

# GTM Cartridge Filters

## PTFE Membrane



GTM Filter Cartridges are designed for general purpose use wherever a hydrophobic membrane filter is required. Manufactured with inherently hydrophobic polytetrafluoroethylene (PTFE) membrane, these cartridges are designed for use in the filtration of aggressive solvents, and as compressed gas and vent filters. These cartridges are found in the manufacturing processes of firms in multiple industries that require high quality, cost effective filter technologies. The cartridge surface area, filter core design, pleat configuration, and pleat packing density have been optimized to provide increased cartridge life resulting in lower filtration operating costs.

## Construction Materials

<b>Filtration Media</b>	PTFE Membrane
<b>Media Support</b>	Polypropylene
<b>End Caps</b>	Polypropylene
<b>Center Core</b>	Polypropylene
<b>Outer Support Cage</b>	Polypropylene
<b>Sealing Method</b>	Thermal Bonding
<b>O-rings</b>	Buna, Viton® (or FKM), EP, Silicone, FEP Encapsulated Silicone, FEP Encapsulated Viton (or FKM)

## Applications

- ◆ Compressed Air
- ◆ Solvents
- ◆ Process Gases
- ◆ Tank Vents

## Dimensions

<b>Length</b>	5 to 40 in. (12.7 to 101.6 cm) nominal
<b>Outside Diameter</b>	2.75 in. (7.0 cm) nominal
<b>Filtration Area</b>	7.0 ft <sup>2</sup> (0.65 m <sup>2</sup> ) per 10 in. length

## Integrity Test Information

Representative samples from each manufacturing lot are tested for integrity to ensure consistent performance.

## Maximum Operating Parameters

<b>Differential Pressure</b>	
• <b>Forward</b>	50 psid (3.4 bard) at 20 °C (68 °F)
• <b>Reverse</b>	40 psid (2.7 bard) at 20 °C (68 °F)
<b>Operating Temperature</b>	82 °C (180 °F) at 10 psid (0.69 bard) in water

## Sanitization/Sterilization

<b>In-line Steam</b>	135 °C (275 °F), 30 min, multiple cycles
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For all elevated temperature procedures, a stainless steel support ring is required.

### Chemical Sanitization

Performed using industry standard concentrations of hydrogen peroxide, paracetic acid, sodium hypochlorite, and other selected chemicals. (assure chemical solution will wet the hydrophobic membrane for effective sanitization.)

## Total Performance

Critical Process Filtration, Inc. is a vertically integrated manufacturer of filtration products to industries in which filtration is considered a critical part of the manufacturing process. We supply a complete line of products and services to help you cost effectively satisfy all your filtration requirements from a single source.

## FDA and EC Compliance

All Critical Process Filtration filters are designed to meet the FDA requirements for processing food and beverage products. The materials used to construct GPS filters are listed by the FDA as appropriate for use in articles intended for repeated food contact as specified in Title 21 CFR sections 174.5, 177.1500, 177.1520, 177.1630, 177.2440 and 177.2600 as appropriate. Membrane filters comply with Title 21 CFR sections 210.3 (b)(6) and 211.72, for non-fiber releasing filters. All materials used to make the filters are listed in European Commission Regulation EU/10/2011, Annex 1.

## Flow Rate

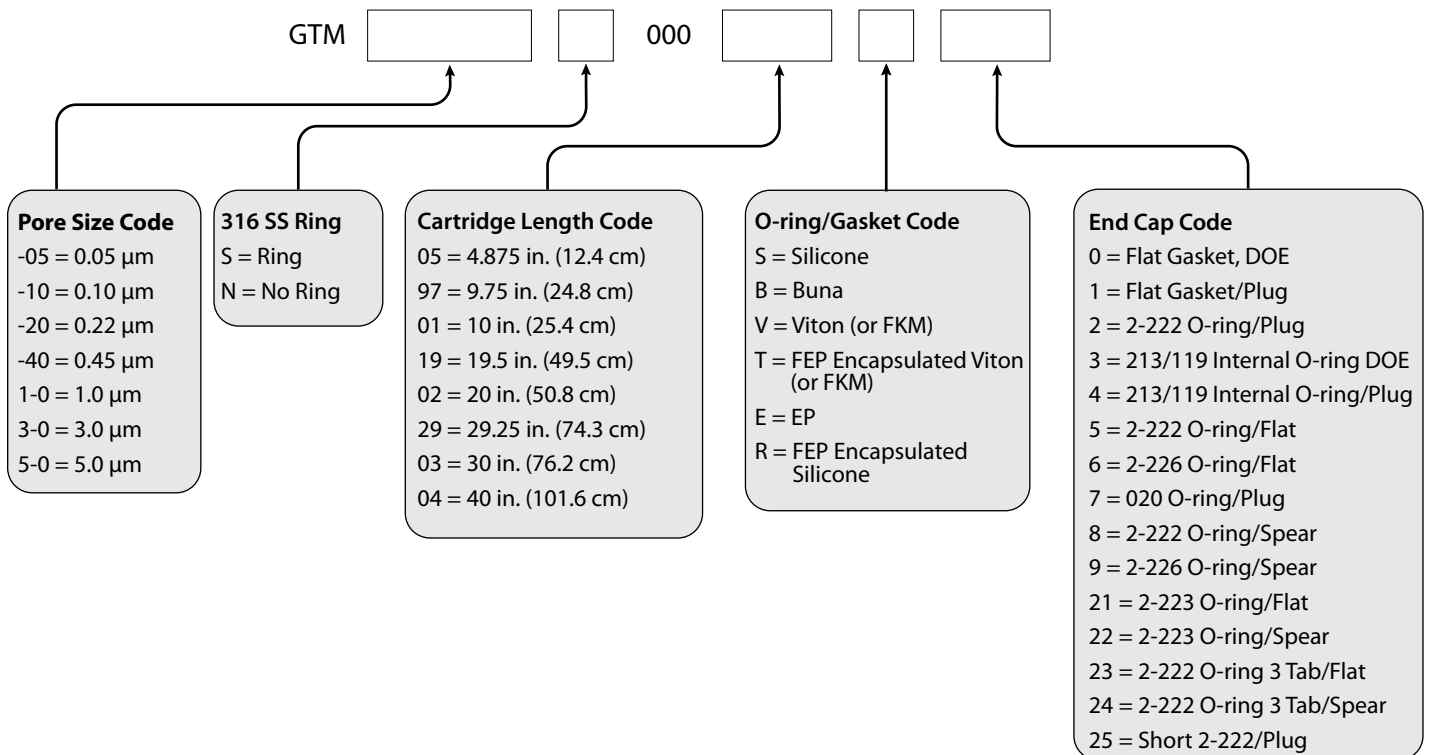
The Typical Flow Rates table represents typical water flow and air flow rates at 1 psid (69 bard) pressure differential across a single 10 in. cartridge element. The test fluids are water and air at ambient temperature. These values are approximations because of the differences in pressure drop encountered in housings and piping systems. Extrapolation to multiple-length cartridges in multi-round housings can be done for sizing purposes. Exact flow rates will be installation dependent.

### Typical Flow Rates

Pore Size Rating	0.05 µm	0.1 µm	0.22 µm	0.45 µm	1.0 µm	3.0 µm	5.0 µm
<b>Liquid Flow Rates (gpm)</b>	1.0	1.25	2.8	5.7	9.0	10.0	11.0
<b>Air/Gas Flow Rates (scfm)</b>	> 21	> 26	> 42	> 68	> 85	> 85	> 85

## Ordering Information

Cartridge order numbers have several variables from pore size to end cap type. For example, General Service Grade PTFE Membrane, 0.22 Micron Rating (liquid), No SS Support Ring, 20" Length, Silicone O-Rings, 2-222 O-Ring/Flat End Cap Configuration = GTM-20N00002S5.



## Extractables

GTM filters typically exhibit low levels of non-volatile residues.

## Quality Assurance and Standards

Our goal is to ensure our customers the greatest possible value for their filtration dollar. Our state of the art manufacturing facility and quality management system both meet ISO 9001:2008 standards. Each operation from assembly and test to cleaning, drying, and packaging is done in appropriately rated clean rooms. A sophisticated MRP system collects and processes real time data from manufacturing centers and inspection points. This allows variable and attribute data to be quickly and easily analyzed driving constant improvements in both quality and cost.

The information contained herein is subject to change without notice.

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