GPM Capsule Filters

Polypropylene Membrane

CRITICAL PROCESS FILTRATION, INC.

Optimized for maximum filter life

Vent filtration for the protection of tank contents

Final filtration of solvents, alcohols and other non-aqueous liquids

Applications

- Solvents
- Tank Vent
- Process Gases
- Compressed Air

GPM capsules are manufactured with inherently hydrophobic polypropylene membrane. They are designed for use in the filtration of non-aqueous liquids, for filtration of gases and as vent filters. Each GPM filter lot is tested using the water intrusion method to assure quality before it is released from manufacture.

The capsule membrane surface area, filter core design, pleat configuration and pleat packing density have been optimized to provide increased life.

Applications for GPM capsule filters include final filtration of solvents and alcohols, final filtration of compressed air and process gases, and tank vent filtration to prevent contaminants from reaching critical ingredients while in storage.

GPM Capsule Filters - Filtration Area

Media	Capsule Length				
	2″	5″	10″	20″	30″
Polypropylene Membrane	1.0 ft^2 (0.093m^2)	3.0 ft^2 (0.279m^2)	7.0 ft^2 (0.650m^2)	14.0 ft^2 (1.301m^2)	21.0 ft^2 (1.951m^2)

Flow Rate / Filtration Area

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

Air/Gas Flow Rates			Liquid Flow Rates		
µm Rating	0.10 µm	0.22 µm	**µm Rating**	0.10 µm	0.22 µm
SCFM	3.1	4.57	**GPM**	0.11	0.39
			LPM	0.42	1.48

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

Construction Materials

Housing	Polypropylene
Filtration Media	Polypropylene Membrane
Media Support	Polypropylene
End Caps	Polypropylene
Center Core	Polypropylene
Outer Support Cage	Polypropylene
Sealing Method	Thermal Bonding

Maximum Operating Parameters

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

General Service Grade

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 .....GPM 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 GPM 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. The 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

GPM capsules typically 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.

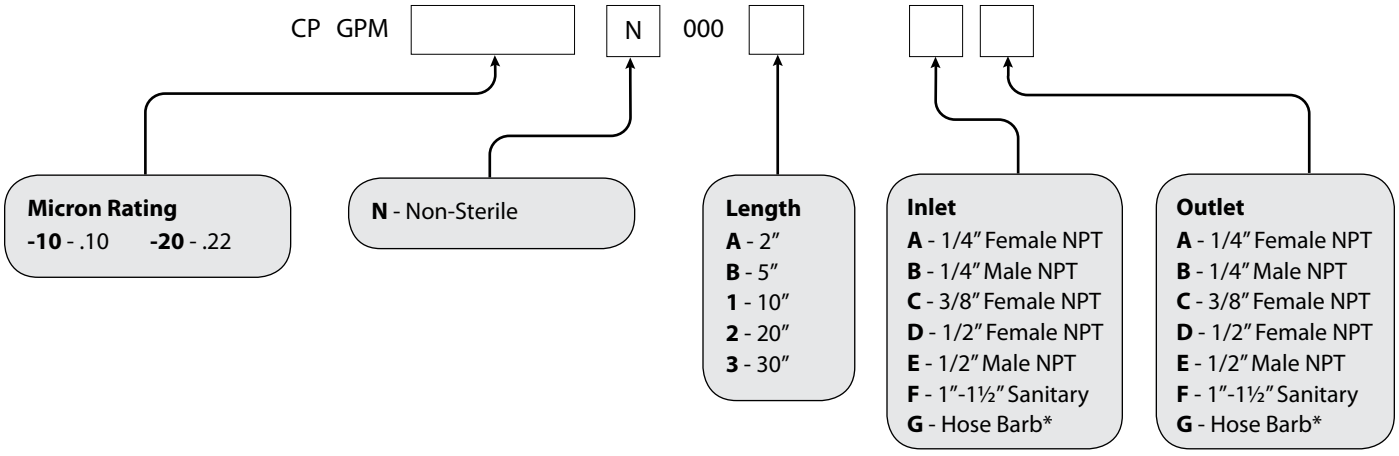
The Critical Process Filtration manufacturing and quality systems meet rigorous ISO 9001:2008 standards. Each operation, including assembly, testing, cleaning, drying and packaging, is done in an appropriately rated clean room. Manufacturing is controlled using a sophisticated manufacturing system that 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.

Ordering Information

Capsule order number example: General Service Grade Polypropylene Membrane, 0.22 Micron Rating, Non-Sterile, 10" Length, Sanitary Inlet, Sanitary Outlet = CPGPM-20N0001FF.



Hose Barb Diameter Ranges*

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

Request a QUOTE from your area representative

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