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 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.

Advantage[™] 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.

 This document and other information from Parker Hamilin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection for the products and systems and assuring that all performance safety and warning requirements of the application are met. The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.



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:



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)

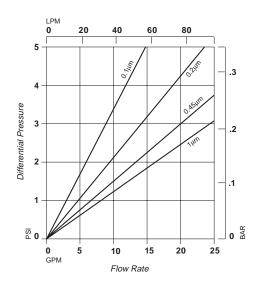
30 psi (2.1 bar) @ 176°F (80°C) Reverse:

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

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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

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Filtration

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** Consult Process Filtration Division for gas flow data.

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