

amcCapsule E

Capsules-Variou Membrane Filters



amcFilterCap E, *amcPTFECap E* and *amcChemCap E* disposable capsule filters are specifically designed for point-of-use application to meet small to mid-volume solution filtration needs. Three filter media are available (polyethersulfone, polytetrafluoroethylene and polypropylene) and fully encapsulated in three different sizes of compact and easy-to-handle polypropylene housing shell (S, M and L).

A large variety of filter selection enables the users to deal with a wide range of solvents, acids, bases, and chemicals commonly used in today's electronics industry.

Engineered to offer high retention efficiency, high flow rate and long product life, these capsule filters contribute to a better cost performance for the users.

Performance Advantages

Compact design provides easy installations in a low hold up volume

Manufactured, tested and packaged in a clean environment to ensure product cleanliness

Extensive process controls for reliable and consistent lot to lot service

Various filter media and filter sizes are available to suit all filtration needs

Typical Applications

Small batch blending of various solutions

Point-of use filtrations of various solutions

Tank vents

DI resin trap

Specifications

Materials of Construction

Filter Media: *amcFilterCap E*: Pleated single layer of hydrophilic polyethersulfone
amcChemCap E: Pleated multiple layers of hydrophobic melt blown polypropylene
amcPTFECap E: Pleated single layer of unsupported hydrophobic polytetrafluoroethylene

Support Material: Polypropylene
 Structure Components: Polypropylene
 Sealing Technology: Thermal bonding

Dimensions

Nominal Length
 S: 2.5 inch (6.4 cm)
 M: 4.4 inch (11.2 cm)
 L: 6.3 inch (16.0 cm)
 Diameter: 75 mm

Nominal Pore Size

amcFilterCap E: 0.03, 0.1, 0.2, 0.45, 1.2 μ m
amcChemCap E: 0.2, 0.45, 1, 3, 5, 10, 30, 60 μ m
amcPTFECap E: 0.05, 0.1, 0.2, 0.45, 1, 5 μ m

Typical Effective Filtration Area

amcFilterCap E-S: 1,000 cm²
amcFilterCap E-M: 2,400 cm²
amcFilterCap E-L: 3,700 cm²

amcChemCap E-S
 0.2, 0.45 μ m: 880 cm²
 1, 3, 5, 10 μ m: 1,100 cm²
 30, 60 μ m: 650 cm²

amcChemCap E-M
 0.2, 0.45 μ m: 2,000 cm²
 1, 3, 5, 10 μ m: 2,650 cm²
 30, 60 μ m: 1,650 cm²

amcChemCap E-L
 0.2, 0.45 μ m: 3,300 cm²
 1, 3, 5, 10 μ m: 4,400 cm²
 30, 60 μ m: 2,650 cm²

amcPTFECap E-S: 1,050 cm²
amcPTFECap E-M: 2,500 cm²
amcPTFECap E-L: 3,800 cm²

Maximum Operating Temperature
 60°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
amcFilterCap E: <5 particles/mL (>0.2 μ m particle after 5 minutes 18 m Ω water flush at 5 L/min flow rate)

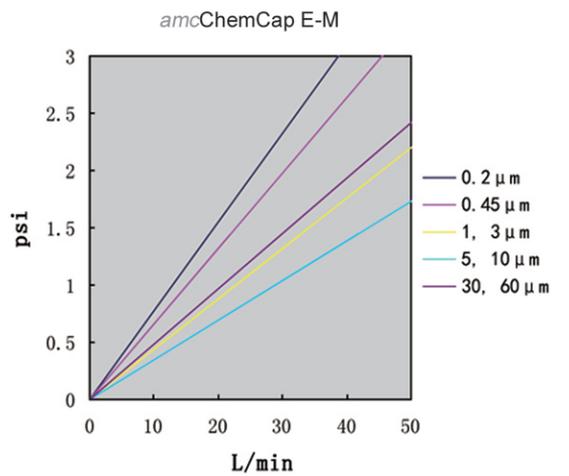
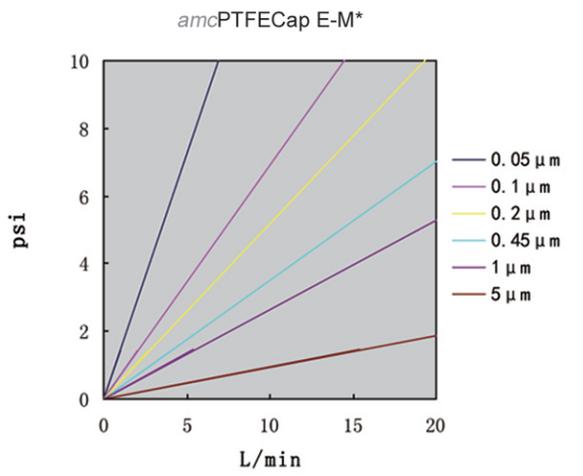
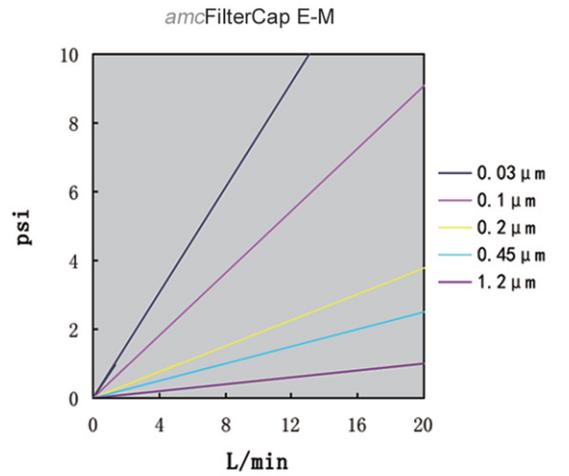
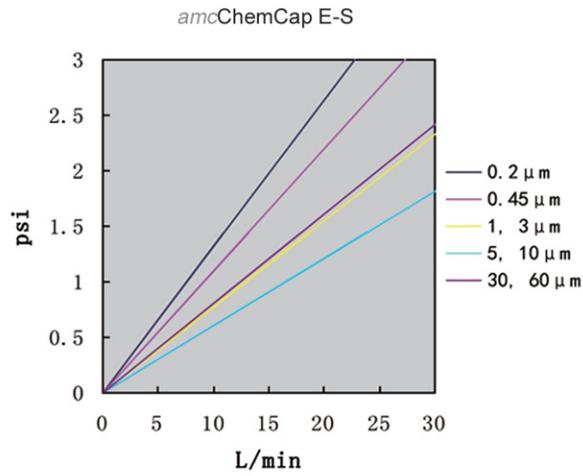
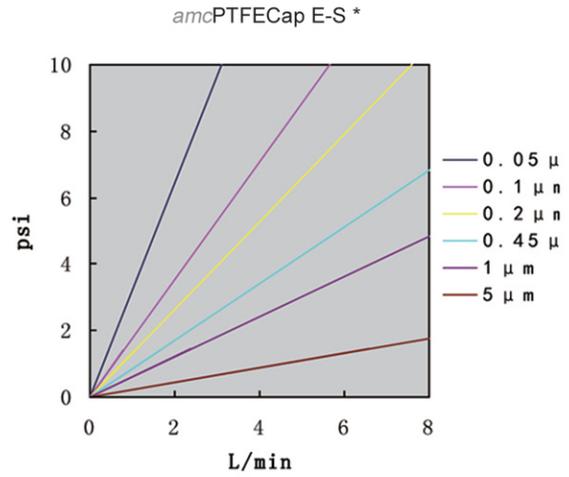
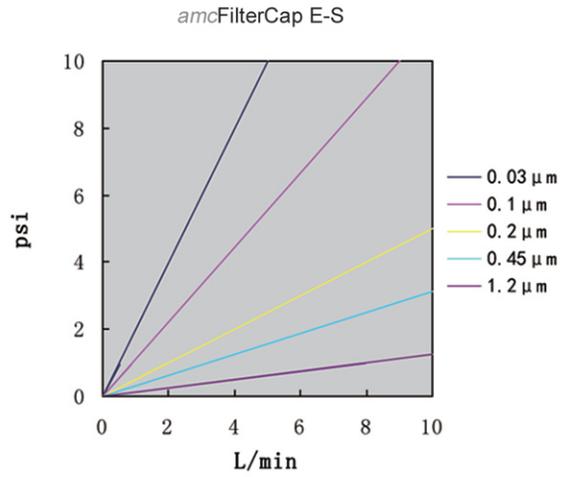
amcPTFECap E: <10 particles/100 mL (>0.5 μ m particle after 30 minutes 18 m Ω water flush at 5 L/min flow rate after alcohol wetting)

Retention Efficiency
amcFilterCap E:
 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)

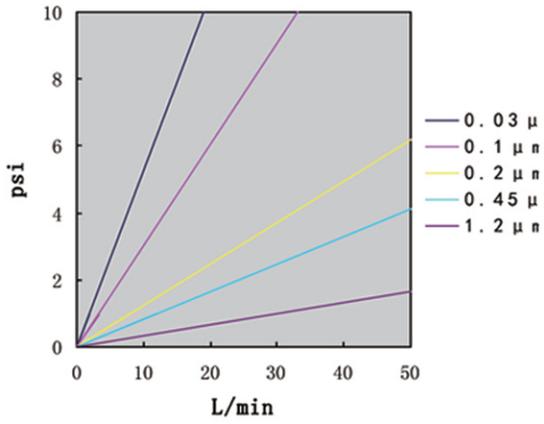
amcChemCap E:
 0.2 μ m: >99% (retention of 0.3 μ m AC fine dust)
 0.45 μ m: >99% (retention of 0.6 μ m AC fine dust)
 1 μ m: >99% (retention of 1.5 μ m AC fine dust)
 3 μ m: >99% (retention of 5 μ m AC fine dust)
 5 μ m: >99% (retention of 9 μ m AC fine dust)
 10 μ m: >99% (retention of 15 μ m AC fine dust)
 30 μ m: >99% (retention of 40 μ m AC fine dust)
 60 μ m: >99% (retention of 70 μ m AC fine dust)

Inlet/Outlet Connections:
 1/4-1/2 inch Stepped Hose Barb (S)
 1/2 Hose Barb (H)
 1/2 inch NPTM (T)
 1-1/2 inch Sanitary Flange (F)

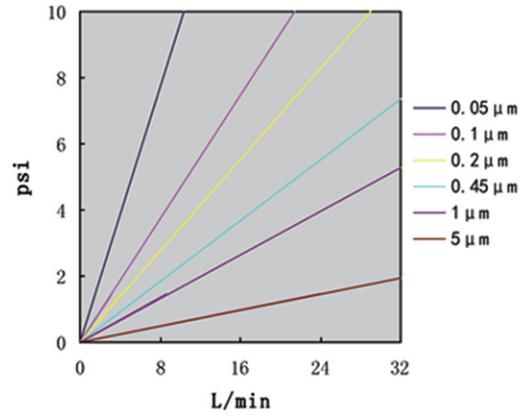
Typical Water Flow Rates:



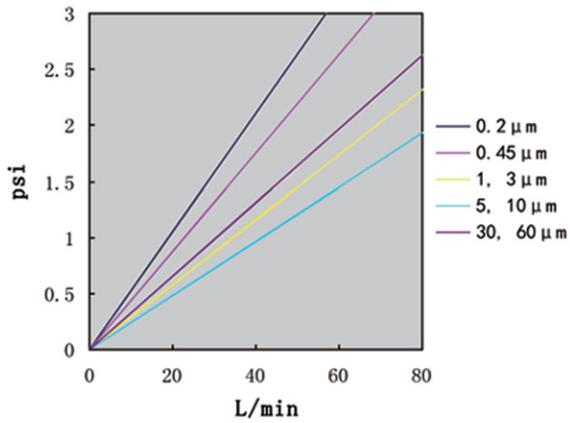
amcFilterCap E-L



amcPTFECap E-L *



amcChemCap E-L



*After alcohol rinse followed by water flush

Ordering Information

amcFilterCap E: **F** **C** **C** **■** **■** **◆** **▲** **▼**

amcChemCap E: **C** **H** **C** **■** **■** **◆** **▲** **▼**

amcPTFECap E: **T** **F** **C** **■** **■** **◆** **▲** **▼**

■ Rated Pore Size	<i>amcFilterCap E</i>	03	0.03 μm
		10	0.1 μm
		20	0.2 μm
		45	0.45 μm
		12	1.2 μm
	<i>amcChemCap E</i>	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
	<i>amcPTFECap E</i>	50	0.05 μm
		10	0.1 μm
		20	0.2 μm
		45	0.45 μm
		01	1 μm
	05	5 μm	

◆ Length	S	2.5 inch (6.4 cm)
	M	4.4 inch (11.2 cm)
	L	6.3 inch (16.0 cm)
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▲ Inlet Connector	S	1/4-1/2 inch Stepped Hose Barb
	H	1/2 inch Hose Barb
	T	1/2 inch NPTM
	F	1-1/2 inch Sanitary Flange
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▼ Outlet Connector	S	1/4-1/2 inch Stepped Hose Barb
	H	1/2 inch Hose Barb
	T	1/2 inch NPTM
	F	1-1/2 inch Sanitary Flange