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

- Pharmaceutical
  - Tank Vents
  - Filtration of Compressed Gases
  - Filtration of Solvents
- Process Gases
  - Bulk and Point-of-Use Gases
  - Compressed Air
- Food and Beverage
  - Sterile Venting of Holding Tanks
  - Sterile CO₂ Filtration
  - Microbial Control of Inlet Air for Bioprocessing of Foods
- Chemicals
  - Solvents
  - Bulk Filling
  - Acids

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 ΔP (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/Sanitization 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. ΔP for a 1 cps liquid @ 73°F (23°C)**

Flow Factors:

<table>
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<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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<tr>
<td>0.1</td>
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** Consult Process Filtration Division for gas flow data.