

# NSPD Cartridge Filters

Nanospun, Hydrophilic Polypropylene  
Depth Media



General Service Grade NSPD Nanospun Filter Cartridges have been designed to hold large amounts of contaminant and still provide 99% retention efficiencies at the rated pore size. Spun media cartridges are created by laying down graded density fibers on a spinning core. These fibers are engineered to provide the maximum amount of retention at the rated pore size as well as maximum dirt-holding capability. The tightly controlled manufacturing process produces consistent, highly retentive filters that can be used wherever a high-value liquid with high contaminant loading requires retention efficiencies above nominal.

## Construction Materials

<b>Filtration Media</b>	Nano-Spun, Hydrophilic Polypropylene Depth Media
<b>End Caps</b>	Polypropylene
<b>Center Core</b>	Polypropylene
<b>O-rings</b>	Buna, Viton®, EP, Silicone, Teflon® Encapsulated Silicone, Teflon Encapsulated Viton

## Applications

- ◆ Fermentation broths
- ◆ Wine, beer
- ◆ Bottled water, fruit juices
- ◆ Buffers and other biologicals fluids
- ◆ CMP slurries
- ◆ Inks & dyes
- ◆ Specialty chemicals
- ◆ Process Water

## Dimensions

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

## Maximum Operating Parameters

<b>Differential Pressure</b>	
<b>Forward</b>	40 psid (2.8 bard)
<b>Reverse</b>	20 psid (1.38 bard)
<b>Maximum Operating Temperature</b>	60 °C (140 °F) at 10 psid (0.69 bard) in water
<b>Recommended Changeout Pressure</b>	25 psid (1.7 bard)

## 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 NSPD 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. NSPD 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

NSPD 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

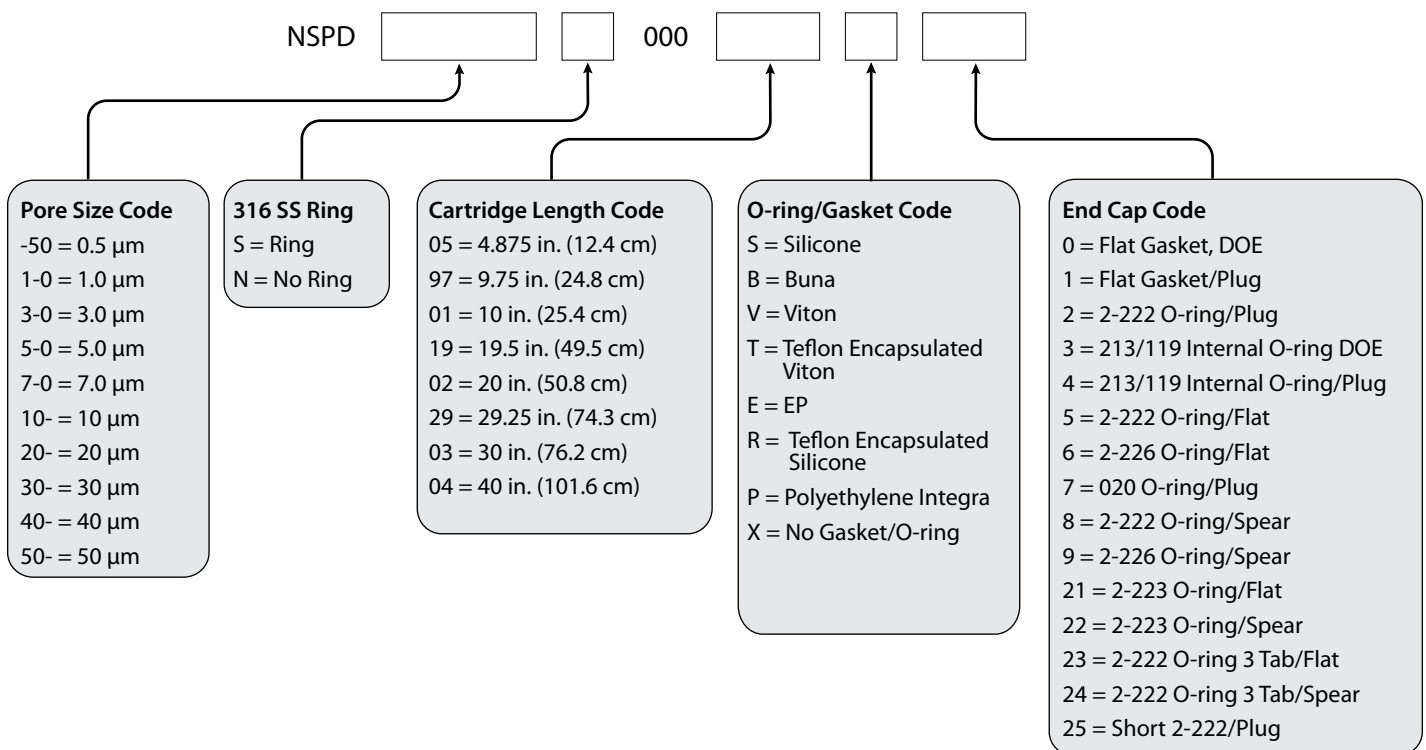
The Typical Flow Rates table represents typical water flow at a 1 psi (69 mbar) pressure differential across a single 10 in. cartridge element. The test fluid is water at ambient temperature. Extrapolation for housings with multiple elements and higher pressure drops is acceptable, but as flows increase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

### Typical Flow Rates

Pore Size	0.5 µm	1.0 µm	3.0 µm	5.0 µm	7.0 µm	10 µm	20 µm	30 µm	40 µm	50 µm
<b>GPM</b>	0.8	1.0	1.25	2.25	2.65	3.25	4.0	6.0	8.0	9.0
<b>LPM</b>	3.03	3.78	4.73	8.51	10.03	12.30	15.14	22.71	30.28	34.07

## Ordering Information

Cartridge order numbers have several variables from pore size to end cap type. For example: a Nanospun media, 10um, no 316-SS ring, 10 in. cartridge with Polyethylene Integra Flat Gasket DOE end caps would be designated NSPD10-N00001P0.



Request a **QUOTE** from your area representative



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