



FGD Filters

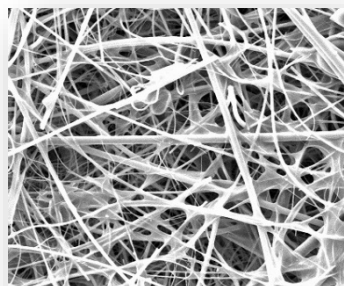
Pleated Fiberglass Depth Media



FGD cartridge and capsule filters are constructed with pleated Fiberglass depth media for clarification and prefiltration of aqueous liquids. The FGD filters comply with all FDA requirements for the food industry. Pore sizes range from 0.22 to 10 μm and filter sizes scale from laboratory to full production using identical materials to ensure consistent results.

FGD filters are manufactured to ensure fiber free effluent. They are rated at 99% retention at the indicated pore size and have a high contaminant holding capacity. FGD cartridges are designed for high throughput because of its fibrous construction, which also allows for cartridge cleaning and re-use in some 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 it. Your process experts partnering with our filtration experts is how we deliver your company's solution right the first time.



FGD filters are recommended for clarification & prefiltration in:

- Wine or Beer (clarification)
- Soft Drinks
- Bottled Water
- Syrups
- Cosmetics
- Air & Gases

Clarification & Prefiltration



CARTRIDGES – Nominal Dimensions

Length: 5 to 40 in. (12.7 to 101.6 cm)

Outside Diameter: 2.75 in. (7.0 cm)



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 and Gas) | Liquid - 80 psid at 68 °F (5.52 bard at 20 °C) 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 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 | 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 ² | 2.3 ft ² | 5.0 ft ² | 10.0 ft ² | 15.0 ft ² | 20.0 ft ² |
| | 0.08m ² | 0.22m ² | 0.46m ² | 0.92m ² | 1.38m ² | 1.84m ² |

Construction Materials

| | |
|---|---|
| Filtration Media | Pleated Fiberglass Depth Media |
| Media Support | Polyester |
| 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) |

Extractables

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

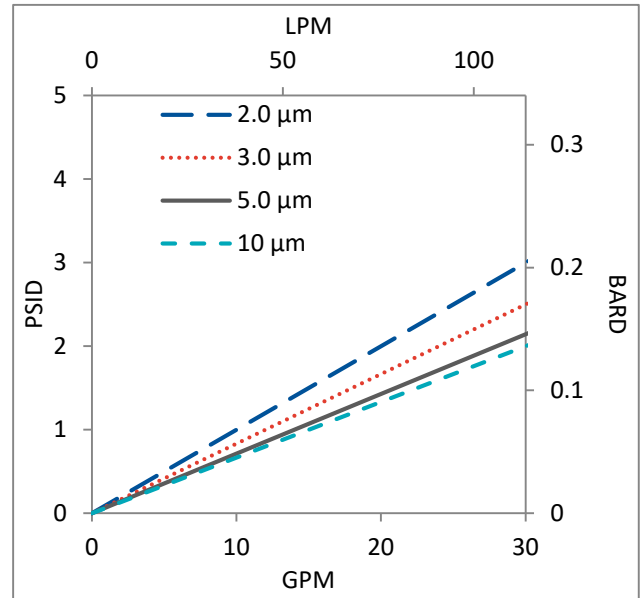
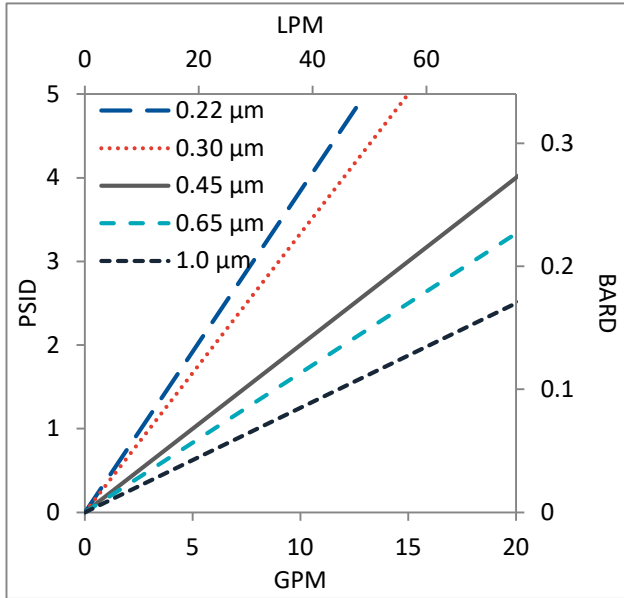
Non-Fiber Releasing

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

FDA and EC Compliance

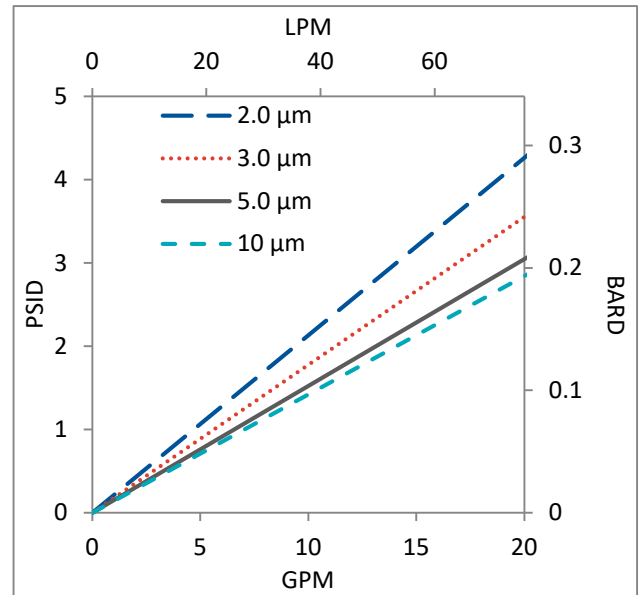
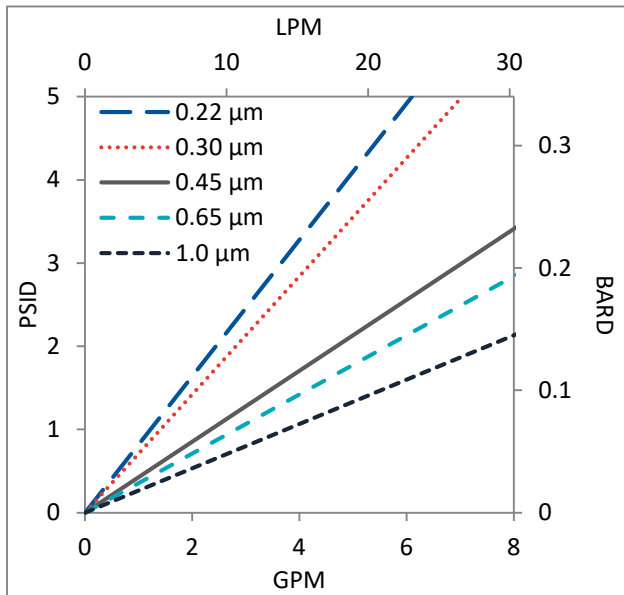
Materials meet the requirements listed by the FDA as appropriate for use in articles intended for repeated food contact as specified in Title 21 CFR sections 174.5, 177.1500, 177.1520, 177.1630, 177.2440, and 177.2600 as applicable. All materials used to make the filters are listed in European Commission Regulation EU/10/2011, Annex 1.

Flow Rates for FGD 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 FGD 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.

FGD 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

FGD 000

| | | | | |
|--|---|---|---|---|
| Pore Size Code -20 = 0.22 µm -30 = 0.30 µm -40 = 0.45 µm -60 = 0.65 µm 1-0 = 1.0 µm 2-0 = 2.0 µm 3-0 = 3.0 µm 5-0 = 5.0 µm 10- = 10 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

CP FGD 000 -

| | | | | | | |
|--|--|--|---|---|--|--|
| Pore Size Code -20 = 0.22 µm -30 = 0.30 µm -40 = 0.45 µm -60 = 0.65 µm 1-0 = 1.0 µm 2-0 = 2.0 µm 3-0 = 3.0 µm 5-0 = 5.0 µm 10- = 10 µm | Pre-Sterilized or Not S = Pre-Sterilized G = Gamma Stable N = Not Sterilized | Length A = 2" B = 5" 1 = 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 = 1/2" Single Stepped Barb with side vent J = 3/4" Single Step Barb with Side Vent Y = 3/8" Compression (JACO®) (Top Luer lock vent only) Z = 6mm Quick Disconnect (Top Luer lock vent only) | 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 = 1/2" Single Stepped Barb with side vent IB = 1/2" Single Stepped Barb with filling bell and side vent J = 3/4" Single Step Barb with Side Vent Y = 3/8" Compression (JACO®) (Top Luer lock vent only) Z = 6mm Quick Disconnect (Top Luer lock vent only) | Side Vent Option 1 = Luer Lock 2 = 1/8" Bleed Valve 3 = 1/4" Bleed Valve | O-Ring (For Bleed Valve only) S = Silicone E = EP V = Viton B = Buna K = FFKM |
|--|--|--|---|---|--|--|

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



One Chestnut Street
Nashua, NH 03060
603.880.4420
FAX: 603.880.4536
CriticalProcess.com

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Data Sheet FGDDS Rev B