

# MicroVantage™ WGPS Series

Water Grade Polysulfone Membrane Filter Cartridges

# MicroVantage Ultra Premium Filter Series



- Absolute retention ratings from 0.03 to 1.0 microns
- 6.0 square feet (0.56 m<sup>2</sup>) of media surface area per ten inch length for optimal performance
- Highly tapered asymmetric pore structure provides excellent flow rate and dirt holding capacity
- Cost effective absolute filtration for less critical applications - not integrity tested
- Rigid, molded cage protects pleated media and strengthens structural stability
- Manufactured in state-of-the-art white 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 common and end cap configurations to fit most filter housings
- Produced in standard lengths up to 40 inches

## Applications

RO Pre/Post Filtration  
DI Water  
Plating Solutions  
Specialty Chemicals  
Water & Wastewater

Food & Beverage  
Bottled Water  
Microelectronics  
Process Water  
Cosmetics

## Specifications & Operating Parameters

**Pore Sizes** 0.03, 0.05, 0.1, 0.2, 0.45, 0.65, 1.0 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** 6.0 sq.ft. (0.56 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: Polysulfone  
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

Forward: 75 psid @ 70°F (5.2 bar @ 21°C)  
Reverse: 40 psid @ 176°F (2.8 bar @ 80°C)

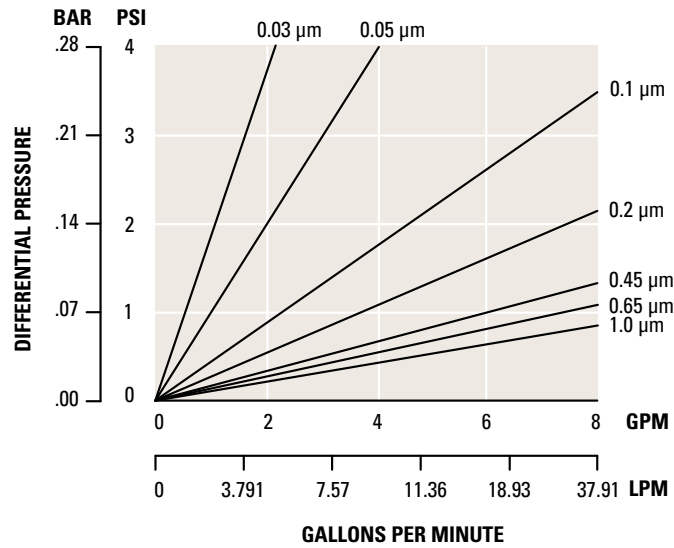
### Sanitization and Sterilization

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 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 typical water flow per 10" cartridge length. The test fluid is water at ambient temperature. Extrapolation for multiple elements tends to be linear, but as flows increase the  $\Delta P$  of the housing becomes more apparent.

### Ordering Guide (Example: WGPS0.2-10S4S)

| WGPS         | 0.2   | – | 10  | S4   | S  |
|--------------|---|---|---|--|--|
| PRODUCT CODE | MICRON  |   | LENGTH  | END CAP CONFIGURATION  | GASKET / O-RING  |
| WGPS         | 0.03<br>0.05<br>0.1<br>0.2<br>0.45<br>0.65<br>1.0 |   | 9.75"<br>10"<br>19.75"<br>20"<br>29.25"<br>30"<br>40" | S1 = DOE<br>S3 = 222 w/ Fin End<br>S4 = 222 w/ Flat End<br>S5 = 226 w/ Fin End<br>S6 = 226 w/ Flat End<br>S7 = Internal O-ring with Recessed Plug<br>S9 = Internal O-ring on both ends | B = Buna N<br>E = EPR<br>S = Silicone<br>V = Viton<br>T = Teflon Encapsulated<br>Viton (O-ring only) |

### 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.