

## 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 CO<sub>2</sub> 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 pretwetted 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.

Process Filtration Division



# Ultra-Pure Membrane Series

## 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 ft<sup>2</sup> (0.7 m<sup>2</sup>)

### 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:

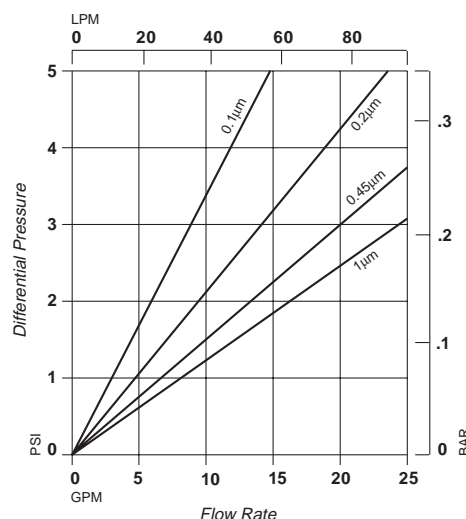
Maximum Temperature:  
176°F (80°C) @ 30 ΔP (2.1 bar)  
Maximum Differential Pressure:  
Forward:  
70 psi (4.8 bar) @ 77°F (25°C)  
30 psi (2.1 bar) @ 176°F (80°C)  
Reverse:  
50 psi (3.4 bar) @ 77°F (25°C)

### 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:

| Pore Size<br>(µm) | GPM/<br>1 PSID | LPM/<br>1 Bar | PSID/<br>1 GPM | Bar/<br>1 LPM |
|-------------------|----------------|---------------|----------------|---------------|
| 0.1               | 3.0            | 164           | 0.33           | 0.006         |
| 0.2               | 4.5            | 247           | 0.22           | 0.004         |
| 0.45              | 6.5            | 356           | 0.15           | 0.003         |
| 1                 | 7.5            | 411           | 0.13           | 0.002         |

| Cartridge Code              | Pore Size (µm)                          | Diameter (in) | Length (in)                              | O-Ring Material   | End Cap Configuration   | Grade          | Special Preparation                         |
|-----------------------------|---|---------------|--|---|---|----------------|---|
| PF = Polypropylene/<br>PTFE | S = 0.1<br>F = 0.2<br>R = 0.45<br>Q = 1 | B = 2.7       | 10 = 10<br>20 = 20<br>30 = 30<br>40 = 40 | B = Buna N<br>C = CR 503<br>D = CR 570<br>E = EPR<br>L = KR 8201<br>S = Silicone<br>T = PFA/Viton*<br>V = Viton*<br>X = No O-Ring | SC = 2-226/Flat<br>SF = 2-226/Fin<br>TC = 2-222/Flat<br>TF = 2-222/Fin<br>HH = DOE (Gaskets)<br>AC = 020/Flat (Gelman)<br>LC = 120/Flat (Nuclepore;<br>Gelman G Style)<br>LL = 120/120 (Filterite<br>LMO and Nuclepore<br>Polymeric Housings;<br>Gelman N Style)<br>PC = 213/Flat (Ametek and<br>Parker LT Polymeric<br>Housings; Gelman H Style) | U = Ultra-Pure | W = Prewetted With<br>Ozonated UHP<br>Water |

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\*\* Consult Process Filtration Division for gas flow data.

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