LENNTECH
info@lenntech.com Tel. +31-152-610-900
www.lenntech.com Fax. +31-152-616-289

Advantage™ PF Filter Cartridges

■ PTFE Membrane

Mega-Pure Membrane Series

Twice the Flow and Recirculation Rate With Next Generation PTFE Membrane Filter Cartridges

Mega-Pure PTFE membrane filter cartridges provide unsurpassed flow rate capability. Parker's PTFE membrane cartridge outperforms all competitive cartridges of the same rating at a ratio of 2 to 1 or greater, thus reducing the number of cartridges and housings required. PTFE membrane filter cartridges are a low-cost alternative to all-Teflon cartridges. The Mega-Pure PTFE Membrane Series of filter cartridges meets or exceeds requirements for the filtration of UHP liquids used in the fabrication of state-of-the-art microelectronic devices.

The Mega-Pure PTFE Membrane Series is available in 0.05µm, 0.1µm, 0.2µm, 0.45µm and 1µm pore sizes.

Applications

UHP Chemicals

- Acids
- Solvents
- Photoresists
- Tank Vents
- Etchants
- Alkalines
- Developers
- Strippers
- Recirculation
- Wet-Etch Systems
- Rinse Baths
- Process Gases & Compressed Air
- Polymer Filtration

Features and Benefits

Superior PTFE Membrane Yields Maximum Filtration Results

- High flow rates and reduced pressure drops for improved filtration efficiency.
- Rinsed to 18 megohm-cm resistivity with UHP water.
- Large, high-purity filtration area for maximum yields.
- Non-fiber releasing.
- Narrow pore size distribution ensures the ultimate in retention and flow rate.
- 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.

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)

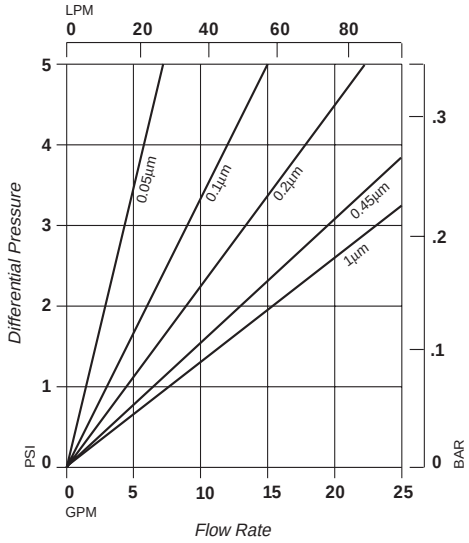
Surface Area (10 in cartridge):
- Minimum 7.5 ft^2 (0.7 m^2)

Integrity Test:
- Bubble Point (100% IPA):
  0.05µm ≥ 50 psig (3.4 bar)
  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:
- Hydrogen Peroxide
- Sodium Hydroxide
- IPA (70%)
- 180°F (82°C) Water

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
0.05	1.5	82	0.67	0.012
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	E	W
Cartridge Code	*Pore Size (µm)*	*Diameter (in)*	*Length (in)*	*O-Ring Material*	*End Cap Configuration*	*Grade*	*Special Preparation*
PF = Polypropylene/ PTFE	D = 0.05 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 (Nuclepore; Gelman G Style) LL = 120/120 (Filterite LMO and Nuclepore Polymeric Housings; Gelman N Style) PC = 213/Flat (Ametek and Parker LT Polymeric Housings; Gelman H Style)	E = Electronics	W = Prewetted With Ozonated UHP Water

Process Filtration Division

* Trademark of E.I. du Pont de Nemours & Co.
** Consult Process Filtration Division for gas flow data.