

High pressure unit LubiCool®-M

KNOLL
®.It works

Issue 08-2019



Properties

Benefits

Compact and mobile

Space-saving and flexible installation

Plug-and-Play

- Fast installation
- Easy retrofitting

High pressure up to 150 bar

- Short-breaking chips
- Reduced processing times due to higher cutting speeds
- Extended tool life

Effective filtration via belt filter

- Reduced concentration of ultra-fine particles
- Long service life of components and the cooling lubricant (CL)

Wear-resistant screw spindle pump

Long service life and process reliability

Demand-driven pump control

- Lower energy costs
- Lower heat development
- Longer durability

Attractive price-performance ratio

Short amortization time

Application

The KNOLL high pressure unit LubiCool®-M is a mobile high pressure unit for machine tools, particularly fixed- and sliding headstock automatic lathes. The system cleans the CL and provides the machine with high pressure.

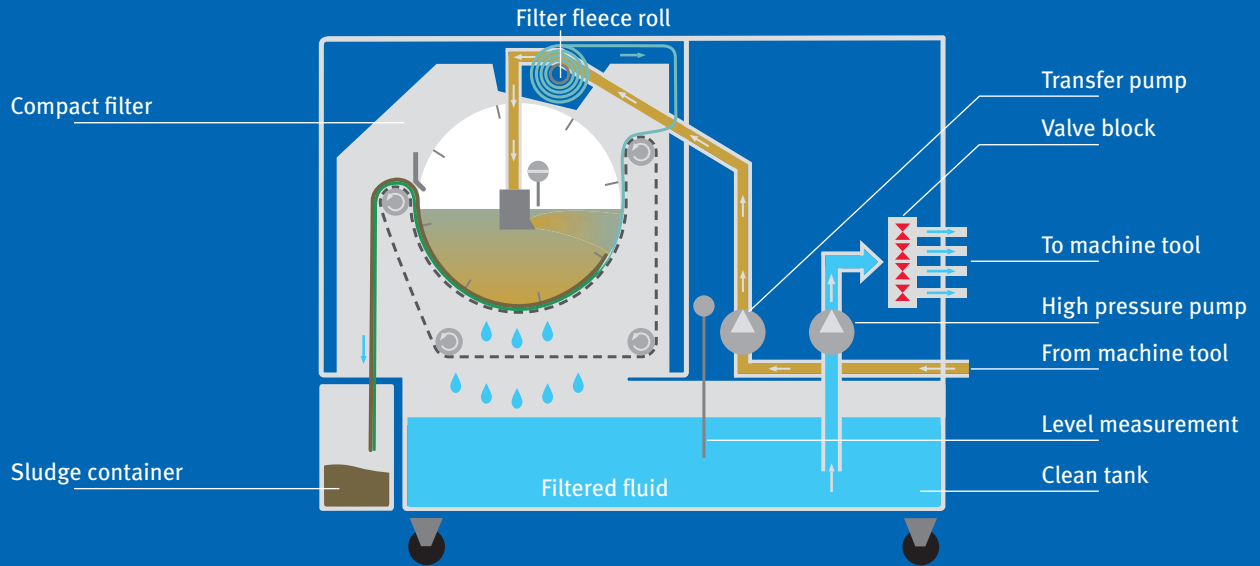
It is suitable for

- demanding machining processes
- deep hole drilling in one move
- processing with difficult materials (e.g. high-alloyed steel, titanium, copper, bronze)
- original equipment and retrofitting

Description

1. The transfer pump pumps the dirty CL from the machine tool into the compact filter.
2. The compact filter separates chips and the soiling from the CL, which flows in the clean media tank.
3. The dirty fleece is collected in the sludge container.
4. The high pressure pump provides the machine tool with cleaned CL through switchable outputs.
5. The integrated touchpad allows the control and visualization of the most important system parameters.

Scheme

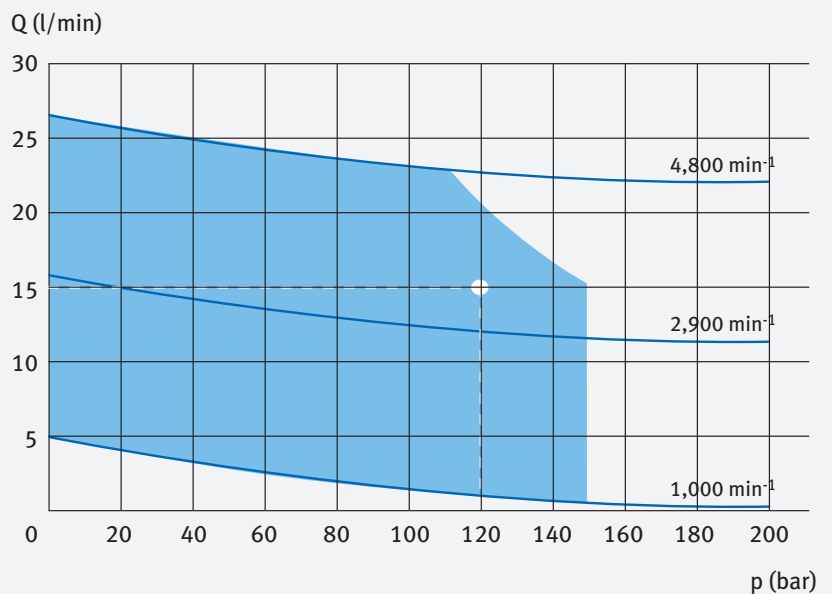


Pump characteristic curve

With the optional frequency control, every point within the diagram in the light blue area is possible.

Layout example:

Media: Oil
 Viscosity: 20 mm²/s
 Pressure: 120 bar
 Delivery rate: 15 l/min



Equipment

Paneling	●
KNOLL compact filter KF (with filter fleece)	●
KNOLL screw pump KTS	●
Transfer pump	●
KNOLL SmartConnect control incl. touchpad and LED-status light	●
Interface cables (individual)	●
Clean tank	●
Sludge container	●
4 switchable outputs	●
4 additional switchable outputs	○
Frequency inverter	○
Cooling (continuous flow cooler, plate heat exchanger or piggyback plate heat exchanger)	○
WHG-sensor	○
Hose set	○
Pressure reduction for spindle flushing	○
Temperature sensor	○

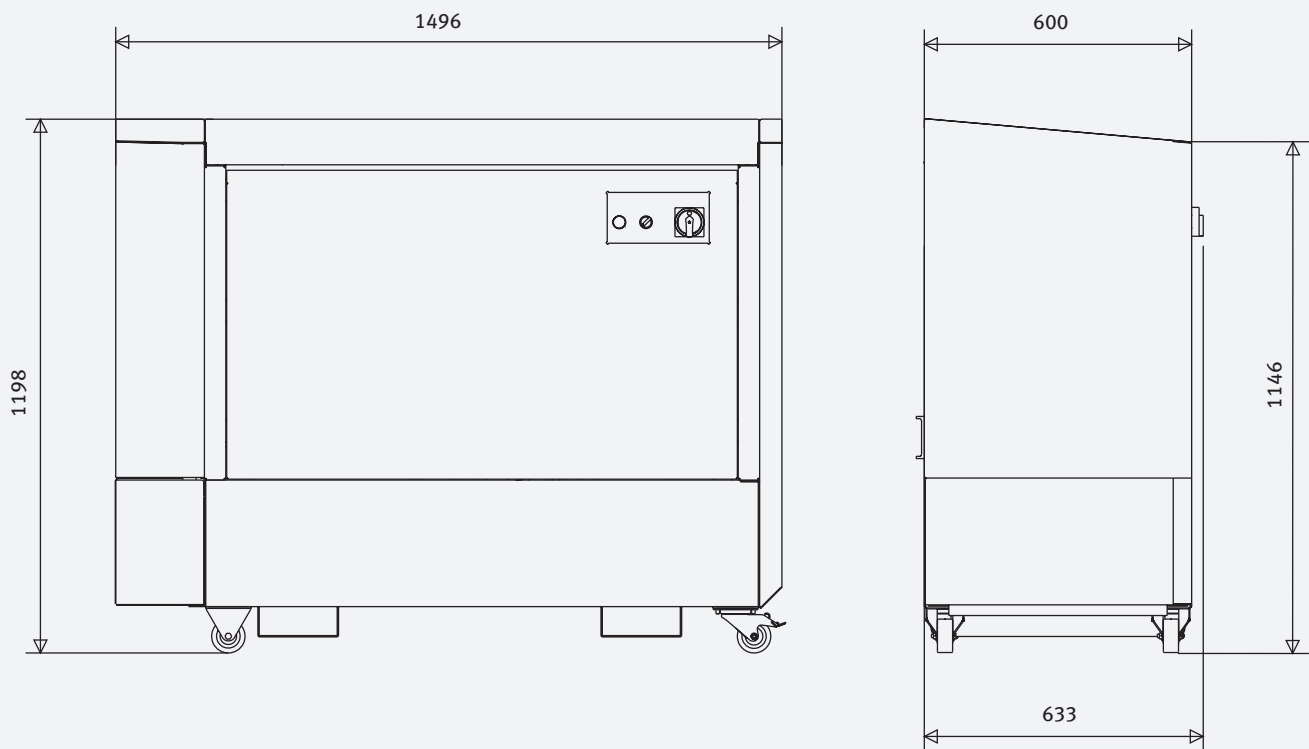
● Standard equipment
 ○ Option

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®-M

Dimensions and technical data



Connected load high-pressure pump	5.5 kW
Connected load transfer pump	0.63 kW
Pressure range	Up to 150 bar
Volumetric flow	Up to 27 l/min
Filter fineness	Up to 20 µm
Cooling lubricant	Emulsion, Oil
Power supply	400 V / 50 Hz
Tank capacity	150 l
Dimensions (L x W x H)	1496 x 600 x 1198 mm