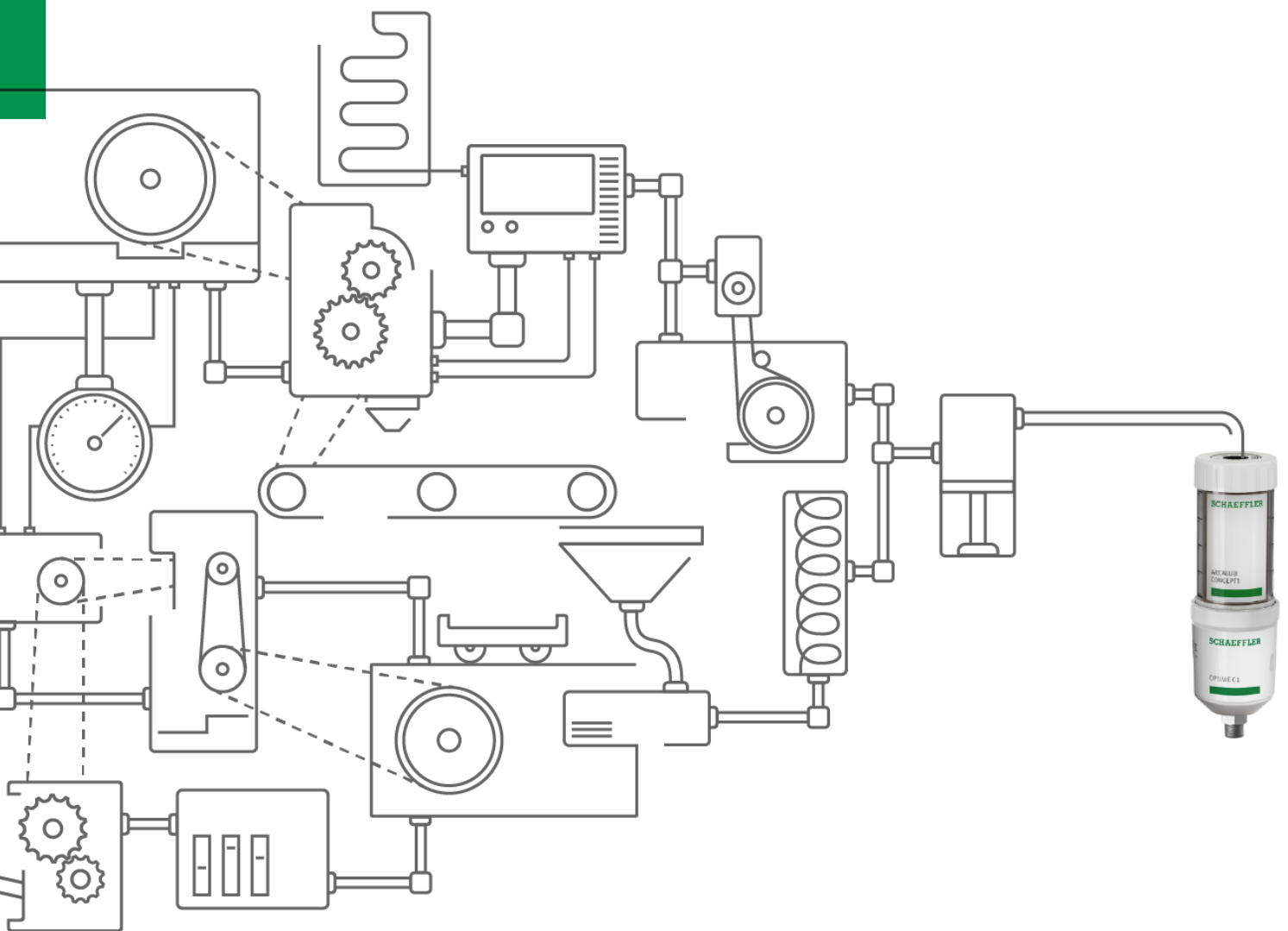


# OPTIME C1

The world's first smart lubricator



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

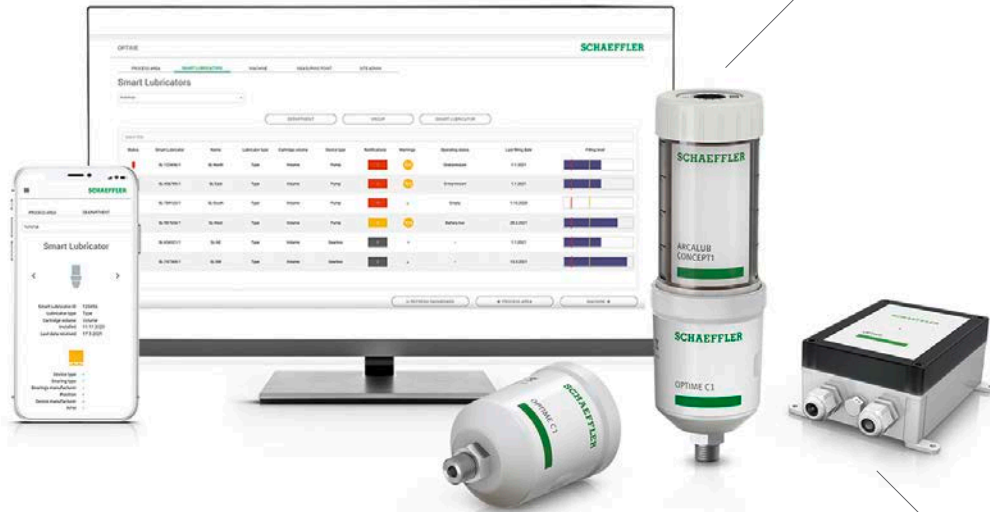


#### OPTIME Digital Service

- 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 throughout 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.

Though they may be repetitive, the tasks are necessary. Downtime triggered by inadequate machine lubrication is both common and expensive. It creates a situation 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 the 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, for that matter.



#### **Simplicity**

Plug-and-play functionality means that all the guesswork is taken out of installation and operation. You pick it up, you bolt 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: Westerwälder Elektro Osmose

Founded in 1916, Westerwälder Elektro Osmose 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 will simply warn you of any impending lubrication shortage, saving you time and money.

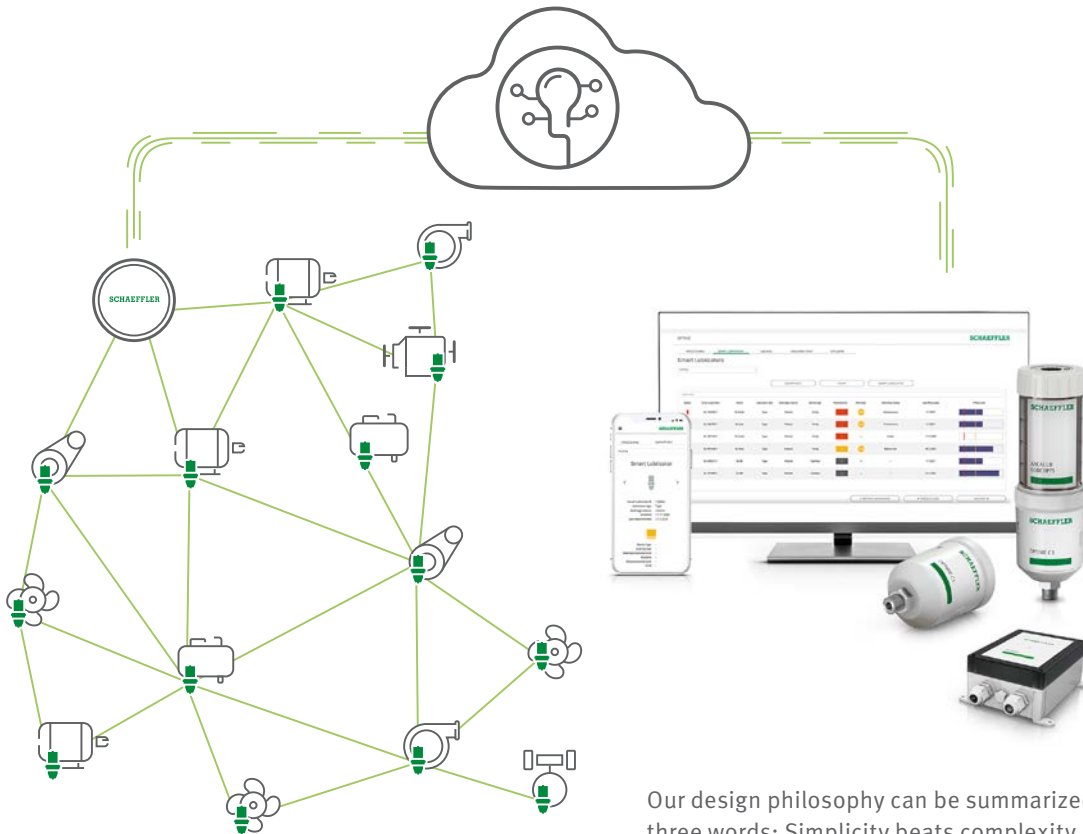
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*“When I open the app and see that everything is running smoothly, it gives me peace of mind.”*

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**Peter Hannappel**  
Maintenance Manager at  
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.

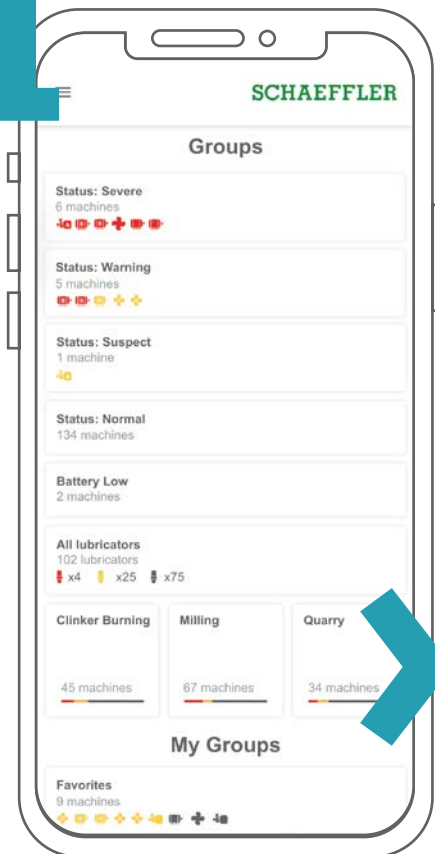
You may have trouble imagining how a product like OPTIME C1 could fit into your workflow. Here are three common ways that our award-winning solution can help you:



# You have hundreds of lubrication points that need constant monitoring

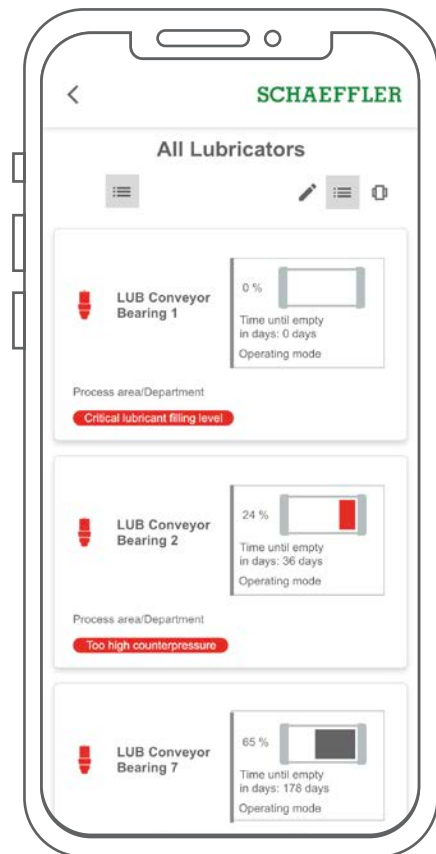
You can bid farewell to those days when your maintenance team checked the lubrication status of machinery on a daily or weekly basis. All you have to do now is connect OPTIME to the IIoT. You will then have component status and fill-level information at your fingertips. But that is hardly all. Should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

# 01



## Group view

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



## List view of group “All lubricators”

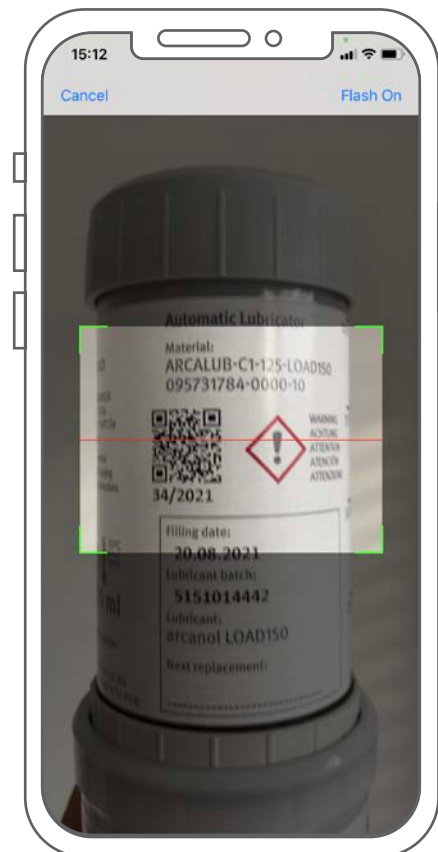
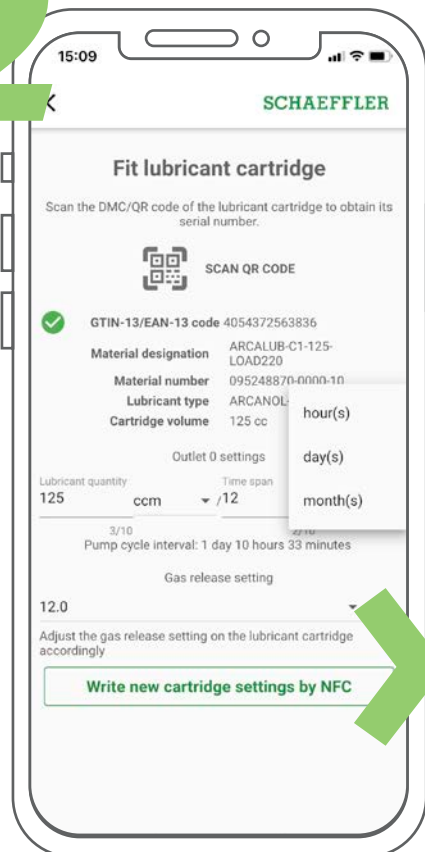
All lubrication points are sorted by urgency within the groups. You always know which lubricator needs your attention next.

Easy-to-understand information is provided about critical lubricant-filling levels and high temperatures or pressure. You immediately know what the problem – 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.

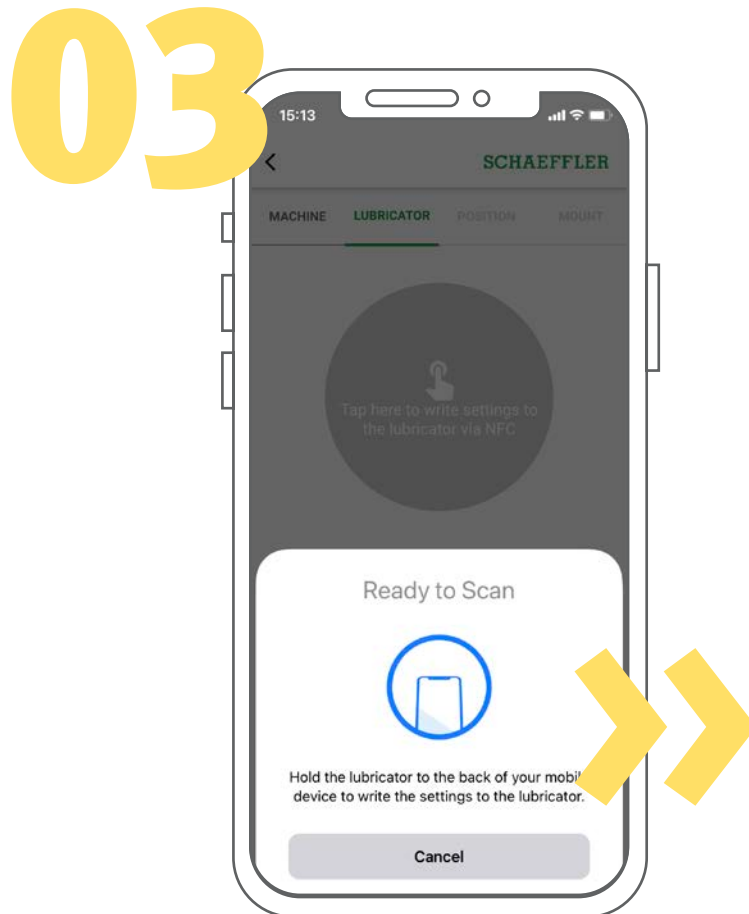
## Scan QR code

Scan the QR code on the cartridge to ensure that you use 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.



### 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
<b>Function OPTIME C1</b>		
Drive system	Electro-mechanical	–
Operating pressure	< 10	bar
Metering volume per lubrication interval	0.5	cm <sup>3</sup>
Metering volume per day (dependent on size and setting of CONCEPT1)	0.17 up to 8.3	cm <sup>3</sup>
Commissioning	NFC	–
<b>Lubricator CONCEPT1</b>		
Dispensing time (steplessly adjustable)	1 up to 12	months
Lubricant volume	60 or 125	cm <sup>3</sup>
Lubricant	Grease	< NLGI 2
	Oil	> 68
<b>Communication</b>		
Wirepas Mesh (ISM band)	2.4	GHz
Range with line of sight	100	m
<b>Electrical characteristics</b>		
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
<b>Other characteristics</b>			
Mounting position		As required	–
Threaded connector		G $\frac{1}{4}$	–
Housing material		PET	–
Mass		= 0.25	kg
Warranty and operating life	Duration	2	years
	Number of emptying operations	10	–
Packing unit		10	pieces
<b>Ambient conditions</b>			
Protection class		IP68	–
Operating temperature		– 10 up to + 55	°C
Storage (protect from direct sunlight, store in a dry place)	Temperature (recommended)	+ 20 $\pm$ 5	°C
	Humidity	< 65	%
<b>Certificates</b>			
CE		–	–
Radio Equipment Directive 2014/53/EU		–	–

# Technical data gateway

Description	Value	Unit	
<b>Communication</b>			
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)	–	
<b>Electrical characteristics</b>			
Power consumption	30	VA	
Power supply AC	85 up to 264	V	
Frequency	47 up to 440	Hz	
<b>Ambient conditions</b>			
Protection class	IP66	–	
Operating temperature	–20 up to +50	°C	
Storage	Temperature	–40 up to +85	°C
	Humidity	20 up to 90	%
<b>Dimensions, mass</b>			
Length	180	mm	
Width	130	mm	
Height	81	mm	
Mass	≈ 1.2	kg	
<b>Certificates</b>			
CE Radio Equipment Directive 2014/53/EU	–	–	



## A proud member of the OPTIME family

OPTIME C1 is a proud member of the wider award-winning OPTIME product range, which offers a variety of cost-effective condition monitoring solutions.

[www.schaeffler.com/optime](http://www.schaeffler.com/optime)

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