# LENNTECH

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# **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 Pointof-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.

# Advantage<sup>™</sup> PF Filter Cartridges

PTFE Membrane

# **Ultra-Pure Membrane Series**



### 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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 WARNING! FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

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### **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:



### 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)

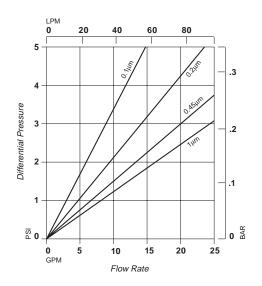
30 psi (2.1 bar) @ 176°F (80°C) Reverse:

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.  $\Delta P$  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

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

# **Process Filtration Division**

Filtration

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

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