International Filter Products

Revolutionary systems for your industry

MCF Series PTFE Filter Capsules

The MCF Series PTFE Cartridges are highly retentive hydrophobic PTFE membrane filters that have been specially designed for critical applications. The PTFE membrane in an all-polypropylene construction provides excellent chemical compatibility and superior flow per unit area as compared to other membrane cartridges. No adhesives, binders, or surfactants are used in the manufacturing process and all cartridges are rinsed with high-purity water to reduce extractables and downtime. The naturally hydrophobic PTFE membrane is ideally suited for gas filtration and aggressive chemicals such as acids, bases, and solvents. In addition, the hydrophobic membrane provides superior flow and pressure drop characteristics per unit area for gas filtration and tank venting applications. All filter cartridges are 100% integrity tested to ensure filter performance

Application

- Bioreactor Vent
- Moisture Barrier
- Vaccines
- Fermentation Tank Vent
- Product Sterilization
- Aggressive Chemicals
- Biologics
- Compressed Gas
- Oil or Alcohol Base Solvents
- Pharmaceuticals
- Antibiotics
- Fine Chemicals

Part Number: MCF2072S1

MCF- Series PTFE Cartridge – 226 O-Rings with Spear End Connection

Nominal 10-inch Cartridge

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Technical Data Sheet

Popular Configuration:

Catalog Number	Micron Rating	Length	End Modification	O-Ring Material	Stainless Steel Insert
MCF2072S1	0.2 µm (Single Layer)	20-inch	Single Open Ended – 226 O-Rings with Spear	Silicone (Standard)	Optional Add **"-5"** with the original Part Number
❖ **Find the complete list of available standard inlet and outlet fittings in page 5.**					

Micron Rating:

Final Media: 0.2 µm PTFE [Sterilizing Grade Membrane]

Effective Filtration Area:

20-Inch; 14.0 ft^2 (1.4 m^2)

Materials of Construction:

Membrane: Pharmaceutical Grade PTFE (Teflon) Sterilizing Grade

Membrane Feature: Hydrophobic, Low Protein Binding, High Flow Rate

Media Supports: Polypropylene

Cage, Core, End Caps: Polypropylene

O-Rings: Silicone (Standard)

Sealing: Thermally Bonded

Operating Conditions:

Maximum Forward Differential Pressure: 6.0 bar (87psi) at 71.6°F/22°C
2.0 bar (29psi) at 176°F/80°C

Minimum Burst Pressure: 8.3 bar (120psi) at 77°F/25°C

Maximum Reverse Differential Pressure: 3.0 bar (43.5psi) at 71.6°F/22°C
1.0 bar (14.5psi) at 176°F/80°C

Maximum Operating Temperature: 176°F/80°C

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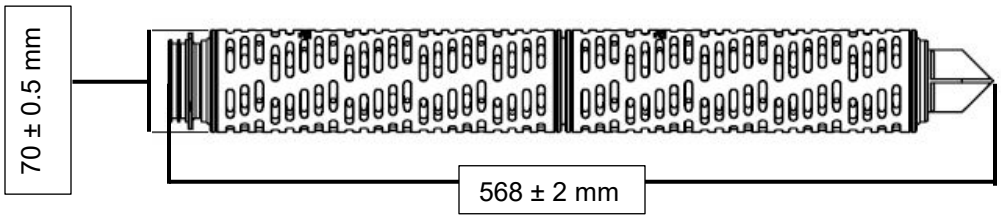
Nominal Dimension:

Part Number: MCF2072S1



Typical Filtered Volume:

120.0L – 600.0L

Filter Integrity:

The finished product was sampled and shown to exhibit a minimum bubble point of ≥17.4 psi (1.2 bar) in 60%IPA / 40% water (at 22℃).

Sterilization:

Autoclave: The filters can be sterilized by autoclaving for up to 50 cycles at 125 °C (257 °F) for 30 minutes.

Steam-In-Place: The filters can also be sterilized by steam-in-place procedure up to 30 cycles at 135 °C (275 °F) for 30 minutes at less than 0.3 bar differential pressure.

Sanitization: The filters can also be sanitized by hot water or common chemicals that are compatible with filter components.

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Regulatory Compliance:

The filters are constructed with polypropylene resins and filtration media in compliance with 21CFR Part 177 of the US Code of Federal Regulations and USP Class VI Biological Test for Plastic.

USP Bacterial Endotoxins:

The filters were tested to confirm that an aqueous extraction of this product contains <0.25 EU/ml as determined by the Limulus Amebocyte Lysate (LAL) Test

USP Conductivity:

Effluent is tested during the manufacturing process and shown to meet the requirements for USP Sterile Water for Injection for conductivity.

Bacterial Retention:

The filters are quantitatively retentive towards *Brevundimonas diminuta* (ATCC #19146) at a minimum challenge level of 10^7 CFU per cm^2 of filtration area, consistent with ASTM F838-05

ISO 10993-5 Cytotoxicity:

Extract from this product is non-Cytotoxic

ASTM Hemolysis:

Extract from this product is non-Hemolytic

Shelf Life:

The MCF Cartridges have a shelf life of 3 years from the date of manufacture

MCF - Series PTFE Cartridge

(Pharmaceutical Grade)

Ordering Guide

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M	C	F	[1]	[2]	[3]	[4]	1	[5]

[1]	[2]	[3]	[4]	[5]
Micron Rating	End Modification	Length	O-Ring/Gasket Material	Optional
• 10 : 0.10 µm • 20 : 0.20 µm • 45 : 0.45 µm • 1X : 1.0 µm • 3X : 3.0 µm • 5X : 5.0 µm • 9X : 10.0 µm Note: All final membranes are sterilizing grade.	• 0 : 222 O-Ring Flat • 5 : 222 O-Ring Spear • 6 : 226 O-Ring Flat • 7 : 226 O-Ring Spear • F : DOE Flat Gasket • S : SOE Flat Gasket	• 1 : 10-Inch • 2 : 20-Inch • 3 : 30-Inch • 4 : 40-Inch • 5 : 5-Inch	• S : Silicone • E : EPDM • N : Buna-N • P : Peroxide Cured EPDM • Q : Platinum Cured Silicon • T : TEV or FEP Gasket • V : Viton	• -5 : SS Insert

Example:

Part Number	Description
MCF2072S1	PureFlo MCF Series Cartridge, 0.2µm PTFE membrane (Sterilizing Grade), 20.0-inch Long, Filtration Area 1.4 m^2, 226 O-Rings with Spear, Silicone Double O-Rings

Special Configuration:

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Micron Rating Option:

- 0.04 Micron
- 0.1 Micron
- 0.2 Micron
- 0.45 Micron
- 0.65 Micron
- 0.8 Micron
- 1.2 Micron

Inlet Fitting Option:

- 0 : 222 O-Ring Flat
- 3 : 222 O-Ring w /tabs Spear
- 5 : 222 O-Ring Spear
- 6 : 226 O-Ring Flat
- 7 : 226 O-Ring Spear
- 8: 223 O-Ring Flat
- F : DOE Flat Gasket
- S : SOE Flat Gasket

O-Ring/Gasket Material Option:

- S : Silicone
- E : EPDM
- N : Buna-N
- P : Peroxide Cured EPDM
- Q : Platinum Cured Silicon
- T : TEV or FEP Gasket
- V : Viton

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