

FPD Capsule Filters

Pleated Polypropylene Depth Media



- Clarification or prefiltration of wine, beer, bottled water
- Protect the critical membrane filters downstream
- Wide range of high efficiency retention ratings
- High capacity for long life

Applications

- ◆ Wine
- ◆ Soft Drinks
- ◆ Beer
- ◆ Container Wash/Rinse Water
- ◆ Bottled Water
- ◆ Aseptically Packaged Liquids

FPD capsules are made with polypropylene microfiber media. Designed with the optimal filtration area, the filters can remove large amounts of particulate and other contaminants over a long filter life. FPD capsules protect critical membrane filters downstream by removing 99.9% of contaminants at the rated pore size.

Specific applications for FPD capsule filters include removal of particulate contaminants from wine, beer, bottled water and aseptically packaged products like juices.

Polypropylene depth media filters perform the critical upstream clarification of products as they move through the production process. When used in filling applications, the filters protect the critical membrane filters downstream. Representative polypropylene depth media filters are integrity tested during production and rinsed to assure no manufacturing debris remains in the finished capsules.

FPD Capsule Filters - Filtration Area*

Media	Capsule Length				
	2"	5"	10"	20"	30"
Pleated Polypropylene Depth	1.0 ft ² (0.093m ²)	2.8 ft ² (0.260m ²)	5.8 ft ² (0.539m ²)	11.6 ft ² (1.078m ²)	17.4 ft ² (1.617m ²)

*Average – Filtration area varies with media thickness and porosity.

Flow Rate / Filtration Area

The following table represents typical water flow at a one psi (69 mbar) pressure differential across a single 2 inch capsule with 1.0 ft² (0.093 m²) of media with 1/2" FNPT ports. The test fluid is water at ambient temperature. Higher pressure drops are acceptable, but as flows increase the pressure drop of the housing becomes more apparent.

Pore Size	0.10 μm	0.22 μm	0.45 μm	0.65 μm	1 μm	3 μm	5 μm	10 μm	20 μm	30 μm	40 μm	60 μm	100 μm
GPM	0.20	0.60	1.0	1.2	1.6	2.4	3.2	3.6	4.0	>4.0	>4.0	>4.0	>4.0
LPM	0.76	2.27	3.78	4.54	6.05	9.08	12.11	13.62	15.14	>15.14	>15.14	>15.14	>15.14

* For approximate flow rates for 5" through 30" capsules, refer to the appropriate cartridge data sheet

Construction Materials

Housing	Polypropylene
Filtration Media	Pleated Polypropylene Depth Media
Media Support	Polypropylene
End Caps	Polypropylene
Center Core	Polypropylene
Outer Support Cage	Polypropylene
Sealing Method	Thermal Bonding

Maximum Operating Parameters

Liquid Operational Pressure	80 psi (5.5 bar) at 20 °C (68 °F)
Gases Operational Pressure	60 psi (4.1 bar) at 20 °C (68 °F)
Operating Temperature	43 °C (110 °F) at 30 psi (2.1 bar) in water
Forward Differential Pressure	50 psid (3.4 bard) at 20 °C (68 °F)
Reverse Differential Pressure	40 psid (2.7 bard) at 20 °C (68 °F)
Recommended Changeout Pressure	35 psid (2.4 bard)

Integrity Test Information

Representative sample capsule elements are factory tested for integrity before shipment. Field duplication of these tests is not practical because of the absence of commercial portable testing equipment.

Sanitization/Sterilization

Autoclave250° F (121° C), 30 min, 5+ cycles

Chemical Sanitization Industry standard concentrations of hydrogen peroxide, paracetic acid, sodium hypochlorite and other selected chemicals.

Note FPD capsules are not to be used in steam.

FDA and EC Compliance

All Critical Process Filtration capsule filters are designed to meet the FDA requirements for processing food and beverage products. The materials used to construct food & beverage grade filters are 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 appropriate. Membrane filters comply with Title 21 CFR sections 210.3 (b)(6) and 211.72, for non-fiber releasing filters. All materials used to make the filters are listed in European Commission Regulation EU/10/2011, Annex 1.

Extractables

FPD capsule filters typically exhibit low levels of non-volatile residues.

Quality Assurance and Standards

Critical Process Filtration uses state of the art computer controlled equipment to consistently produce high quality products as well as significantly reduce hand operations that can compromise quality. All manufacturing and testing is continuously monitored in real time so that data can be quickly and easily analyzed to facilitate improvements in both quality and cost.

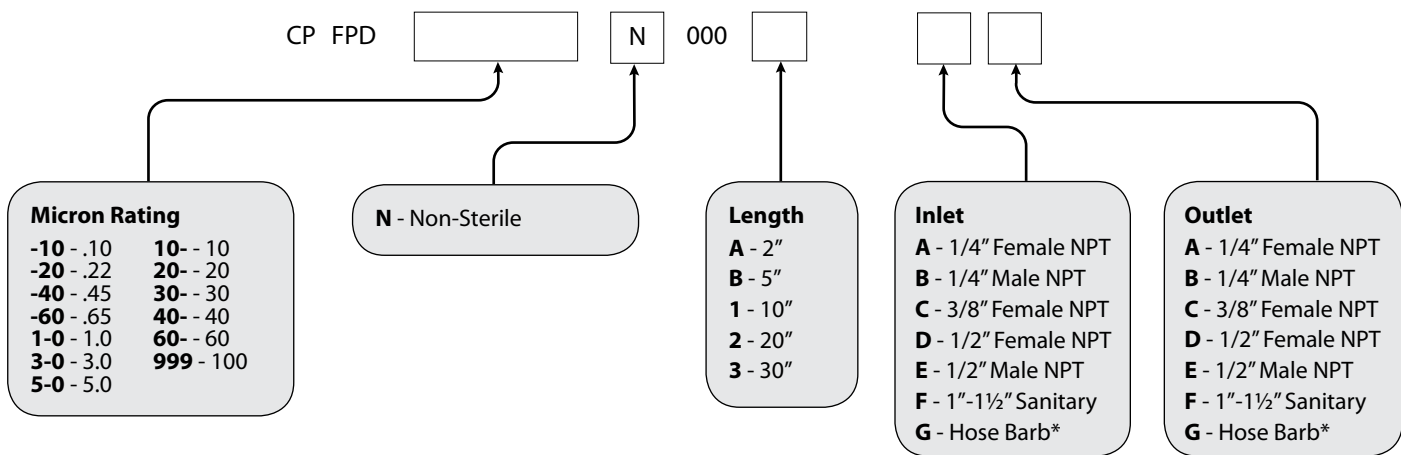
The Critical Process Filtration manufacturing and quality systems meet rigorous ISO 9001:2008 standards. Each operation, including assembly, testing, cleaning, drying and packaging, is done in an appropriately rated clean room. Manufacturing is controlled using a sophisticated manufacturing system that networks work stations, manufacturing centers and inspection points. During the manufacturing and inspection processes, data is collected in real time to allow continuous quality monitoring and full traceability of all materials and processes.

Total Performance

Critical Process Filtration, Inc. is a vertically integrated manufacturer of filtration products to industries in which filtration is considered a critical part of the manufacturing process. We supply a complete line of products and services to help you cost effectively satisfy all your filtration requirements from a single source.

Ordering Information

Capsule order number example: Food & Beverage Grade Pleated Polypropylene Depth Media, 0.22 Micron Rating, Non-Sterile, 10" Length, Sanitary Inlet, Sanitary Outlet = CPFDP-20N001FF.



Hose Barb Diameter Ranges*

	Minimum	Maximum
Outer Diameters	11/32" (8.6mm)	9/16" (14.0mm)
Inner Diameters	5/32" (4.0mm)	13/32" (10.5mm)

Request a QUOTE from your area representative



Critical Process Filtration, Inc.

One Chestnut Street • Nashua, NH 03060

Tel: 603.880.4420 • Fax: 603.880.4536

criticalprocess.com • sales@criticalprocess.com

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