



## GPD grade

*Polypropylene Depth Media Filter Cartridges*  
*Engineered and Manufactured for Maximum Efficiency and Value*

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GPD grade Polypropylene cartridges are designed for general purpose use wherever a cost effective pleated depth filter is required. Rated at 99.9% efficiencies at the rated pore size and designed to hold the maximum amount of filter media that can be completely and effectively utilized in a cartridge, GPD filters lower the cost of filtration. GPD cartridges are flushed with 17+ megohm-cm water to remove potential extraneous manufacturing debris. These cartridge modules are also individually tested. Priced below special purpose cartridges, GPD cartridges are still manufactured with the same careful attention to both quality and performance.

### Construction Materials <sup>1</sup>

**Filtration Media:** ..... Polypropylene  
**Filtration Media Support:** ..... Polypropylene  
**End Caps:** ..... Polypropylene  
**Center Core:** ..... Polypropylene  
**Outer Support Cage:** ..... Polypropylene  
**Sealing Method:** ..... Thermal Bonding  
**O-rings:** ..... Buna, Viton®, EP, Silicone, Teflon®  
 Encapsulated Silicone, Teflon® Encapsulated Viton®

<sup>1</sup>All materials of construction are FDA accepted. Final assemblies have been validated to pass USP class 6 Toxicology extractable tests, oxidizable substances for plastics, endotoxin level and other quality tests.

### Maximum Operating Parameters

**Forward Differential Pressure:** ..... 50 psi (3.4 bar) at 20°C.

**Reverse Differential Pressure:** ..... 40 psi (2.7 bar) at 20°C.

**Operating Temperature:** ..... 180°F (82°C) at 10 psid (0.69 bar) in water.

**Recommended Change Out Pressure:** ..... 35 psid (2.4 bar)

### Dimensions

**Length:** ..... 5 to 40 inches (12.7 to 101.6 cm) nominal

**Outside Diameter:** ..... 2.75 inches (7.0 cm) nominal

**Filtration Area:** ..... Up to 7.2 ft<sup>2</sup> (0.67 m<sup>2</sup>) Per 10" length

### Flow Rate

The following table represents typical water flow at a one psi (69 mbar) pressure differential across a single 10-inch cartridge element. The test fluid is water 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.

Pore Size	0.10 µm	0.22 µm	0.45 µm	0.65 µm	1.0 µm	3.0 µm	5.0 µm	10 µm	20 µm	30 µm	40 µm	60 µm	100 µm
GPM	1.0	3.0	5.0	6.0	8.0	12	16	18	> 20	> 20	> 20	> 20	> 20
LPM	3.79	11.35	18.92	22.71	30.28	45.42	60.56	68.13	> 75.70	> 75.70	> 75.70	> 75.70	> 75.70



### Applications

#### Filtration of:

- Wine Clarification
- Beverage Clarification
- Cosmetics
- Chemicals
- Soft Drinks
- Bottled Water
- Process Water
- Air & Gases

### Sanitization / Sterilization

**Filtered Hot Water:** ..... 194°F (90°C)

**Autoclave:** ..... 250°F (121°C), 30 min, multiple cycles

**In-line Steam:** ..... 275°F (135°C), 30 min, multiple cycles

**Chemical Sanitization:** ..... Industry standard concentrations of hydrogen peroxide, paracetic acid, sodium hypochlorite and other selected chemicals. Sanitization protocols designed to extend the useful life of GPD cartridges are available from Critical Process Filtration, Inc.

## Integrity Test Information

Cartridges are factory tested for integrity before shipment. Field Duplication of these tests is not practical because of the complexity of the testing process and absence of commercial portable testing equipment.

## Quality Standards

Our goal is to ensure our customers the greatest possible value for their filtration dollar. We achieve both low cost manufacture and high quality by employing state of the art manufacturing equipment. This computer-controlled equipment is highly automated, reducing hand operations that compromise quality. Each operation, including assembly, testing, cleaning, drying and packaging, is done in appropriately rated clean rooms. Critical Process Filtration manages an ISO 9000 facility that produces validated products to rigorous standards. Manufacturing is controlled using sophisticated MRP software that is networked to work stations in manufacturing centers and inspection points. During the manufacturing and inspection processes, data is collected "real time" from machinery and measuring instruments. This allows variable and attribute data to be quickly and easily analyzed to facilitate constant improvements in both quality and cost.

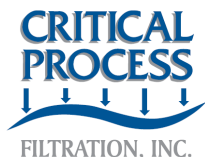
## Ordering Information

The cartridge catalog number is made up of several variable characters i.e. pore size, length, O-ring material, and end cap code. For example: a 0.10  $\mu\text{m}$ , 20 inch (50.8 cm) long cartridge with 2-222, Teflon® Encapsulated Viton® O-rings, no spear (flat top) and no 316 SS Ring would be designated as: GPD\*10N00002T5.

<b>GPD</b>		<b>000</b>		
<b>Pore size code</b> *10 = 0.10 $\mu\text{m}$ *20 = 0.22 $\mu\text{m}$ *40 = 0.45 $\mu\text{m}$ *60 = 0.65 $\mu\text{m}$ 1*0 = 1.0 $\mu\text{m}$ 3*0 = 3.0 $\mu\text{m}$ 5*0 = 5.0 $\mu\text{m}$ 10* = 10 $\mu\text{m}$ 20* = 20 $\mu\text{m}$ 30* = 30 $\mu\text{m}$ 40* = 40 $\mu\text{m}$ 60* = 60 $\mu\text{m}$ 999 = 100 $\mu\text{m}$	<b>316 SS Ring</b> S = Ring N = No Ring	<b>Cartridge Length</b> 05 = 4.875 inches (12.4 cm) 97 = 9.75 inches (24.6 cm) 01 = 10 inches (25.4 cm) 19 = 19.5 inches (49.5 cm) 02 = 20 inches (50.8 cm) 29 = 29.25 inches (74.3 cm) 03 = 30 inches (76.2 cm) 04 = 40 inches (101.6 cm)	<b>O-ring code</b> S = Silicone B = Buna V = Viton® T = Teflon® Encapsulated Viton® E = EP R = Teflon® Encapsulated Silicone	<b>End cap code</b> 0 = Flat Gasket, DOE 1 = Flat Gasket / Plug 2 = 2-222 O-ring / Plug 3 = 213/119 Internal O-ring DOE 4 = 213/119 Internal O-ring / Plug 5 = 2-222 O-ring / Flat 6 = 2-226 O-ring / Flat 7 = 020 O-ring / Plug 8 = 2-222 O-ring / Spear 9 = 2-226 O-ring / Spear 21 = 2-223 O-ring / Flat 22 = 2-223 O-ring / Spear 23 = 2-222 O-ring 3 Tab / Flat 24 = 2-222 O-ring 3 Tab / Spear

## Total Performance

Critical Process Filtration, Inc. is a vertically integrated supplier of filtration products and services to industries in which filtration is considered to be a critical part of the manufacturing process. We manufacture a complete line of products to help you achieve all your filtration requirements from a single source.



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