

EPS/HT Filters

High Temperature Single Layer
PES Membrane



EPS/HT Filters provide the same wide selection of single layer Polyethersulfone (PES) cartridge filters as standard EPS cartridge filters, but with a modified membrane support and hardware material to allow higher operating temperatures (up to 203°F). They are used for removing fine and ultrafine particles from aqueous liquids. Pore sizes range from 0.02 to 0.45 μm .

The hydrophilic EPS/HT filters have low extractables for fast rinse-up to conductivity limits and fast rinse-down to TOC limits. EPS/HT filters deliver the high flows and throughput with chemical compatibility across a wide pH range.

EPS/HT filters are pulse power flushed until the rinse effluent reaches 18+ Megohm-cm and less than 3ppb TOC. Each filter is individually tested to ensure integrity.

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.

Fine Particle Removal

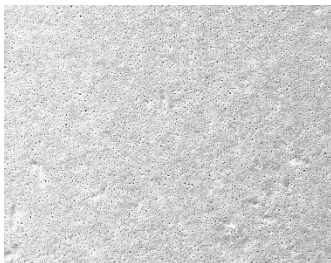
Clarification & Prefiltration



CARTRIDGES – Nominal Dimensions

Length: 5 to 40 in. (12.7 to 101.6 cm)

Outside Diameter: 2.75 in. (7.0 cm)



EPS/HT is recommended for the filtration of:

- UPDI Water
- Acids & Bases
- Etch Baths
- Solvents
- Bulk Chemicals
- Plating Solutions

Maximum Operating Parameters

CARTRIDGES	
Operating Temperature (water)	203 °F at 30 psid (95 °C at 2.07 bard)
Forward Differential Pressure	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)
Recommended Changeout Pressure	35 psid (2.41 bard)

Sanitization & Sterilization

Filtered Hot Water*	90 °C (194 °F), 30 minutes
Inline Steam*	275 °F (135 °C), 30 min, 25+ cycles
Autoclave*	250 °F (121 °C), 30 min, 25+ cycles
Chemical Sanitization	Performed using industry standard concentrations of hydrogen peroxide, peracetic acid, sodium hypochlorite and other selected chemicals.

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

Filtration Area (Nominal)

CARTRIDGES					
Length	5"	10"	20"	30"	40"
	12.7cm	25.4cm	50.8cm	76.2cm	101.6cm
Area	3.4 ft ²	7.3 ft ²	14.6 ft ²	21.9 ft ²	29.2 ft ²
	0.32m ²	0.68m ²	1.36m ²	2.04m ²	2.72m ²

Integrity Testing

PORE SIZE	DIFFUSION TEST PRESSURE*	
	PSIG	BARG
μm		
0.02	60	4.14
0.03	60	4.14
0.10	48	3.31
0.22	35	2.41
0.45	20	1.38

DIFFUSION SPECIFICATIONS*					
Length	5"	10"	20"	30"	40"
mL/min (0.02μm)	≤ 10.8	≤ 25	≤ 50	≤ 75	≤ 100
mL/min (all other pore sizes)	≤ 12.9	≤ 30	≤ 60	≤ 90	≤ 120

*For water wetted membrane

Construction Materials

Filtration Media	Single Layered Polyethersulfone (PES) Membrane
Media Support	High Temperature Polypropylene
End Caps, Center Core, Outer Support Cage	High Temperature Polypropylene
Sealing Method	Thermal Bonding
O-Rings/Gaskets Cartridges only	Buna, Viton® (or FKM), EPDM, Silicone, FEP Encapsulated Silicone, FEP Encapsulated Viton (or FKM)

Extractables

EPS/HT filters typically exhibit low levels of non-volatile residues and conform with USP <661>/<665>.

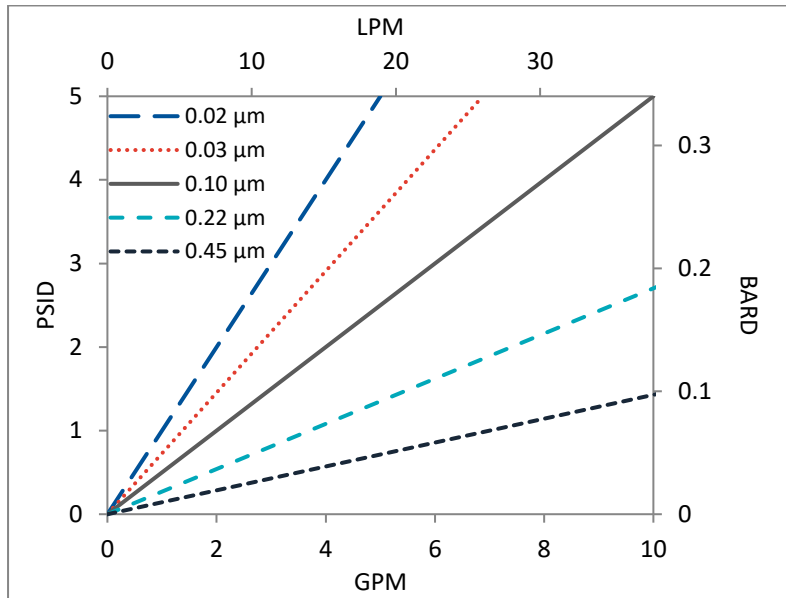
TOC and Conductivity

EPS/HT filter water effluent conforms with the TOC and water conductivity standards of SEMI Standard F104 (modified) and F63 after an appropriate flush with ultrapure water.

Non-Fiber Releasing

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

Flow Rates for EPS/HT Cartridges by Pore Size



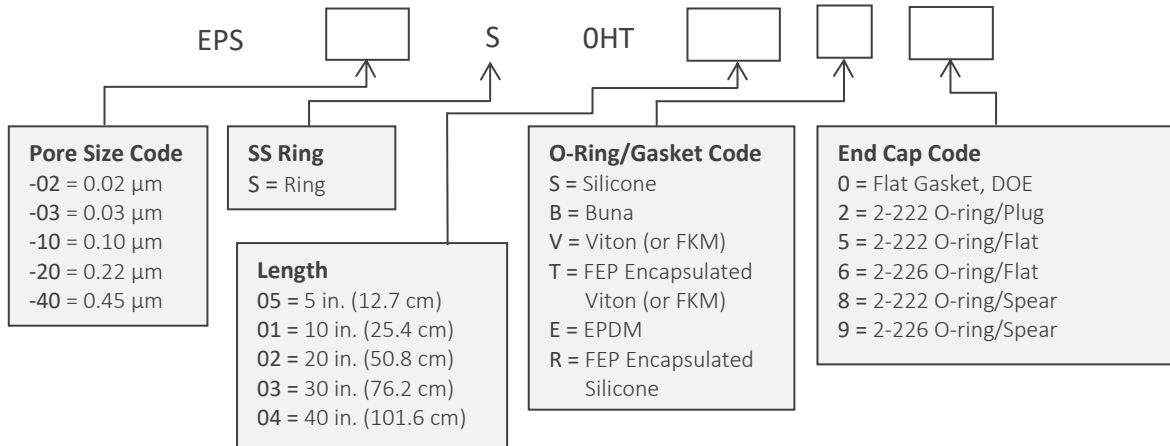
Flow rates for Cartridge filters are per 10-inch length. The test fluid is water at ambient temperature.

EPS/HT Cartridge 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

Cartridge Filters



Housings

CPF offers industrial and sanitary housings in Single-Round (Inline and T-Style) and Multi-Round configurations. Contact us or visit our website for more information.



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