

MicroKey™

Microfibreglass Cartridge Filters

A range of high quality pleated microfibreglass filters, suitable for challenging filtration environments.

MicroKey™ cartridge filters are manufactured from microfibreglass layered with spun-bonded polyester, to produce a highly efficient media with excellent particulate removal as well as low pressure drops.

Features and Benefits

- **Excellent Compatibility at High Temperatures**
Available with polyester and nylon support materials suitable for high temperature systems.
- **Maximum Processing**
Low initial pressure drops allow for maximum processing flexibility.
- **High-Efficiency**
The high-efficiency pleated construction allows for greater surface area in a compact design. The excellent capacity of the cartridge maximizes time between filter changes, therefore lowering operational costs.

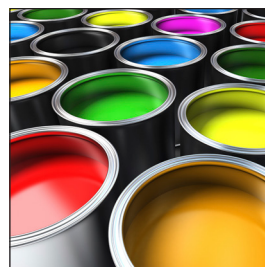


Applications

MicroKey™ cartridge filters are suitable for the sub-micronic filtration of a wide range of process liquids.

Typical applications include:

- **High Temperature**
Processes where temperatures reach up to 200°F (93°C).
- **Process Water**
The filtration of process water installations for the removal of general contamination and resin fines.
- **Produced Water**
Well completed fluids and waste water generated during the production of oil and natural gas.
- **Coatings**
Coating lines, solvents, inks and dyes.
- **Printing**
For bulk ink and chemical filtration, as well as the clarification of fountain and wash solutions.
- **Reverse Osmosis Pre-Filtration**
Particulate removal prior to reverse osmosis polishing.
- **Oils**
Including lubricating, hydraulic and cutting fluids.



Specifications

Materials of Manufacture

Filter media: Microfibre glass layered with spun-bonded polyester; 50 micron is 100% polyester
 Membrane support: Polypropylene or polyester/Nylon

Nominal Micron Ratings

0.1, 0.2, 0.45, 1, 3, 10, 30, 50

Ratings derived from independent laboratory tests using latex bead suspensions and particle counter readings.

Effective Filtration Area

4ft² per layer per 10" length (0.37m² per 254mm length)

Filter Retention Specifications

Nominal micron rating	Liquid Service				Gas service
	Particulate removal efficiency (Beta ratio)				DOP removal efficiency (%)
	90% (10)	99% (100)	99.9% (1,000)	99.99% (10,000)	
0.1	0.1	0.45	0.6	0.8	99.999
0.2	0.2	0.5	0.7	1	99.99
0.45	0.45	1	2	3	99.985
1	1	3	5	7	93
3	3	7	10	12	65
10	7	10	15	25	50
30	20	30	40	50	15
50	30	40	50	60	---

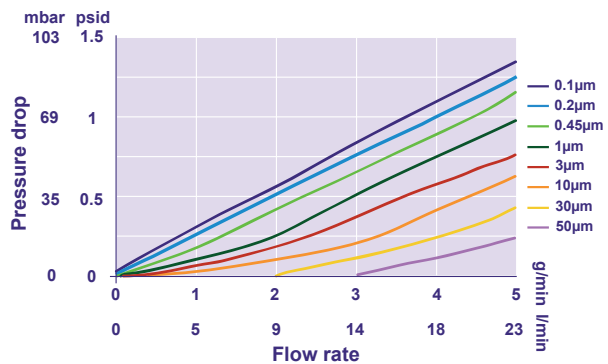
Operating Characteristics

Maximum ΔP:
 75 psid (5.2 bar) @ 68°F (20°C)
 40 psid (2.8 bar) @ 150°F (66°C)
 Maximum Operating Temperature:
 140°F (60°C) for standard version (S)
 200°F (93°C) for high temperature version (H)

Cartridge Dimensions

Diameter: OD: 2.75" (70mm), ID 1" (25mm)
 Nominal Lengths: 5" (127mm) to 40" (1,016mm)

Flow / Pressure Drop



Microfibre glass media in a pleated construction provides excellent flow rates with minimum pressure drop. Flow rates shown are for a nominal 10" (254mm) cartridge. For fluids other than water, multiply the pressure drop by the fluid viscosity in centipoise.

Ordering Code

Table 1 Table 2 Table 3 Table 4 Table 5 Table 6

Table 1	Table 2 Pore Rating	Table 3 Version	Table 5 Adapters	Table 6 Seals																																												
MK MicroKey™	<table border="1"> <thead> <tr> <th>Code</th> <th>µm</th> </tr> </thead> <tbody> <tr><td>P1</td><td>0.1</td></tr> <tr><td>P2</td><td>0.2</td></tr> <tr><td>P45</td><td>0.45</td></tr> <tr><td>01</td><td>1</td></tr> <tr><td>03</td><td>3</td></tr> <tr><td>10</td><td>10</td></tr> <tr><td>30</td><td>30</td></tr> <tr><td>50</td><td>50</td></tr> </tbody> </table>	Code	µm	P1	0.1	P2	0.2	P45	0.45	01	1	03	3	10	10	30	30	50	50	<table border="1"> <thead> <tr> <th>S</th> <th>Standard</th> </tr> <tr> <th>H</th> <th>High Temp</th> </tr> </thead> </table>	S	Standard	H	High Temp	<table border="1"> <thead> <tr> <th>A</th> <th>Code 3 (222 / Flat)</th> </tr> <tr> <th>B</th> <th>Code 7 (226 / Fin)</th> </tr> <tr> <th>C</th> <th>Code 8 (222 / Fin)</th> </tr> <tr> <th>D</th> <th>Plastisol / PVC (double open end)</th> </tr> <tr> <th>K</th> <th>Code 2 (226 / Flat)</th> </tr> <tr> <th>M</th> <th>DOE</th> </tr> </thead> </table>	A	Code 3 (222 / Flat)	B	Code 7 (226 / Fin)	C	Code 8 (222 / Fin)	D	Plastisol / PVC (double open end)	K	Code 2 (226 / Flat)	M	DOE	<table border="1"> <thead> <tr> <th>A</th> <th>Ethylene Propylene</th> </tr> <tr> <th>B</th> <th>Silicone</th> </tr> <tr> <th>C</th> <th>Viton®</th> </tr> <tr> <th>D</th> <th>Buna / Nitrile</th> </tr> <tr> <th>J</th> <th>PTFE</th> </tr> </thead> </table>	A	Ethylene Propylene	B	Silicone	C	Viton®	D	Buna / Nitrile	J	PTFE
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Other lengths available on request.



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