit
Other characteristics			
Mounting position		As required	–
Threaded connector		G ¹ / ₄	–
Housing material		PET	–
Mass		=0.25	kg
Warranty and operating life	Duration	2	years
	Number of emptying operations	10	–
Packing unit		10	pieces
Ambient conditions			
Protection class		IP68	–
Operating temperature		– 10 up to + 55	°C
Storage (protect from direct sunlight, store in a dry place)	Temperature (recommended)	+ 20 ± 5	°C
	Humidity	< 65	%
Certificates			
CE		–	–
Radio Equipment Directive 2014/53/EU		–	–

Technical data – gateway

Description	Value	Unit
Communication		
Wirepas Mesh (ISM band)	2.4	GHz
2G, LTE CAT M1 (additional options with installed local LTE stick)	–	–
Wi-Fi	2.4	GHz
Ethernet RJ45	–	–
SIM card format	Micro SIM (3FF)	–
Electrical characteristics		
Power consumption	30	VA
AC power supply	85 up to 264	V
Frequency	47 up to 440	Hz
Ambient conditions		
Protection class	IP66	–
Operating temperature	–20 up to +50	°C
Storage	Temperature	–40 up to +85
	Humidity	20 up to 90
Dimensions, mass		
Length	180	mm
Width	130	mm
Height	81	mm
Mass	≈ 1.2	kg
Certificates		
CE Radio Equipment Directive 2014/53/EU	–	–



A proud member of the OPTIME Ecosystem

OPTIME C1 is a proud member of the wider award-winning OPTIME Ecosystem.

Launched in 2020 and developed for the condition monitoring of entire plants and production facilities: the OPTIME Ecosystem makes simple, effective predictive maintenance affordable for the process industry.

The addition of the world's first truly smart lubricator – the OPTIME C1 – in 2021 expanded the portfolio to make smart lubrication management possible for the first time.

www.schaeffler.de/en/optime-ecosystem

EASY IN EVERY WAY

Based on Schaeffler's long-standing expertise in the fields of bearing engineering, vibration analysis, and lubrication: the OPTIME Ecosystem enables a high level of "smartness" that makes eliminating downtime easy.



Easy to start

Plug and play functionality makes it easy to install, setup and integrate hundreds of machines in a very short time.



Easy to use

Intuitive mobile app with award-winning interface makes it easy to use – whether you are a beginner or an experienced user.



Easy to scale

Ease-of-use and affordability makes it easy to scale up and expand the scope of what you need at any time – in just a few steps.



Easy to decide

Complete overview of all machines and lubrication points, easy-to-understand alarms and automated analytics make it easy to know what to do next.



Easy to profit

Immediate reduction in downtime results in a quick ROI. Cost-efficiency also makes comprehensive, large-scale smart lubrication and condition monitoring affordable.

SCHAEFFLER LIFETIME SOLUTIONS

Keep your machines rolling

Schaeffler Lifetime Solutions is a full suite of industrial maintenance products, services and solutions for the entire machine lifetime. Designed with maintenance teams and plant managers in mind, the portfolio offers you everything you need to ensure that uninterrupted rhythm in your workshops and plants.

Regardless of whether you are working in food and beverage, pulp and paper, cement and mining – or any other industry. So that you can roll through the everyday knowing your machines are running smoothly.

Ready to roll?

www.schaeffler.de/en/lifetime-solutions



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