

# Memtrex\* MP-B

## Pleated Filters with Polyethersulfone Membrane



Figure 1 : MemtrexMP-B Filter

### Description and Use

Memtrex MP-B (MMP-B) filters (Figure 1) offer a PES membrane specifically designed for beverage applications. MMP-B cartridge filters exhibit the low protein-binding, high flow rates and high throughputs that are crucial for today's demanding beverage process. Every filter is 100% integrity tested. As industry standards rise and new precautions are taken to ensure product purity, you can rely on GE Water & Process Technologies MMP-B filters to provide reliable filtration for all your beverage applications—bottled water, beer, wine, liquor, fruit juices, and fountain drinks.

The MMP-B filter is just one example of our strong commitment to the beverage industry. Our complete portfolio includes filters for every stage of processing, and we offer custom solutions for your unique applications. GE is your complete source for filters, crossflow membranes, housings, and other filtration equipment.

### Typical Applications

Memtrex-MP-B filters are specifically designed for beverage filtration. Typical applications include final filtration of:

- Wine
- Beer
- Fruit Juices
- Bottled Water

### General Properties

Memtrex MP-B filters are available the following absolute pore size micron ratings: 0.2, 0.45 and 0.65  $\mu\text{m}$ . 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

Media	Hydrophilic Polyethersulfone Membrane
Prefiltration Media	Polypropylene Microfiber
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)	6.6 ft <sup>2</sup> (0.62 m <sup>2</sup> )

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	180°F (82°C) at 10 psid (0.7 bar) in water



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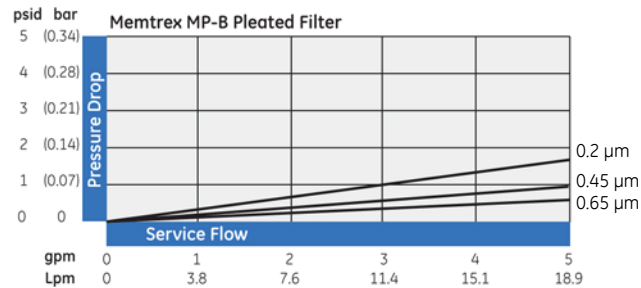
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**Table 4: Integrity Testing**

Pore Size Rating	Specification
0.2 µm	≤ 19 cc/min at 30 psi (2.07 bar)
0.45 µm	≤ 16 cc/min at 20 psi (1.38 bar)
0.65 µm	≤ 12 cc/min at 13 psi (0.90 bar)
Air diffusion per 10" module after saturation with clean water	

**Table 5: Flow Performance in Clean Water<sup>1</sup>**



<sup>1</sup> Data based on 10" length filter

**Additional Information**

- Memtrex MP-B 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. Alternatively, the filters may be sanitized with compatible chemical agents.
- GE certifies that the materials contained in its Memtrex MP-B pleated filters meet US FDA requirements for food contact under the applicable regulations in 21 CFR. For further information, contact GE technical services. Memtrex MP-B filters meet the test criteria for USP Class VI-121°C Plastics.

**Table 6: Ordering Information**

Type	Absolute Micron Rating	Nominal Cartridge Length	End #1 Adapter	End #2 Adapter	Elastomer Material	Grade
MMP	92 = 0.2 µm 94 = 0.45 µm 96 = 0.65 µm	1 = 10 Inch (25.4cm) 2 = 20 Inch (50.8cm) 3 = 30 Inch (76 cm) 4 = 40 Inch (101.5 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 Insert Z = 226 O-Ring Stainless Steel Insert	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 V = Viton <sup>2</sup>	B = Beverage

<sup>2</sup>Viton is a registered trademark of Dupont.



- Aqueous extracts from Memtrex MP-B 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 more information on ordering Memtrex MP-B filters.