

FPVWB Capsule Filters

High Capacity Hydrophobic PVDF Membrane



High capacity membrane for maximum filter life

Filtration of air and process gases

Vent filtration for protection of tank contents

Filtration of solvents, alcohols and other non-aqueous liquids

Applications

- ◆ Wine
- ◆ Beer
- ◆ Juices
- ◆ Bottled Water
- ◆ Aseptically Packaged Liquids

Food and beverage grade PVFB capsules are manufactured for critical applications in food and beverage processing. Made with high capacity hydrophobic polyvinylidene fluoride (PVDF) membrane, these capsules are used for filtration of air, solvents and alcohols, compressed gases, and as vent filters. The high capacity membrane provides high dirt holding capacity, excellent throughput and high efficiency particle retention.

Representative filter modules from each manufacturing lot are integrity tested before it lot release from manufacturing.

The capsule media surface area, filter core design, pleat configuration and pleat packing density have been optimized to provide increased life resulting in lower filtration operating costs.

FPVWB Capsule Filters - Filtration Area

Media	Capsule Length				
	2"	5"	10"	20"	30"
High Capacity Hydrophobic PVDF Membrane	1.0 ft ² (0.093m ²)	3.0 ft ² (0.279m ²)	6.0 ft ² (0.557m ²)	12.0 ft ² (1.115m ²)	18.0 ft ² (1.672m ²)

Flow Rate / Filtration Area

The following table represents typical water or air/gas 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 fluids are water or compressed air at ambient temperature. Higher pressure drops are acceptable, but as flows increase the pressure drop of the housing becomes more apparent.

Pore Size	0.22 μm	0.45 μm	0.65 μm	0.85 μm	1.0 μm
Water Flow Rates (gpm)	0.18	0.23	0.42	0.67	1.17
Air/Gas Flow Rates (scfm)	>10	>12	>14	>15	>15

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

Construction Materials

Housing	Polypropylene
Filtration Media	High Capacity Hydrophobic PVDF Membrane
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)

Sanitization/Sterilization

Autoclave 250° F (121° C), 30 min, 5+ cycles

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

Note FPFVWB 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.

Integrity Test Information

Representative samples from each manufacturing lot are tested for integrity to ensure consistent performance.

Extractables

Food & beverage grade 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.

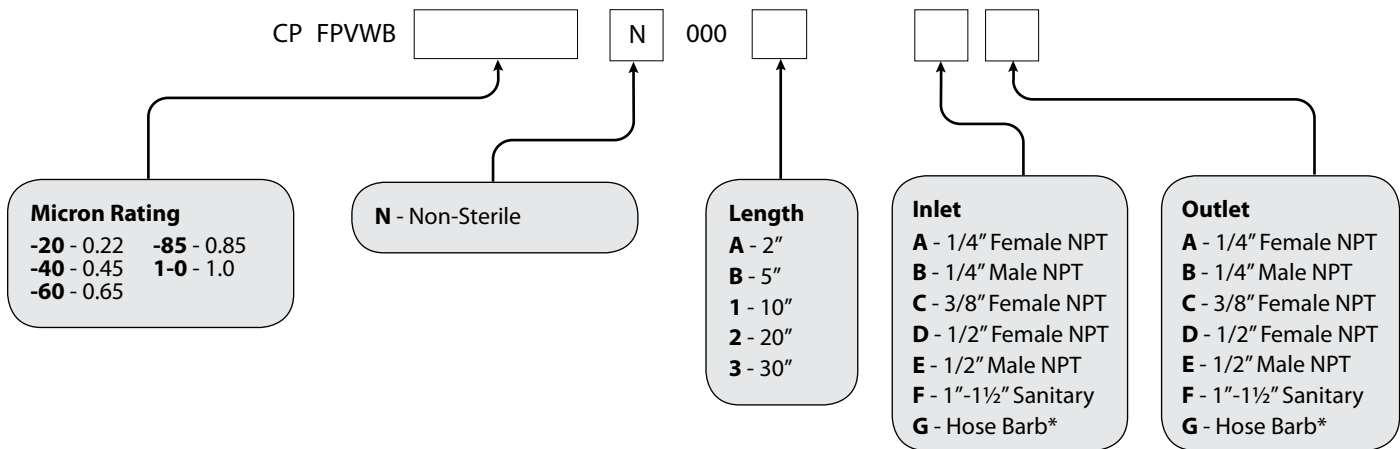
The Critical Process Filtration manufacturing and quality systems meet rigorous ISO 9001:2008 standards. Each operation, including assembly, testing, cleaning, drying and packaging, is done in an appropriately rated clean room. Manufacturing is controlled using a sophisticated manufacturing system that 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 High Capacity Hydrophobic PVDF Membrane, 0.22 Micron Rating, Non-Sterile, 10" Length, Sanitary Inlet, Sanitary Outlet = CFPVWB-20N0001FF.



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



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