

Friess Magnetic Filter

Model CC

The Friess magnetic filter CC removes particles simple, fast and reliable, from emulsions, cutting oils, grinding oils, etc.



Advantages

- Improved surface quality due to clean coolant
- No consumables required
- Reduced wear of machines, as particles of all sizes down to 1µm are removed
- Longer service life of the tools used and easy cleaning without opening the filter
- Significantly reduced operating costs due to longer service life of the used fluid

Technical data

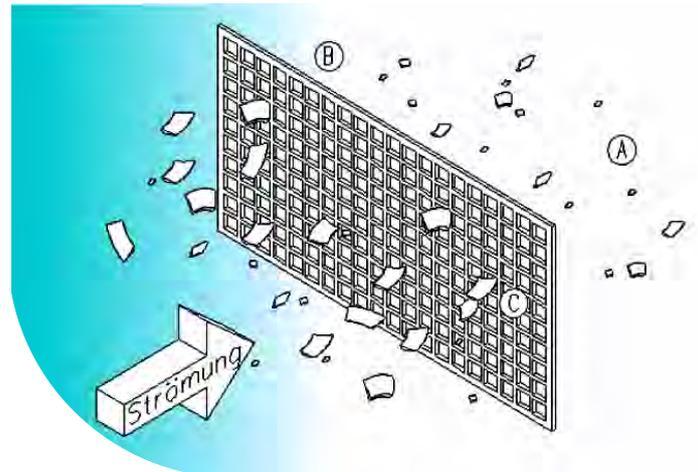
CC

CC 3

	CC	CC 3
Max. flow rate (water)	100 l / min	150 l / min
Max. flow rate (oil)	50 l / min	75 l / min
Max. operating pressure	5 bar	5 bar
Connector	1" BSP	1 1/2" BSP
Dirt holding capacity	0,8 Kg	2,4 Kg
Number of magnetic rods	1	3
Dimensions in mm height / diameter	850 / 86	890 / 129
Weight	6,6 Kg	13,8 Kg

1. Operation of the Magnetic Filter

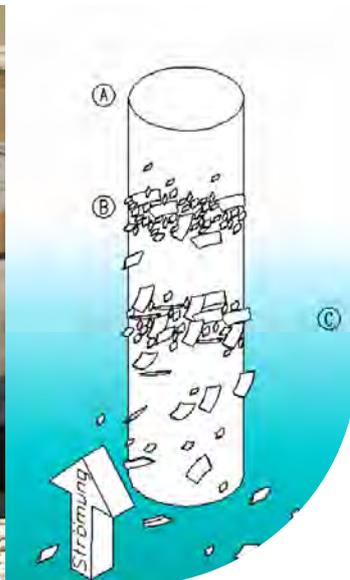
With conventional filters, particles smaller than the specified pore size of the filter remain in the liquid and accumulate unhindered. The CC magnetic filter removes ferritic particles of all sizes down to less than $1\mu\text{m}$. The magnetic filter removes iron and steel particles. In addition, paramagnetic particles made of stainless steel or hard metal are attracted by the magnetic filter rods and removed from the liquid.



Operating principle conventional filter

2. Conventional Filter

- A.** Particles that are smaller than the specified pore size of the filter remain in the fluid and thus reduce its efficiency. In addition, machines and cutting tools are subject to increased wear
- B.** Individual filter pores become clogged and system pressure increases.
- C.** Further filter pores become clogged and the filter material must be changed.



1) Contaminated magnetic bars 2) Operating principle magnetic filter rod

3. Magnetic Filter

- A.** All magnetizable particles are removed.
- B.** Even particles up to $1\mu\text{m}$ are attracted by the magnetic rod and removed from the liquid.
- C.** With the Friess magnetic filter, the flow paths remain clear even when the filter is full. Blocking of the filter is not possible

4. Operation of the Friess Magnetic Filter CC

The liquid enters the magnetic filter through the inlet opening. Then it flows along the outer surfaces of the magnetic filter rods. The dirt particles are attracted by the magnetic filter rods and adhere to the surface of them. The cleaned liquid then flows to the outlet opening and leaves the magnetic filter. Due to the special flow guidance and the high field strength of the magnets used, a high separation efficiency is achieved, especially for small particles down to less than $1\mu\text{m}$.

5. Cleaning the Magnetic Filter CC

The magnetic filter CC is cleaned without having to open the magnetic filter housing. First, the inlet and outlet valves are closed. Then the magnets in the cladding tube are pulled upwards. Then the bottom drain valve is opened and the collected particles are drained off with some liquid.

6. Applications for Magnetic Filtration

- Emulsion
- Grinding oil
- Washing water
- Fuel
- Drawing and honing oil



Dirt on magnetic filter rods

For more information, consultation and ordering:

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