



## 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 fluoropolymer 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

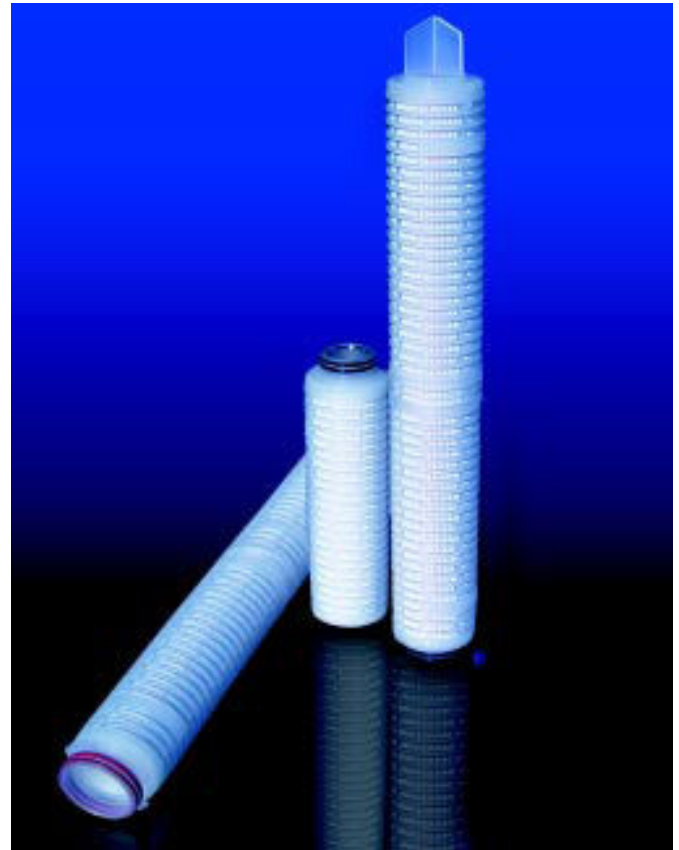
- Bulk and Point-of-Use Gases
- Compressed Air

#### 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 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°C 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
- Seal 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:

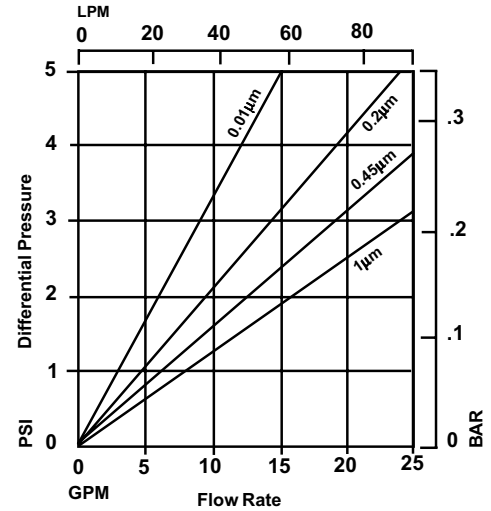
- Maximum Temperature: 176°F (80°C) @ 30 ΔP (2.1 bar)
- Maximum Differential Pressure:  
Forward:  
70 psi (4.8 bar) @ 77°F (25°C)  
30 psi (2.1 bar) @ 176°F (80°C)  
Reverse:  
50 psi (3.4 bar) @ 77°F (25°C)

### 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 (µm)	GPM/ 1 PSID	LPM/ 1 Bar	PSID/ 1 GPM	Bar/ 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

## Ordering Information

PF	F	B	10	E	TC	U	W
Cartridge Code	Pore Size (µm)	Diameter (in)	Length (in)	Seal Material	End Cap Configuration	Grade	Special Preparation
PF = PTFE	S = 0.1 F = 0.2 R = 0.45 Q = 1 D = 0.05	B = 2.7	10 = 10 20 = 20 30 = 30 40 = 40	B = Buna N D = CR 570 E = EPDM S = Silicone T = PFA/Viton* <sup>1</sup> V = Viton* X = No O-Ring/ No Gaskets	AR = 020 O-Ring/Recessed HH = DOE (Gaskets) LL = 120/120*** LR = 120 O-Ring/Recessed*** PR = 213 O-Ring/Rcessed*** SC = 2-226/Flat SF = 2-226/Fin TC = 2-222/Flat TF = 2-222/Fin	U = Ultra-Pure	W = Prewetted With Ozonated UHP Water

## Process Filtration Division

\* Trademark of E. I. duPont de Nemours & Co.

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

\*\*\* Available only in 9-5/8" (-9) and 19-5/8" (-19) lengths.

<sup>1</sup> PFA/Viton is O-Ring only; for DOE (HH), gasket is expanded PTFE.

