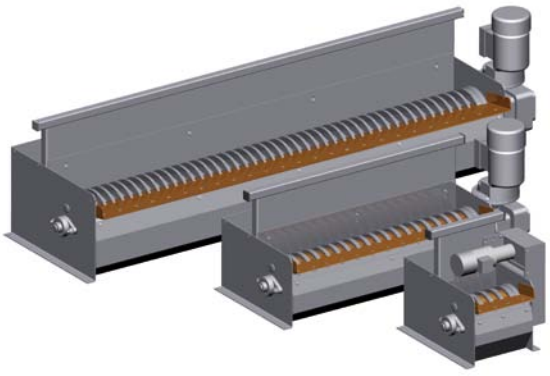
Permanent-magnet filter systems

50-2000 l/min

for filtration of ferromagnetic abraded particles from cooling lubricants, oils and other industrial fluids.



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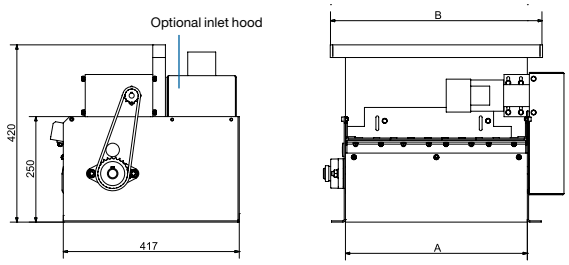
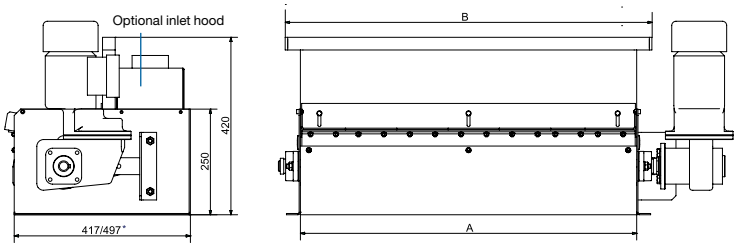
pure. clean.

Type MW210 - MW250



Type MW260 - MW290 and MW750 - MW2000



*417mm with MW260 - 290; 497mm with MW750 - 2000

Dimension/Capacity table

Capacity l/min					Drive motor	Sludge
Type MW	Emulsion	Oil*	A	B	Article No.	quantity max.
210	50	40	229	362	6030002	10 kg/h
220	95	75	350	483	6030002	15 kg/h
230	130	100	431	565	6030002	20 kg/h
240	175	140	553	685	6030002	25 kg/h
250	225	180	674	805	6030002	30 kg/h
260	270	215	796	930	6030010	35 kg/h
270	320	255	917	1050	6030010	40 kg/h
280	400	320	1120	1230	6030010	50 kg/h
290	500	400	1363	1495	6030010	60 kg/h
Higher throughout with larger comb plates						
750	750	600	782	842	6030010	70 kg/h
975	1000	690	1066	1126	6030010	95 kg/h
1300	1300	910	1427	1481	6030010	130 kg/h
1500	1500	1440	1634	1580	6030010	145 kg/h
2000	2000	1380	2131	2077	6030010	190 kg/h

*10 mm²/s, 40° C; higher capacities upon request

Operation

An extremely strong magnetic system is used with the permanent-magnet drum. It is a particularly efficient and yet simple filter unit. The rotating drum has a strong magnetic field over its entire surface and a larger surface due to appropriately developed pole rings These penetrate the coolant as far as the guide plate. Experience over many years, the perfectly conceived and hydraulically correct design and also the use of permanent magnets have produced a unique magnetic system which achieves a particularly high separation output. The magnets are the product of modern technical material developments and are made of ceramic permanent-magnet material with strong anisotropic properties. Magnets produced from this material maintain this magnetic field even in the most adverse conditions.

The contaminated coolant or industrial fluid must be settled (steady, not turbulent) and flow into the system distributed over the whole system width. The uniformly settled function of the liquid has a very great effect on the achievement of a high degree of filter efficiency.

Magnetisable contaminants such as abraded particles amongst other things and also the non-magnetic grinding wheel abraded particles adhering to the ferromagnetic particles are attracted and discharged by the magnetic roller rotating counter to the flow direction of the coolant.

The adjustable scraper made of wear-resistant sheet metal is located in the discharge direction ascending to the magnetic roller so that the remaining discharged residual fluid has the opportunity to flow back into the system whilst the abraded particles are propelled over the highest point. The abraded particles drop into the sludge box behind the scraper. Inlet flow rate ideally < 0.5 m/s.

MW 210 - 290

MW 750 - 2000 with higher comb plates

Cost-saving benefits

- **Low operating costs**
  Chips and abraded particle residues are automatically and continuously separated.
- **Small space requirements**
  The roller is located in or on existing coolant tanks.
- **Improved surface quality**
  Lower scrap quota with greater surface quality.
- **Longer service life**
  Longer production runs due to increased grinding wheel and tool service life.
- **Dry sludge discharge**
  A special scraper and our magnet system ensure minimum residual moisture.
- **Always clean coolant**
  Prevents bacteria build-up and ensures better working conditions. In addition, the service life of the coolant is extended.

Liqui FILTER

Liqui Filter GmbH
Richard-Stocker-Strasse 19 78234 Engen Germany
Phone +49 7733 9402-0 Fax +49 7733 9402-40
E-Mail info@liqui-filter.de Internet www.liqui-filter.de