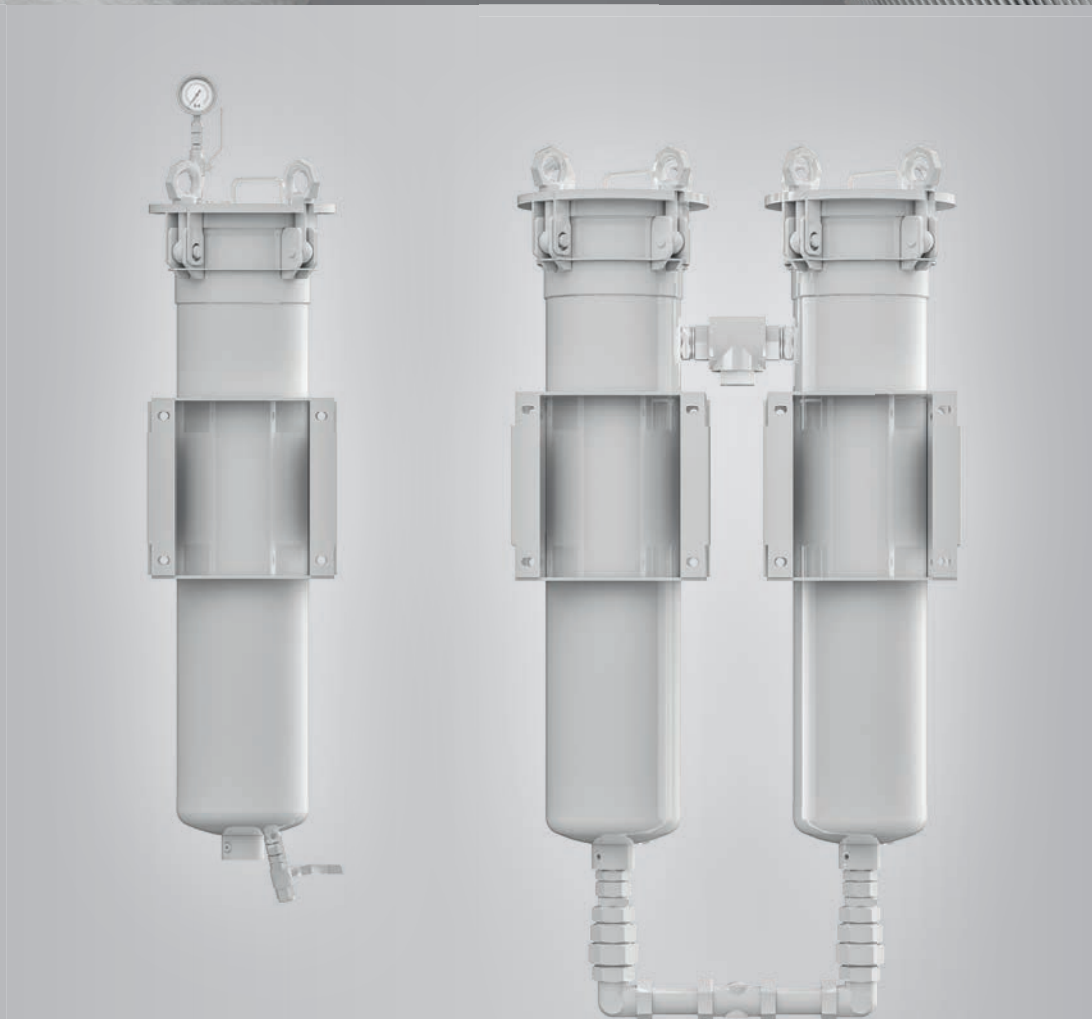


UniPur Canister Filters

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

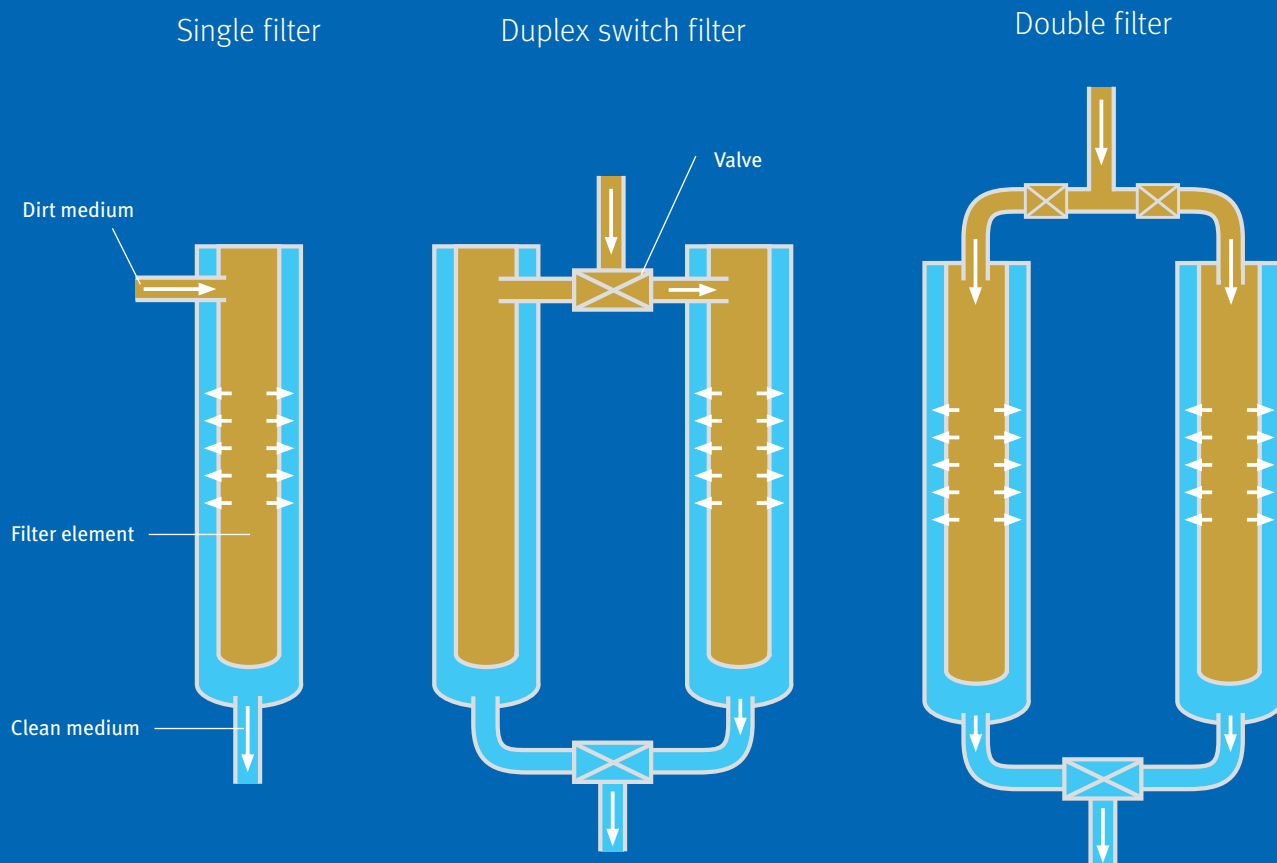
- Functions like a single filter
- Parallel flow through both filter housings, thus increasing the flow rate

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



Equipment

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

● Basic equipment
○ Optional

Filter variants



MicroPur®



LOFPLEAT™ CP



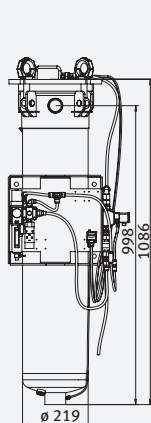
DURAGAF™



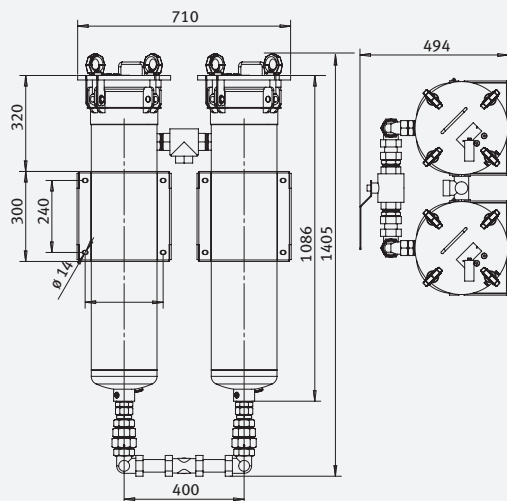
MAX-LOAD™

Dimensions and technical data

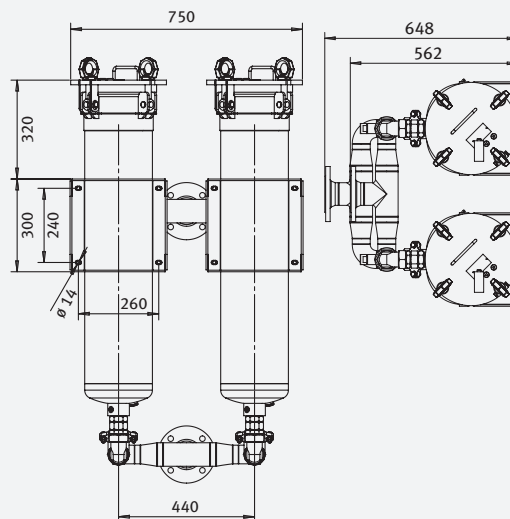
Single filter



Duplex switch filter



Double filter



Filter element overview

Manu- facturer	Filter type	Material No.	Grade of filtration		Outer diameter [mm]	Length [mm]	Filter surface* [m²]		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