MicroVantage™ MVS Series
Sterilizing Grade Polyethersulfone Membrane Filter Cartridge

Request a Quote Today!

- 0.2 micron absolute dual layered polyethersulfone (PES) membrane
- 100% integrity tested
- Optimized for retention and excellent flow rates
- Biologically inert and low protein binding
- Heavy-duty components protects pleated media and strengthens structural stability
- Manufactured in our state-of-the-art clean room environment for high purity and bio-pharmaceutical applications
- Complies with the Food & Drug Administration's CFR criteria for food & beverage contact
- Meets USP Class VI Biological Test for plastics
- Available in a variety of end cap configurations to fit most filter housings
- Thermal bonded and produced in standard lengths up to 40 inches

Applications
WFI & CIP Water  Diagnostics  Buffer Solutions  Parenteral Solutions  Vaccines

Specifications and Operating Parameters

Pore Sizes
0.2 microns absolute retention validated

Nominal Lengths
10” (25.4 cm), 20” (50.8 cm), 30” (76.2 cm), 40” (101.6 cm)

Outside Diameter
2.67” (6.78 cm)

Media Surface Area
7.0 sq.ft. (0.65 m²) per 10 inches filter length

Gaskets/O-rings
Silicone, EPR, Viton, Buna, Teflon Encapsulated Viton, Teflon Encapsulated Silicone

Materials of Construction
Filter Media: Polyethersulfone Membrane
Outer Cage: Polypropylene
Inner Core: Polypropylene
End caps: Polypropylene
Support Layers: Polypropylene
Reinforcing Ring: Encapsulated 316 SS

Maximum Operating Temperature
180°F (82°C) @ 10 psid (0.69 bar) in water

Recommended Change-out Differential Pressure
35 psid (2.4 bar)

Maximum Differential Pressure
Forward: 70 psid @ 70°F (4.8 bar @ 21°C)
40 psid @ 176°F (2.7 bar @ 80°C)
Reverse: 40 psid @ 70°F (2.7 bar @ 21°C)

Sanitization and Sterilization
Hot water at 194°F (90°C) @ max 3 psid for 30 minutes
In-line steam at 275°F (135°C) @ max 5 psid for 30 minutes
Autoclavable at 257°F (125°C) for 30 minutes

Chemical Sanitization
Cartridges may also be chemically sanitized in place using common sanitizing agents

www.commercialfiltrationsupply.com
Sanitary Filter Housings & Accessories

Shelco offers a full line of sanitary filter housings to meet your most critical applications.

**Retention Validation**

Testing was performed in compliance with US FDA (GMP) regulations 21 CFR parts 210, 211 and 820. Testing was also performed based on ASTM F838-05 standard test method and HIMA protocols for the determination of bacterial retention in filters used for liquid filtration. The challenge level is 10⁷ Organisms per cm² of filter media: 0.2 μm challenged with Brevundimonas diminuta. Validation guide available upon request.

**Biological Safety**

The MVS filters have undergone extensive testing to assure they meet the demands of the critical biopharmaceutical market. MEM elution, Bacterial Endotoxins, Oxidizable Substances, Microbial Retention, USP Physicochemical and USP Class VI. This information is documented and MVS elements have passed all the above testing.

**Quality Assurance**

MVS MicroVantage filter cartridges are manufactured using Good Manufacturing Practices under a quality management system. Each filter is assembled, flushed, tested, dried and packaged in the appropriate clean room and assigned a lot code to ensure traceability of data and material.

**Flow vs. Pressure Drop**

Per 10” Length Water Wetted Membrane

<table>
<thead>
<tr>
<th>PORE SIZE</th>
<th>DIFFUSION PRESSURE</th>
<th>MAX. DIFFUSION RATE</th>
<th>BUBBLE POINT (PSIG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.2</td>
<td>36 psig</td>
<td>≤ 18 cc/min</td>
<td>≥ 46 psig</td>
</tr>
</tbody>
</table>

**Ordering Guide (Example: MVS0.2-10S5S)**

<table>
<thead>
<tr>
<th>MVS</th>
<th>0.2</th>
<th>10</th>
<th>S5</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRODUCT CODE</td>
<td>MICRON</td>
<td>LENGTH</td>
<td>END CAP CONFIGURATION</td>
<td>GASKET/O-RING</td>
</tr>
<tr>
<td>MVS</td>
<td>0.2</td>
<td>10”</td>
<td>S3 = 222 w/ Fin End</td>
<td>S = Silicone</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20”</td>
<td>S4 = 222 w/ Flat End</td>
<td>E = EPR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30”</td>
<td>S5 = 226 w/ Fin End</td>
<td>V = Viton</td>
</tr>
<tr>
<td></td>
<td></td>
<td>40”</td>
<td>S6 = 226 w/ Flat End</td>
<td>B = Buna</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>T/V = Teflon Encapsulated Viton</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>T/S = Teflon Encapsulated Silicone</td>
<td></td>
</tr>
</tbody>
</table>

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

Visit us Online at: www.commercialfiltrationsupply.com for more filtration products.