Double the Flow With Next Generation PTFE Membrane Filter Cartridges

Ultra-Pure PTFE membrane filter cartridges perform at the highest flow rate to provide the cleanest fluids at the lowest possible cost. Parker’s unique PTFE membrane construction serves as a low-cost alternative to all Teflon cartridges in less aggressive applications and maintains broad chemical compatibility with low extractable levels and high particle retention rates.

The Ultra-Pure PTFE Membrane Series is available in 0.1µm, 0.2µm, 0.45µm and 1µm pore sizes.

Applications

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<thead>
<tr>
<th>Pharmaceutical</th>
<th>Food and Beverage</th>
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<tbody>
<tr>
<td>Tank Vents</td>
<td>Sterile Venting of Holding Tanks</td>
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<tr>
<td>Filtration of Compressed Gases</td>
<td>Sterile CO₂ Filtration</td>
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<tr>
<td>Filtration of Solvents</td>
<td>Microbial Control of Inlet Air for Bioprocessing of Foods</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Process Gases</th>
<th>Chemicals</th>
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<tbody>
<tr>
<td>Bulk and Point-of-Use Gases</td>
<td>Solvents</td>
</tr>
<tr>
<td>Compressed Air</td>
<td>Bulk Filling</td>
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<tr>
<td></td>
<td>Acids</td>
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</tbody>
</table>

Features and Benefits

Superior PTFE Membrane Yields Maximum Filtration Results

- High flow rates and optimized surface area reduce processing time and filter consumption.
- Rinsed with 18 megohm-cm UHP water for high purity.
- Non-fiber releasing.
- All-polypropylene component construction complemented by a variety of O-ring seals withstands demanding operating parameters.
- Narrow pore size distribution ensures the ultimate in retention and flow rate.
- Naturally hydrophobic membrane maintains air flow rates in venting and gas applications.
- Available prewetted for immediate use in process.

Parker’s TQM System Assures Consistent Performance and Reliable Filtration

- Strict quality control measures include rigorous testing for rinse up, shedding, flow rate and extractable levels.
- Integrity-tested and testable in situ.
- Thermally welded, eliminating adhesive extractables.
- Biosafe in accordance with USP Class VI-121° Plastics Tests.
- Specifically designed to ensure cleanliness.
- All materials of construction are FDA listed as acceptable for potable and edible liquid contact according to CFR Title 21.
Specifications

Materials of Construction:
- Membrane: hydrophobic PTFE
- Membrane Support/Drainage: polypropylene
- Structural Components: polypropylene
- O-Ring Material: various
- Sealing Method: thermal welding

Dimensions:
- Diameter: 2.7 in (6.8 cm)
- Lengths: 10-40 in (25-102 cm)

Surface Area (10 in cartridge):
- Minimum 7.5 ft² (0.7 m²)

Endotoxins:
- < 0.25 EU/ml

Integrity Test:
- Bubble Point (100% IPA):
  - 0.1µm ≥ 24 psig (1.7 bar)
  - 0.2µm ≥ 16 psig (1.1 bar)
  - 0.45µm ≥ 6 psig (0.4 bar)
  - 1µm ≥ 3 psig (0.2 bar)

Recommended Operating Conditions:
- Maximum Temperature:
  - 176°F (80°C) @ 30 ∆P (2.1 bar)
- Maximum Differential Pressure:
  - Forward:
    - 70 psi (4.8 bar) @ 77°F (25°C)
    - 30 psi (2.1 bar) @ 176°F (80°C)
  - Reverse:
    - 50 psi (3.4 bar) @ 77°F (25°C)

Sterilization/Sanitation Methods:
- Autoclave or in situ Steam:
  - 250°F (121°C) for 30 minutes at 15 psi (1.0 bar)
  - 70% IPA
  - 10% Hydrogen Peroxide

PTFE Cartridges:
- Flow rate vs. ∆P for a 1 cps liquid @ 73°F (23°C)**

Flow Factors:

<table>
<thead>
<tr>
<th>Pore Size (µm)</th>
<th>GPM/1 PSID</th>
<th>LPM/1 Bar</th>
<th>PSID/1 GPM</th>
<th>Bar/1 LPM</th>
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</thead>
<tbody>
<tr>
<td>0.1</td>
<td>3.0</td>
<td>164</td>
<td>0.33</td>
<td>0.006</td>
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<td>0.2</td>
<td>4.5</td>
<td>247</td>
<td>0.22</td>
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<td>0.45</td>
<td>6.5</td>
<td>356</td>
<td>0.15</td>
<td>0.003</td>
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<td>1</td>
<td>7.5</td>
<td>411</td>
<td>0.13</td>
<td>0.002</td>
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** Consult Process Filtration Division for gas flow data.