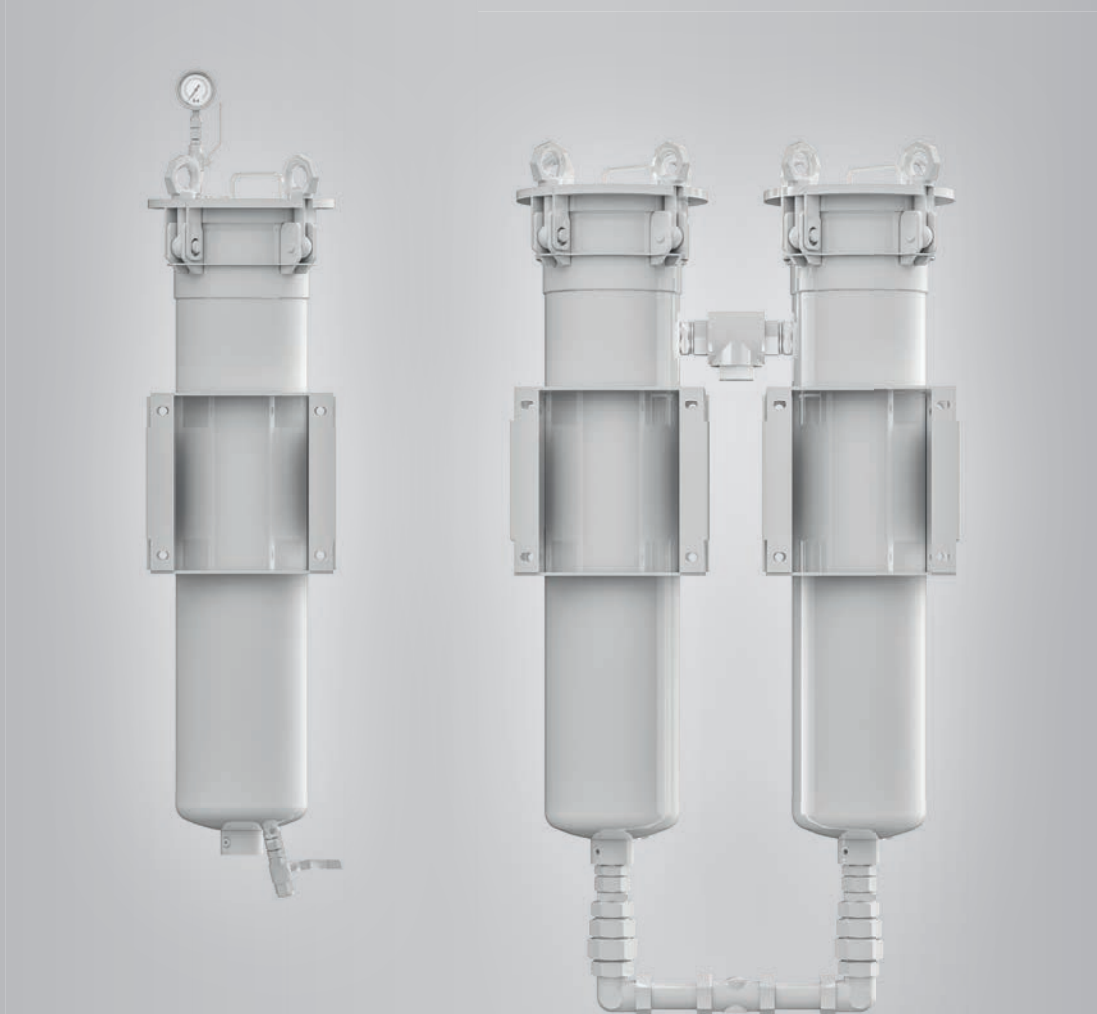


UniPur Canister Filters

KNOLL
.It works

UniPur

Issue 03-2025



Features

Many suitable filter inserts available

Easy filter change

Benefits

High flexibility when changing the requirements for the grade of filtration

Low maintenance costs

Areas of application

KNOLL UniPur cannister filters are devices for cleaning cooling lubricants (KSS). They form a cost-effective, manual alternative to self-cleaning filters. For a particular housing, there are different filter elements that achieve grades of filtration from 1 µm to 100 µm, depending on the requirements.

The UniPur cannister filter is versatile

- in the main or side stream
- as an additional filter (additional filter stage, bath upkeep, policing filter)
- as a standalone filter for small volume flows

Description

Function

Filtering

- 1) A pump conveys the contaminated KSS from above into the filter cannister
- 2) The liquid flows through the filter element, which retains the dirt particles
- 3) The cleaned KSS emerges from the bottom of the filter cannister

Regeneration

- 1) The collected dirt particles impede the KSS flow
- 2) The inlet pressure increases
- 3) Replacing the filter elements when a defined pressure is reached
 - Filter with differential pressure switch: Signaling at a preset pressure
 - Filter with pressure gauge: Periodic visual inspection necessary

Design as a duplex switch filter

- Functions like a single filter
- Switchability allows the filter to be changed during operation

Design as a double filter

- Functions like a single filter
- Parallel flow through both filter housings, thus increasing the flow rate

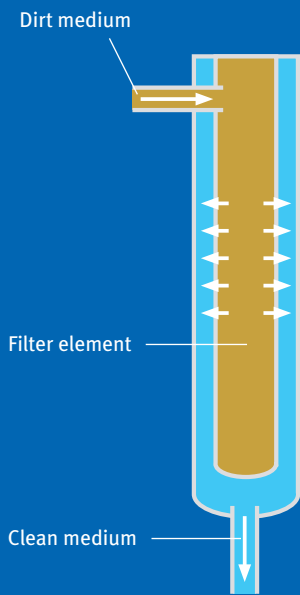
Combination options

For other requirements, we can combine the UniPur on request

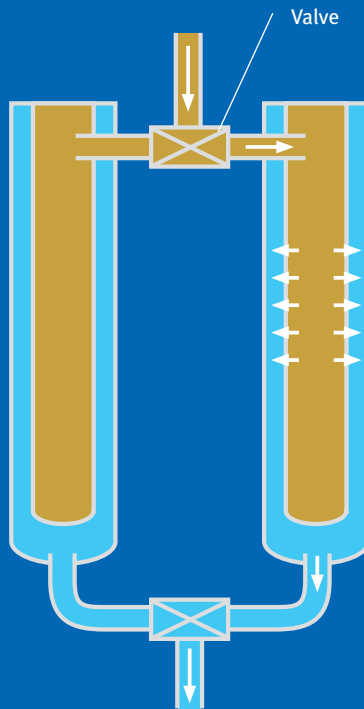
- Conveyor systems for transporting chips
- Filter systems for cleaning the KSS and supplying the machine tool

Diagram

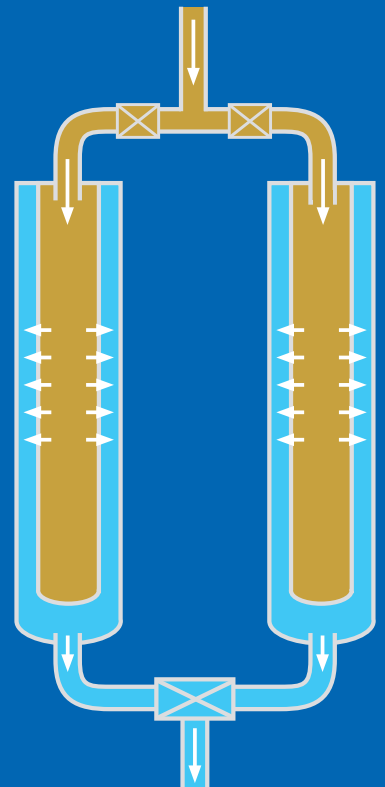
Single filter



Duplex switch filter



Double filter



Equipment

| | |
|------------------------------------|---|
| Filter canister | ● |
| Filter insert (original equipment) | ● |
| Pressure gauge | ○ |
| Differential pressure switch | ○ |

● Basic equipment
○ Optional

Filter variants



MicroPur®



LOFPLEAT™ CP



DURAGAF™



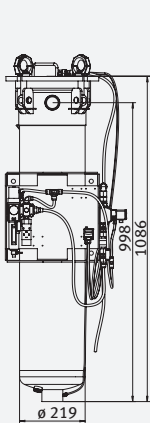
MAX-LOAD™

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

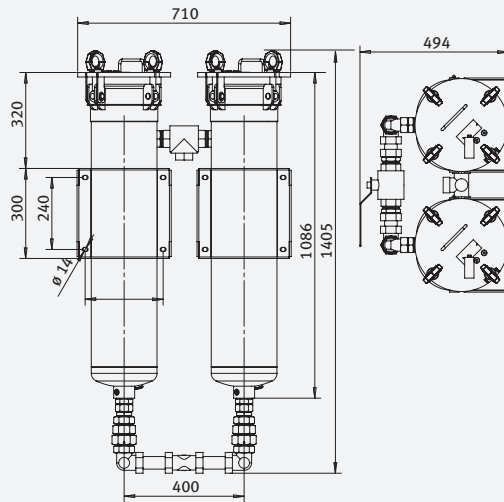
UniPur

Dimensions and technical data

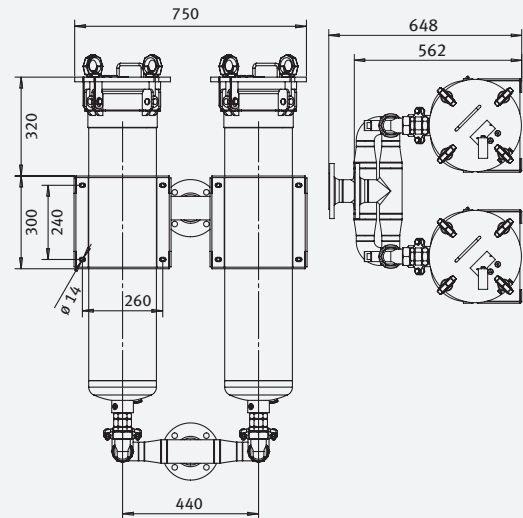
Single filter



Duplex switch filter



Double filter



Filter element overview

| Manufacturer | Filter type | Material No. | Grade of filtration | | Outer diameter [mm] | Length [mm] | Filter surface* [m ²] | | Rate of flow* [l/min] | | |
|--------------|--------------|--------------|---------------------|---------|---------------------|-------------|-----------------------------------|-----------------|-----------------------|----------|----------|
| | | | absolute | nominal | | | per element | No. of elements | Oil | Emulsion | Solution |
| KNOLL | MicroPur® | 166880 | 2 | | 143 | 410 | 3.2 | 2 | 60 | - | - |
| KNOLL | MicroPur® | 210507 | 5 | | 143 | 410 | 3.2 | 2 | 60 | - | - |
| KNOLL | MicroPur® | 210511 | 10 | | 143 | 410 | 3.2 | 2 | 60 | - | - |
| KNOLL | MicroPur® | 444028 | 1 | | 143 | 410 | 3.2 | 2 | - | - | 60 |
| EATON | LOFPLEAT™ CP | 618296 | 10 | | 165 | 991 | 10.7 | 1 | 30 | - | 50 |
| EATON | LOFPLEAT™ CP | 516163 | 20 | | 165 | 991 | 20 | 1 | 42 | 70 | 70 |
| EATON | LOFPLEAT™ CP | 516166 | 30 | | 165 | 991 | 20 | 1 | 60 | 100 | 100 |
| EATON | LOFPLEAT™ CP | 516167 | 40 | | 165 | 991 | 20 | 1 | 90 | 150 | 150 |
| EATON | LOFPLEAT™ CP | 516170 | 70 | | 165 | 991 | 20 | 1 | 120 | 200 | 200 |
| EATON | DURAGAF™ | 516142 | | 10 | 180 | 810 | 0.48 | 1 | 60 | - | 80 |
| EATON | DURAGAF™ | 486736 | | 25 | 180 | 810 | 0.48 | 1 | 90 | 150 | 150 |
| EATON | DURAGAF™ | 493810 | | 50 | 180 | 810 | 0.48 | 1 | 120 | 200 | 200 |
| EATON | DURAGAF™ | 455029 | | 100 | 180 | 810 | 0.48 | 1 | 150 | 250 | 250 |
| EATON | MAX-LOAD™ | 516171 | | 10 | 180 | 730 | 1.6 | 1 | 30 | - | 50 |
| EATON | MAX-LOAD™ | 516173 | | 25 | 180 | 730 | 1.6 | 1 | 60 | 80 | 80 |
| EATON | MAX-LOAD™ | 516174 | | 50 | 180 | 730 | 1.6 | 1 | 90 | 150 | 150 |

* Information applies to single filters - Not suitable