

MPUT Filter Cartridges

■ PTFE Membrane

Mem-Pure Membrane Series

Double the Flow With Next Generation PTFE Membrane Filter Cartridges

Mem-Pure PTFE membrane filter cartridges perform at the highest flow rate to provide the cleanest fluids at the lowest possible cost. Clark-Reliance Filtration Group'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 Mem-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 & 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.

Clark-Reliance Filtration Group 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.



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 Clark-Reliance 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.

Mem-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)

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:

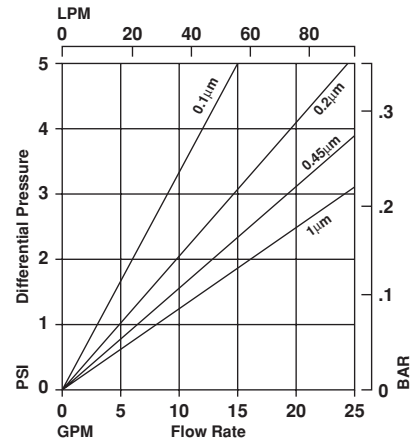
- Maximum Temperature: 176°F (80°C) at 30 ΔP (2.1 bar)
- Maximum Differential Pressure:
 - Forward: 70 psi (4.8 bar) at 77°F (25°C)
 - 30 psi (2.1 bar) at 176°F (80°C)
 - Reverse: 50 psi (3.4 bar) at 77°F (25°C)

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

MPUT	F	B	10	E	TC	U	W
Cartridge Code	Pore Size	Diameter	Length	Seal Material	End Cap Configuration	Grade	Special Preparation
MPUT = PTFE	S = 0.1µm F = 0.2µm R = 0.45µm Q = 1.0µm	B = 2.7"	10 = 10" 20 = 20" 30 = 30" 40 = 40"	B = Buna-N D = CR 570 E = EPR S = Silicone T = PFA/Viton V = Viton X = No O-Ring	HH = DOE gaskets SC = 226/Flat SF = 226/Fin TC = 222/Flat TF = 222/Fin	U = Ultra-Pure	W = Prewetted with ozonated UHP water

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** Consult factory for gas flow data.