

LubiCool®-S high-pressure unit

**KNOLL**  
.It works

Issue 03-2022



## Features

Extremely compact and mobile

Plug-and-play

High pressure up to 100 bar

Effective filtration thanks to affordable filter element

Wear-resistant screw spindle pump

Demand-based pump control

Favourable price-performance ratio

## Benefits

- Space-saving, flexible installation is possible below standard bar feeders

- Quick installation
- Easy to retrofit

- Short-breaking chips
- Shorter machining times thanks to higher cutting speeds
- Longer service life of the tools

- Long service life of the components and the cooling lubricant
- Long service life and simple cleaning of the filter element
- Low costs when replacing the filter element

- Long service life and excellent reliability

- Lower electricity costs
- Reduced heat development
- Longer service life

- Short amortisation period

## Areas of application

KNOLL's LubiCool®-S high-pressure unit is designed for mobile use with machine tools in machining processes, particularly automatic lathes with a fixed/sliding headstock. The unit is used to clean the cooling lubricant and to supply the machine with high pressure.

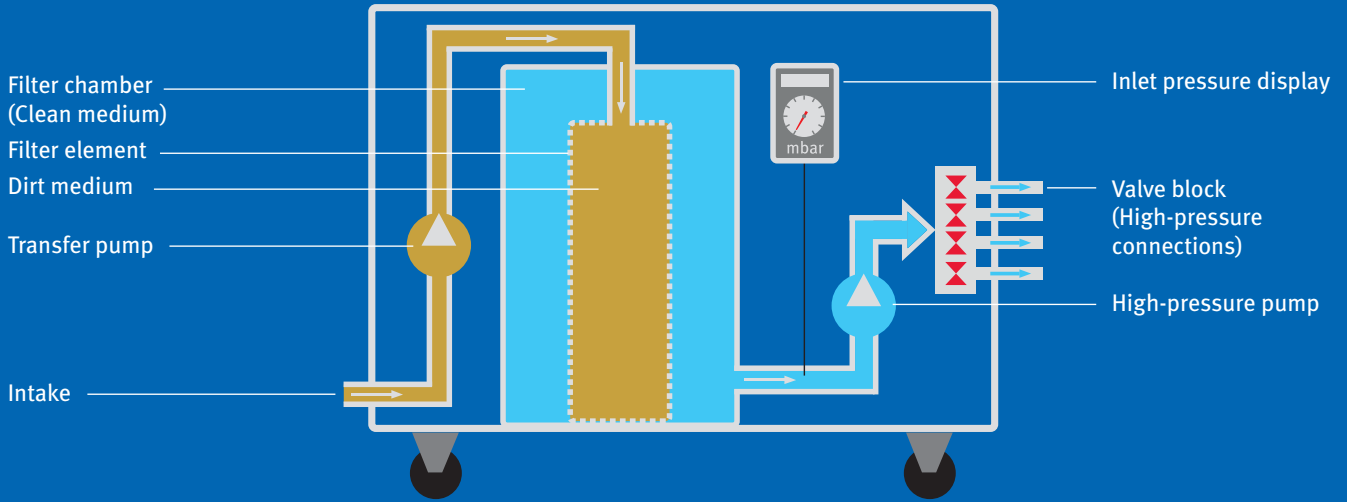
Its possible applications include

- Challenging machining processes
- Machining operations involving difficult materials (e.g. high-alloy steels, titanium, copper, bronze)
- Situations where space for installation is particularly limited
- Initial equipment and retrofitting

## Description

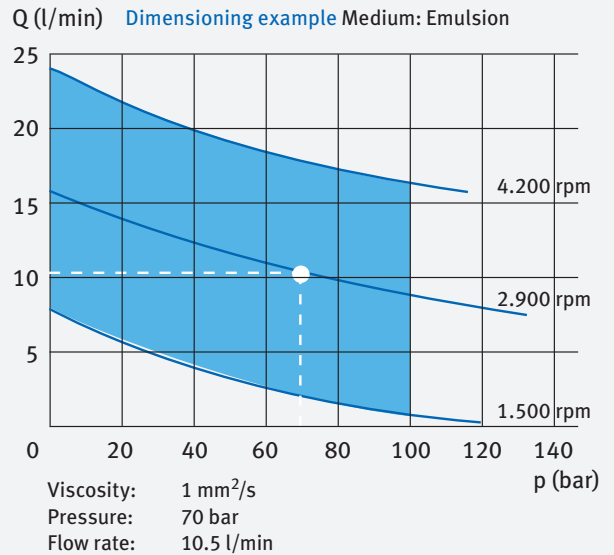
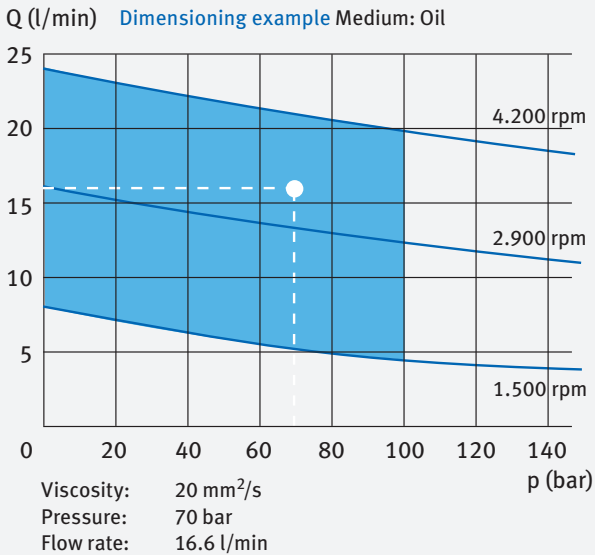
1. The transfer pump conveys the dirty cooling lubricant out of the machine tool and into the filter element.
2. The filter element removes the smallest chips, fine particles and foreign substances from the cooling lubricant.
3. The cleaned cooling lubricant flows into the filter chamber.
4. The high-pressure pump supplies the machine tool with cleaned cooling lubricant via switchable outputs on the valve block.
5. The integrated touchpad makes it possible to monitor and visualise the unit's most important operating data.

# Diagram



## Pump characteristic curves

With the frequency control of the high-pressure pump, any operating point in the light blue area of the diagram is possible.



## Equipment

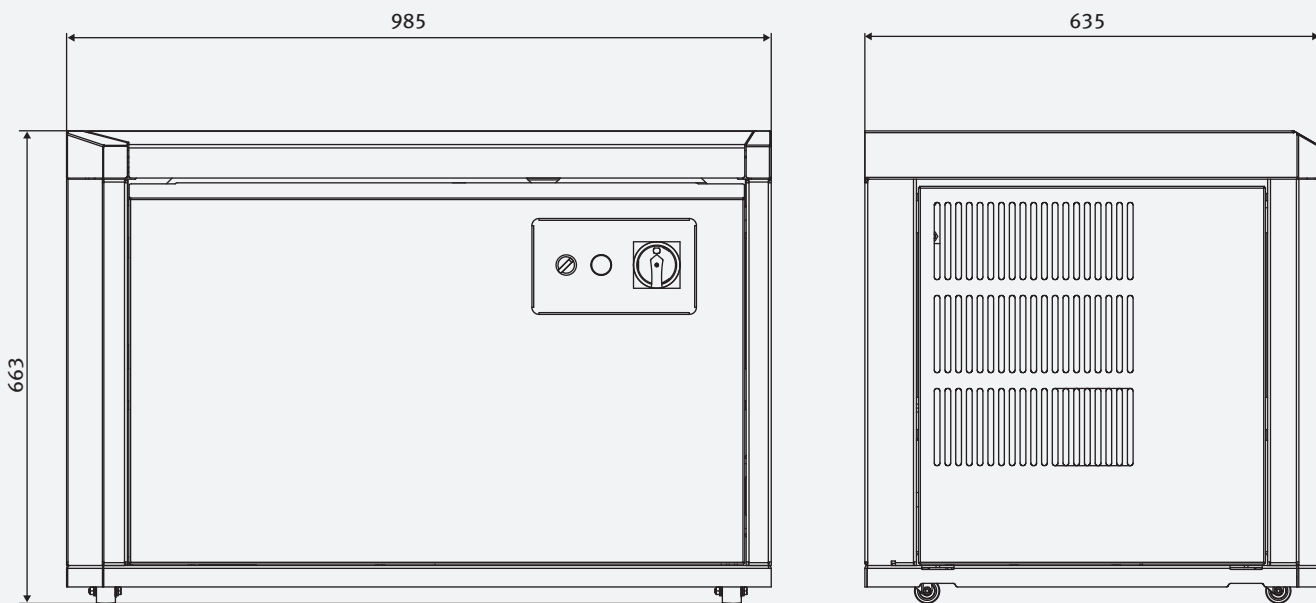
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KNOLL KTS screw spindle pump	●
Filter element	●
Transfer pump	●
KNOLL SmartConnect control including touchpad and LED status light	●
Interface cable (individual)	●
Four switchable outputs	●
Four additional switchable outputs	○
Frequency inverter	○
Temperature sensor	○
Cooling as plate heat exchanger	○
Hose assembly	○
Pressure reduction for spindle flushing	○

● Basic equipment  
 ○ Option

**KNOLL Maschinenbau GmbH**  
 Schwarzachstraße 20  
 DE-88348 Bad Saulgau  
 Tel. +49 7581 2008-0  
 Fax +49 7581 2008-90140  
 info.itworks@knoll-mb.de  
 www.knoll-mb.com  
 www.lubicool.com

LubiCool®-S

## Dimensions and technical data



High-pressure pump connection cable	4 kW
Transfer pump connection cable	0.92 kW
Pressure range	Up to 100 bar
Volume flow	Up to 23 l/min
Grade of filtration	Up to 15 µm
Cooling lubricant	Emulsion, oil
Power supply	400 V / 50 Hz
Dimensions (L x W x H)	985 x 635 x 663 mm