GTM filters are part of Critical Process Filtration’s economical, general service product line that can be used to lower the total cost of filtration from simple to the most complex applications. Produced using the same quality materials and manufacturing excellence as our other product lines, you can be assured of their performance, dependability and scalability. While general service filters are not integrity tested or validated for retention, these highly efficient filters remove large amounts of contaminants early in the process to reduce the load on your expensive downstream filters. They are also useful as stand-alone clarifying or particle removal filters in less critical applications.

GTM cartridge and capsule filters are configured with a Polytetrafluoroethylene (PTFE) membrane. These filters are compatible with many chemicals and are designed for filtering solvents, non-aqueous liquids, and compressed air and gases. They are well suited for the protection of tank contents in industrial manufacturing operations. Pore sizes range from 0.05 to 5.0 µm.

Critical Process provides unrivaled delivery times, technical consulting before purchasing, and very competitively priced high-performance products. Our comprehensive testing & analysis and validation services support your team whenever they need it. Your process experts partnering with our filtration experts is how we deliver your company’s solution right the first time.

GTM filters are recommended for:
- Compressed Air
- Pressurized Gases
- Solvents
- Tank Vents
**Maximum Operating Parameters**

<table>
<thead>
<tr>
<th></th>
<th>CARTRIDGES</th>
<th>CAPSULES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Liquid Operational Pressure</strong></td>
<td>N/A</td>
<td>80 psi at 68 °F (5.52 bar at 20 °C)</td>
</tr>
<tr>
<td><strong>Gases Operational Pressure</strong></td>
<td>N/A</td>
<td>60 psi at 68 °F (4.14 bar at 20 °C)</td>
</tr>
<tr>
<td><strong>Operating Temperature (water)</strong></td>
<td>180 °F at 30 psid (82 °C at 2.07 bar)</td>
<td>110 °F at 30 psid (43 °C at 2.07 bar)</td>
</tr>
<tr>
<td><strong>Forward Differential Pressure</strong></td>
<td>80 psid at 68 °F (5.52 bar at 20 °C) (Liquid and Gas)</td>
<td>Liquid - 80 psid at 68 °F (5.52 bar at 20 °C) Gas - 60 psi at 68 °F (4.14 bar at 20 °C)</td>
</tr>
<tr>
<td><strong>Reverse Differential Pressure</strong></td>
<td>50 psid at 68 °F (3.45 bar at 20 °C)</td>
<td>50 psid at 68 °F (3.45 bar at 20 °C)</td>
</tr>
<tr>
<td><strong>Recommended Changeout Pressure</strong></td>
<td>35 psid (2.41 bard)</td>
<td>35 psid (2.41 bard)</td>
</tr>
</tbody>
</table>

**Sanitization & Sterilization**

<table>
<thead>
<tr>
<th></th>
<th>CARTRIDGES</th>
<th>CAPSULES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Filtered Hot Water</strong>*</td>
<td>90 °C (194 °F), 30 minutes, multiple cycles, max 3 psid forward flow</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Inline Steam</strong>*</td>
<td>275 °F (135 °C), 30 min, 25+ cycles</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Autoclave</strong>*</td>
<td>250 °F (121 °C), 30 min, 25+ cycles</td>
<td>250 °F (121 °C), 30 min, 25+ cycles</td>
</tr>
<tr>
<td><strong>Chemical Sanitization</strong></td>
<td>Performed using industry standard concentrations of hydrogen peroxide, peracetic acid, sodium hypochlorite and other selected chemicals.</td>
<td></td>
</tr>
</tbody>
</table>

*Cartridge Filters – For all elevated temperature procedures above, a stainless-steel support ring is required.

**Filtration Area (Nominal)**

<table>
<thead>
<tr>
<th></th>
<th>CARTRIDGES AND CAPSULES</th>
<th>CARTRIDGES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Length</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2”</td>
<td>5”</td>
<td>10”</td>
</tr>
<tr>
<td>5.08cm</td>
<td>12.7cm</td>
<td>25.4cm</td>
</tr>
<tr>
<td><strong>Area</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2 ft²</td>
<td>3.3 ft²</td>
<td>7.0 ft²</td>
</tr>
<tr>
<td>0.11m²</td>
<td>0.31m²</td>
<td>0.65m²</td>
</tr>
</tbody>
</table>

**Construction Materials**

- **Filtration Media**: Polytetrafluoroethylene (PTFE) Membrane
- **Media Support**: Polypropylene
- **End Caps, Center Core, Outer Support Cage, Capsule Housing**: Polypropylene
- **Sealing Method**: Thermal Bonding
- **O-Rings/Gaskets Cartridges only**: Buna, Viton® (or FKM), EPDM, Silicone, FEP Encapsulated Silicone, FEP Encapsulated Viton (or FKM)

High Temperature cartridge configuration is available.

**Extractables**

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

**Non-Fiber Releasing**

The GTM filters comply with Title 21 CFR sections 210.3(b)(6) and 211.72, for non-fiber releasing filters.

**FDA and EC Compliance**

Materials meet the requirements 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 applicable. All materials used to make the filters are listed in European Commission Regulation EU/10/2011, Annex 1.
Flow Rates for GTM Cartridges by Pore Size

**Water**

Flow rates for Cartridge filters are per 10-inch length. The test fluid is water or compressed air at ambient temperature.

**Air**

Flow rates for Cartridge filters are per 10-inch length. The test fluid is water or compressed air at ambient temperature.
Flow rates for Capsule filters are tested using a 2” capsule filter with 1” sanitary inlet and outlet ports. The test fluid is water or compressed air at ambient temperature. Flow rates for larger capsules will scale with filtration area. Rates will vary based on end configuration of the capsule.

Flow Rates for GTM Capsules by Pore Size

**Water**

**Air**

Flow rates for Capsule filters are tested using a 2” capsule filter with 1” sanitary inlet and outlet ports. The test fluid is water or compressed air at ambient temperature. Flow rates for larger capsules will scale with filtration area. Rates will vary based on end configuration of the capsule.
GTM Filters Ordering Information

Fill in the corresponding codes in the boxes below to build your Part Number.

To consult with one of our technical team members, request a quote or place an order:
call (603) 880-4420 or contact us here.

### Cartridge Filters

- **Pore Size Code**
  - -05 = 0.05 μm
  - -10 = 0.10 μm
  - -20 = 0.22 μm
  - -40 = 0.45 μm
  - 1-0 = 1.0 μm
  - 3-0 = 3.0 μm
  - 5-0 = 5.0 μm

- **SS Ring**
  - S = Ring
  - N = No Ring

- **Length**
  - 05 = 5 in. (12.7 cm)
  - 97 = 9.75 in. (24.8 cm)
  - 01 = 10 in. (25.4 cm)
  - 02 = 20 in. (50.8 cm)
  - 03 = 30 in. (76.2 cm)
  - 04 = 40 in. (101.6 cm)

- **O-Ring/Gasket Code**
  - S = Silicone
  - B = Buna
  - V = Viton (or FKM)
  - T = FEP Encapsulated Viton (or FKM)
  - E = EP
  - R = FEP Encapsulated Silicone

- **End Cap Code**
  - 0 = Flat Gasket, DOE
  - 2 = 2-222 O-ring/Plug
  - 4 = 213/119 Internal O-ring/Plug
  - 5 = 2-222 O-ring/Flat
  - 6 = 2-226 O-ring/Flat
  - 8 = 2-222 O-ring/Spear
  - 9 = 2-226 O-ring/Spear

*Additional End Configurations Available

### Capsule Filters

- **Pore Size Code**
  - -05 = 0.05 μm
  - -10 = 0.10 μm
  - -20 = 0.22 μm
  - -40 = 0.45 μm
  - 1-0 = 1.0 μm
  - 3-0 = 3.0 μm
  - 5-0 = 5.0 μm

- **Pre-Sterilized or Not**
  - S = Pre-Sterilized
  - N = Not Sterilized

- **Length**
  - A = 2”
  - B = 5”
  - C = 10”
  - 2 = 20”
  - 3 = 30”

- **Inlet**
  - A = 1/4” Female NPT
  - B = 1/4” Male NPT
  - C = 3/8” Female NPT
  - D = 1/2” Female NPT
  - E = 1/2” Male NPT
  - F = 1” Sanitary
  - G = Hose Barb*
  - H = 1 1/2” Sanitary with side vent
  - I = ½” Single Stepped Barb with side vent

- **Outlet**
  - A = 1/4” Female NPT
  - B = 1/4” Male NPT
  - C = 3/8” Female NPT
  - D = 1/2” Female NPT
  - E = 1/2” Male NPT
  - F = 1” Sanitary
  - G = Hose Barb*
  - H = 1 1/2” Sanitary with side vent
  - I = ½” Single Stepped Barb with side vent
  - IB = ½” Single Stepped Barb with filling bell and side vent

*Fits hoses/tubes with inner diameter 11/32 to 9/16 inches

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Data Sheet GTMDS Rev A

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