

# Memtrex\* MP-S

## Pleated Filters with Polyethersulfone Membrane



Figure 1: Memtrex MP-S Pleated Filters

### Description and Use

Our commitment to validation is based upon the FDA Guidelines that we establish documented evidence of assurance that a specific process will consistently produce a product meeting its predetermined specification and quality attributes. Memtrex MP-S filters (Figure 1) are designed for final sterile filtration of biological and pharmaceutical products. The double-layer PES membrane provides low protein-binding, high throughput and broad chemical compatibility for your critical filtration processes.

A detailed Validation Guide is available from GE Water & Process Technologies to document our rigorous testing for your records and reviews. The guide includes all the data necessary to assist the user with compliance to regulatory requirements.

The Memtrex MP-S filter is just one example of our strong commitment to the pharmaceutical 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-S filters are specifically designed for sterile filtration of pharmaceutical and biological products. Typical applications include:

- Final Filtration of Drugs and Biologicals
- Final Filtration of Water for Injection
- Final Filtration of Pure Water for Dialysis
- LVPs, SVPs
- Diagnostics
- Tissue Culture Media
- Vaccines

### General Properties

Memtrex MP-S filters are available with an absolute pore size micron rating of 0.2  $\mu\text{m}$ . Tables 1, 2, 3 and 4 show further details on materials of construction, dimensions, operational limits and flow performance.

Table 1: Materials of Construction

|                      |   |
|----------------------|---|
| Media                | 2 layers of Hydrophilic Polyethersulfone  |
| Support Layers       | Polypropylene Microfiber                  |
| Core and Cage        | Polypropylene                             |
| Endcaps and Adapters | Polypropylene with Stainless Steel Insert |



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**Table 2: Dimensions**

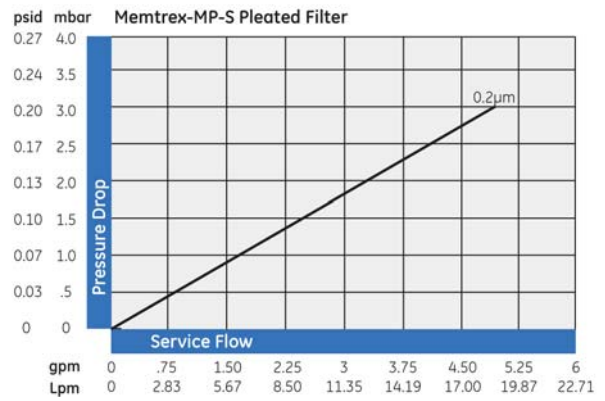
| Nominal O.D  | Nominal I.D. | Effective Filtration Area                  |
|--------------|--------------|--|
| 2.75" (70mm) | 1.25" (31mm) | 6.5 ft <sup>2</sup> (0.60 m <sup>2</sup> ) |

**Integrity Testing**

Air diffusion per 10" module after saturation with clean water. <12 cc/min at 40 psig (2.76 bar)

**Table 3: 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 |



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

**Additional Information**

- Memtrex MP-S 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. Alternately, the filters may be sanitized with compatible chemical agents.
- GE certifies that the material contained in its Memtrex MP-S 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-S filters meet the test criteria for USP class VI-121°C Plastics.
- Aqueous extracts from Memtrex MP-S 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 5 provides additional ordering information.

**Table 5: Ordering Information**

| Type  | Absolute Micron Rating | Nominal Cartridge Length  | End #1 Adapter   | End #2 Adapter   | Elastomer Material | Grade           |
|-------|------------------------|---|--|--|--------------------|-----------------|
| MMP-S | 92 = 0.2 µm            | 1 = 10 Inch (25 cm)<br>2 = 20 Inch (51 cm)<br>3 = 30 Inch (76 cm)<br>4 = 40 Inch (102 cm) | Q = 222 O-Ring<br>Stainless Steel<br>Support Ring<br>Z = 226 O-Ring<br>Stainless Steel<br>Support Ring | A = Open End Gasket<br>B = 120 O-Ring<br>C = 213 O-Ring<br>G = Closed End Cap<br>H = Fin Adapter | S = Silicone       | S = Sterilizing |

**Table 4: Flow Performance in Clean Water<sup>1</sup>**

