GE
Water & Process Technologies

Fact Sheet

Memtrex* MP

Pleated Filters with Polyethersulfone Membrane



Figure 1: Memtrex MP Pleated Filters

Description and Use

Memtrex MP (MMP) filters (Figure 1), constructed with hydrophilic polyethersulfone membranes and all polypropylene components, exhibit both enhanced throughput and reliable particle retention for superior performance in most applications. MMP filters are compatible with a broad range of chemicals and pH extremes. The low protein binding characteristics of the polyethersulfone membranes ensure that MMP filters are suitable in a variety of beverage, chemical and pharmaceutical applications. Constructed using thermal welding techniques, the MMP filters do not contain any adhesives or additives, and individual integrity testing assures that MMP filters meet the exacting performance requirements of our customers.

The MMP 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. GE Water & Process Technologies is your complete source for filters, housings, and other filtration equipment.

Typical Applications

MMP filters are suitable for a broad range of applications, including filtration of:

- Inks and dyes
- Acids, bases, and oxidants
- Process water
- Pharmaceutical preparations
- Serums and tissue culture media

General Properties

Memtrex MP filters are available the following absolute pore size micron ratings: 0.1, 0.2, 0.45 and 0.65 µm. Tables 1, 2, 3, 4 and 5 show further details on materials of construction, dimensions, operational limits, integrity testing and flow performance.

Table 1: Materials of Construction

Filtration Media	Hydrophilic Polyethersulfone 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)	8.1 ft^2 (0.75 m^2)

Table 3: Operational Limits

Maximum Forward Differential Pressure	60 psid (4.2 bar) @ 70°F (21°C)
Maximum Reverse Differential Pressure	30 psid (2.1 bar) @ 70°F (21°C)
Maximum Operating Temperature	180°F (82°C) at 10 psid (0.7 bar) in water

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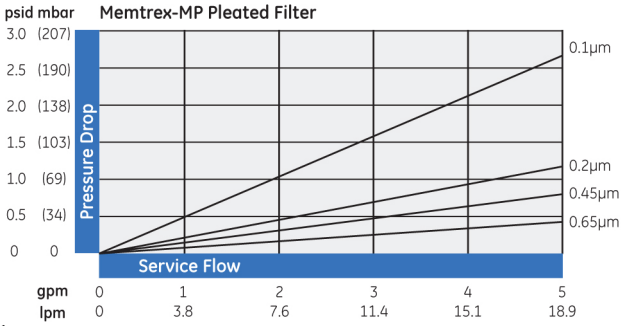
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Table 4: Integrity Testing

Micron Rating	Specification
0.1 µm	≤ 45 cc/min at 50 psig (3.4 bar)
0.2 µm	≤ 19 cc/min at 30 psig (2.1 bar)
0.45 µm	≤ 16 cc/min at 20 psig (1.4 bar)
0.65 µm	≤ 12 cc/min at 13 psig (0.9 bar)

Air diffusion per 10" module after saturation with clean water

Table 5: Flow Performance in Clean Water[1]



[1]Data based on 10" length filter

Additional Information

- Memtrex MP filters may be autoclaved or in situ steam sterilized (up to 257°F [125°C], 30-minute cycles) for a maximum accumulated exposure of 10 hours. Filters which are steam sterilized must have stainless steel insert supported o-ring adaptors. Alternatively, the filters may be sanitized with compatible chemical agents.
- GE certifies that the material contained in its Memtrex MP pleated filters meet U.S. FDA requirements for food contact under the applicable regulations in 21 CFR. For further information, contact GE technical services. Memtrex MP filters meet the test criteria for USP class VI-121°C Plastics
- Aqueous extracts from Memtrex MP 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 6 provides additional ordering information.

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Table 6: Ordering Information

Type	Absolute Micron Rating	Nominal Cartridge Length	End #1 Adapter	End #2 Adapter	Elastomer Material
MMP	91 = 0.1 µm 92 = 0.2 µm 94 = 0.45 µm 96 = 0.65 µm	1 = 10 in (25 cm) 2 = 20 in (51 cm) 3 = 30 in (76 cm) 4 = 40 in (102 cm)	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[2] Z = 226 O-Ring Stainless Steel Support Ring[2]	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[3] Encapsulated Viton[3] (Only in 222 and 226 Sizes) V = Viton

Example: MMP922AAE

[2]Q or Z Adapters normally require G or H adapters. [3]Teflon and Viton are registered trademarks of DuPoint.