



HLP Micro Capsule Filters

High Loft Pleated Polypropylene Depth Media

HLP Micro Capsule filters are made using high-loft Polypropylene depth media. They are designed to efficiently filter liquids with a high particle burden including water, CMP slurries, chemicals and solvents. Pore sizes range from 0.10 to 10 μm and available filter devices scale from laboratory to full production using identical materials to ensure consistent results.

HLP Micro Capsule filters have superior retention of oversize particles for final product filtration or as a prefilter to protect downstream filters. With the capacity to remove large amounts of particulate and other contaminants, HLP Micro Capsule filters provide long life and high throughput. Materials of construction have been specifically selected to minimize extractables.

Critical Process provides unrivaled delivery times, technical consulting before purchasing, and very competitively priced high-performance products. Our comprehensive testing & analysis and validation services support your team whenever they need it. Your process experts partnering with our filtration experts is how we deliver your company's solution right the first time.

Clarification & Prefiltration

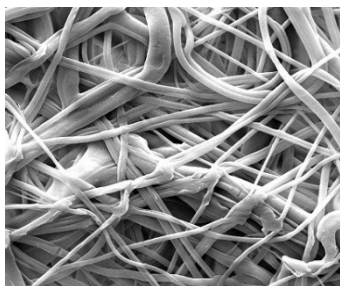


MICRO CAPSULES – Nominal Dimensions

Body Length: 1.9 in. (4.8 cm)

Overall Length: 2.8 to 3.8 in. (7.1 to 9.7 cm)

Outside Diameter: 2.6 in. (6.6 cm)



HLP Micro Capsule filters are recommended for clarification & prefiltration in:

- CMP Slurries
- Resists
- Acids & Bases
- Plating Solutions
- Fermentation Broths
- Buffers & Other Fluids
- Solvents
- Process Water

Maximum Operating Parameters

MICRO CAPSULES	
Liquid Operational Pressure	80 psi at 68 °F (5.52 bard at 20 °C)
Gases Operational Pressure	60 psi at 68 °F (4.14 bar at 20 °C)
Operating Temperature (water)	110 °F at 30 psid (43 °C at 2.07 bard)
Forward Differential Pressure	Liquid - 80 psid at 68 °F (5.52 bard at 20 °C) Gas - 60 psi at 68 °F (4.14 bar at 20 °C)
Reverse Differential Pressure	50 psid at 68 °F (3.45 bard at 20 °C)
Recommended Changeout Pressure	35 psid (2.41 bard)

Sanitization & Sterilization

Autoclave	250 °F (121 °C), 30 min, 25+ cycles
Chemical Sanitization	Performed using industry standard concentrations of hydrogen peroxide, peracetic acid, sodium hypochlorite and other selected chemicals.

Extractables

HLP Micro Capsule filters typically exhibit low levels of non-volatile residues.

TOC and Conductivity

HLP Micro Capsule filters conform with TOC and water conductivity standards for SEMI Standard F75-1102, with TOC standards of USP <643> and the water conductivity standards of USP <645> after an appropriate flush with purified water.

Non-Fiber Releasing

HLP Micro Capsule filters comply with Title 21 CFR sections 210.3 (b)(6) and 211.72, for non-fiber releasing filters.

FDA and EC Compliance

Materials meet the requirements 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 applicable. All materials used to make the filters are listed in European Commission Regulation EU/10/2011, Annex 1.

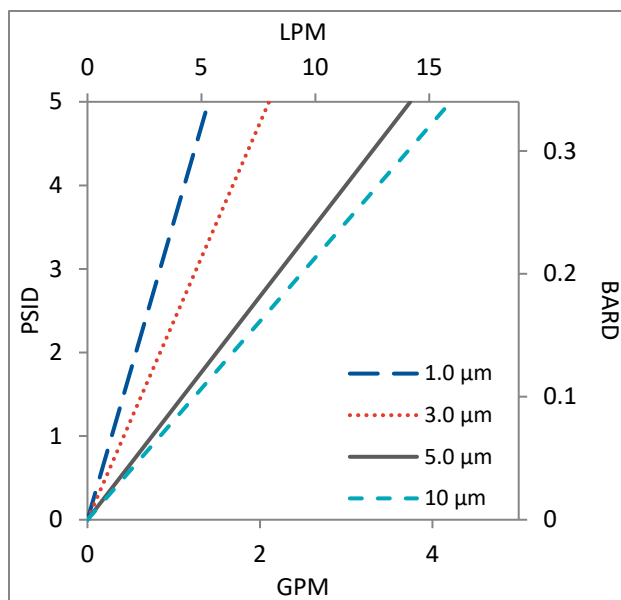
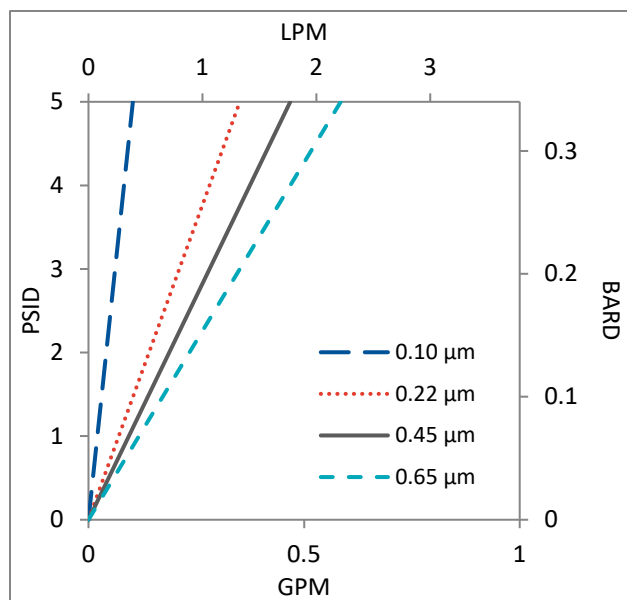
Filtration Area (Nominal)

Area	0.365 ft ²
	339 cm ²

Construction Materials

Filtration Media	Pleated High Loft Polypropylene Depth Media
Media Support	Polypropylene
End Caps, Center Core, Outer Support Cage, Micro Capsule Housing	Polypropylene
Sealing Method	Thermal Bonding

Flow Rates for HLP Micro Capsule by Pore Size



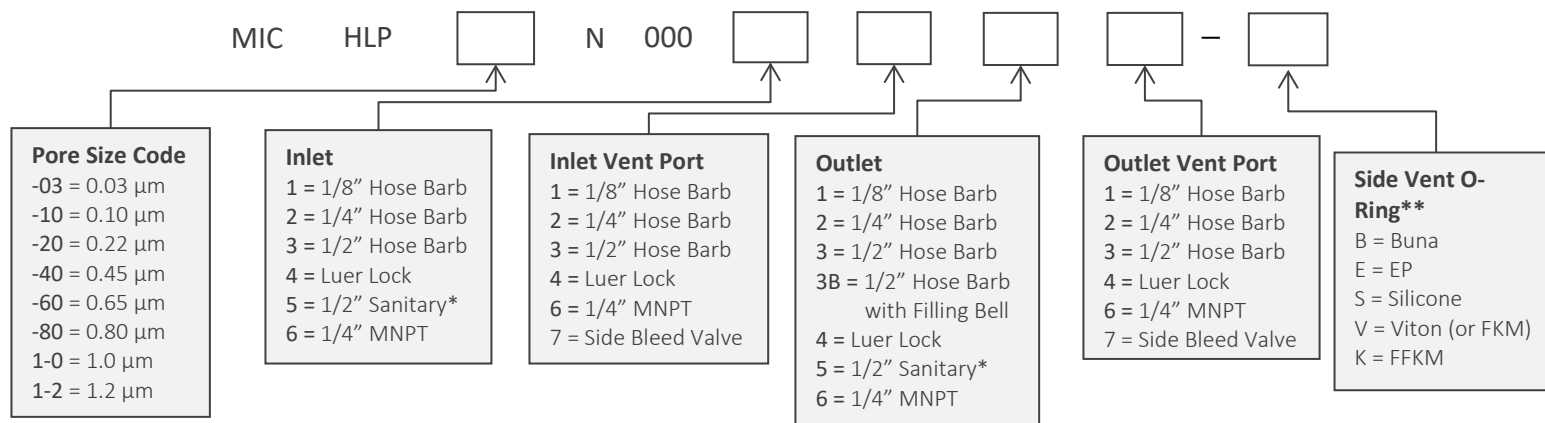
Flow rates for Micro Capsule filters are per filter. The test fluid is water at ambient temperature. Flows are tested using a Micro capsule filter with 1/2" Sanitary inlet and outlet ports. Rates will vary based on end configuration of the Micro capsule.

HLP Micro Capsule Filters Ordering Information

All Critical Process filters are configurable to meet customer specifications.
Fill in the corresponding codes in the boxes below to build your Part Number.

To consult with one of our technical team members, request a quote or place an order:
call (603) 880-4420 or [contact us here](#).

Micro Capsule Filters



*When choosing the Sanitary Inlet/Outlet, the Luer Lock or bleed valve option is required for the Vent Port
** O-Ring is only available on Bleed Valve



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Data Sheet HLP Micro DS Rev -