

# MicroVantage™ MAN Series

Nylon 66 Membrane Filter Cartridges

# MicroVantage Ultra Premium Filter Series



- Absolute retention ratings from 0.1 to 0.65 microns
- Nylon 66 membranes provide electropositive charge to enhance particle removal through electrokinetic adsorption
- 7.2 square feet (0.67 m<sup>2</sup>) of media surface area per ten inch length for optimal performance
- MAN grade cartridges are flushed and dried to ensure reliable performance in critical applications
- Rigid, molded polypropylene cage protects pleated media and strengthens structural stability
- Manufactured in a state-of-the-art white room and Class 10,000 clean room 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

RO Pre/Post Filtration	Food & Beverage
DI Water	Bottled Water
Plating Solutions	Microelectronics
Specialty Chemicals	Process Water
Water & Wastewater	Cosmetics

## Specifications & Operating Parameters

**Pore Sizes** 0.1, 0.2, 0.45, 0.65 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 m<sup>2</sup>) per 10 inches filter length

### Gaskets/O-rings

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

### Materials of Construction

Filter Media:	Nylon 66
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

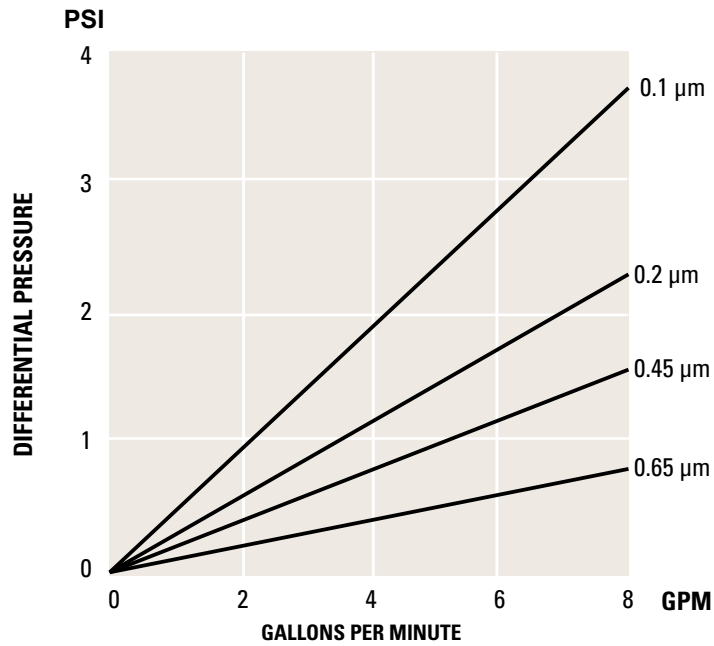
In-line steam at 257°F (125°C) @ 1 psid (0.7 bar) for 30 minutes

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,  $\Delta P$  of the housing becomes more apparent.

### Ordering Guide (Example: MAN0.2-10S4S-E)

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

\* 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.