0.2 µm TA-grade 50 mm Filter (CB2 Model)

Description
The Ultradyne® TA0.2 vent filter is a sterilizing grade hydrophobic PTFE membrane filter optimized for applications requiring complete removal of contaminant bacteria and viruses from air and gas streams, such as fermenter inlet air and exhaust, sterile process air and sterile venting of carboys, filling vessels, bioreactors and small product or intermediate tanks. The product also has broad chemical compatibility and is suitable for removal of particles and microorganisms from aggressive liquids, including strong acids and bases, and organic solvents.

Materials of Construction
All components of the Ultradyne® 50 mm filter are animal component free (ACF). These materials are listed for food contact use in the Code of Federal Regulations (CFR), Title 21, as below:

<table>
<thead>
<tr>
<th>Component</th>
<th>Material</th>
<th>CFR Title 21, Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membrane</td>
<td>Polytetrafluoroethylene (PTFE)</td>
<td>177.1550</td>
</tr>
<tr>
<td>Downstream support</td>
<td>Polypropylene</td>
<td>177.1520</td>
</tr>
<tr>
<td>Capsule housing</td>
<td>Polypropylene</td>
<td>177.1520</td>
</tr>
<tr>
<td>Sealing method</td>
<td>Thermal Bonding</td>
<td></td>
</tr>
</tbody>
</table>

Pore Size  0.2 µm
Effective Filtration Area  19.6 cm²

Bacterial Retention
>10⁷ cfu/cm² retention of *Brevundimonas diminuta* per ASTM F838

Typical Air Flow Rate
>8.5 standard L/min at 0.2 bar, differential
>0.3 standard CFM at 3.0 psi, differential

Minimum Bubble Point
16 psi (1.10 bar), 60% IPA/40% water, air
16 psi (1.10 bar), 70% IPA/30% water, nitrogen

Operating Characteristics
Operating temperature range: 32 °F to 100 °F (0 °C to 38 °C)
Maximum temperature rating: 160 °F @ 35 psig (71 °C @ 2.4 bar)
Maximum operating pressure: 80 psig @ 100 °F (5.5 bar @ 38 °C)
Maximum reverse pressure: 15 psig @ 100 °F (1.0 bar @ 38 °C)

Sterilization
Autoclave: 121 °C to 135 °C (15 to 30 psi, 1 to 2 bar), 30 to 60 minutes, ≥ 3 cycles.
Capsules must not be in-line steam sterilized. Irradiation is not recommended.

Biological Safety
Ultradyne® filters meet the requirements as specified in the current USP <88> Class VI plastics, <87> cytotoxicity and pyrogenicity tests. No binders, adhesives, or surfactants are used in its construction. Filters comply with Commission Regulation (EU) No 10/2011. The 50 mm capsules are TSE/BSE/animal component free (ACF).

Quality Assurance
Ultradyne® filters comply with the Food and Drug Administration Code of Federal Regulations, Title 21, Parts 210 and 211. Product is manufactured and packaged in a cleanroom facility that, through voluntary compliance, meets or exceeds FDA Good Manufacturing Practice Standards. To ensure product reliability, Meissner's Quality Assurance staff continually audits the manufacturing process for conformance to its Quality Management System. Each Ultradyne® filter is clearly marked with filter type, lot number, and serial number.
Ordering Guide

**Capsule Option**
- Standard capsule: C

**Effective Filtration Area**
- 19.6 cm² (50 mm diameter): B

**Housing Material Designator**
- Animal component free (ACF) polypropylene: 2

**Vent/Drain Ports**
- 0: No vent; no drain
- 1: One luer port with cap, inlet side

**Inlet/Outlet Connections**
- 33: Stepped hose barb (1/4" - 3/8")
- 3B: Hose barb (1/4" - 3/8") with filling bell
- 73: 3/4" sanitary flange inlet & hose barb (1/4" - 3/8") outlet
- 77: 3/4" sanitary flange inlet/outlet
- 7B: 3/4" sanitary flange inlet & filling bell outlet

**Grade**
- Ultradyne® hydrophobic PTFE membrane

**Retention Ratings**
- TA: 0.2 µm

Additional information about this filter product is available in the Ultradyne® Green Docs document at www.meissner.com/green-docs.

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