

# FPD Mini-Capsule Filters

*Pleated Polypropylene Depth Media*



**Clarification or prefiltration of wine, beer, bottled water**

**Protect critical membrane filters downstream**

**Wide range of high efficiency retention ratings**

**High capacity for long life**

## Applications

- ◆ Wine
- ◆ Beer
- ◆ Bottled Water
- ◆ Soft Drinks
- ◆ Aseptically Packaged Liquids

FPD mini-capsules are made with polypropylene microfiber media. Designed with the optimal filtration area, the filters can remove large amounts of particulate and other contaminants over a long filter life. FPD mini-capsules protect critical membrane filters downstream by removing 99.9% of contaminants at the rated pore size.

Small-scale applications for FPD mini-capsule filters include removal of particulate contaminants from wine, beer, bottled water and aseptically packaged products like juices.

Polypropylene depth media filters are used for critical upstream clarification of products as they move through the production process. When used in final filtration applications, the filters protect the critical membrane filters downstream. Representative filters are integrity tested during production and rinsed to assure no manufacturing debris remains in the finished mini-capsules.

Food and Beverage Grade

## FPD Mini-Capsule Filters - Dimensions\*

Diameter	Length	Filtration Area*
75 mm (2.95")	Body Length = 2.85" (72.4mm) Overall Length = 3.75" to 5.19" (Varies with Choice of Inlet/Outlet)	500 cm <sup>2</sup> (0.5 ft <sup>2</sup> ) (nominal)

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

## Flow Rates

The following table represents typical water flow at a one psi (69 mbar) pressure differential through a mini-capsule filter with 500 cm<sup>2</sup> (0.54 ft<sup>2</sup>) of media and 1/4" hose barb inlet and outlet 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	0.10 μm	0.22 μm	0.45 μm	0.65 μm	1 μm	3 μm	5 μm	10 μm	20 μm	30 μm	40 μm	60 μm	100 μm
<b>GPM</b>	0.04	0.13	0.21	0.26	0.32	0.37	0.42	0.48	0.53	0.58	0.63	1.00	1.03
<b>LPM</b>	0.15	0.50	0.80	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	3.8	3.9

## Construction Materials

<b>Housing</b>	Polypropylene
<b>Filtration Media</b>	Pleated Polypropylene 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)

## Integrity Test Information

Representative sample FPD mini-capsule elements are factory tested for integrity before shipment. Field duplication of these tests is not practical because of the absence of commercial portable testing equipment.

## 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** ..... FPD mini-capsules are not suitable for inline steam sterilization.

## FDA and EC Compliance

All Critical Process Filtration filters are designed to meet the FDA requirements for processing food and beverage products. The materials used to construct food & beverage grade 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. FPS 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

Food & beverage grade filters typically exhibit low levels of non-volatile residues.

## Quality Assurance and Standards

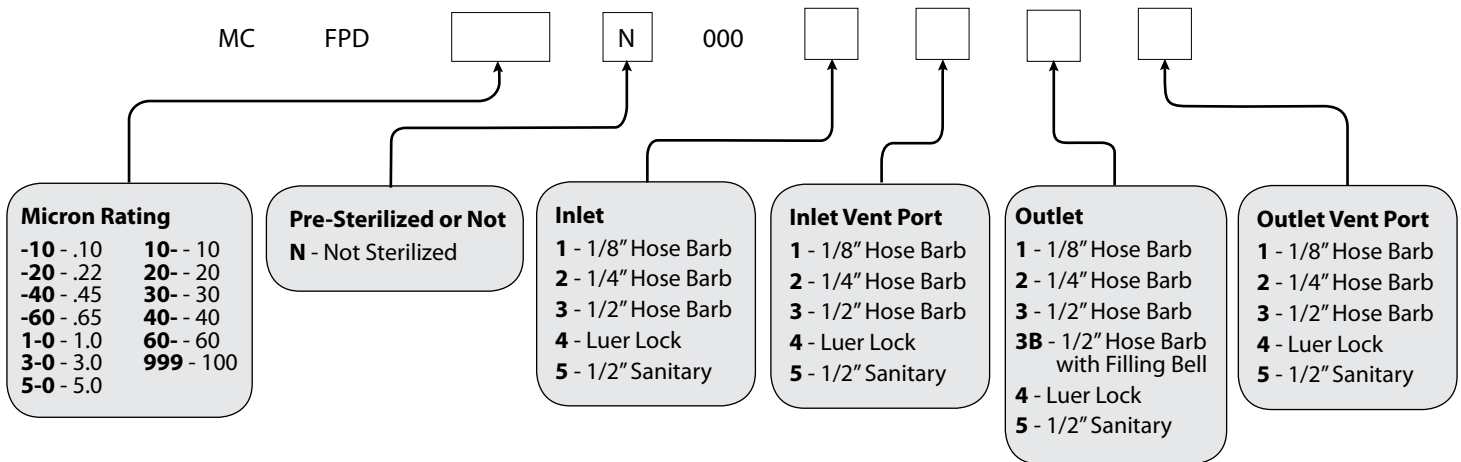
Critical Process Filtration filters are designed for use in cGMP-compliant processes. Our state of the art manufacturing facility and quality management system are certified to meet ISO 9001 standards. Each operation from assembly and test to cleaning, drying, and packaging is done in appropriately rated clean rooms. Each filter is assigned a lot code and serial number to ensure the traceability of manufacturing data and materials. A sophisticated MRP system collects and processes real time data from manufacturing centers and inspection points, allowing quick and easy analysis driving constant improvements in quality.

## We Do It Right the First Time

We solve filtration challenges where filters are a critical part of your manufacturing process. Our Technical Team works with you to engineer filtration solutions that fit your needs. Then we manufacture the filters in our ISO 9001 certified facility and deliver them fast, so you have the right filters when you need them.

## Ordering Information

Mini-Capsule order number example: Food & Beverage Grade Pleated Polypropylene Depth Media, 0.45 Micron Rating, Non-Sterile, 1/2" Hose Barb Inlet, Luer Lock Inlet Vent Port, 1/2" Hose Barb Outlet, Luer Lock Outlet Vent Port = MCFPD-40N0003434.



Request a **QUOTE** from your area representative



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