

MicroVantage™ MAS-B Series

Beverage Grade Polyethersulfone Membrane Filter Cartridges

MicroVantage Ultra Premium Filter Series



- Absolute retention ratings from 0.1 to 1.2 microns
- 7.2 square feet (0.67 m²) of media surface area per ten inch length for optimal performance
- Fully integrity tested to ensure reliable performance in critical applications
- 100% flushed with 18 megohm DI water for low extractables
- Rigid, molded cage protects pleated media and strengthens structural stability
- Manufactured in a Class 10,000 Clean Room environment for high purity
- Complies with Food & Drug Administration's CFR criteria for food & beverage contact
- Meets USP Class VI Biological Test for plastics
- Available in standard lengths and end cap configurations to fit most filter housings
- Produced up to 40 inches in length (10 inch modules)

Applications

Food & Beverage	Wine
Malt Beverages	Bottled Water
Beer	Process Water
RO Pre/Post Filtration	Water & Wastewater

Specifications & Operating Parameters

Pore Sizes 0.1, 0.2, 0.45, 0.65, 0.8, 1.0, 1.2 microns absolute retention

Nominal Lengths 9.75" (24.7 cm), 10" (25.4 cm), 20" (50.8 cm), 30" (76.2 cm), 40" (101.6 cm)

Outside Diameter 2.67" (6.78 cm)

Inside Diameter 1.0" (2.54 cm)

Media Surface Area 7.2 sq.ft. (0.67 m²) per 10 inches filter length

Gaskets/O-rings

Silicone, Buna N, EPR, Viton, Teflon Encapsulated Viton (O-rings only)

Materials of Construction

Filter Media:	Polyethersulfone
Outer Cage	Polypropylene
Inner Core:	Polypropylene
End caps:	Polypropylene

Maximum Operating Temperature 176°F (80°C)

Recommended Change-out Differential Pressure 35 psid (2.4 bar)

Maximum Differential (Collapse) Pressure 75 psid @ 70°F (5.2 bar @21°C), 40 psid @176°F (2.8 bar @ 80°C)

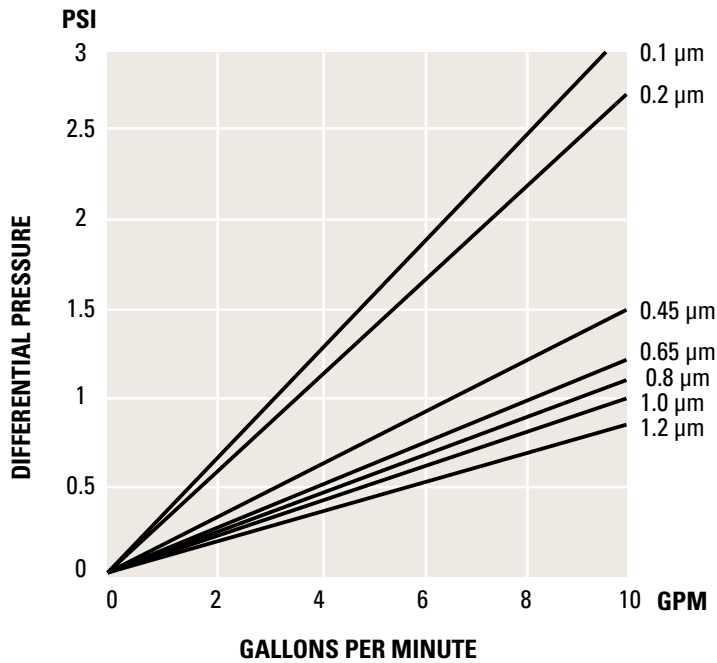
Sanitization and Sterilization

Hot water at 175°F (80°C) at 5 psid for 30 minutes
In-line steam at 257°F (125°C) @ 1 psid (0.7 bar) for 30 minutes
Autoclavable at 257°F (125°C) for 30 minutes

FDA and USP Compliance

All filters are manufactured of virgin polypropylene materials with no additives or other manufacturing agents. All polypropylene materials comply with the requirements of Food and Drug Administration Title 21 of The Code of Federal Regulations 174.5, 177.1520 and 177.1630. All components meet current USP Class VI biological tests for plastics

Flow vs. Pressure Drop



This chart represents the typical water flow per 10" cartridge length. Cartridges are tested in water at ambient temperature. Data may be extrapolated for multiple lengths, but as flow rate increases, ΔP of the housing becomes more apparent.

Integrity Testing

PORE SIZE	AIR DIFFUSION RATE
0.1 µm	≤30cc/min@48psi
0.2 µm	≤30cc/min@35psi
0.45 µm	≤30cc/min@20psi
0.65 µm	≤30cc/min@15psi
0.8 µm	≤30cc/min@12psi
1.0 µm	≤30cc/min@8psi
1.2 µm	≤30cc/min@7psi
Per 10" length water wetted membrane	

Ordering Guide (Example: MAS0.2-10S4S-B)

MAS	0.2	–	10	S4	S	–	B	
PRODUCT CODE	MICRON		LENGTH	END CAP CONFIGURATION	GASKET/O-RING		GRADE	OPTION
MAS	0.1		9.75"	S1 = DOE	B = Buna N		B = Beverage	HT = High Temperature*
	0.2		10"	S3 = 222 w/ Fin End	E = EPDM			
	0.45		19.75"	S4 = 222 w/ Flat End	S = Silicone			
	0.65		20"	S5 = 226 w/ Fin End	V = Viton			
	0.8		29.25"	S6 = 226 w/ Flat End	T = Teflon encapsulated Viton (O-ring only)			
	1.0		30"	S7 = Internal O-ring with Recessed Plug				
	1.2		40"	S9 = Internal O-ring on both ends				

* High Temperature construction (cage, core, end caps): Maximum Temperature 200°F (93.3°C) - Available only in 222 or 226 with Fin or Flat end caps.

Filter Housings

Shelco manufactures a full line of filter housings. From our rugged single cartridge housings to our heavy duty multi-cartridge housings. Shelco is the perfect choice for your filtration solutions.