porvair filtration group

Microfil™

Absolute Rated Pleated Glass Fibre Cartridge Filters

A range of absolute rated cartridge filters are manufactured, featuring the latest developments in borosilicate glass fibre filter media technology; Microfil™ cartridges are constructed from robust glass fibre and polypropylene filtration layers, offering removal ratings from 0.5 to 5 micron absolute.

Microfil™ cartridges are suitable for absolute removal of unwanted particulates and for pre-filtration to membrane filters. Microfil™ cartridges incorporate a polypropylene pre-filtration layer, combined with a high dirt capacity glass fibre media. This has the effect of longer service life, improved operating costs and smaller process footprint.

Microfil™ filter cartridges are highly resistant to integrity failure caused by steam sterilisation and have excellent chemical compatibility characteristics.

High viscosity Microfil™ HV versions of this range are available upon request.

Typical Applications

- Foods and beverages
- Process water systems
- Pharmaceuticals and bio-processing
- Fine chemicals
- Cosmetics

Ordering Information

Product Code: 1 2 3 4 5 6 7

1: Pre-Filter	
M	Microfil™

2: Pore rating	
P5	0.5µm
P8	0.8µm
01	1µm
05	5µm

3: Version	
R	Rinsed
S	Standard Hard Cage

4: Length (Nominal)	
1	10" (254mm)
2	20" (508mm)
3	30" (762mm)
4	40" (1016mm)
5	5" (125mm)

5: End Fitting	
A	Code 3
B	Code 7
C	Code 8
F	N SOE
G	G DOE (short)
H	G SOE
J	216 (218), fin
K	Code 2
L	223, fin (no lugs)
M	DOE
S	Code 28, fin (3 lugs)
U	224, fin
V	226, fin
Y	BS832, flat

6: Seals	
A	Ethylene Propylene
B	Silicone
C	Viton®
D	Nitrile
E	FEP Encap. Viton®
G	FEP Encap. Silicone
J	DOE PTFE

7: Additional	
A	N+U
N	Non-steamable (no insert)
P	Pharma Grade
U	Unbranded

Features and Benefits

- Zeta potential
- High filtration area
- Guaranteed removal ratings
- Suitable for steam and hot water sanitisation
- Resistance to Cleaning-In-Place (CIP) regimes
- Full traceability
- Controlled manufacturing environment

Specifications

Materials of Manufacture

Filter media:	Glass fibre
Pre-filtration layer:	Polypropylene
Support layers:	Polypropylene
Inner core:	Polypropylene
Outer support:	Polypropylene
End fittings:	Polypropylene
Support ring:	Stainless steel

Cartridge Dimensions (Nominal)

Effective Filtration Area:
0.4m² (4.4ft²) per 10" module.

Diameter:	70mm (2.8")	
Length:	1 module (short):	125mm (5")
	1 module:	254mm (10"), 508mm (20")
	2 modules:	762mm (30"), 1016mm (40")

Cartridge Treatment

Standard:	Cleaned without further treatment
Flushed:	Flushed with pyrogen-free water

Gaskets and O-Rings

Ethylene Propylene, FEP encapsulated, Silicone, Viton®, Nitrile or Polypropylene felt

Maximum Differential Pressure

Normal flow direction at:

20°C (68°F):	6.0 bar (87psi)
80°C (176°F):	4.0 bar (58psi)
100°C (212°F):	3.0 bar (44psi)
120°C (248°F):	2.0 bar (29psi)

Reverse flow direction at:

20°C (68°F):	2.1 bar (30psi)
80°C (176°F):	1.0 bar (15psi)
100°C (212°F):	0.5 bar (7psi)

Operating Temperature

Maximum continuous: 80°C (176°F)

Sterilisation

In situ steam 20 x 30 minute cycles at 125°C (257°F)
Hot water 200 x 20 minute cycles at 85-90°C (185-194°F)

Extractables

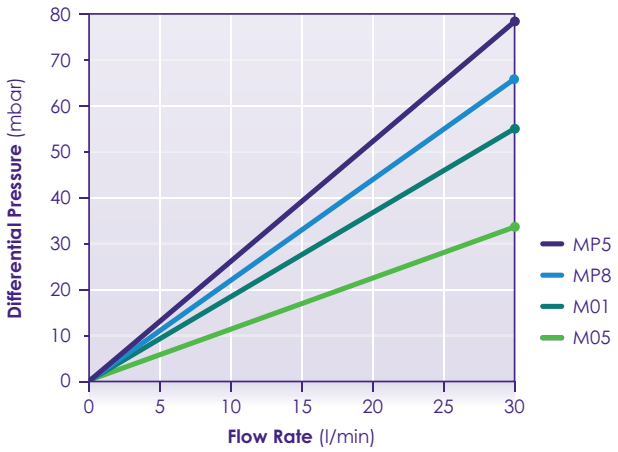
Minimum total extractables. Please refer to the Microfil™ Validation Guide.

Integrity Testing

Microfil™ filter cartridges are batch tested for integrity using the Bubble Point Test. Please contact us for procedural details.

Clean Water Flow Rates

- Typical clean water flow rate:
  A 254mm (10") Microfil™ single cartridge exhibits the flow-**Δ**P characteristics indicated below, for solutions with a viscosity of 1 centipoise.
- Other solutions:
  For solutions with a viscosity of greater than 1 centipoise, multiply the indicated differential pressure by the viscosity in centipoise.



PFG705/Rev6:Nov25