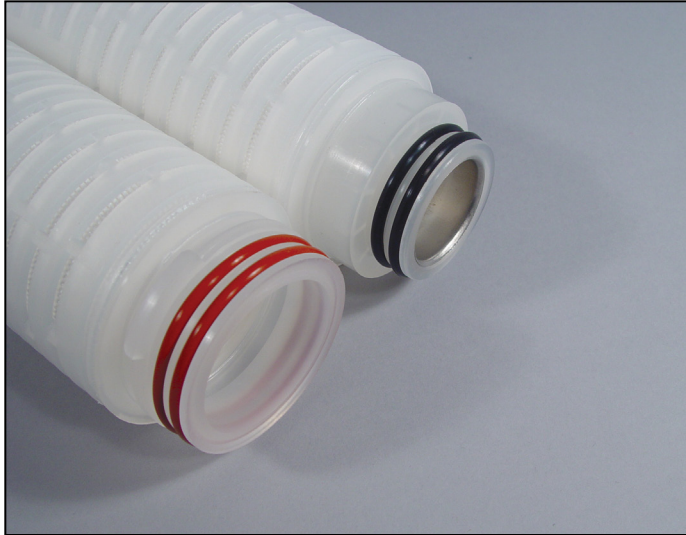


# ETM Cartridge Filters

## PTFE Membrane



ETM Filter Cartridges are designed to meet the special needs of the electronics and high-purity chemical industries. Polytetrafluoroethylene (PTFE) membrane is resistant to virtually all chemicals. Because of the hydrophobic nature of PTFE, it can also be used to filter process gases. Pre-wetted ETM filters are available for liquids with surface tension too high to wet out PTFE membrane. This membrane will also handle elevated process temperatures in compatible fluids. To minimize extractables, each cartridge module is pulse power flushed until the rinse effluent reaches 18+ Megohm-cm and less than 3 ppb TOC. Each cartridge module is also individually tested for integrity.

### 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
- ◆ Chemicals
- ◆ Pressurized Gases
- ◆ Tank Ventilation

### 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 Specifications

60/40 IPA/Water-wetted membrane

Pore Size (liquid)	Bubble Point
0.05 µm	43 psig (3.0 barg)
0.10 µm	22 psig (1.52 barg)
0.22 µm	15 psig (1.0 barg)
0.45 µm	9 psig (621 mbarg)
1.0 µm	6 psig (414 mbarg)

### Maximum Operating Parameters

<b>Differential Pressure</b>	50 psid (3.4 barg) at 20 °C (68 °F)
• Forward	
• Reverse	40 psid (2.7 barg) at 20 °C (68 °F)
<b>Operating Temperature</b>	82 °C (180 °F) at 10 psid (0.69 barg)
<b>Recommended Changeout Pressure</b>	35 psid (2.4 barg)

### Sanitization/Sterilization

<b>Autoclave</b>	121 °C (250 °F), 30 min, multiple cycles
<b>In-line Steam</b>	135 °C (275 °F), 30 min, multiple cycles

For all elevated temperature procedures above, 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.

### 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.

## 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.

## Flow Rate

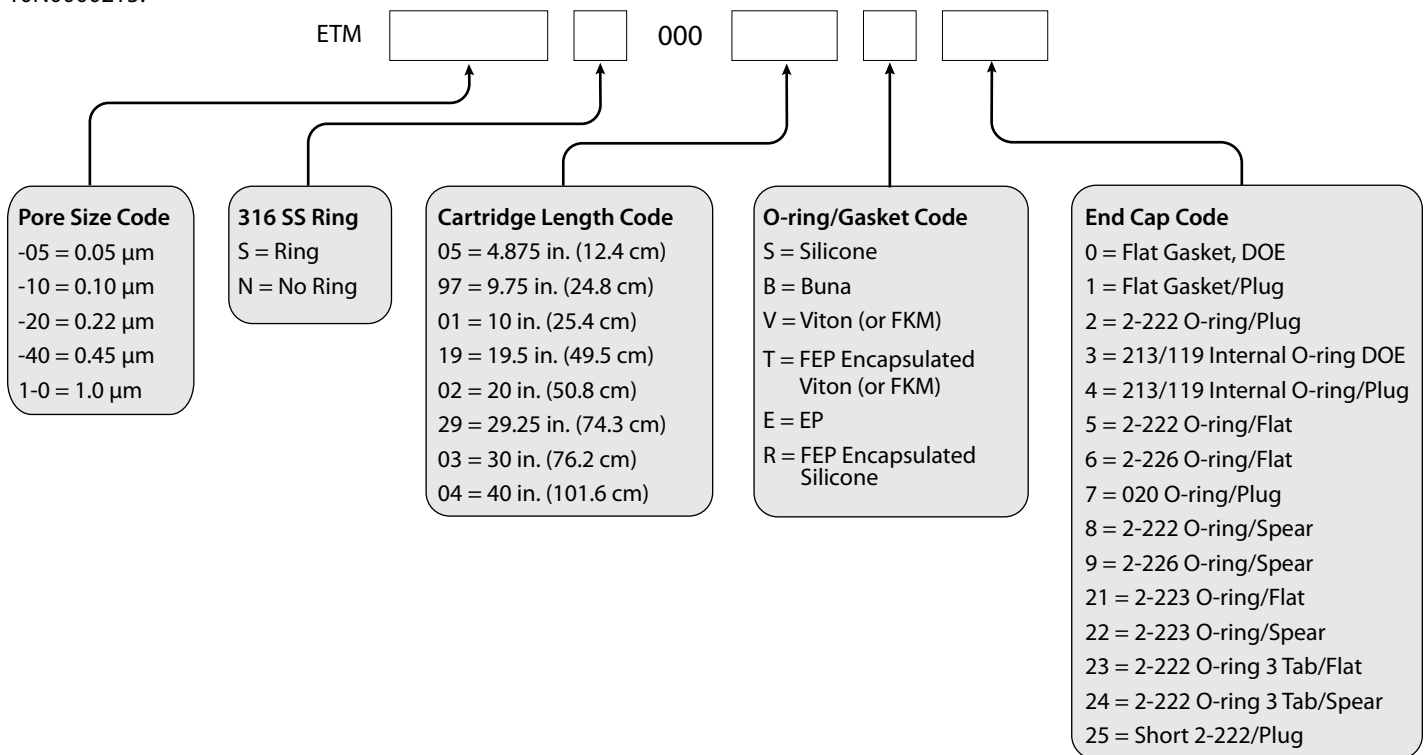
The Typical Flow Rates table represents typical water and air flows at ambient temperature and a 1 psid (69 mbard) pressure differential across a single 10 in. cartridge element. Extrapolation for housings with multiple elements and higher pressure drops is acceptable, but as flows increase the pressure drop of the housing becomes more apparent.

### Typical Flow Rates

Pore Size Rating	0.05 $\mu\text{m}$	0.1 $\mu\text{m}$	0.22 $\mu\text{m}$	0.45 $\mu\text{m}$	1.0 $\mu\text{m}$
<b>Liquid Flow Rates (gpm)</b>	1.0	1.8	2.8	5.7	9.0
<b>Air/Gas Flow Rates (scfm)</b>	21	26	42	68	85

## Ordering Information

Cartridge order numbers have several variables from pore size to end cap type. For example, Electronics Grade PTFE Membrane, 0.10 Micron Rating, No SS Support Ring, 20" Length, FEP Encapsulated Viton (or FKM) O-Rings, 2-222/Flat End Cap Configuration = ETM-10N00002T5.



Request a **QUOTE** from your area representative



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