



FGD grade

Fiber Glass Depth Media Filter Cartridges

Developed for the special needs of the food and beverage industry

Distributed by: John Mulhern Company info@jmulhern.com
 PO Box 6604, Santa Rosa, Ca 95406
 800 761-9201 707 578-5105 fx 707 578-8692

FGD cartridges have been designed to comply with all FDA requirements for the food industry. These cartridges have been rinsed with 17+ megohm-cm water to ensure that no manufacturing debris remains downstream to contaminate your product. This washing also ensures that all extractables which may effect the taste of the product or other performance characteristics such as foaming or brightness are removed. Cartridges are designed to give maximum throughput because of gradient density construction. This design facilitates cartridge cleaning. Each cartridge module is tested for integrity and is 99% efficient at the rated pore size.



Construction Materials¹

Filtration Media: Fiber Glass
Filtration Media Support: Polypropylene
End Caps: Polypropylene
Center Core: Polypropylene
Outer support Cage: Polypropylene
Sealing Method: Thermal Bonding
O-rings: Buna, Viton, EP, Silicone, Teflon®

¹All materials of construction are FDA accepted. Final assemblies have been validated to pass USP class 6 Toxicology extractable tests, oxidizable substances for plastics, endotoxin level and other quality tests.

Maximum Operating Parameters

Forward Differential Pressure: ... 50 psi (3.4 bar) at 20°C.
Reverse Differential Pressure: 40 psi (2.7 bar) at 20°C.
Operating Temperature:..... 180°F (82°C) at 10 psid (0.69 bar) in water.
Recommended Change Out Pressure: ... 35 psid (2.4 bar)

Dimensions

Length: 5 to 40 inches (12.7 to 101.6 cm) nominal
Outside Diameter: 2.75 inches (7.0 cm) nominal
Filtration Area: Up to 6.8 ft² (0.63 m²) Per 10" length

Flow Rate

The following table represents typical water flow at a one psi (69 mbar) pressure differential across a single 10 inch cartridge element. The test fluid is water at ambient temperature. Extrapolation for housings with multiple elements and higher pressure drops is acceptable, but as flows increase the pressure drop of the housing becomes more apparent.

Pore	0.22 µm	0.30 µm	0.45 µm	0.65 µm	1.0 µm	2.0 µm	3.0 µm	5.0 µm	10 µm	20 µm	30 µm
GPM	2.6	3.0	5.0	6.0	8.0	10	12	14	> 15	>15	>15
LPM	9.84	11.35	18.92	22.71	30.28	37.85	45.42	52.99	>56.78	>56.78	>56.78

Applications

Filtration of:

- Wine Clarification
- Beverage Clarification
- Process Water
- Air
- Soft Drinks
- Bottled Water
- Syrups

Sanitization / Sterilization

Filtered Hot Water: 194°F (90°C)
Autoclave: 260°F (127°C), 30 min, multiple cycles
In-line Steam: 275°F (135°C), 30 min, multiple cycles

Chemical Sanitization : Industry standard concentrations of hydrogen peroxide, paracetic acid, sodium hypochlorite and other selected chemicals. Sanitization protocols designed to extend the useful life of FGD cartridges are available from Critical Process Filtration, Inc.®.

Integrity Test Information

Cartridges are factory tested for integrity before shipment. Field Duplication of these tests is not practical because of the complexity of the testing process and absence of commercial portable testing equipment.

Quality Standards

Our goal is to ensure our customers the greatest possible value for their filtration dollar. We achieve both low cost manufacture and high quality by employing state of the art manufacturing equipment. This computer controlled equipment is highly automated, reducing hand operations that compromise quality. Each operation including assembly, testing, cleaning, drying and packaging is done in appropriately rated clean rooms. Critical Process Filtration manages an ISO 9000 facility that produces validated products to rigorous standards. Manufacturing is controlled using sophisticated MRP software that is networked to work stations in manufacturing centers and inspection points. During the manufacturing and inspection processes, data is collected "real time" from machinery and measuring instruments. This allows variable and attribute data to be quickly and easily analyzed to facilitate constant improvements in both quality and cost.

Total Performance

Critical Process Filtration, Inc.® is a vertically integrated supplier of filtration products and services to industries in which filtration is considered to be a critical part of the manufacturing process. We manufacture a complete line of products to help you achieve all your filtration requirements from a single source.



Ordering Information

The cartridge catalog number is made up of several variable characters i.e. pore size, length, O-ring material, and end cap code. For example: a 1.0 µm, 20 inch (50.8 cm) long cartridge with 2-222, Teflon® Encapsulated Viton O-rings, no spear (flat top) and no 316 SS Ring would be designated as: FGD1*0N00002T5.

