FGD Micro Capsule Filters

Pleated Fiberglass Depth Media

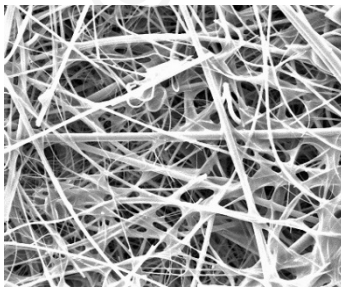
FGD Micro Capsule filters are constructed with pleated Fiberglass depth media for clarification and prefiltration of aqueous liquids. The FGD Micro Capsule filters comply with all FDA requirements for the food industry. Pore sizes range from 0.22 to 10 µm. Other filter devices scale from laboratory to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

FGD Micro Capsule 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 Micro Capsules 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.

Clarification & Prefiltration

MICRO CAPSULES – Nominal Dimensions
Body Length: 1.9 in. (4.8 cm)
Overall Length: 2.8 to 3.8 in. (7.1 to 9.7 cm)
Outside Diameter: 2.6 in. (6.6 cm)



FGD Micro Capsule filters are recommended for clarification & prefiltration in:

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

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Maximum Operating Parameters

	MICRO CAPSULES
Liquid Operational Pressure	80 psi at 68 °F (5.52 bard at 20 °C)
Gases Operational Pressure	60 psi at 68 °F (4.14 bar at 20 °C)
Operating Temperature (water)	110 °F at 30 psid (43 °C at 2.07 bard)
Forward Differential Pressure	50 psid at 68 °F (3.45 bard at 20 °C)
Reverse Differential Pressure	40 psid at 68 °F (2.76 bard at 20 °C)
Recommended Changeout Pressure	35 psid (2.41 bard)

Sanitization & Sterilization

Autoclave	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.

Filtration Area (Nominal)

	Pleated Depth Media
Area	0.476 ft^2
	442 cm^2

Construction Materials

Filtration Media	Pleated Fiberglass Depth Media
Media Support	Polyester
End Caps, Center Core, Outer Support Cage, Micro Capsule Housing	Polypropylene
Sealing Method	Thermal Bonding

Extractables

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

Non-Fiber Releasing

FGD Micro Capsule 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.

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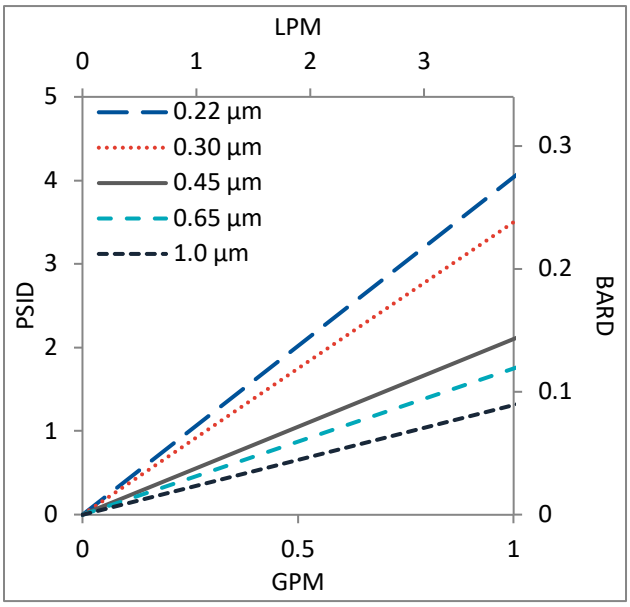
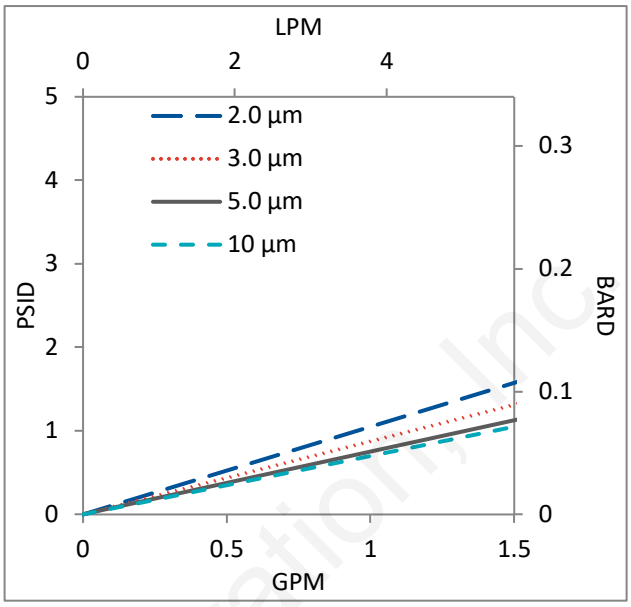
Flow Rates for FGD Micro Capsules by Pore Size





Flow rates for Micro Capsule filters are per filter. The test fluid is water at ambient temperature. Flows are tested using a Micro capsule filter with ½" Sanitary inlet and outlet ports. Rates will vary based on end configuration of the Micro capsule.

FGD Micro 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 or contact us here.

Micro Capsule Filters

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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
N = Not Sterilized
A = Autoclaved ✣

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
7 = Side Bleed Valve

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
6 = 1/4" MNPT
7 = Side Bleed Valve

Side Vent O-Ring**
B = Buna
E = EP
S = Silicone
V = Viton (or FKM)
K = FFKM

*When choosing the Sanitary Inlet/Outlet, the Luer Lock or bleed valve option is required for the Vent Port
** O-Ring is only available on Bleed Valve

✣ Not Validated for Sterility

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