



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 fluoropolymer 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 | ■ Developers | ■ Process Gases |
| ■ Solvents | ■ Strippers | & Compressed |
| ■ Photoresists | ■ Recirculation | Air |
| ■ Tank Vents | ■ Wet-Etch | ■ Polymer |
| ■ Etchants | Systems | Filtration |
| ■ Alkalies | ■ Rinse Baths | |



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 pretwetted 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

Mega-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 ft² (0.7 m²)

Integrity Test:

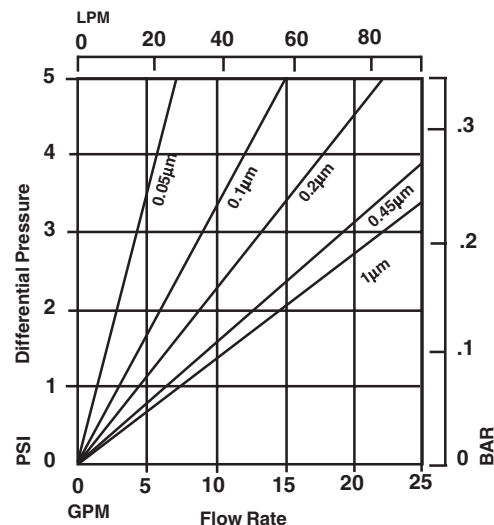
- Bubble Point (100% IPA):
 0.05µm ≥ 50 psig (3.4 bar)
 0.1µm ≥ 24 psig (1.7 bar)
 0.2µm ≥ 16 psig (1.1 bar)
 0.45µm ≥ 6 psig (0.4 bar)
 1µm ≥ 3 psig (0.2 bar)

Recommended Operating Conditions:

- Maximum Temperature:
176°F (80°C) @ 30 DP (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)

PTFE Cartridges:

Flow rate vs. DP 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)	Seal Material	End Cap Configuration	Grade	Special Preparation
PF = 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 D = CR 570 E = EPR K = KR4079 S = Silicone T = PFA/Viton* ¹ 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 Recessed*** SC = 2-226/Flat SF = 2-226/Fin TC = 2-222/Flat TF = 2-222/Fin	E = Electronics	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.

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