

FCWPS Cartridge Filters

High Capacity PES Membrane



FCWPS Filter Cartridges have been designed to comply with all FDA requirements for the food industry. FCWPS cartridges are hydrophilic and manufactured with high capacity polyethersulfone (PES) membrane. They are used to remove organic and other contamination as part of the critical clarification and filling filtration processes for wine, beer, bottled water and aseptically packaged products like juices. To protect system quality, FCWPS filters also see service in removing organic and other contaminants from process water and clean in place solutions used in piping and other systems. Cartridge modules from each manufacturing lot are tested to ensure integrity before release of the lot from manufacturing, assuring that the filters will retain particles at the rated pore size.

Construction Materials

Filtration Media	High Capacity Polyethersulfone (PES) 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

- ◆ Wine
- ◆ Beer
- ◆ Bottled Water
- ◆ Process Water
- ◆ Juices
- ◆ Soft Drinks
- ◆ Clean-in Place Solutions

Dimensions

Length	5 to 40 in. (12.7 to 101.6 cm) nominal
Outside Diameter	2.75 in. (7.0 cm) nominal
Filtration Area	6.0 ft ² (0.56 m ²) per 10 in. length

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 cartridge 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. FCWPS 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

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.

Flow Rate

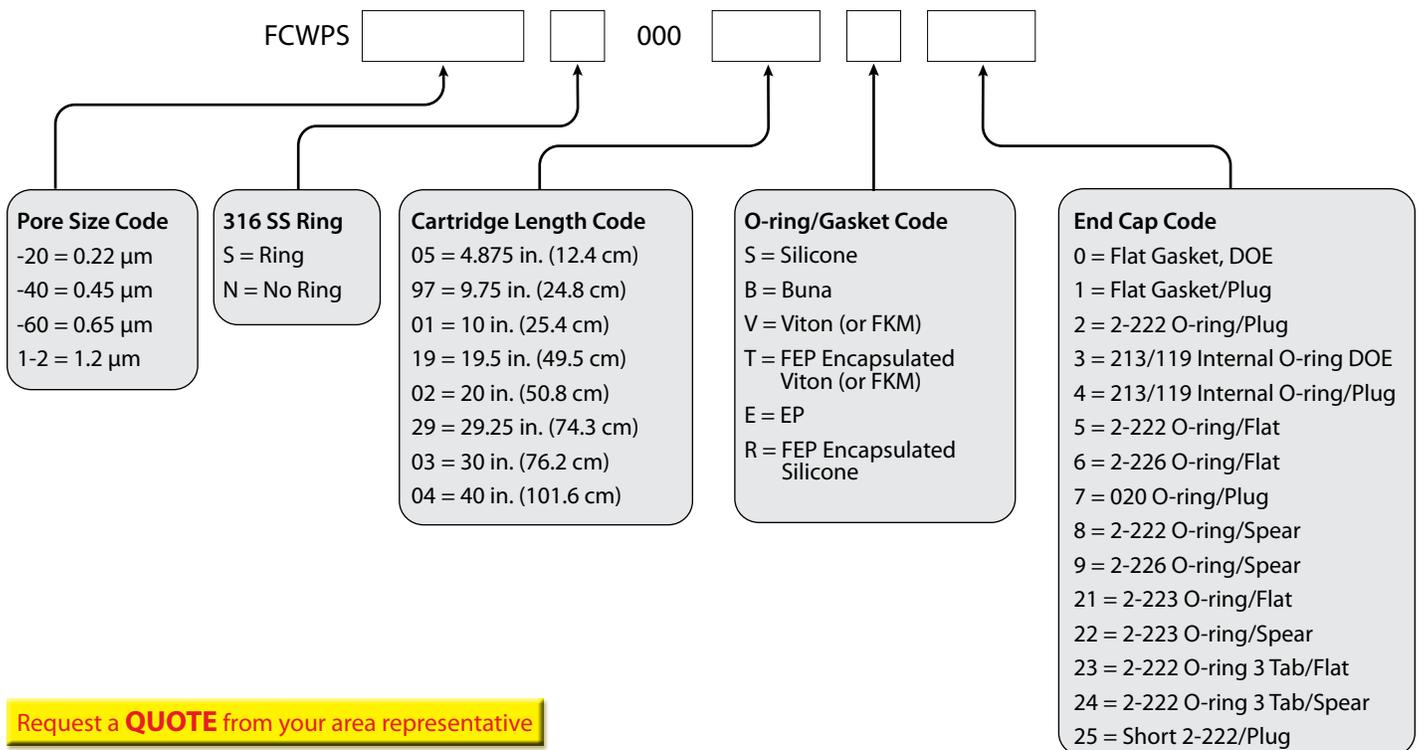
The Typical Flow Rates table represents typical water flow at ambient temperatures and a 1 psid (69 mbard) pressure differential across a single 10 in. cartridge element. Extrapolation for housings with multiple elements and higher pressure drops is acceptable, but as flows increase the pressure drop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

Typical Flow Rates

Pore Size	0.22 μm	0.45 μm	0.65 μm	1.2 μm
GPM	1.1	1.4	4.5	7.0
LPM	4.16	5.30	17.03	25.50

Ordering Information

Cartridge order numbers have several variables from pore size to end cap type. For example, Food & Beverage Grade High Capacity PES Membrane, 0.45 Micron Rating, With SS Support Ring, 20" Length, Silicone O-Rings, 2-226/Spear End Cap Configuration = FCWPS-40S00002S9.



Request a **QUOTE** from your area representative



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