amcPolyproFlow

Cartridges-Polypropylene Depth Filters



amcPolyproFlow pleated cartridge is constructed with all polypropylene components with optimized pleat height and density. It provides universal chemical compatibility, lower pressure loss, and long life in demanding process applications, including pharmaceutical ank biological.

amcPolyproFlow cartridge is available in 7 pore sizes from 0.2 µm to 60 µm to match the flow, differential pres-sure, and retention requirements of virtually every microfiltration need. No adhesives are used in the fabrication of the chemically resistant amcPolyproFlow cartridge.

amcPolyproFlow cartridge functions equally well as a prefiltration in water and aggressive chemicals, and as a final filter where nominal rated microfiltration is required.

Performance Advantages

All-polypropylene construction offers superior chemical resistance

Cartridge filter incorporates several layers of melt-blown polypropylene web to provide long filter life and outstanding separation performance

Thermal bonding eliminates risk of extractables from sealing materials

Filters are sanitizable by most common methods and sterilizable by autoclave and steam

Filtration medium passes USP Class V1-121°C Plastics Tests for biosafety

Each filter is traceable with engraved product number and pore size for easy identification

Typical Applications

Wine, beer, flavors, soft drinks, juices and other potable liquids, water

Specifications

Materials of Construction

Filter Media: Pleated non-woven polypropylene Support Materials: Polypropylene Structure Components: Polypropylene Sealing Technology: Thermal bonding

Dimensions

Nominal Length: 10, 20, 30, and 40 inch (25.4, 50.8, 76.2 and 101.6 cm)

Diameter: 2.7 inches (6.9 cm)

Nominal Pore Sizes

0.2, 0.45, 1, 3, 5, 10, 30, 60 µm

Typical Effective Filtration Area

0.2, 0.45, 1 μ m: 5 ft² (0.5 m²) per 10 inch 3, 5, 10 μ m: 6 ft² (0.6 m²) per 10 inch 30, 60 μ m: 7 ft² (0.7 m²) per 10 inch

Maximum Operating Temperature

 $82^{\circ}\text{C} \ (180^{\circ}\text{F}) \ \text{at} \ 10 \ \text{psi} \ (0.7 \ \text{bar})$

(supported adapters are recommended for applications at elevated temperatures over 55°C)

Sterilization/Sanitization Methods

Autoclave: 121°C (250°F) for 30 minutes up

to 30 cycles

In-line Steam: 134°C (273°F) for 60 minutes at 3 psi (0.21 bar) maximum differential pressure

Maximum Differential Forward Pressure

60 psi (4.1 bar) at ambient temperature

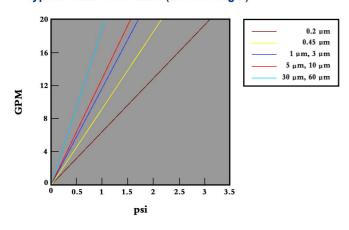
Maximum Differential Back Pressure

40 psi (2.8 bar) at 60°C (140°F)

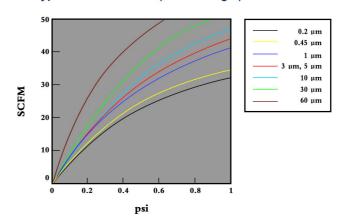
Maximum Continuous Pressure

Limited by housing

Typical Water Flow Rates (10 inch length)



Typical Air Flow Rates (10 inch length)



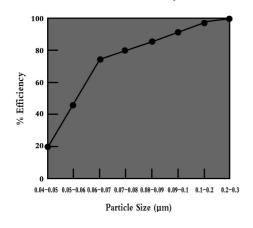
Cartridges Ordering Information

| P F = F + • A | | | | |
|-------------------------|----|--------------------|--|--|
| ■ Rated Pore Size | 92 | 0.2 µm | | |
| | 94 | 0.45 µm | | |
| | 01 | 1 µm | | |
| | 03 | 3 µm | | |
| | 05 | 5 µm | | |
| | 10 | 10 µm | | |
| | 30 | 30 µm | | |
| | 60 | 60 µm | | |
| | 1 | 10 inch (25.4 cm) | | |
| ◆ Nominal | 2 | 20 inch (50.8 cm) | | |
| Length | 3 | 30 inch (76.2 cm) | | |
| | 4 | 40 inch (101.6 cm) | | |
| ▲ Seal Material | S | Silicone | | |
| | V | Viton | | |
| | E | Ethylene Propylene | | |
| | | | | |

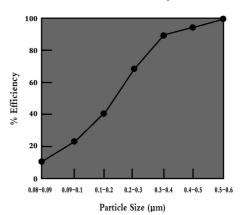
| | D | SOE, -020 |
|-----------------------------|---|---------------------------------------|
| | F | DOE, Gasket/Gasket 10 inch increments |
| | J | SOE, -222/Flat/SS* |
| | K | SOE, -222/Fin/SS* |
| Cartridge | М | SOE, -222/Flat |
| Configuration | Р | SOE, -222/Fin |
| | Q | SOE, -226/Fin |
| | R | SOE, -226/Fin/SS* |
| | V | SOE, -226/Flat |
| | W | SOE, -226/Flat/SS* |
| | | |
| | | |

^{*} SS indicates stainless steel supported adapter

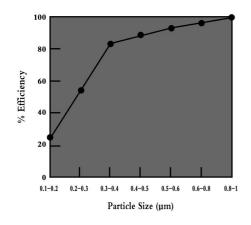
0.2 µm Filter Retention Efficiency vs. Particle Size



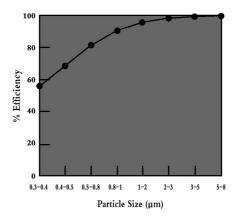
0.45 µm Filter Retention Efficiency vs. Particle Size



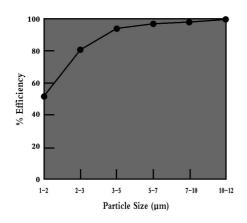
1 µm Filter Retention Efficiency vs. Particle Size



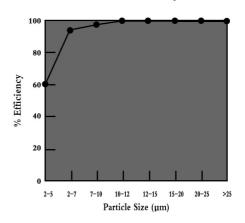
3 µm Filter Retention Efficiency vs. Particle Size



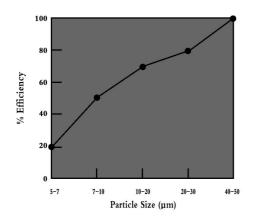
 $5 \ \mu m$ Filter Retention Efficiency vs. Particle Size



10 µm Filter Retention Efficiency vs. Particle Size



30 µm Filter Retention Efficiency vs. Particle Size



60 μm Filter Retention Efficiency vs. Particle Size

