

# GGD Capsule Filters

## Pleated Fiberglass Depth Media



- Rated at 99% retention at pore size
- High contaminant holding capacity as well as excellent retention
- Wide range of retention ratings
- Protects critical membrane filters downstream

### Applications

- ◆ Process Water
- ◆ Inks & Dyes
- ◆ Air/Vent Filtration
- ◆ Acids & Bases
- ◆ Chemicals

GGD capsules are designed for use wherever efficient clarification or prefiltration is a critical part of the process. The capsules are made using fiberglass depth media and provide 99% retention at the rated pore size.

The high-efficiency GGD capsules are designed with the optimal filtration area so that the filters can remove large amounts of particulate and other contaminants over a long filter life. GGD capsules protect critical membrane filters in downstream liquid processes.

Applications for GGD capsule filters include removal of particulate contaminants from process water, specialty chemicals, inks and dyes. They are also used for tank vents to protect contents from particle contamination.

### GGD Capsule Filters - Filtration Area\*

Media	Capsule Length				
	2"	5"	10"	20"	30"
<b>Pleated Fiberglass Depth Media</b>	1.0 ft <sup>2</sup> (0.093m <sup>2</sup> )	2.8 ft <sup>2</sup> (0.260m <sup>2</sup> )	5.8 ft <sup>2</sup> (0.539m <sup>2</sup> )	11.6 ft <sup>2</sup> (1.078m <sup>2</sup> )	17.4 ft <sup>2</sup> (1.617m <sup>2</sup> )

\*Average – Filtration area varies with media thickness and porosity.

### Flow Rate / Filtration Area

The following table represents typical water flow at a one psi (69 mbar) pressure differential across a single 2 inch capsule with 1.0 ft<sup>2</sup> (0.093 m<sup>2</sup>) of media with 1/2" FNPT ports. The test fluid is water at ambient temperature. Higher pressure drops are acceptable, but as flows increase the pressure drop of the housing becomes more apparent.

Pore Size	0.22 μm	0.30 μm	0.45 μm	0.65 μm	1 μm	2 μm	3 μm	5 μm	10 μm	20 μm	30 μm
<b>GPM</b>	0.50	0.60	1.0	1.2	1.6	2.0	2.4	3.2	3.6	4.0	>4.0
<b>LPM</b>	1.89	2.27	3.78	4.54	6.05	7.75	9.08	12.11	13.62	15.14	>15.14

\* For approximate flow rates for 5" through 30" capsules, refer to the appropriate cartridge data sheet

### Construction Materials

<b>Housing</b>	Polypropylene
<b>Filtration Media</b>	Pleated Fiberglass Depth Media
<b>Media Support</b>	Polypropylene
<b>End Caps</b>	Polypropylene
<b>Center Core</b>	Polypropylene
<b>Outer Support Cage</b>	Polypropylene
<b>Sealing Method</b>	Thermal Bonding

### Maximum Operating Parameters

<b>Liquid Operational Pressure</b>	80 psi (5.5 bar) at 20 °C (68 °F)
<b>Gases Operational Pressure</b>	60 psi (4.1 bar) at 20 °C (68 °F)
<b>Operating Temperature</b>	43 °C (110 °F) at 30 psi (2.1 bar) in water
<b>Forward Differential Pressure</b>	50 psid (3.4 bard) at 20 °C (68 °F)
<b>Reverse Differential Pressure</b>	40 psid (2.7 bard) at 20 °C (68 °F)
<b>Recommended Changeout Pressure</b>	35 psid (2.4 bard)

## Sanitization/Sterilization

**Autoclave** ..... 250° F (121° C), 30 min, 5+ cycles

**Chemical Sanitization** ..... Industry standard concentrations of hydrogen peroxide, paracetic acid, sodium hypochlorite and other selected chemicals.

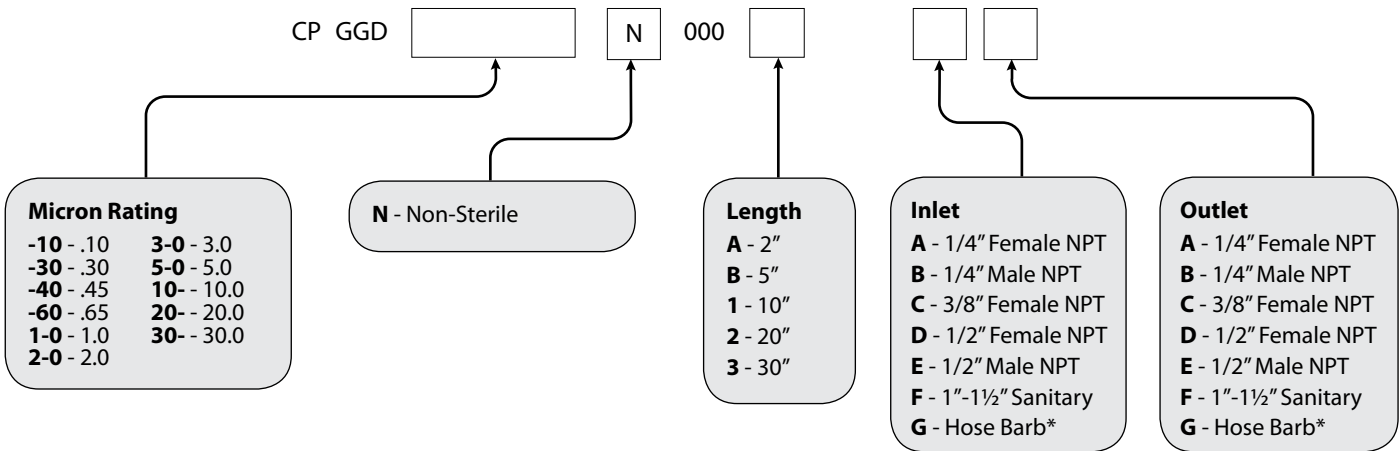
**Note** ..... GGD capsules are not to be used in steam.

## FDA and EC Compliance

All Critical Process Filtration capsule filters are designed to meet the FDA requirements for processing food and beverage products. The materials used to construct GGD capsule 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. Membrane 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.

## Ordering Information

Capsule order number example: General Service Grade Pleated Fiberglass Depth Media, 1.0 Micron Rating, Non-Sterile, 10" Length, Sanitary Inlet, Sanitary Outlet =CPGGD1-0N0001FF.



Hose Barb Diameter Ranges\*

	Minimum	Maximum
<b>Outer Diameters</b>	11/32" (8.6mm)	9/16" (14.0mm)
<b>Inner Diameters</b>	5/32" (4.0mm)	13/32" (10.5mm)

## Extractables

GGD capsule filters exhibit low levels of non-volatile residues.

## Quality Assurance and Standards

Critical Process Filtration uses state of the art computer controlled equipment to consistently produce high quality products as well as significantly reduce hand operations that can compromise quality. All manufacturing and testing is continuously monitored in real time so that data can be quickly and easily analyzed to facilitate improvements in both quality and cost.

The Critical Process Filtration manufacturing and quality systems meet rigorous ISO 9001:2008 standards. Each operation, including assembly, testing, cleaning, drying and packaging, is done in an appropriately rated clean room. Manufacturing is controlled using a sophisticated manufacturing system that networks work stations, manufacturing centers and inspection points. During the manufacturing and inspection processes, data is collected in real time to allow continuous quality monitoring and full traceability of all materials and processes.

## 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.

Request a **QUOTE** from your area representative



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