

LubiCool®-S high-pressure unit

**KNOLL**  
.It works

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## Features

## Benefits

Extremely compact and mobile

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

Plug-and-play

- Quick installation
- Easy to retrofit

High pressure up to 90 bar

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

Effective filtration thanks to affordable filter element

- 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

Wear-resistant screw spindle pump

- Long service life and excellent reliability

Demand-based pump control

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

Favourable price-performance ratio

- 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.

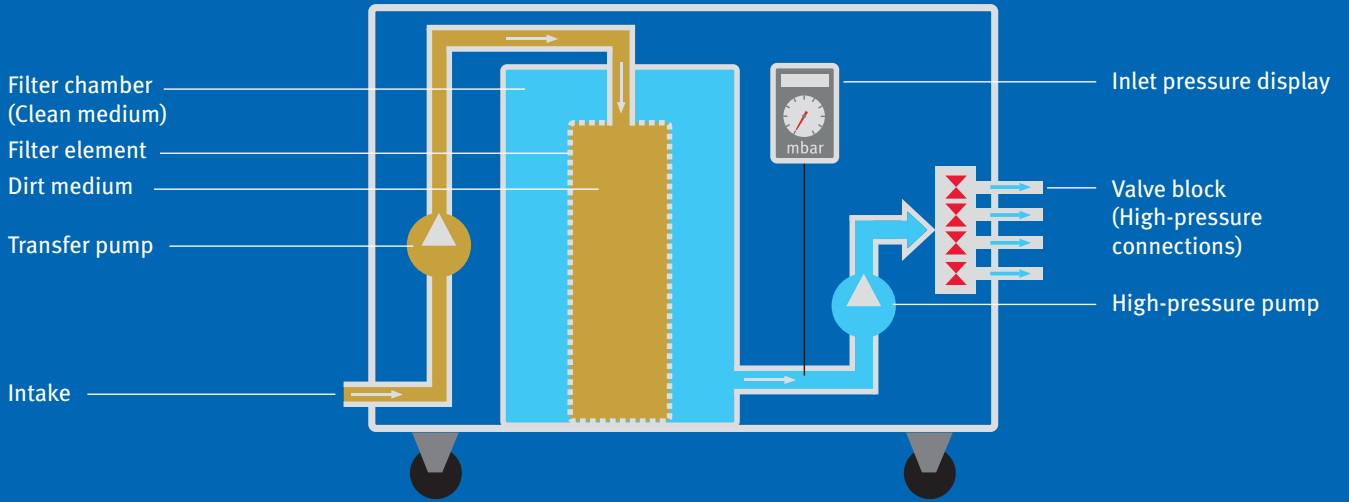
Its possible applications include

- 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

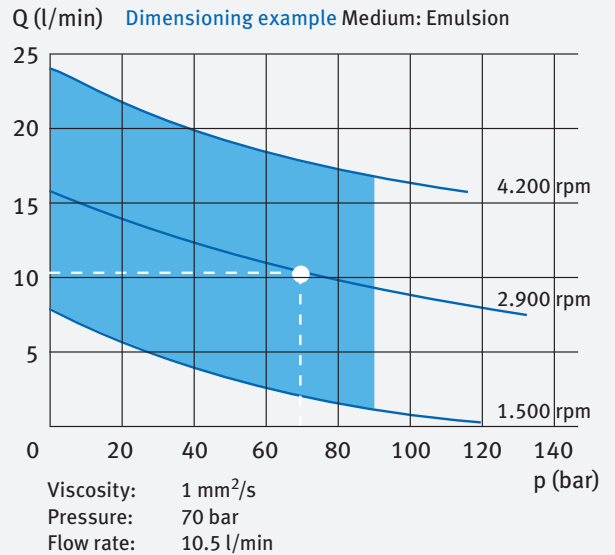
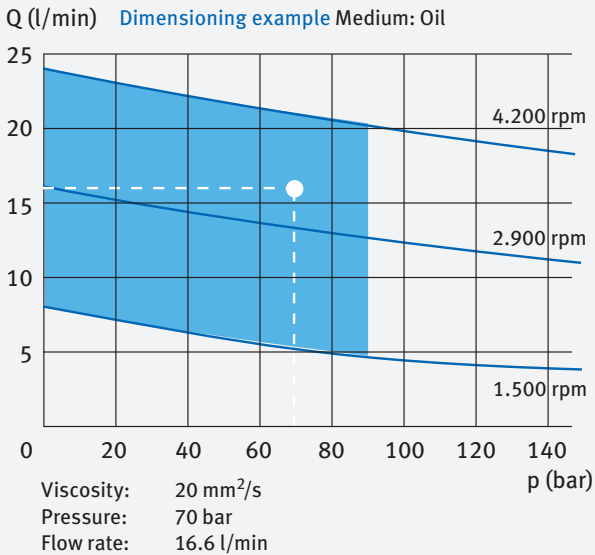
1. The transfer pump conveys the dirty cooling lubricant out of the machine tool and into the filter element.
2. The filter element removes the smallest chips, fine particles and foreign substances from the cooling lubricant.
3. The cleaned cooling lubricant flows into the filter chamber.
4. The high-pressure 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

anelling	●
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	○

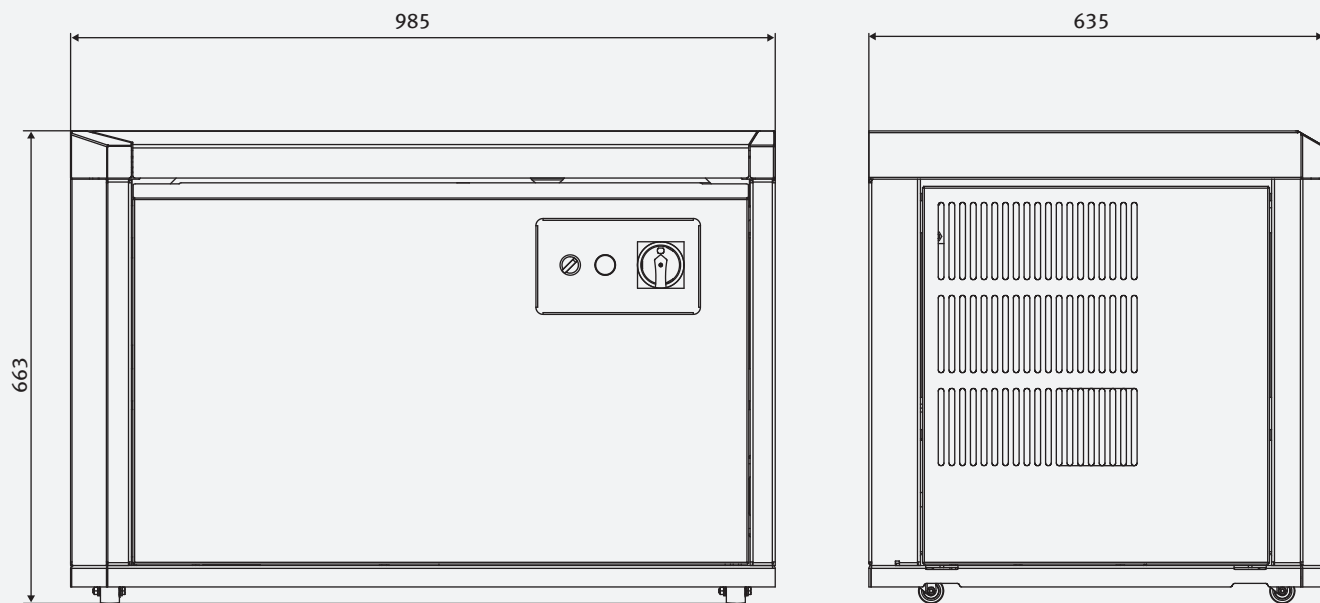
● Basic equipment  
 ○ Option

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LubiCool®-S

Dimensions and technical data



High-pressure pump connection cable	4 kW
Transfer pump connection cable	0.92 kW
Pressure range	Up to 90 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