

# GPVWB Filters

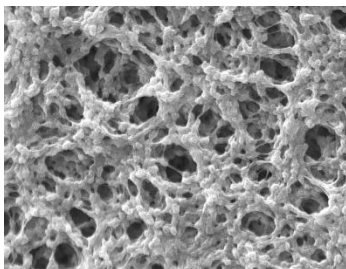
Hydrophobic PVDF Membrane



*GPVWB filters are part of Critical Process Filtration's economical, general service product line that can be used to lower the total cost of filtration from simple to the most complex applications. Produced using the same quality materials and manufacturing excellence as our other product lines, you can be assured of their performance, dependability and scalability. While general service filters are not integrity tested or validated for retention, these highly efficient filters remove large amounts of contaminants early in the process to reduce the load on your expensive downstream filters. They are also useful as stand-alone clarifying or particle removal filters in less critical applications.*

GPVWB cartridge and capsule filters consist of a single layer, hydrophobic, high capacity Polyvinylidene fluoride (PVDF) membrane. These filters are used for particle removal in non-aqueous liquids and for air/gas applications. Pore sizes range from 0.22 to 1.0  $\mu\text{m}$ . GPVWB filters deliver high flow and throughput with the broad chemical compatibility of a fluoropolymer.

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.



GPVWB filters are recommended for:

- Compressed Air
- Non-Aqueous Solutions
- Compatible Solvents
- Tank Vents
- Acids and Bases

## Fine Particle Removal

## Tank Vent & Process Gas



### CARTRIDGES – Nominal Dimensions

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



### CAPSULES – Nominal Dimensions

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

## Maximum Operating Parameters

	CARTRIDGES	CAPSULES
<b>Liquid Operational Pressure</b>	N/A	80 psi at 68 °F (5.51 bard at 20 °C)
<b>Gases Operational Pressure</b>	N/A	60 psi at 68 °F (4.13 bar at 20 °C)
<b>Operating Temperature (water)</b>	180 °F at 30 psid (82 °C at 2.06 bard)	110 °F at 30 psid (43 °C at 2.06 bard)
<b>Forward Differential Pressure</b>	80 psid at 68 °F (5.51 bard at 20 °C)	Liquid - 80 psid at 68 °F (5.51 bard at 20 °C) (Liquid and Gas) Gas - 60 psi at 68 °F (4.13 bar at 20 °C)
<b>Reverse Differential Pressure</b>	50 psid at 68 °F (3.44 bard at 20 °C)	50 psid at 68 °F (3.44 bard at 20 °C)
<b>Recommended Changeout Pressure</b>	35 psid (2.41 bard)	35 psid (2.41 bard)

## Sanitization & Sterilization

<b>Filtered Hot Water*</b>	90 °C (194 °F), 30 minutes, multiple cycles, max 3 psid forward flow	N/A
<b>Inline Steam*</b>	275 °F (135 °C), 30 min, 25+ cycles	N/A
<b>Autoclave*</b>	250 °F (121 °C), 30 min, 25+ cycles	250 °F (121 °C), 30 min, 5+ cycles
<b>Chemical Sanitization</b>	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

Length	CAPSULES	CARTRIDGES AND CAPSULES					CARTRIDGES
	2"	5"	10"	20"	30"	40"	
	5.08cm	12.7cm	25.4cm	50.8cm	76.2cm	101.6cm	
Area	1.0 ft <sup>2</sup>	3.0 ft <sup>2</sup>	6.0 ft <sup>2</sup>	12.0 ft <sup>2</sup>	18.0 ft <sup>2</sup>	24.0 ft <sup>2</sup>	
	0.09m <sup>2</sup>	0.28m <sup>2</sup>	0.56m <sup>2</sup>	1.12m <sup>2</sup>	1.68m <sup>2</sup>	2.24m <sup>2</sup>	

## Extractables

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

## Non-Fiber Releasing

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

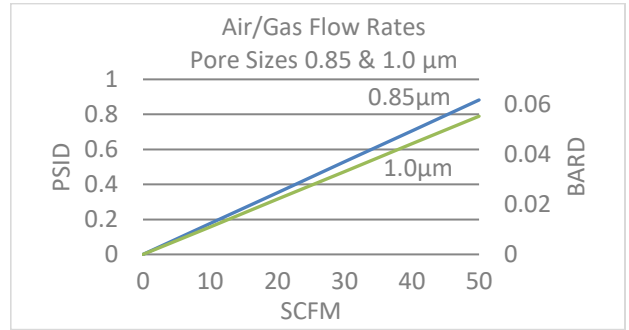
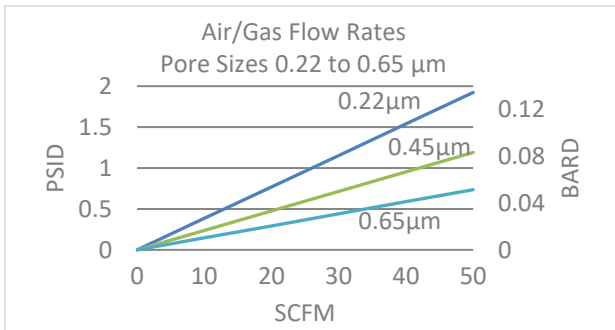
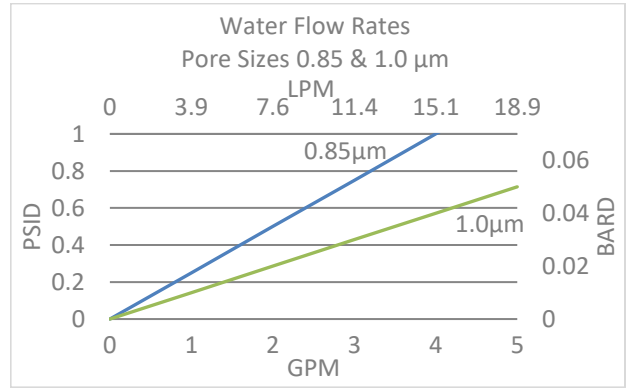
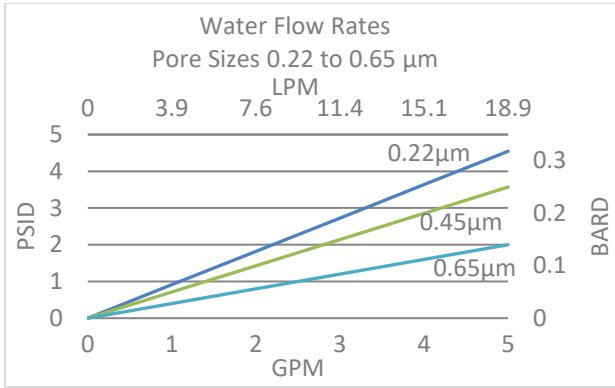
## FDA Compliance

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.

## Construction Materials

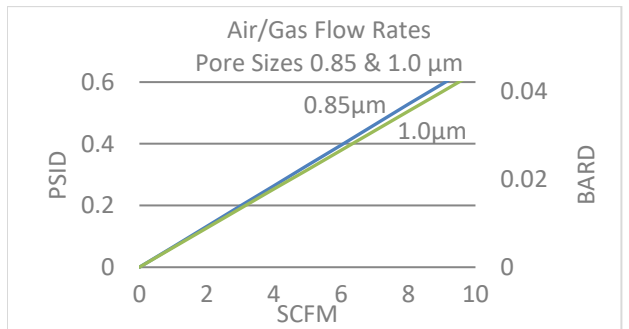
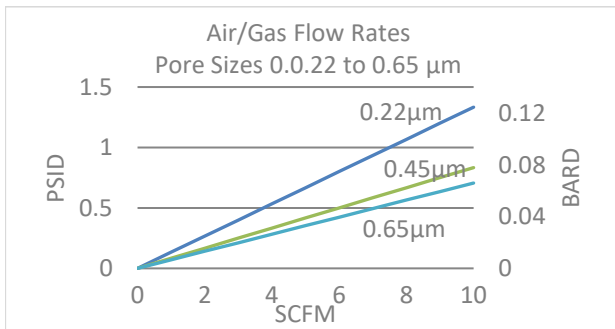
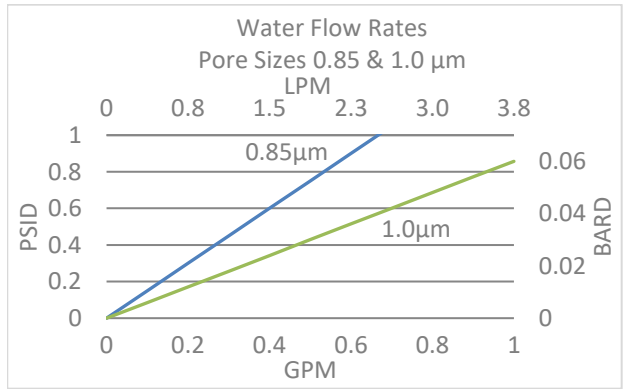
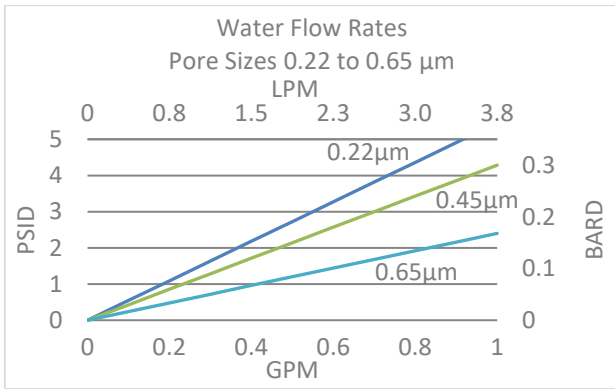
<b>Filtration Media</b>	Hydrophobic High Capacity Polyvinylidene Fluoride (PVDF) Membrane
<b>Media Support</b>	Polypropylene
<b>End Caps, Center Core, Outer Support Cage, Capsule Housing</b>	Polypropylene
<b>Sealing Method</b>	Thermal Bonding
<b>O-Rings/Gaskets Cartridges only</b>	Buna, Viton® (or FKM), EPDM, Silicone, FEP Encapsulated Silicone, FEP Encapsulated Viton (or FKM)

## Flow Rates for GPVWB Cartridges



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

## Flow Rates for GPVWB Capsules



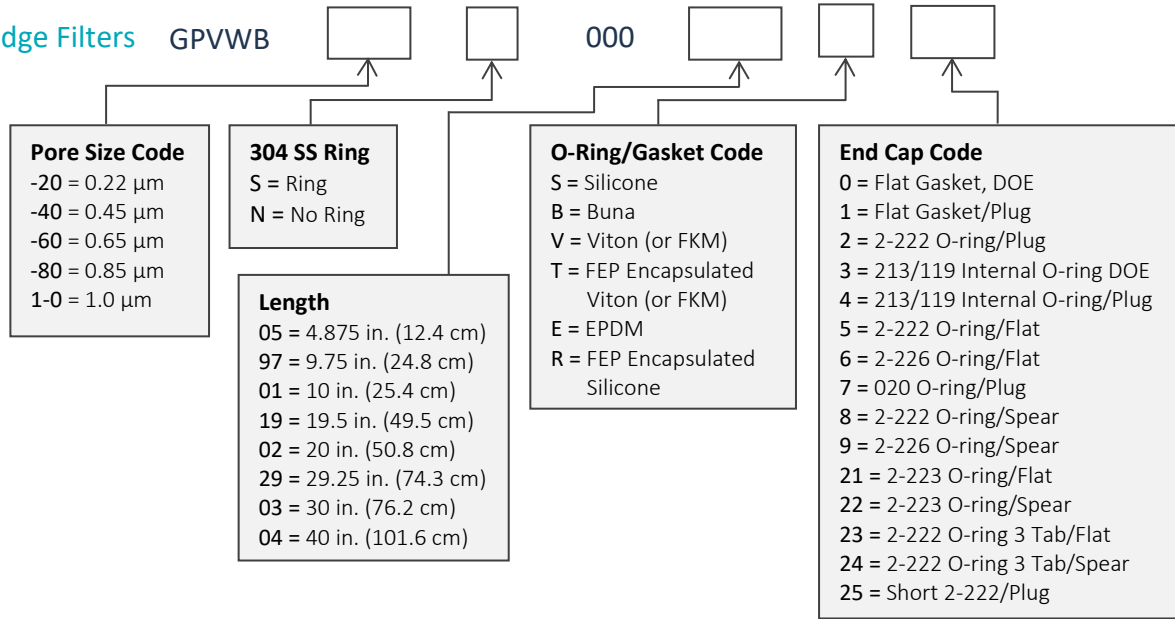
Flow rates for Capsule filters are per square foot of membrane area. The test fluid is water or compressed air at ambient temperature. Flows are tested using a 2" capsule filter with 1/2" FNPT inlet and outlet ports. Rates will vary based on end configuration of the capsule.

## GPVWB Filters Ordering Information

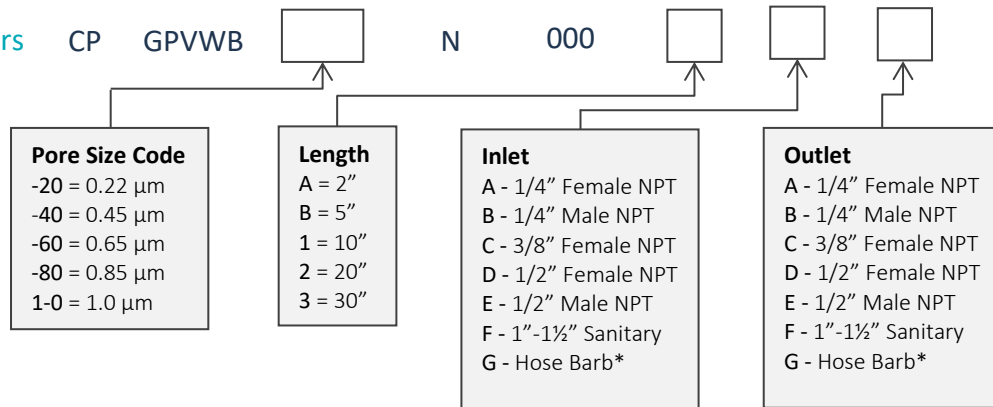
All Critical Process filters are configurable to meet customer specifications.  
Fill in the corresponding codes in the boxes below to build your Part Number.

To consult with one of our technical team members, request a quote or place an order:  
call (603) 880-4220 Ext. 106, or send an email to [sales@criticalprocess.com](mailto:sales@criticalprocess.com)

### Cartridge Filters



### Capsule Filters



### Housings

CPF offers Model CSH sanitary housings in Single-Round (Inline and T-Style) and Multi-Round (3, 6, 8, 12 and 21-round) configurations and Model CIH industrial housings in Single Round and Multi-Round configurations for up to 80 filters.



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