Compact Filter KF-E

Issue 08-2019
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 and better degree of purity
Sweeping strips and scraper | Problem-free discharge of chips, even light metal ones
Endless filter belt | Reduction of consumable and disposal costs
No carrying of cooling lubricant by the filter fleece | Reduction of costs for cooling lubricants

Application

KNOLL compact filters KF-E 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 centers)
- Suitable as pre-separator for downstream superfine filters
- 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 belt to the filter surface
5. The fluid level decreases again
6. A brush and back-flushing device clean the filter belt
Scheme

Equipment

Belt drive ●
Circulating carrier belt ●
Endless filter belt ●
Brush-off device ●
Back-flushing device ●
Fill level measuring technology i.a.w. WRA ●
Control system ●
Concentrate drying with vacuum pump ○
Magnetic roller as pre-separator ○
Cooling lubricant tank system with supply pump(s) ○
Duplex switch filter ○
Tempering (cooling/heating) ○
Sludge container ○
Side panel ○
Fleece holder for bath maintenance ○

● Standard equipment
○ Option
Compact filter KF-E

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Dimensions and technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>Filter capacity** (l/min)</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>
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</table>

Dimensions without units given in mm.

1 $u = 1 \text{mm}^2/\text{s}$
2 $u = 10 \text{mm}^2/\text{s}$ (at operating temperature)
3 Using longitudinal installation min. 2200 mm