Properties | Benefits
--- | ---
Compact design | Space-saving setup
Good price-performance ratio | Short amortization time
Greater hydrostatic pressure as compared to flat-bed filters | Higher delivery rate, lower fleece consumption and better degree of purity
Sweeping strips and scraper | Problem-free discharge of chips, even light metal ones
Can be used universally for different working processes, materials, cooling lubricants, delivery rates and degrees of purity | Simple design and planning

Application

KNOLL compact filters KF are belt filters for cleaning cooling lubricants of machining processes
- Use as stand-alone cleaning unit or combined with chip conveyors (e.g. in machining centres)
- Local (for one machine tool) or central (for several machine tools) use possible

Description

**Filtration process**
1. Contaminated liquid flows from the side through the inlet box into the filter trough
2. The filter fleece holds back the contaminant particles during streaming
3. The contaminant particles form a filter cake, which separates even tiny dirt particles
4. The filtered fluid collects in the clean tank

**Regeneration process**
1. The growing filter cakes increase the flow resistance
2. The fluid level in the filter trough increases
3. The belt drive switches on at a defined level (alternatively: time-controlled)
4. The carrier belt transports a piece of clean filter fleece to the filter surface
5. The fluid level decreases again
6. A sludge container or a winding unit (Option) takes up the dirty filter fleece
Equipment

Belt drive ●
Circulating carrier belt ●
Filter fleece (original equipment) ●
Fleece shortage switch ●
Fleece roll integrated into housing ●
Fill level measuring technology i.a.w. WRA ●
Control system ●
Magnetic roller as pre-separator ○
Cooling lubricant tank system with supply pump(s) ○
Duplex switch filter ○
Tempering (cooling/heating) ○
Fleece roll arranged on the back (standard starting with KF 300) ○
Winding unit with drive and scraper ○
Sludge container ○
Filter fleece shortage early warning ○
Side panel ○

● Standard equipment
○ Option
Design example

Version A

Version B/C
without winding unit
Compact filter KF

Version A

Transverse installation (KF 1000 - KF 2000)
Only separate transport possible

View X

Version B

Longitudinal installation (preference KF 1000 - KF 2000)

View X

Cooler
## Dimensions and technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>Version</th>
<th>Filter capacity* (l/min)</th>
<th>Emulsion</th>
<th>Oil</th>
<th>Inlet DN</th>
<th>Tank capacity(l)</th>
<th>Fleece-width</th>
<th>H</th>
<th>H1</th>
<th>B</th>
<th>B1</th>
<th>L</th>
<th>L1</th>
<th>L2 (Option)</th>
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</table>

Dimensions without units given in mm.
* KF 110 – KF 200, KF 1000 – KF 2000 fleece roll at the top,
** KF 400 – KF 600 fleece roll back (standard)
** Metal cutting with standard fleece

1. $\nu = 1 \text{ mm}^2/\text{s}$
2. $\nu = 10 \text{ mm}^2/\text{s}$ (at operating temperature)
3. during longitudinal installation min. 2200 mm
Compact filter KF