WPS Mini-Capsule 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.

WPS Mini-Capsule Filters are single layer Polyethersulfone (PES) cartridge and capsule filters designed for water filtration. Pore sizes range from 0.03 to 0.45 µm and available filter devices scale from laboratory to full production using identical materials to ensure consistent results.

The hydrophilic WPS Mini-Capsule filters have high flow rates and provide high throughput in process water applications.

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

WPS Mini-Capsule filters are recommended for:
- Process Water
- DI Water
- Ultrapure Water
- Pharmaceutical Waters

**Particle Filtration**

**Clarification & Prefiltration**

**MINI-CAPSULES – Nominal Dimensions**
- Body Length: 2.85 in. (7.2 cm)
- Overall Length – 3.75 to 5.19 in. (9.5 to 13.2 cm)
- Outside Diameter: 2.95 in. (7.5 cm)
**Maximum Operating Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>MINI-CAPSULES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Liquid Operational Pressure</strong></td>
<td>80 psi at 68 °F (5.52 bard at 20 °C)</td>
</tr>
<tr>
<td><strong>Gases Operational Pressure</strong></td>
<td>60 psi at 68 °F (4.14 bar at 20 °C)</td>
</tr>
<tr>
<td><strong>Operating Temperature (water)</strong></td>
<td>110 °F at 30 psid (43 °C at 2.07 bard)</td>
</tr>
<tr>
<td><strong>Forward Differential Pressure</strong></td>
<td>50 psid at 68 °F (3.45 bard at 20 °C)</td>
</tr>
<tr>
<td><strong>Reverse Differential Pressure</strong></td>
<td>40 psid at 68 °F (2.76 bard at 20 °C)</td>
</tr>
<tr>
<td><strong>Recommended Changeout Pressure</strong></td>
<td>35 psid (2.41 bard)</td>
</tr>
</tbody>
</table>

**Sanitization & Sterilization**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Autoclave</strong></td>
<td>250 °F (121 °C), 30 min, 5+ 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>
</tr>
</tbody>
</table>

**Filtration Area (Nominal)**

<table>
<thead>
<tr>
<th>Layer</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Layer</td>
<td>0.50 ft²</td>
</tr>
<tr>
<td></td>
<td>469 cm²</td>
</tr>
</tbody>
</table>

**Construction Materials**

<table>
<thead>
<tr>
<th>Component</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Filtration Media</strong></td>
<td>Single Layered Polyethersulfone (PES) Membrane</td>
</tr>
<tr>
<td><strong>Media Support</strong></td>
<td>Polypropylene</td>
</tr>
<tr>
<td><strong>End Caps, Center Core, Outer Support Cage, Mini-Capsule Housing</strong></td>
<td>Polypropylene</td>
</tr>
<tr>
<td><strong>Sealing Method</strong></td>
<td>Thermal Bonding</td>
</tr>
</tbody>
</table>

**Extractables**

WPS Mini-Capsule filters typically exhibit low levels of non-volatile residues.

**Non-Fiber Releasing**

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

**FDA 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 Mini-Capsule filters are per filter. The test fluid is water at ambient temperature. Flows are tested using a mini-capsule filter with ½” Sanitary inlet and outlet ports. Rates will vary based on end configuration of the mini-capsule.
WPS Mini-Capsule Filters Ordering Information

All Critical Process filters are configurable to meet customer specifications. 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 Ext. 106, or send an email to sales@criticalprocess.com

Mini-Capsule Filters

**Pore Size Code**
-03 = 0.03 μm
-10 = 0.10 μm
-20 = 0.22 μm
-40 = 0.45 μm

**Inlet**
1 = 1/8” Hose Barb
2 = 1/4” Hose Barb
3 = 1/2” Hose Barb
4 = Luer Lock
5 = 1/2” Sanitary*
6 = 1/4” MNPT

**Inlet Vent Port**
1 = 1/8” Hose Barb
2 = 1/4” Hose Barb
3 = 1/2” Hose Barb
4 = Luer Lock
6 = 1/4” MNPT

**Outlet**
1 = 1/8” Hose Barb
2 = 1/4” Hose Barb
3 = 1/2” Hose Barb
3B = 1/2” Hose Barb with Filling Bell
4 = Luer Lock
5 = 1/2” Sanitary*
6 = 1/4” MNPT

**Outlet Vent Port**
1 = 1/8” Hose Barb
2 = 1/4” Hose Barb
3 = 1/2” Hose Barb
4 = Luer Lock
5 = 1/2” Sanitary*
6 = 1/4” MNPT

*When choosing the Sanitary Inlet/Outlet, the Luer Lock option is required for the Vent Port