

GPVWB Cartridge Filters

High Capacity Hydrophobic PVDF Membrane



GPVWB filter cartridges are designed for general purpose use wherever a hydrophobic membrane filter is required. Manufactured with high capacity hydrophobic polyvinylidene fluoride (PVDF) membrane, these cartridges are designed for use in the filtration of solvents, non-aqueous solutions, and as compressed gas and vent filters.

These cartridges are found in the manufacturing processes of firms in multiple industries that require high quality, cost effective filter technologies.

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

Construction Materials

Filtration Media	High Capacity Hydrophobic PVDF Membrane
Media Support	Polypropylene
End Caps	Polypropylene
Center Core	Polypropylene
Outer Support Cage	Polypropylene
Sealing Method	Thermal Bonding
O-rings	Buna, Viton® (or FKM), EP, Silicone, FEP Encapsulated Silicone, FEP Encapsulated Viton (or FKM)

Applications

- ◆ Process Gas
- ◆ Solvents
- ◆ Non-Aqueous Solutions
- ◆ Compressed Air Filtration
- ◆ Tank Vents

Dimensions

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

Integrity Test Information

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

Maximum Operating Parameters

Differential Pressure	
• Forward	50 psid (3.4 bard) at 20 °C (68 °F)
• Reverse	40 psid (2.7 bard) at 20 °C (68 °F)
Operating Temperature	82 °C (180 °F) at 10 psid (0.69 bard) in water
Recommended Changeout Pressure	35 psid (2.4 bard)

Sanitization/Sterilization

Filtered Hot Water	90 °C (194 °F), 30 minutes, multiple cycles, max 3 psid forward flow
Autoclave	121 °C (250 °F), 30 min, multiple cycles
In-line Steam	135 °C (275 °F), 30 min, multiple cycles

For all elevated temperature procedures above, a stainless steel support ring is required.

Chemical Sanitization

Performed using industry standard concentrations of hydrogen peroxide, paracetic acid, sodium hypochlorite and other selected chemicals.

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.

FDA and EC Compliance

All Critical Process Filtration filters are designed to meet the FDA requirements for processing food and beverage products. The materials used to construct GPVWB 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

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

Flow Rate

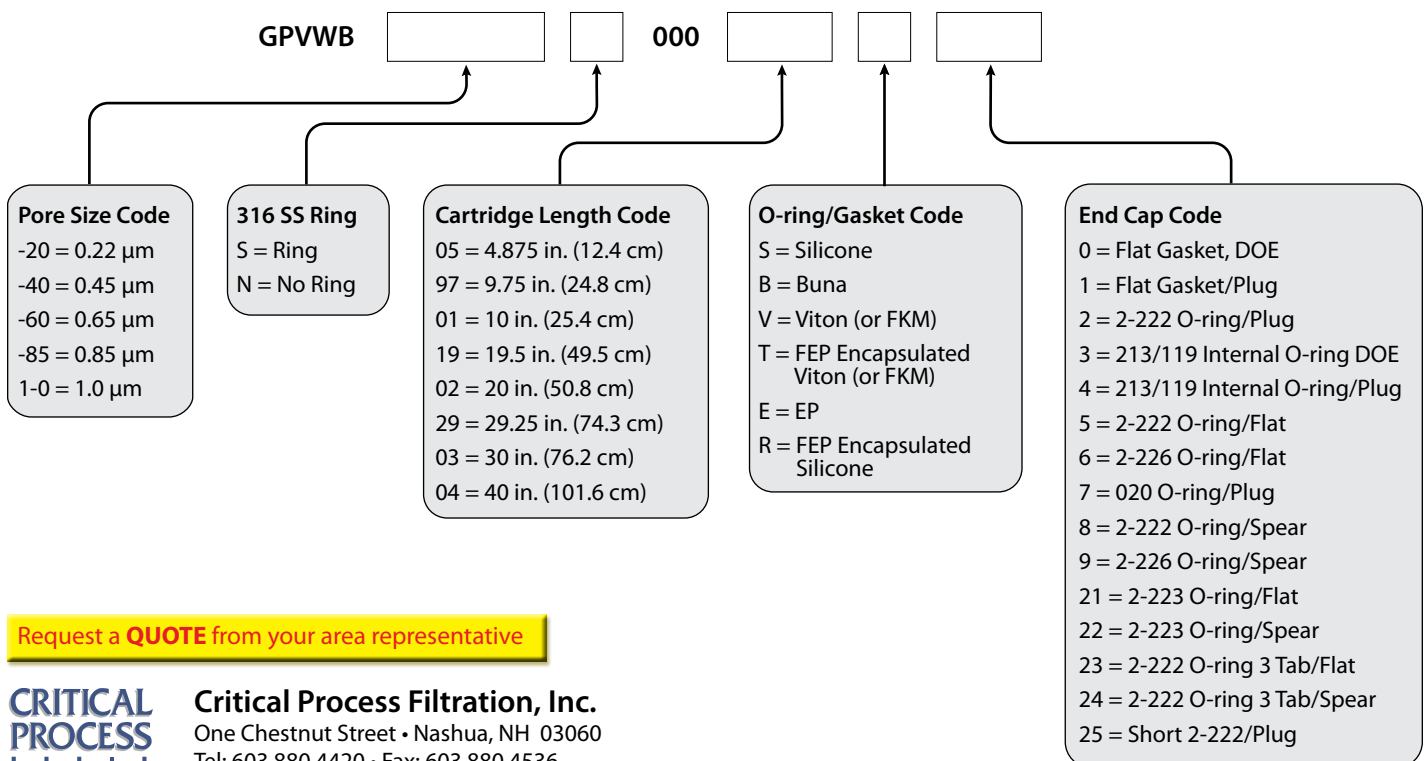
The Typical Flow Rates table represents typical water or air/gas flow at a 1 psid (69 mbard) pressure differential across a single 10 in. cartridge element. The test fluids are water or compressed air at ambient temperature. Extrapolation for housings with multiple elements and higher pressure drops is acceptable, but as flows increase the pressure drop of the housing becomes more apparent.

Typical Flow Rates

Pore Size	0.22 µm	0.45 µm	0.65 µm	0.85 µm	1.0 µm
Liquid Flow Rates (gpm)	1.1	1.4	2.5	4.0	7.0
Air/Gas Flow Rates (scfm)	>45	>72	>85	>91	>91

Ordering Information

Cartridge order numbers have several variables from pore size to end cap type. For example, General Service Grade High Capacity Hydrophobic PVDF Membrane, 0.22 Micron Rating, No SS Support Ring, 20" Length, Silicone O-Rings, 2-222/Flat End Cap Configuration = GPVWB-20N00002S5.



Request a **QUOTE** from your area representative



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Quality Assurance and Standards

Our goal is to ensure our customers the greatest possible value for their filtration dollar. Our state of the art manufacturing facility and quality management system both meet ISO 9001:2008 standards. Each operation from assembly and test to cleaning, drying, and packaging is done in appropriately rated clean rooms. A sophisticated MRP system collects and processes real time data from manufacturing centers and inspection points. This allows variable and attribute data to be quickly and easily analyzed driving constant improvements in both quality and cost.