amcHydroFlow E

Cartridges-Modified Polyethersulfone Filters

The amcHydroFlow E ultrapure family of cartridge filters improves DI water quality and overall performance. AMC proprietary PES membrane provides outstanding particle retention without shedding or unloading while maintaining superior flow rates.

amcHydroFlow E filters are made from just two components, each of the highest grade: a virgin polypropylene and modified hydrophilic polyethersulfone. These materials are clean and offer excellent resistance to the strong oxidizing agents commonly used for system sanitization.

Each amcHydroFlow E cartridge filter is solvent and DI water flushed, integrity tested to ensure a quick 18 mΩ water recovery and reliable startup for all electronics industry users.

Performance Advantages

Enhanced porosity of modified polyethersulfone membrane in the cartridge filter results in a low differential pressure better suited to the demands of existing process equipment

Pore morphology increases capture and permanent retention of smaller particles via sieving and not electrostatic attraction

Excellent resistance to severe sanitizing agents such as hot water, concentrated hydrogen peroxide, and active chlorine compounds

The membrane and structural components of the cartridge filter are fusion-welded, eliminating unnecessary materials of construction and removing what statistically has been a source of continual organic contamination

100% integrity tested

Various pore sizes to meet various requirements

Typical Applications

RO/DI makeup facilities and polish loops

Bulk chemical manufacture and distribution

Electroless nickel plating

Filtration of ultrapure water and weak acids/bases

Specifications

Materials of Construction
Filter Media: Pleated single layer of hydrophilic polyethersulfone
Support Material: 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: 69 mm

Nominal Pore Size: 0.03, 0.1, 0.2, 0.45, 1.2 µm

Typical Effective Filtration Area
0.9 m^2/10 inch

Maximum Operating Temperature
80°C at 30 psi (2.1 bar)

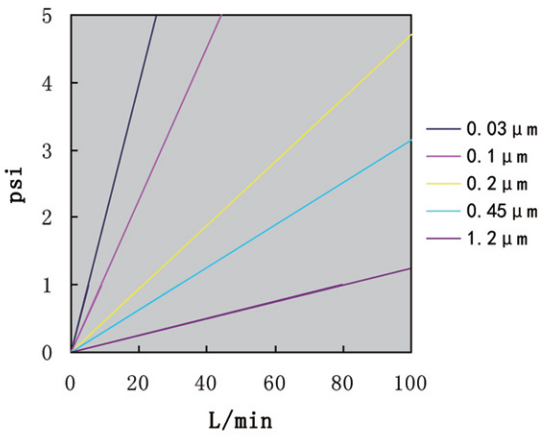
Maximum Differential Pressure
60 psi (4.1 bar) at ambient temperature

Resistivity Recovery within 18 Mega-ohm
≤120 L/10 inch length (at 1 L/min flow rate)

Cleanliness
<5 particles/mL (>0.2 µm particle after 5 minutes 18 mΩ water flush at 5 L/min flow rate)

Retention Efficiency
0.03 µm: >99.9% (retention of 0.055 µm PSL beads)
0.1 µm: >99.999% (retention of 0.198 µm PSL beads)
0.2 µm: >99.999% (retention of 0.460 µm PSL beads)
0.45 µm: >99.9% (retention of 0.830 µm PSL beads)
1.2 µm: >99.99% (retention of 2.0 µm PSL beads)

Typical Water Flow Rates（10 inch length）



Cartridge Ordering Information

H	F	■	■	E	◆	●	▲

■ Rated Pore Size	03	0.03 μm
	10	0.1 μm
	20	0.2 μm
	45	0.45 μm
	12	1.2 μm
◆ Nominal Length	1	10 inch (25.4 cm)
	2	20 inch (50.8 cm)
	3	30 inch (76.2 cm)
	4	40 inch (101.6 cm)

● Cartridge Configuration	D	SOE, Flat
	F	DOE, Gasket/Gasket 10 inch increments
	M	SOE, -222/Flat
	V	SOE, -226/Flat
▲ Seal Material	S	Silicone
	V	Viton
	E	Ethylene Propylene
	F	FEP Encapsulated