Filter elements

The principal of the RMF Systems filters is based on the unique original filter elements. With a choice of filter fineness down to 0.5 micron they have the capacity to remove even the smallest of dirt particles from the oil.
RMF Systems offers a wide range of elements in micron sizes, filter media and fluid compatibility. Through a carefully controlled quality process excellent delta P curves, filter efficiency, water and dirt holding capacity are secured.

Cellulose elements

The RMF Systems cellulose filter elements are unique in their design. They consist of several hundred layers of long fibre cellulose which are wound on a perforated center tube. The micro filter element works as a fine filter through which oil passes radially, from the outside to the inside, trapping solid particles throughout all the layers of cellulose. The long fibre cellulose is also capable of absorbing water, adding the benefit of moisture removal from the oil. RMF Systems cellulose elements are extremely efficient and have a large dirt holding capacity.

The cellulose elements are produced in various sizes to suit all RMF Systems filter housings. The RMF Systems cellulose elements are compatible with most commonly used hydraulic and lubricating fluids, including biodegradable fluids.

Glass fibre elements

RMF Systems offers a range of glass fibre filter elements in a fineness of 1 micron and 3 micron. The micro filter element works as a fine filter through which oil passes radially, from the outside to the inside. RMF Systems glass fibre filter elements (conventional pleated construction) are extremely efficient and have a large dirt holding capacity.

The glass fibre elements are suited for all RMF Systems filter housings (except the size 20 housing) and are compatible with most commonly used hydraulic and lubricating fluids, including biodegradable fluids. The glass fibre filter elements are also suited for water based fluids. The glass fibre filter elements are particularly suited for gearbox applications where high viscosity fluids limit the use of the cellulose elements.

Water sorb filter inserts

RMF Systems offers a specially designed water sorb combination filter element: water absorbing and particle retention. This pleated filter element with a fineness of 5 micron has layers of polymers in between layers of glass fibre, creating a unique media to remove both water and solid particles from the fluid.

Water sorb spin-on elements

RMF Systems offers a specially designed spin-on filter, the H_2O Sorb for water absorbing and particle retention. This spin-on filter element with a fineness of 20 micron is constructed of a unique medium containing water absorbing polymer which chemically bonds water.

TECHNICAL DATA FILTER ELEMENTS							
Element model	**20HB**	**30HB**	**30NB**	**30G1B**	**30G3B**	**30A5B**	**H_2O sorb**
Material filter element	Cellulose	Cellulose	Cellulose	Glass fibre	Glass fibre	Glass fibre and Polymer	Polymer
Filtration efficiency	β(2) ≥ 2331	β(2) ≥ 2331	β(2) ≥ 2331	β(1) ≥ 200	β(3) ≥ 200	β(3) ≥ 200	β(10) ≥ 2
Water absorbtion capacity	100 ml	150 ml	150 ml	na.	na.	350 ml	540 ml
Nominal flow per element	1.4 l/min	2.1 l/min	2.1 l/min	2.1 l/min	2.1 l/min	2.1 l/min	As per filter
Max. viscosity @ nominal flow rate @ other flow rate	180 cSt. Consult RMF			800 cSt. Consult RMF			
Max. oil temperature	80°C (consult RMF for other temperatures)						
Length filter elements	200 mm	300 mm	300 mm	300 mm	300 mm	300 mm	270 mm
Seal materials (standard)	Buna-N / Silicone Rubber		Buna-N				
other seal materials	Consult RMF						
Fluid compatibility							
- Mineral oils							
H, HL, HLP, HVLP	Ok	Ok	Ok	Ok	Ok	Ok	Ok
- Biodegradable oils							
HEPG Polyethyleneglycol	Consult RMF						
HEES Synthetical ester	Ok	Ok	Ok	Ok	Ok	No	Ok
HETG Vegetable seed oil	Consult RMF						
- Fire inhibiting fluids							
HFA emulsions	No	No	No	Yes	Yes	No	No
HFC glycol / water solution	No	No	No	Yes	Yes	No	No
HFD fluids no water content	consult RMF						
Approximate weight	0.5 (kg)	0.8 (kg)	0.8 (kg)	1.25 (kg)	1.25 (kg)	1.25 (kg)	1.35 (kg)