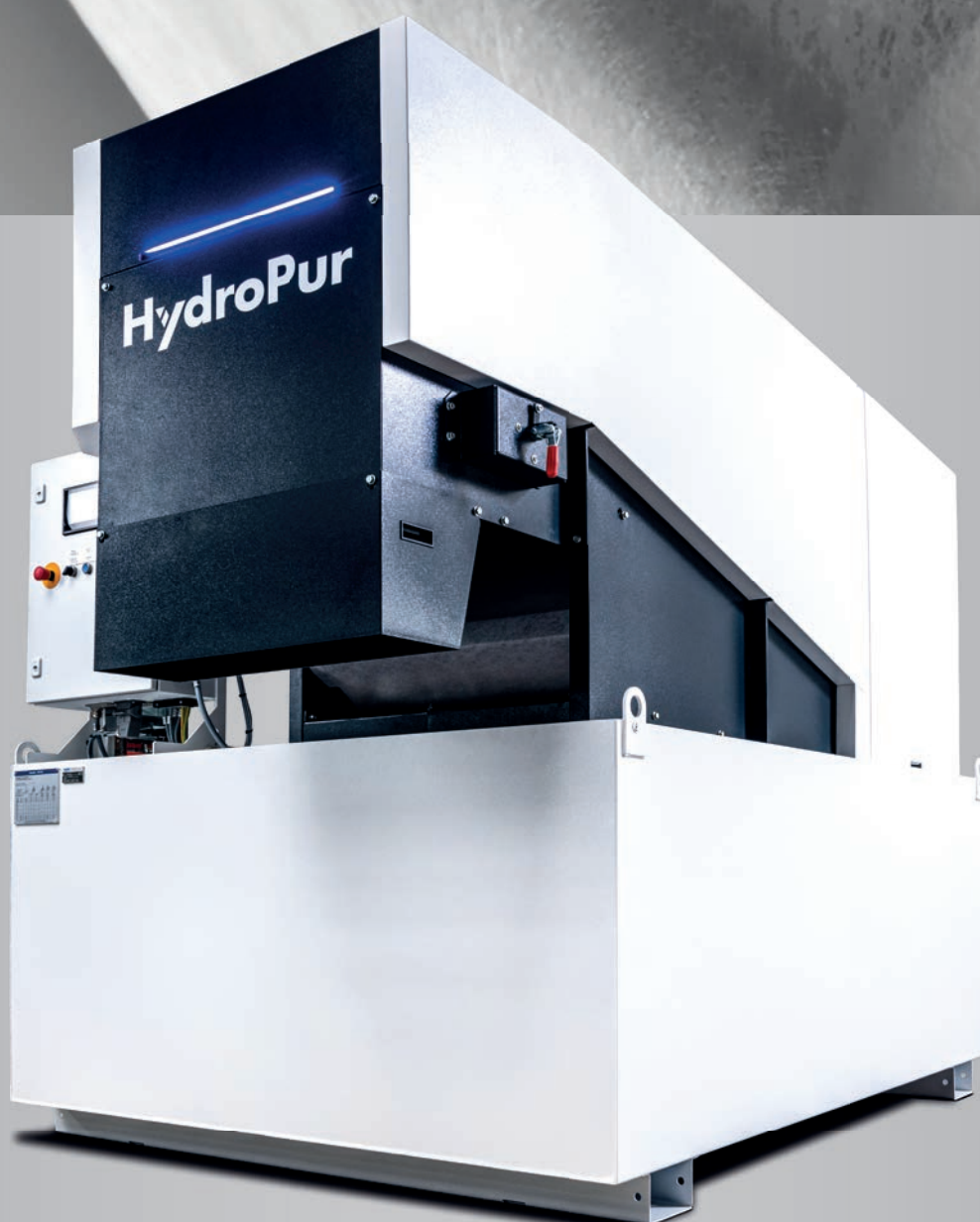


HydroPur filter system

KNOLL
.It works

Version of 07-2022



Properties

Higher hydrostatic pressure compared to flat bed filters

Build-up of a homogeneous filter cake, especially when grinding

Standardized construction

Modular design with configurable functional units

Plug-and-Play via universal, digital interface

Control with KNOLL SmartConnect

Benefits

- Higher volume flow
- Less fleece consumption
- Better level of purity

Good filter quality

- Short delivery time
- Favourable price-performance ratio

Optimal coverage of customer requirements

Quick installation and start-up

Simple operation and monitoring, also with a smart-phone or tablet

Application

The HydroPur filter system is a fleece filter for cleaning the cooling lubricant (KSS) in machining processes. It is used as an independent cleaning unit (e.g., when grinding) or as a supplement to chip transport systems (e.g., when milling).

Description

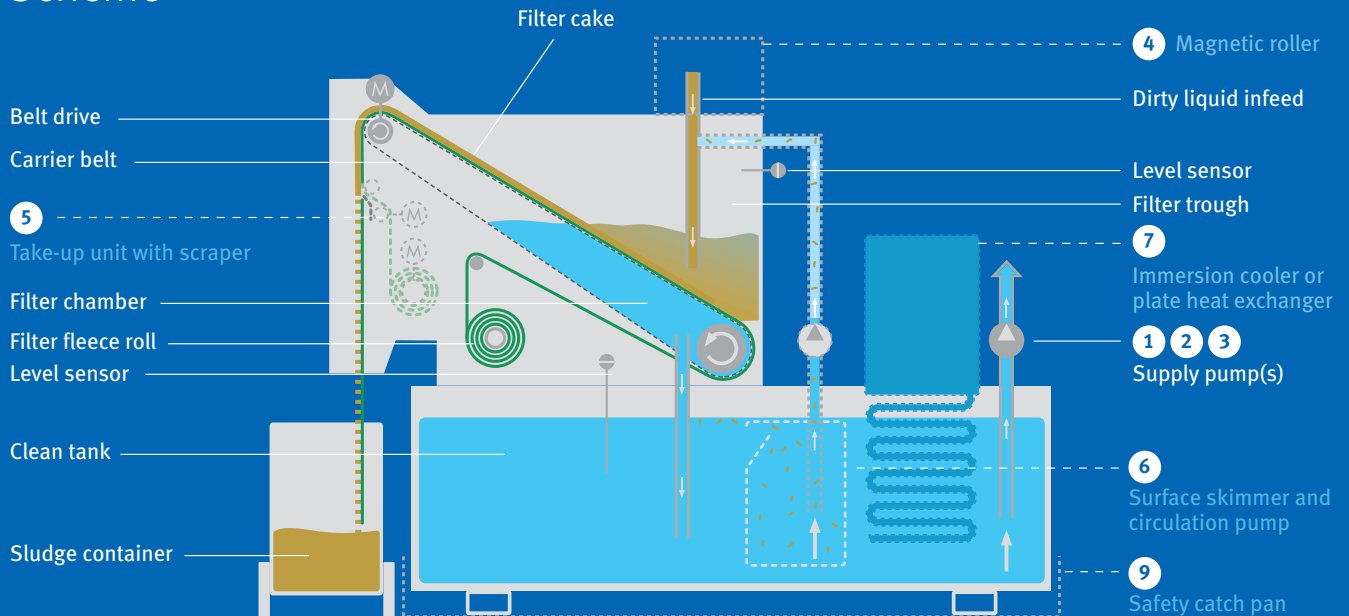
Filtration process

1. The dirty coolant goes from the machine tool into the filter trough
2. Due to the hydrostatic pressure, the liquid flows through the filter fleece, which holds back the dirt particles
3. The dirt particles form a filter cake that separates even the smallest particles
4. The clean liquid flows into the filter chamber and collects in the clean tank
5. Supply pumps supply the machine tool with cleaned coolant as required

Regeneration process

1. The growing filter cake increases the flow resistance
2. The liquid level in the filter trough increases
3. The belt drive switches on at a defined level
4. The carrier belt transports a piece of clean filter fleece onto the filter surface
5. The level of the liquid decreases again
6. A sludge container or a take-up unit takes up the dirty filter fleece

Scheme



Options

1 Supply Pump 1

- (0) Without pump
- (1) Centrifugal pump, single-stage, 2.2 kW, 100-150 l/min, 3 bar
- (2) Centrifugal pump, single-stage, 4.0 kW, 120-150 l/min, 5 bar
- (3) Centrifugal pump, multi-stage, 3.0 kW, 100-150 l/min, 7 bar
- (4) Centrifugal pump, multi-stage, 4.0 kW, 250 l/min, 5 bar
- (5) Centrifugal pump, multi-stage, 5.5 kW, 320 l/min, 5 bar

2 Supply Pump 2

- (0) Without pump
- (1) Centrifugal pump, single-stage, 2.2 kW, 30-70 l/min, 3 bar
- (2) Centrifugal pump, single-stage, 1.5 kW, 50 l/min, 2.5 bar, 80-100 l/min, 2 bar

3 Supply Pump 3

- (0) Without pump
- (1) Centrifugal pump, multi-stage, 4.0 kW, 80-100 l/min, 10-12 bar
- (2) Centrifugal pump, multi-stage, 5.5 kW, 150 l/min, 12 bar
- (3) Centrifugal pump, multi-stage, 7.5 kW, 100 l/min, 20 bar

4 Initial separation

- (0) Without magnetic roller
- (1) With magnetic roller

5 Take-up unit

- (0) Without take-up unit
- (1) With take-up unit

6 Surface skimming and circulation pump

- (0) Without surface skimmer and circulation pump
- (1) With surface skimmer and circulation pump

7 Cooling unit

- (0) Without cooling unit
- (1) Temperature sensor
- (2) immersion cooler 10 kW
- (3) Immersion cooler 16 kW
- (4) immersion cooler 20 kW
- (5) Plate heat exchanger

8 Lifting station

- (0) Without controller for lifting station
- (1) With controller for lifting station

9 Safety catch pan

- (0) Without safety catch pan
- (1) With safety catch pan

10 Covering

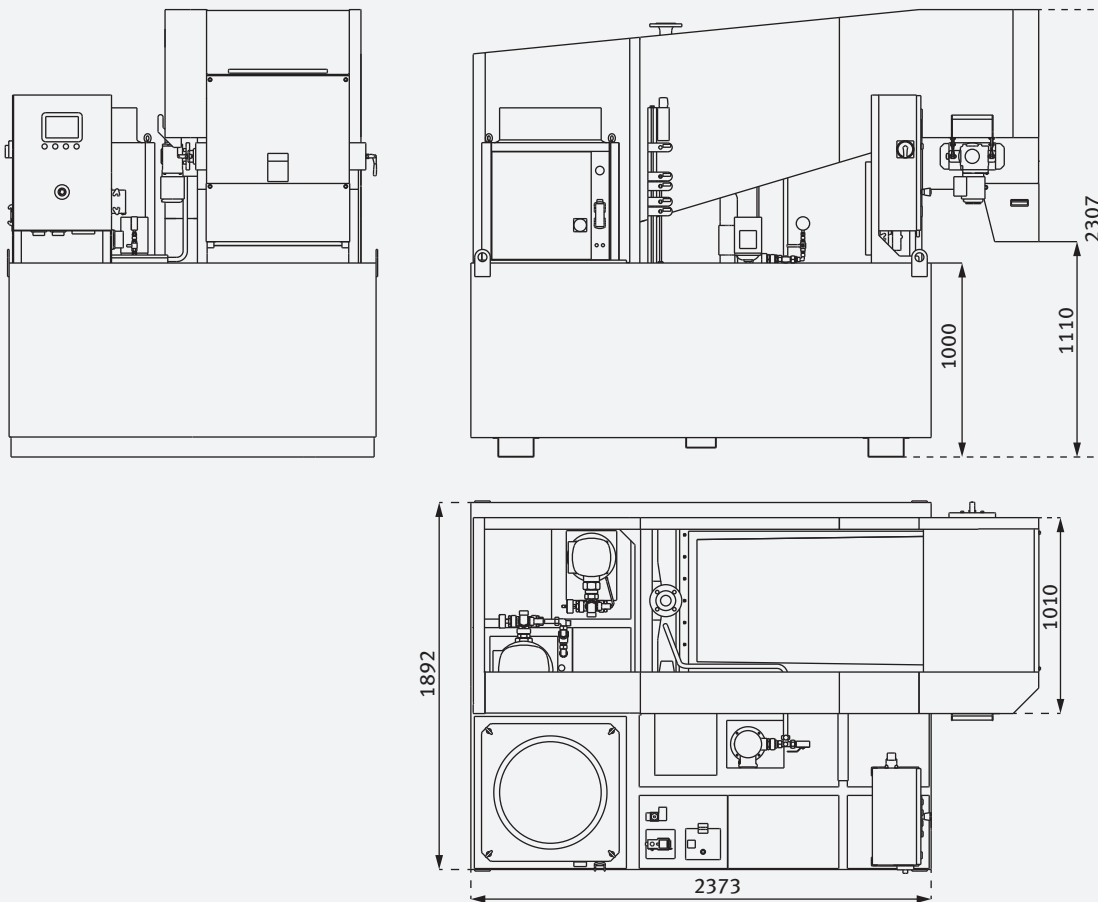
- (0) Without covering
- (1) With covering

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HydroPur

Dimensions and technical specifications



Volume flow	up to 400 l/min
Filter fineness	up to 20 µm
Cooling lubricant	emulsion
Power supply	400 V/50 Hz and 60 Hz
Coolant volume	3,000 l
Dimensions (L x W x H)	1892 x 2373 x 2307 mm

Service

- Delivery time: 6 weeks
- KNOLL portal - high availability of consumables and replacement parts



Experience the
HydroPur.

More information at
www.knoll-mb.com

or scan the
QR code.