

# Advantage™ PF Filter Cartridges

■ PTFE Membrane

## Ultra-Pure Membrane Series

### 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 Nylon Membrane Yields Maximum Filtration Results

- High flow rates and optimised surface area reduce processing time and filter consumption.
- Rinsed with 18 megohm-cm UHP water for high purity.
- Non-fibre 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.

#### Process Filtration Division

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**Parker**  
Filtration

# 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 (68mm).
- Lengths: 10-40 in (250-1020mm).

### Surface Area:

- Minimum 7.5ft<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:

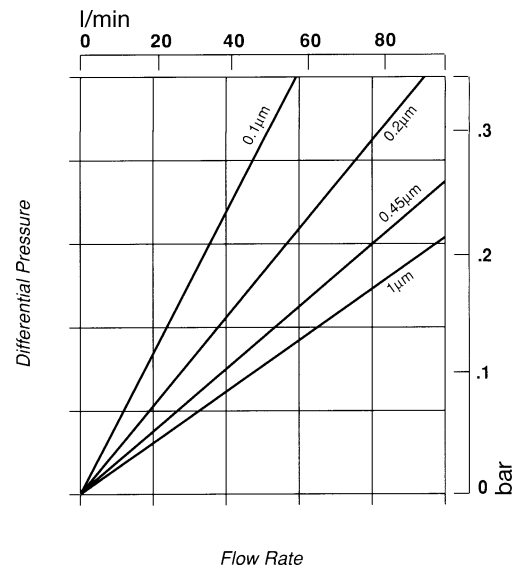
- Maximum Temperature:  
176°F (80°C) @ 30 ΔP (2.1 bar).
- Maximum Differential Pressure:  
Forward:  
70 psi (4.8 bar) @ 77°F (25°C).  
30 psi (2.1 bar) @ 176°F (80°C).  
Reverse:  
50 psi (3.4 bar) @ 77°F (25°C).

### 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 (µm) | l/min/bar | bar/l/min |
|----------------|-----------|-----------|
| 0.1            | 164       | 0.006     |
| 0.2            | 247       | 0.004     |
| 0.45           | 356       | 0.003     |
| 1              | 411       | 0.002     |

## Ordering Information

| PF                              | F                            | B             | 10  | E   | TC  | U              | W                                     |
|---------------------------------|------------------------------|---------------|---|---|---|----------------|---------------------------------------|
| Cartridge Code                  | Pore Size (µm)               | Diameter (mm) | Length (mm)                                   | O-Ring Material   | End Cap Configuration   | Grade          | Special Preparation                   |
| PF = Polypropylene/S = 0.1 PTFE | F = 0.2<br>R = 0.45<br>Q = 1 | B = 68.6      | 10 = 254<br>20 = 508<br>30 = 762<br>40 = 1016 | 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; Gelman G Style)<br>LL = 120/120 (Filterite LMO and Nuclepore Polymeric Housings; Gelman N Style)<br>PC = 213/Flat (Ametek and Parker LT Polymeric Housings; Gelman H Style) | U = Ultra-Pure | W = Prewetted With Ozonated UHP Water |

\* Consult Process Filtration Division for gas flow data.

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