



BPVWL Filters

Hydrophilic PVDF Membrane



BPVWL cartridge and capsule filters consist of a single layer, hydrophilic, high capacity polyvinylidene fluoride (PVDF) membrane. These filters are used for bioburden control and clarification/pretreatment in aqueous liquids. Pore sizes range from 0.22 to 1.0 μm and the filter devices scale from laboratory to full production using identical materials to ensure consistent results.

The hydrophilic PVDF filters deliver high flow and throughput with the broad chemical compatibility of a fluoropolymer, making them ideal for filtering aggressive aqueous solutions.

BPVWL capsules 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

Clarification & Pretreatment



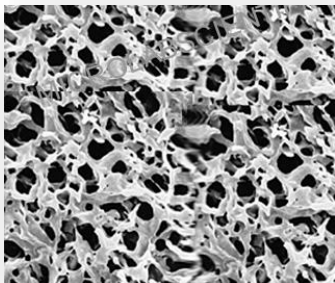
CARTRIDGES – Nominal Dimensions

Length: 5 to 40 in. (12.7 to 101.6 cm)
Outside Diameter: 2.75 in. (7.0 cm)



CAPSULES – Nominal Dimensions

Length: 2 to 30 in. (5.1 to 76.2 cm)
Outside Diameter: 3.50 in. (8.9 cm)



PVDF is the recommended media for bioburden control in:

- LVPs & SVPs
- Buffers
- Plasma Products
- Serum
- Vaccines
- WFI
- Clean-in-Place Solutions

Maximum Operating Parameters

	CARTRIDGES	CAPSULES
Liquid Operational Pressure	N/A	80 psi at 68 °F (5.52 bard at 20 °C)
Gases Operational Pressure	N/A	60 psi at 68 °F (4.14 bar at 20 °C)
Operating Temperature (water)	180 °F at 30 psid (82 °C at 2.07 bard)	110 °F at 30 psid (43 °C at 2.07 bard)
Forward Differential Pressure	80 psid at 68 °F (5.52 bard at 20 °C)	Liquid - 80 psid at 68 °F (5.52 bard at 20 °C)
Reverse Differential Pressure	50 psid at 68 °F (3.45 bard at 20 °C)	50 psid at 68 °F (3.45 bard at 20 °C)
Recommended Changeout Pressure	35 psid (2.41 bard)	35 psid (2.41 bard)

Sanitization & Sterilization

Filtered Hot Water*	90 °C (194 °F), 30 minutes, multiple cycles, max 3 psid forward flow	N/A
Inline Steam*	275 °F (135 °C), 30 min, 25+ cycles	N/A
Autoclave*	250 °F (121 °C), 30 min, 25+ cycles	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.	

*Cartridge Filters – For all elevated temperature procedures above, a stainless-steel support ring is required.

Filtration Area (Nominal)

	CAPSULES	CARTRIDGES AND CAPSULES				CARTRIDGES
Length	2"	5"	10"	20"	30"	40"
	5.08cm	12.7cm	25.4cm	50.8cm	76.2cm	101.6cm
Area	1.0 ft ²	2.8 ft ²	6.0 ft ²	12.0 ft ²	18.0 ft ²	24.0 ft ²
	0.09m ²	0.26m ²	0.56m ²	1.12m ²	1.68m ²	2.24m ²

Construction Materials

Filtration Media	Hydrophilic 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)

Endotoxins

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

Extractables

BPVWL filters typically exhibit low levels of non-volatile residues.

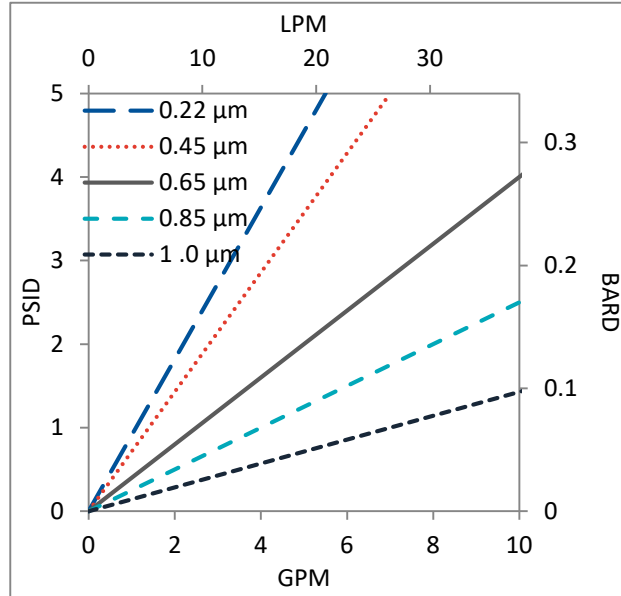
Non-Fiber Releasing

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

FDA Compliance

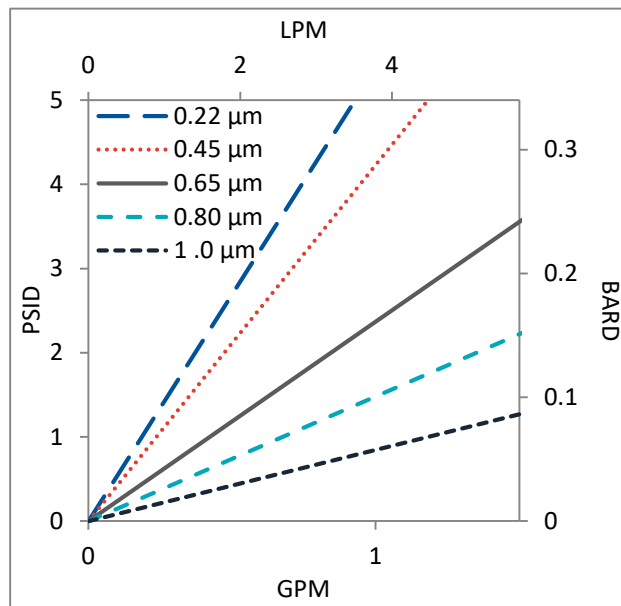
Materials meet the requirements listed by the FDA as appropriate for use in articles intended for repeated food contact as specified in Title 21 CFR sections 174.5, 177.1500, 177.1520, 177.1630, 177.2440, and 177.2600 as applicable.

Flow Rates for BPVWL Cartridges by Pore Size



Flow rates for Cartridge filters are per 10-inch length. The test fluid is water at ambient temperature.

Flow Rates for BPVWL Capsules by Pore Size



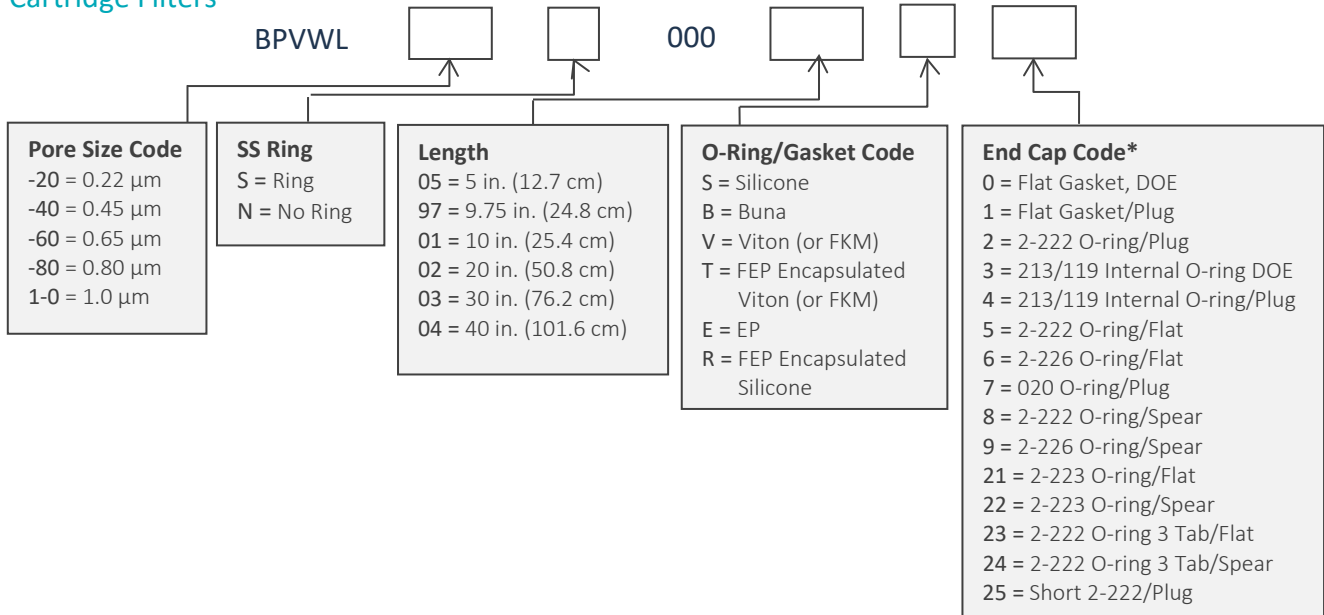
Flow rates for Capsule filters are tested using a 2" capsule filter with 1" sanitary inlet and outlet ports. The test fluid is water at ambient temperature. Flow rates for larger capsules will scale with filtration area. Rates will vary based on end configuration of the capsule.

BPVWL Filters Ordering Information

Fill in the corresponding codes in the boxes below to build your Part Number.

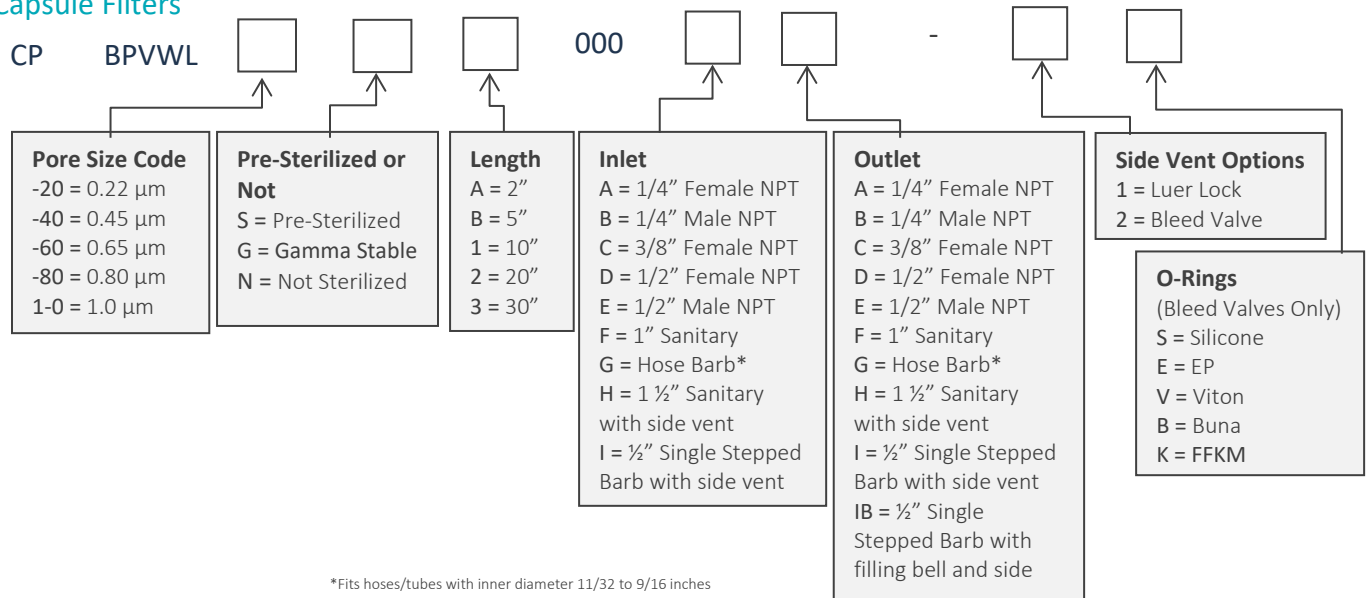
To consult with one of our technical team members, request a quote or place an order:
call (603) 880-4420 or [contact us here](#).

Cartridge Filters



**Additional End Configurations are available*

Capsule Filters



*Fits hoses/tubes with inner diameter 11/32 to 9/16 inches



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Data Sheet BPVWLDS Rev A