

Polyfil™ II

Absolute Rated Pleated Polypropylene Cartridge Filters



A range of absolute rated cartridge filters are created, featuring the latest developments in meltblown polypropylene filter media technology. Polyfil™ II cartridges are based on a robust all polypropylene construction, offering removal ratings from 0.5 to 150 micron absolute.

Polyfil™ II cartridges are suitable for absolute removal of unwanted particulates and for pre-filtration to membrane filters. The graded multi-layer polypropylene media provide pre-filtration of the process fluid prior to the absolute rated final layer. The unique design of the Polyfil™ II cartridges helps to achieve lower running costs and a smaller process footprint.

Polyfil™ II filters are also highly resistant to integrity failure caused by steam sterilisation and have excellent chemical compatibility characteristics.

Typical Applications

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

Ordering Information

Product Code:						
1: Pre-Filter	2: Pore rating	3: Version	4: Length (Nominal)	5: End Fitting	6: Seals	7: Additional
P Polyfil™	P5 0.5µm P8 0.8µm 01 1µm 02 2µm 03 3µm 05 5µm 07 7µm 10 10µm 15 15µm 20 20µm 30 30µm 40 40µm 60 60µm 90 90µm 105 105µm	R Rinsed S Standard H Hard C Cage	1 10" (254mm) 2 20" (508mm) 3 30" (762mm) 4 40" (1016mm) 5 5" (125mm)	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	A Ethylene Propylene B Silicone C Viton® D Nitrile E FEP Encap. Viton® G FEP Encap. Silicone J DOE PTFE	A N+U N Non-steamable (no insert) P Pharma Grade U Unbranded

Features and Benefits

- Graded multi-layer media
- High filtration area
- Guaranteed removal ratings
- Suitable for steam and hot water sanitisation
- Full traceability
- Controlled manufacturing environment

Specifications

Materials of Manufacture

Filter media:	Polypropylene
Support layers:	Polypropylene
Inner core:	Polypropylene
Outer support:	Polypropylene
End fittings:	Polypropylene
Support ring:	Stainless steel

Cartridge Dimensions (Nominal)

Effective Filtration Area:

Up to 0.6m² per 10" module
(depending on pore rating).

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

Rinsed: Ultra-clean, pulse flushed to give a system resistivity of 18MΩ.cm

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)
125°C (257°F):	1.5 bar (22psi)

Reverse flow direction at:

20°C (68°F):	2.1 bar (30lb/in ²)
80°C (176°F):	1.0 bar (15lb/in ²)
100°C (212°F):	0.5 bar (7lb/in ²)

Operating Temperature

Maximum continuous: 80°C (176°F)

Sterilisation

In situ steam 80 x 30 minute cycles at 130°C (275°F)

Hot water 200 x 20 minute cycles at 85-90°C (185-194°F)

Extractables

Minimum total extractables. Please refer to the Polyfil™ II Validation Guide.

Integrity Testing

Polyfil™ II 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") Polyfil™ II single cartridge exhibits the flow-ΔP 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.

