

amcHydroFlow EA

Cartridges-Modified Polyethersulfone Filters



amcHydroFlow EA cartridge is a precision cartridge specifically designed to provide high flow rate, retention, and cleanliness improving DI water quality and overall system performance.

amcHydroFlow EA cartridge is made from just two components, each of the highest grade: a virgin polypropylene and our

proprietary asymmetrically structured polyethersulfone membrane. These materials are clean and offer excellent resistance to the strong oxidizing agents commonly used for system sanitization.

Each amcHydroFlow EA cartridge is high purity, acid washed, 18 Mega-ohm DI water flushed, assuring quick and reliable startup.

Performance Advantages

Pore morphology of asymmetrical polyethersulfone membrane enhances 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

Acid washing and DI water flushing procedures on cartridge reduce cartridge cationic and anionic extractables

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

Typical Applications

RO/DI makeup facilities and polish loops

Bulk chemical manufacture and distribution

Electroless nickel plating

Specifications

Materials of Construction

Filter Media: Pleated single layer of proprietary asymmetrical 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 μ m

Typical Effective Filtration Area

0.9 m²/10 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

\leq 120 L/10 inch length (at 1 L/min flow rate)

Cleanliness

<5 particles/mL (>0.2 μ m particle after 5 minutes 18 m Ω water flush at 5 L/min flow rate)

Retention Efficiency

0.03 μ m: >99.9% (retention of 0.055 μ m PSL beads)

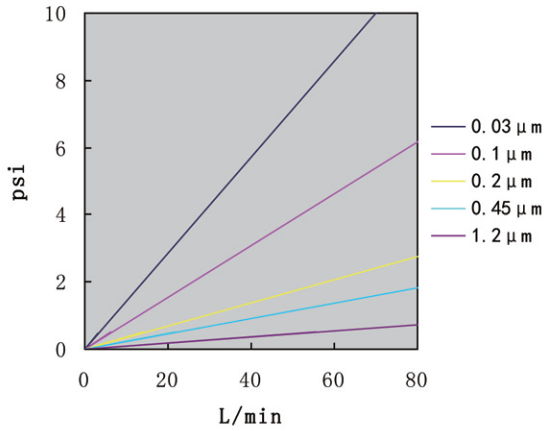
0.1 μ m: >99.999% (retention of 0.198 μ m PSL beads)

0.2 μ m: >99.999% (retention of 0.460 μ m PSL beads)

0.45 μ m: >99.9% (retention of 0.830 μ m PSL beads)

1.2 μ m: >99.99% (retention of 2.0 μ m PSL beads)

Typical Water Flow Rates (10 inch length)



Cartridges Ordering Information



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

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