

# Memtrex\* MP

## FACT SHEET

### Pleated Filters with Polyethersulfone Membrane

Memtrex MP (MMP) filters 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. Veolia is your complete source for filters, housings, and other filtration equipment.



### Materials of Construction

|                              |   |
|------------------------------|---|
| <b>Filtration Media</b>      | Hydrophilic Polyethersulfone Membrane                                 |
| <b>Support Layers</b>        | Polypropylene Microfiber  |
| <b>Core and Cage</b>         | Polypropylene   |
| <b>End caps and Adapters</b> | Polypropylene   |
| <b>Seal Elastomers</b>       | Buna-N, EPDM, Silicone, Viton, Teflon Encapsulated Viton <sup>1</sup> |

<sup>1</sup>Viton and Teflon are trademarks of The Chemours Company

### Certifications

Veolia certifies that the materials of construction meet the test criteria for USP Class VI-121°C plastics. The materials of construction for MMP-B and MMP-S also meet U.S. FDA requirements for food contact under the applicable regulations in 21CFR177. Aqueous extracts from MMP filters typically contain less than 0.25EU/mL of endotoxin. The filters typically exhibit low levels of non-volatile residues.

### Dimensions

| Nominal O.D.  | Nominal I.D.  | Effective Filtration Area (per 10" length)                       |
|---------------|---------------|--|
| 2.75" (70 mm) | 1.25" (31 mm) | 7.65 to 8.63 ft <sup>2</sup><br>(0.711 to 0.802 m <sup>2</sup> ) |

## Common Applications



### Chemical Process Industry

- Dependable particle control in aqueous inks and dyes.
- Filtration of technical grade bulk aqueous chemicals including acids, bases and oxidizers



### Food and Beverage

- Clarification and microbial control for bottled water packaging
- Clarification and microbial control for ingredient and process waters
- Filtration for improved microbiological stability of non-pasteurized beers and wines



### Medical and Pharmaceutical Applications

- Particulate and bio-burden control in upstream pharmaceutical processes that do not require sterilizing grade filters such as bulk intermediates and large volume parentals
- Filtration for microbiological stability of serums and other cell culture media
- Protection to reduce the loading and extend the service life of downstream sterilizing grade cartridge filters in aseptic packaging operations
- Retrofit filter alternatives for endoscope reprocessing machines



### Microelectronics

- Reliable particle control for recirculating ultrapure de-ionized water loops.
- Clarification of bulk high purity aqueous chemicals
- Point of use filtration of purified water and aqueous chemistries

Users should carefully evaluate filter compatibility with application chemistries and operating conditions. Please contact your Veolia representative if you require assistance.

## Quality Assurance & Traceability

Memtrex MP filters are manufactured under a quality management system that has been certified to meet ISO 9001 standards. Each filter is assigned a lot code to ensure traceability of the data and materials used in the manufacturing process.

## Integrity Testing

For assured quality and performance, the subassemblies used to construct the Memtrex MP filters are individually integrity tested.

| Pore Size Rating   | Specification                    |
|--|----------------------------------|
| 0.03 µm  | ≤ 45 cc/min at 50 psig (3.4 bar) |
| 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 |                                  |

## Filtration Efficiency and Microbial Retention

Memtrex MP filters are absolute rated. Representative filters meeting integrity test specifications have demonstrated ≥99.9% initial particle retention efficiency at the rated pore size based on ASTM F661 test methodology.

Memtrex MP filters have good microbial retention for reliable bioburden control. Representative filters meeting integrity test specifications have demonstrated the following microbial retention characteristics based on ASTM F838-83 test methodology using a nominal challenge of 107cfu/cm2 of membrane area.

| Pore Size Rating | Test Organism          | Log Reduction Value (LRV) |
|------------------|------------------------|---------------------------|
| 0.2 µm           | Brevundimonas diminuta | ≥7                        |
| 0.45 µm          | Serratia marcescens    | ≥7                        |
| 0.65 µm          | Pediococcus damnosus   | ≥7                        |

## Sanitization

Memtrex MP filters may be autoclaved or in situ steam sterilized. Filters which are steam sterilized must have Z or Q adaptors.

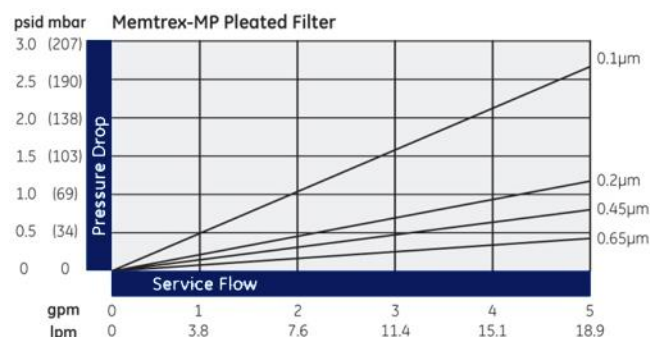
| Medium | Maximum Temperature | Maximum Cumulative Exposure |
|--------|---------------------|-----------------------------|
| Steam  | 125°C (257°F)       | 10 hours                    |

Alternatively, the filters may be sanitized with compatible chemical agents.

## Operational Limits

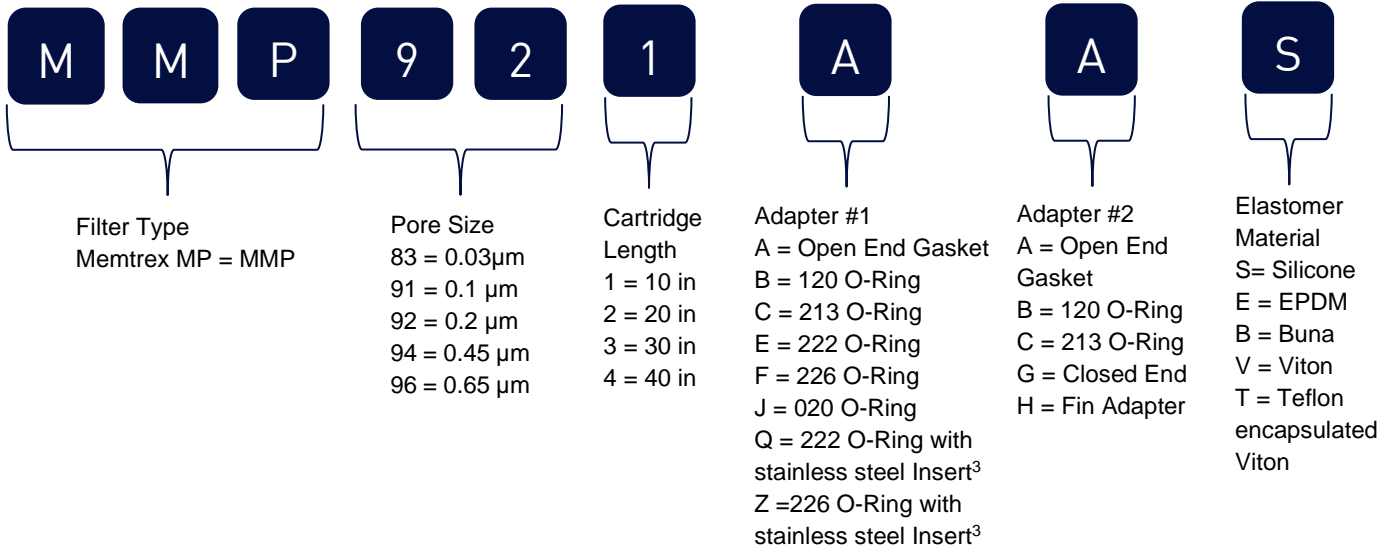
|                                    |  |
|------------------------------------|--|
| Max. Forward Differential Pressure | 60 psi (4.1 bar) at 70°F (21°C)            |
| Max. Reverse Differential Pressure | 30 psi (2.1 bar) at 70°F (21°C)            |
| Max. Operating Temperature         | 180°F (82°C) at 10 psid (0.7 bar) in water |

## Flow Performance in Clean Water<sup>2</sup>



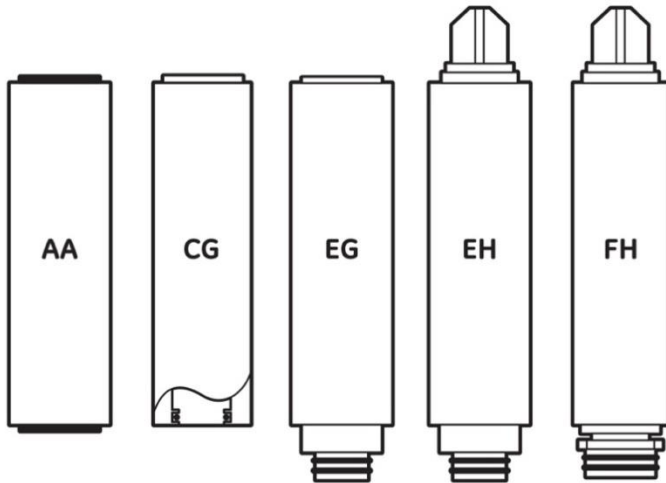
<sup>2</sup>Data based on 10" length filter

## Ordering Information



<sup>3</sup>Q or Z Adapters normally require G or H adapters.

## Common Adapter Configurations



  
 WATER TREATMENT SOLUTIONS  
 info@lenntech.com Tel. +31-152-610-900  
 www.lenntech.com Fax. +31-152-616-289

