

Memtrex* PM

Pleated Filters with Polypropylene Membrane



Figure 1: Memtrex PM (MPM) Pleated Filters

Description and Use

Memtrex PM (MPM) filters' 100% polypropylene construction offers low extractables, long service life and broad chemical compatibility (Figure 1). Thermoplastic sealing techniques are used in the cartridge construction eliminating the need for glues or sealers which could leach contaminants. MPM filters are integrity testable. All components are made of FDA-acceptable materials and meet the test criteria for the USP24 Class VI 121°C plastics.

MPM filters utilize high flow polypropylene membranes, capable of protecting your gas, air, and liquid processes with absolute ratings of 0.1 and 0.2 micron. GE Water & Process Technologies is your complete source for filters, crossflow membranes, housings and other filtration equipment.

Typical Applications

Memtrex PM filters are specifically designed for pure chemical filtration.

Typical applications include:

- Vent and Process Air
- Etchants, Photoresists and Developers
- Solvents, Acids and Bases
- Ultrapure Chemicals

General Properties

Memtrex PM filters are available the following absolute pore size micron ratings: 0.1 and 0.2 μm . Tables 1, 2, 3, 4, 5 and 6 show further details on materials of construction, dimensions, operational limits, integrity testing and flow performance in air and water.

Table 1: Materials of Construction

Filtration Media	Polypropylene Membrane
Support Layers	Polypropylene Microfiber
Core and Cage	Polypropylene
Endcaps and Adapters	Polypropylene

Table 2: Dimensions

Nominal O.D	Nominal I.D.	Effective Filtration Area
2.75" (70mm)	1.25" (31mm)	7.2 ft ² (0.67 m ²)

Table 3: Operational Limits

Maximum Forward Differential Pressure	60 psi (4.1 bar) @ 70°F (21°C)
Maximum Reverse Differential Pressure	30 psi (2.1 bar) @ 70°F (21°C)
Maximum Operating Temperature	140°F (60°C) @ 10 psid (0.7 bar) in water



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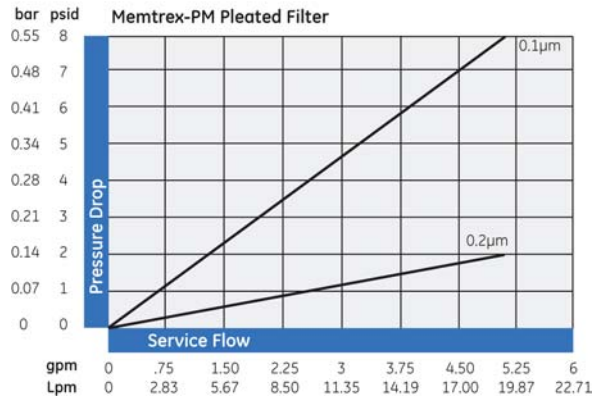
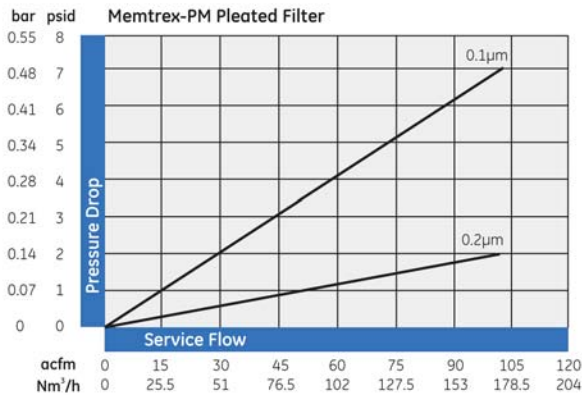
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Table 4: Integrity Testing

Pore Size Rating	Specification
0.1 µm	≤ 5 cc/min @ 40 psig (2.76 bar)
0.2 µm	≤ 5 cc/min @ 30 psig (2.07 bar)
Air diffusion per 10" module after saturation with clean 100% IPA	

Table 5: Flow Performance in Clean Air¹



¹ Data based on 10" length filter

Table 7: Ordering Information

Table 6: Flow Performance in Clean Water¹

Type	Micron Rating	Nominal Cartridge Length	End #1 Adapter	End #2 Adapter	Elastomer Material
MPM	91 = 0.1 µm	1 = 10 in. (25.4 cm)	A = Open End Gasket	A = Open End Gasket	B = Buna-N
	92 = 0.2 µm	2 = 20 in. (50.8 cm) 3 = 30 in. (76 cm) 4 = 40 in. (101.5 cm)	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 Insert Z = 226 O-Ring Stainless Steel Insert	B = 120 O-Ring C = 213 O-Ring G = Closed End Cap H = Fin Adapter	E = EPDM S = Silicone T = Teflon ² Encapsulated (Only in 222 and 226 Sizes) V = Viton ²

²Teflon and Viton are registered trademarks of Dupont

Additional Information

- Memtrex PM filters may be autoclaved or in situ steam sterilized (up to 253°F [123°C], 30 minute cycles) for a maximum accumulated exposure of 10 hours. Alternatively, the filters may be sanitized with compatible chemical agents.
- GE certifies that the materials contained in its Memtrex PM pleated filters meet U.S. FDA requirements for food contact under the applicable regulations in 21 CFR. For further information, contact the GE technical services. Memtrex PM filters meet the test criteria for USP class VI-121°C Plastics.

- Aqueous extracts from Memtrex PM filters contain less than 0.25 EU/ml. The filters typically exhibit low levels of non-volatile residues. GE filter cartridges are designed and manufactured for resistance to a wide range of chemical solutions. Conditions will vary with each application and users should carefully verify chemical compatibility. Please contact your GE distributor for more information.
- Table 7 provides more information on ordering Memtrex PM filters.

