

GGD 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.

GGD cartridge and capsule filters are constructed with fiberglass depth media for clarification and prefiltration of liquids and gases. Pore sizes range from 0.22 to 10  $\mu$ m. GGD filters are capable of retaining large amounts of particulates and contaminants which translates to longer filter life and lower costs.

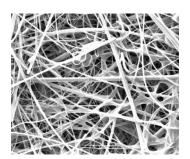
Critical Process provides unrivaled delivery times, technical consulting before purchasing, and very competitively priced highperformance products. Our comprehensive testing & analysis and validation services support your team whenever they need it. Your process experts partnering with our filtration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

# Clarification & Prefiltration

# **Particle Filtration**



CARTRIDGES – Nominal Dimensions Length: 5 to 40 in. (12.7 to 101.6 cm) Outside Diameter: 2.75 in. (7.0 cm)



GGD filters are recommended for the clarification & prefiltration of:

- Chemicals
- Acids & Bases
- Inks & Dyes
- Process Water
- Air & Gases



CAPSULES – Nominal Dimensions Length: 2 to 30 in. (5.1 to 76.2 cm) Outside Diameter: 3.50 in. (8.9 cm)

#### **Maximum Operating Parameters**

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

### Sanitization & Sterilization

| Filtered Hot Water*   | 90 °C (194 °F), 30 minutes, multiple<br>cycles, max 3 psid forward flow | N/A  |  |
|-----------------------|---|--|--|
| Inline Steam*         | 275 °F (135 °C), 30 min, 25+ cycles                                     | N/A  |  |
| Autoclave*            | 250 °F (121 °C), 30 min, 25+ cycles                                     | 250 °F (121 °C), 30 min, 25+ cycles  |  |
| Chemical Sanitization | 0,  | Performed using industry standard concentrations of hydrogen peroxide, peracetic acid, sodium hypochlorite and other selected chemicals. |  |

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

#### Filtration Area (Nominal)

|        | CAPSULES            | CARTRIDGES AND CAPSULES |                     |                      | CARTRIDGES           |                      |
|--------|---------------------|-------------------------|---------------------|----------------------|----------------------|----------------------|
| Length | 2″                  | 5″                      | 10"                 | 20"                  | 30"                  | 40"                  |
|        | 5.08cm              | 12.7cm                  | 25.4cm              | 50.8cm               | 76.2cm               | 101.6cm              |
| Area   | 0.8 ft <sup>2</sup> | 2.3 ft <sup>2</sup>     | 5.0 ft <sup>2</sup> | 10.0 ft <sup>2</sup> | 15.0 ft <sup>2</sup> | 20.0 ft <sup>2</sup> |
|        | 0.08m <sup>2</sup>  | 0.22m <sup>2</sup>      | 0.46m <sup>2</sup>  | 0.92m <sup>2</sup>   | 1.38m <sup>2</sup>   | 1.84m <sup>2</sup>   |

### **Construction Materials**

| Filtration Media  | Pleated Fiberglass Depth Media  |  |
|---|---|--|
| Media Support   | Polyester   |  |
| End Caps, Center<br>Core, Outer Support<br>Cage, Capsule<br>Housing | Polypropylene   |  |
| Sealing Method  | Thermal Bonding   |  |
| O-Rings/Gaskets<br>Cartridges only                                  | Buna, Viton® (or FKM), EPDM, Silicone,<br>FEP Encapsulated Silicone, FEP<br>Encapsulated Viton (or FKM) |  |

#### Extractables

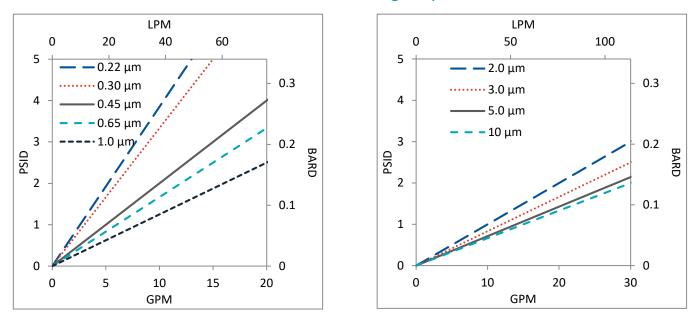
GGD filters typically exhibit low levels of non-volatile residues.

#### **Non-Fiber Releasing**

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

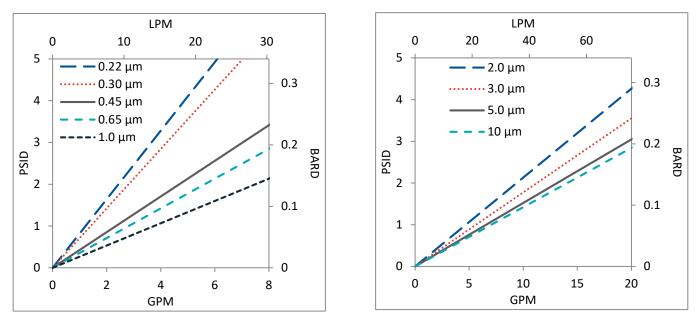
#### FDA and EC Compliance

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 GGD Cartridges by Pore Size

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



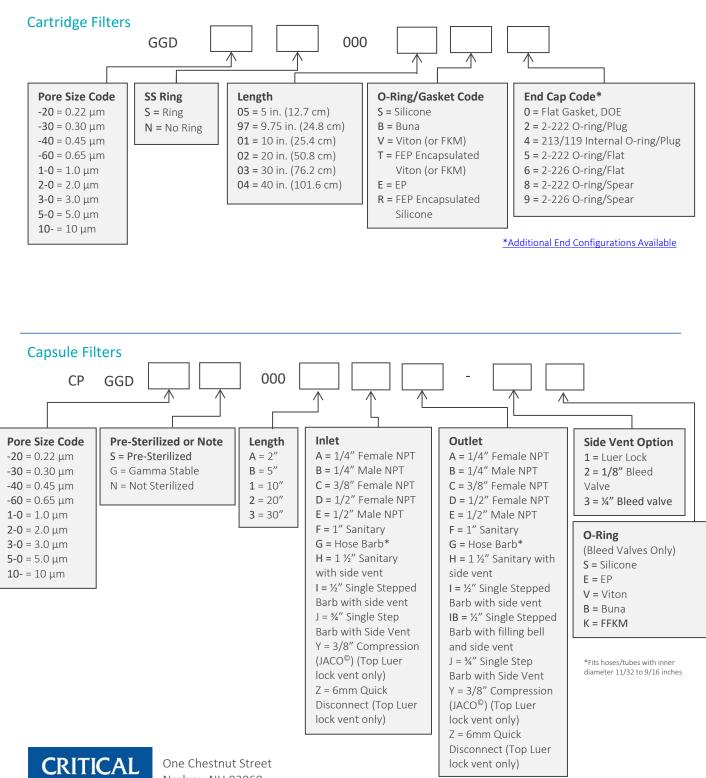
## Flow Rates for GGD Capsules by Pore Size

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

# **GGD 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 <u>contact us here.</u>





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