

## FE Pleated Filters

### ■ Features and Benefits

Memtrex-FE (MFE) filters with absolute rated PTFE membranes offer broad chemical compatibility with minimal extractables in a wide range of fluids and applications. The inherently hydrophobic PTFE membrane is ideally suited for the filtration of compressed air and other process gases. Constructed in a clean room environment using thermal welding techniques, the MFE filters do not contain any adhesives or additives. As part of the manufacturing process, the MFE filters are individually integrity tested. The effectiveness and purity of your filtration process is preserved.

The MFE filter is just one example of our dedicated commitment to fluid filtration. Our extensive portfolio includes filters for every stage of processing, and we can offer custom solutions for your unique applications. Osmonics is your complete source for filters, housings, and other filtration equipment.

### ■ Applications

MFE filters offer exceptional filtration characteristics, including reliable particle retention and high purity, in harsh process conditions. Typical applications include:

- Filtration of aggressive solvents such as alcohols, esters and ketones
- Filtration of corrosive acids and bases
- Filtration of vents/exhausts for autoclaves, fermentors, and storage tanks
- Filtration of high purity chemicals and water used in electronics manufacturing

### ■ Available Absolute Pore Size Ratings

- 0.05, 0.1, 0.2, 0.45, and 1.0  $\mu\text{m}$

### ■ Materials of Construction

- Filtration Media .....Hydrophobic PTFE Membrane
- Support Layers .....Polypropylene Microfiber
- Core and Cage .....Polypropylene
- Endcaps and Adapters .....Polypropylene

### ■ Dimensions

Nominal O.D.	Nominal I.D.	Effective Filtration Area
2.75" (70mm)	1.25" (31mm)	5.9 ft <sup>2</sup> (0.55 m <sup>2</sup> )

### ■ Integrity Testing

Air diffusion per 10" module after saturation with 60%IPA/40% water (by volume) solution.

Pore Size Rating	Specification
0.05 $\mu\text{m}$	$\leq 15$ cc/min at 24 psig (1.66 bar)
0.1 $\mu\text{m}$	$\leq 15$ cc/min at 20 psig (1.38 bar)
0.2 $\mu\text{m}$	$\leq 15$ cc/min at 13 psig (0.90 bar)
0.45 $\mu\text{m}$	$\leq 10$ cc/min at 9 psig (0.62 bar)
1.0 $\mu\text{m}$	$\leq 8$ cc/min at 5 psig (0.34 bar)

### ■ Operational Limits

- Maximum Forward Differential Pressure .....60 psi (4.14 bar)
- Maximum Reverse Differential Pressure .....30 psi (2.07 bar)
- Maximum Operating Temperature .....180°F (82°C) at 10 psid (0.69 bar) in water

*Memtrex FE (MFE) cartridge filters, constructed with PTFE membrane and all polypropylene components, are designed for reliable and precise filtration of aggressive fluids and gases.*



## Sterilization

Memtrex-FE filters may be autoclaved (121°C, 30 minute cycles) or in situ steam sterilized (125°C, 30 minute cycles) for a maximum accumulated exposure of 10 hours. Alternatively, the filters may be sanitized with compatible chemical agents.

## Biosafety

The component materials of Memtrex-FE filters are suitable for use in articles intended for repeated food contact as specified in the United States Code of Federal Regulations, Title 21. Memtrex-FE filters meet the test criteria for USP24 Class VI-121°C Plastics and pass the MEM Elution Cytotoxicity Test.

## Extractables

Aqueous extracts from Memtrex-FE filters contain less than 0.25 EU/ml. The filters typically exhibit very low levels of non-volatile residues.

## Ordering Information

Type	Absolute Micron Rating	Nominal Cartridge Length	End #1 Adapter	End #2 Adapter	Elastomer Material
MFE	91 = 0.1 µm 92 = 0.2 µm 94 = 0.45 µm 01 = 1.0 µm	1 = 10 Inch 2 = 20 Inch 3 = 30 Inch 4 = 40 Inch	A = Open End Gasket B = 120 O-Ring C = 213 O-Ring E = 222 O-Ring F = 226 O-Ring J = 020 O-Ring Q = 222 O-Ring Stainless Steel Support Ring Z = 226 O-Ring Stainless Steel Support Ring	A = Open End Gasket B = 120 O-Ring C = 213 O-Ring G = Closed End Cap H = Fin Adapter	B = Buna-N E = EPDM S = Silicone T = Teflon* Encapsulated (Only in 222 and 226 Sizes) V = Viton*

For More Information:

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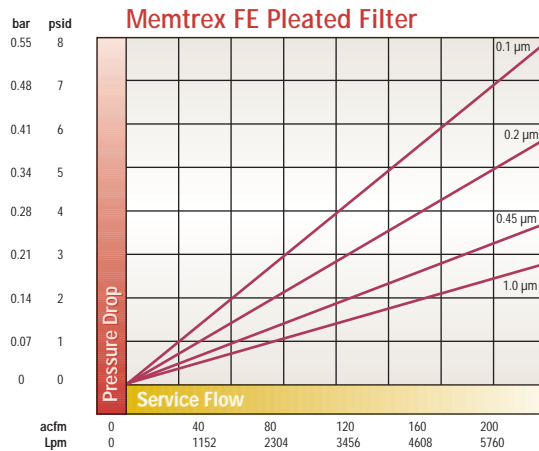
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## Flow Performance in Clean Air



## Flow Performance in Clean Water

