

PPD/HT cartridge filters are constructed with pleated Polypropylene depth media for prefiltering critical pharmaceutical and healthcare liquids including water, chemicals and solvents. They are designed for applications running at elevated temperatures (up to 203°F). Pore sizes range from 0.10 to 100  $\mu m$  and filter sizes scale from laboratory to full production using identical materials to ensure consistent results.

These hydrophilic filters have superior retention and protect downstream filters by removing large amounts of particulate and other contaminants. PPD/HT filters are rated at 99.9% efficiencies at the indicated pore size. Designed for high capacity and long life makes the PPD/HT a very cost-effective filter.

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.

## Clarification & Prefiltration

## Particle Filtration



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



PPD/HT filters are recommended for clarification & prefiltration in:

- Chemicals
- Intermediates
- Buffers
- WFI, Water Purification
- Medications
- Ophthalmics
- Diagnostics
- Device Cleaning

#### **Maximum Operating Parameters**

	CARTRIDGES	
Operating Temperature (water)	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, multiple cycles, max 3 psid forward flow
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.

<sup>\*</sup>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	2.9 ft <sup>2</sup>	6.24 ft <sup>2</sup>	12.48 ft <sup>2</sup>	18.72 ft <sup>2</sup>	24.96 ft <sup>2</sup>	
	0.27m <sup>2</sup>	0.58m <sup>2</sup>	1.16m <sup>2</sup>	1.74m <sup>2</sup>	2.32m <sup>2</sup>	

#### **Construction Materials**

Filtration Media	Pleated Polypropylene Depth Media		
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 PPD/HT filters are below current USP limits as specified for water for injection.

#### Extractables

PPD/HT filters typically exhibit low levels of non-volatile residues.

#### **TOC and Conductivity**

PPD/HT filters conform with TOC standards of USP <643> and the water conductivity standards of USP <645> after an appropriate flush with purified water.

#### **Toxicity Compliance**

Materials used to construct PPD/HT filters are non-toxic and meet the requirements for the MEM Elution Cytotoxicity Test and the requirements for Biological Reactivity Tests in the current version of the United States Pharmacopeia (USP) for Class VI - 121 °C Plastics.

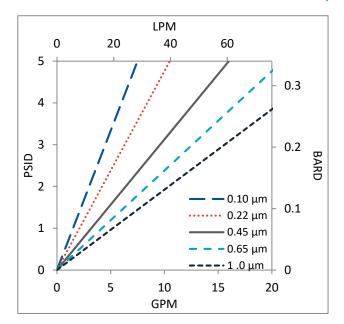
#### Non-Fiber Releasing

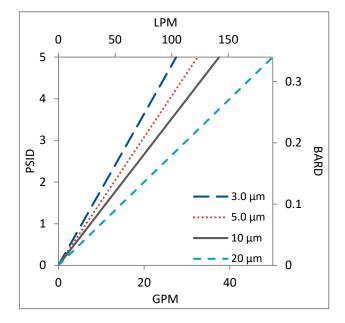
PPD/HT filters comply with Title 21 CFR sections 210.3 (b)(6) and 211.72, for non-fiber releasing filters.

#### **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 PPD/HT Cartridges by Pore Size



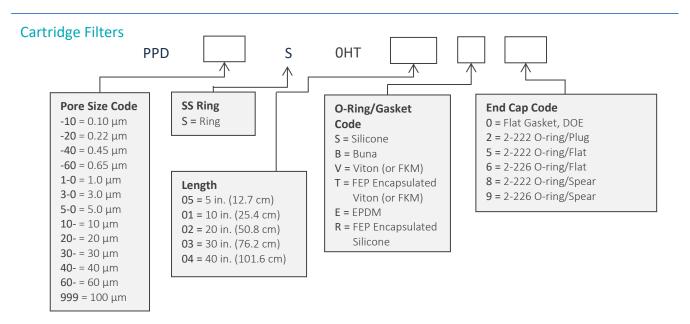


Flow rates for Cartridge filters are per 10-inch length. The test fluid is water at ambient temperature.

### PPD/HT 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 <a href="mailto:sales@criticalprocess.com">sales@criticalprocess.com</a>



#### 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.



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