**MicroVantage™ MAS-P Series**

Pharmaceutical Grade Double Layered Polyethersulfone Membrane Filter Cartridge

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**Request a Quote Today!**

- Absolute retention ratings - 0.1, 0.2 and 0.45 microns
- Double layered polyethersulfone to ensure performance and integrity in critical applications
- MAS-P grade cartridges are fully integrity tested, flushed and dried to ensure reliable performance in critical applications.
- Rigid, molded cage protects pleated media and strengthens structural stability
- Manufactured in state-of-the-art clean room environment for high purity.
- Complies with Food & Drug Administration’s CFR criteria for food & beverage contact.
- Meets USP Class VI Biological Test for plastics.
- Available in standard lengths and end cap configurations to fit most filter housings

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**Specifications & Operating Parameters**

- **Pore Sizes**: 0.1, 0.2, 0.45 microns absolute retention
- **Nominal Lengths**: 9.75” (24.7 cm), 10” (25.4 cm), 20” (50.8 cm), 30” (76.2 cm), 40” (101.6 cm)
- **Outside Diameter**: 2.67” (6.78 cm)
- **Inside Diameter**: 1.0” (2.54 cm)
- **Media Surface Area**: 7.2 sq.ft. (0.67 m²) per 10 inches filter length
- **Gaskets/O-rings**: Silicone, Buna N, EPR, Viton, Teflon Encapsulated Viton (o-rings only)
- **Materials of Construction**
  - Filter Media: Double Layered Polyethersulfone Membrane
  - Cage & Core: Polypropylene
  - End caps: Polypropylene

**Maximum Operating Temperature**: 176F (80C)

- **Recommended Change-out Differential Pressure**: 35 psid (2.4 bar)
- **Maximum Differential (Collapse) Pressure**
  - 75 psid @ 70F (5.2 bar @ 21C)
  - 40 psid @ 176F (2.8 bar @ 80C)

**Sanitization and Sterilization**

- Hot water at 175F (80C) at 5 psid for 30 minutes
- In-line steam at 257F (125C) @ 1 psid (0.07 bar) for 30 minutes
- Autoclavable at 257F (125C) for 30 minutes

**FDA and USP Compliance**

All materials comply with the requirements of Food and Drug Administration Title 21 of The Code of Federal Regulations 174.5, 177.1520 and 177.1630. All components meet current USP Class VI biological tests for plastics

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Flow vs. Pressure Drop (Per 10" length water wetted membrane)

![Graph showing flow rate vs. pressure drop]

**Integrity Testing**

<table>
<thead>
<tr>
<th>Pore Size</th>
<th>Air Diffusion Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1 μm</td>
<td>&lt;15 cc/min@48 psi</td>
</tr>
<tr>
<td>0.2 μm</td>
<td>&lt;15 cc/min@35 psi</td>
</tr>
<tr>
<td>0.45 μm</td>
<td>&lt;15 cc/min@20 psi</td>
</tr>
</tbody>
</table>

Per 10" length water wetted membrane

**Microbiological Performance**

<table>
<thead>
<tr>
<th>Pore Size</th>
<th>Acholeplasma Laidlawii</th>
<th>Brevundimonas diminuta</th>
<th>Serratia Marcescens</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1</td>
<td>≥ 7</td>
<td>≥ 10</td>
<td></td>
</tr>
<tr>
<td>0.2</td>
<td>≥ 7</td>
<td></td>
<td>≥ 7</td>
</tr>
<tr>
<td>0.45</td>
<td></td>
<td></td>
<td>≥ 7</td>
</tr>
</tbody>
</table>

The retention of the filter can be expressed as Log Reduction Value (LRV)

**Ordering Guide (Example: MAS0.2-10S4S-P)**

<table>
<thead>
<tr>
<th>MAS</th>
<th>0.2</th>
<th>-10</th>
<th>S4</th>
<th>S</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>CODE</td>
<td>MICRON</td>
<td>LENGTH</td>
<td>END CAP CONFIGURATION</td>
<td>GASKET / O-RING</td>
<td>GRADE</td>
</tr>
<tr>
<td>MAS</td>
<td>0.1</td>
<td>10&quot;</td>
<td>S3 = 222 w/ Fin End</td>
<td>E = EPDM</td>
<td>P = Pharmaceutical</td>
</tr>
<tr>
<td></td>
<td>0.2</td>
<td>20&quot;</td>
<td>S4 = 222 w/ Flat End</td>
<td>S = Silicone</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.45</td>
<td>30</td>
<td>S5 = 226 w/ Fin End</td>
<td>T = Teflon</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>40&quot;</td>
<td>S6 = 226 w/ Flat End</td>
<td>encapsulated Viton</td>
<td></td>
</tr>
</tbody>
</table>

**Filter Housings**

Shelco Filters offers a full line of filter housings to complement your MicroVantage filter cartridges ranging from our rugged single cartridge housings, heavy duty multi-cartridge housings to high purity sanitary housings, Shelco is the perfect choice for your filtration solutions.

For pricing and information please call Commercial Filtration Supply at (855)-236-0467

Visit us Online at: [www.commercialfiltrationsupply.com](http://www.commercialfiltrationsupply.com) for more filtration products.