



BPVWB Micro Capsule Filters

Hydrophobic PVDF Membrane

BPVWB Micro Capsule filters consist of a single layer, hydrophobic, high capacity polyvinylidene fluoride (PVDF) membrane. These filters are used for bioburden control in non-aqueous liquids, for air/gas applications and for tank vents. These hydrophobic filters deliver high flow and throughput with the broad chemical compatibility of a fluoropolymer. Pore sizes range from 0.22 to 1.0 μm , and are available pre-sterilized.

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.

Bioburden Control

Tank Vent & Process Gas

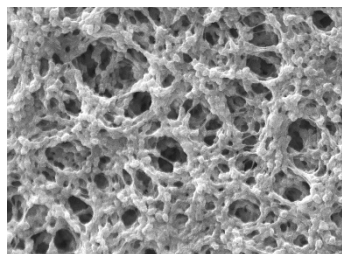


MICRO CAPSULES – Nominal Dimensions

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)



PVDF is the recommended media for bioburden control in:

- Fermentation Air
- Compressed Air
- Tank Vents
- Solvents
- Non-Aqueous Solutions

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	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)
Recommended Changeout Pressure	35 psid (2.41 bard)

Sanitization & Sterilization

Autoclave*	250 °F (121 °C), 30 min, 5+ cycles
Chemical Sanitization	Performed using industry standard concentrations of hydrogen peroxide, peracetic acid, sodium hypochlorite and other selected chemicals.

Endotoxins

The levels of bacterial endotoxins in aqueous extracts from BPVWB Micro Capsule filters are below current USP limits as specified for water for injection.

Extractables

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

Non-Fiber Releasing

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

FDA 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.

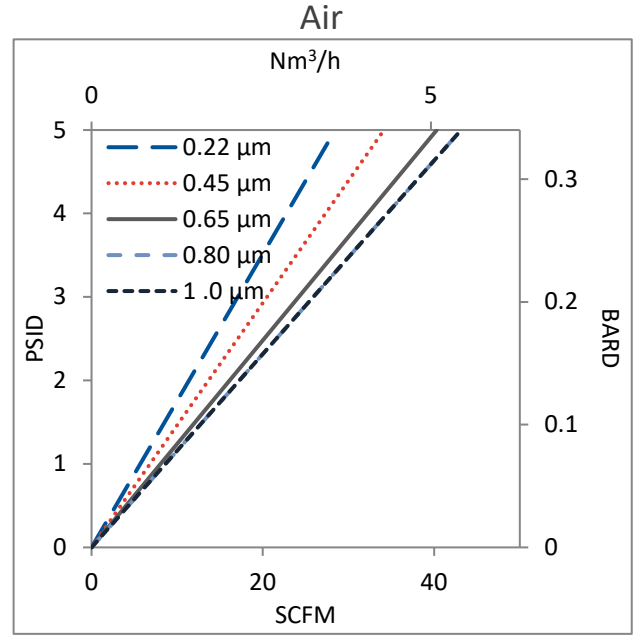
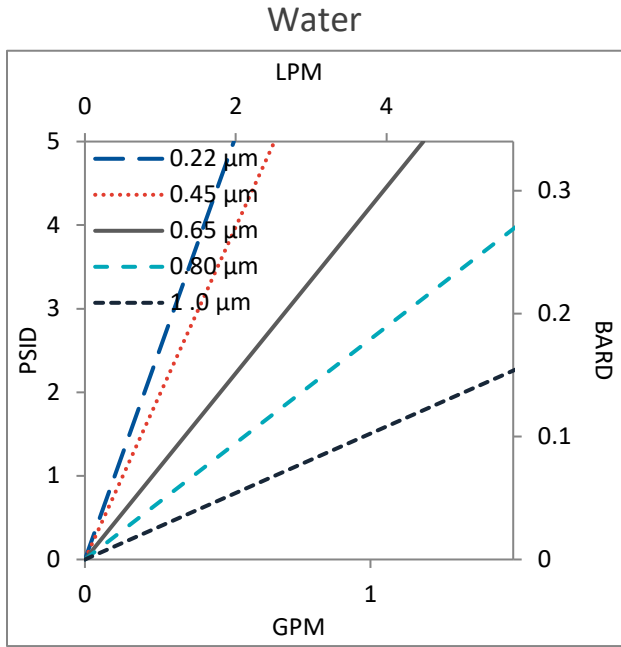
Filtration Area (Nominal)

Area	0.569 ft ²
	529 cm ²

Construction Materials

Filtration Media	Hydrophobic High Capacity Polyvinylidene Fluoride (PVDF) Membrane
Media Support	Polypropylene
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)

Flow Rates for BPVWB 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.

BPVWB 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 Ext. 106, or send an email to sales@criticalprocess.com

Micro Capsule Filters

MIC BPVWB 000 -

Pore Size Code -20 = 0.22 µm -40 = 0.45 µm -60 = 0.65 µm -80 = 0.80 µm 1-0 = 1.0 µm	Pre-Sterilized or Not S = Pre-Sterilized N = Not Sterilized	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



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

The information contained herein is subject to change without notice. The Critical Process Filtration logo is a trademark of Critical Process Filtration, Inc. Viton is a trademark of DuPont Performance Elastomers L.L.C.
© 2025 Critical Process Filtration, Inc. • All Rights Reserved

Data Sheet BPVWB Micro DS Rev -