

MicroVantage™ MGF Series

High Efficiency Glass Fiber Filter Cartridges

MicroVantage

Ultra Premium Filter Series



- High efficiency retention ratings from 0.2 to 30 microns
- Optimal surface area designed for maximum throughput and high dirt holding capacity
- Borosilicate microfiberglass media with polypropylene hardware construction offers wide range of chemical compatibility
- Uniform and fixed pore construction eliminates unloading under high differential pressures
- Long service life - reduces operator costs
- Rigid, molded cage protects pleated media and strengthens structural stability
- Manufactured in state-of-the-art white room manufacturing environment for high purity
- Available in standard lengths and end cap configurations – fits most filter housings

Applications

Wine Prefiltration	Chemicals
Blowdown post filter	Paint / Inks
Magnetic tape coatings	Oil & Gas

Specifications & Operating Parameters

Pore Sizes 0.2, 0.45, 1.0, 3.0, 10.0, 30.0 microns

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 5.0 sq.ft. (0.46 m²)
per 10 inches in length

Gaskets/O-rings

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

Materials of Construction

Filter Media:	Borosilicate Microfiberglass
Support Layer:	Polyester
Cage and End caps:	Polypropylene

Maximum Operating Temperature 176°F (80°C)

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

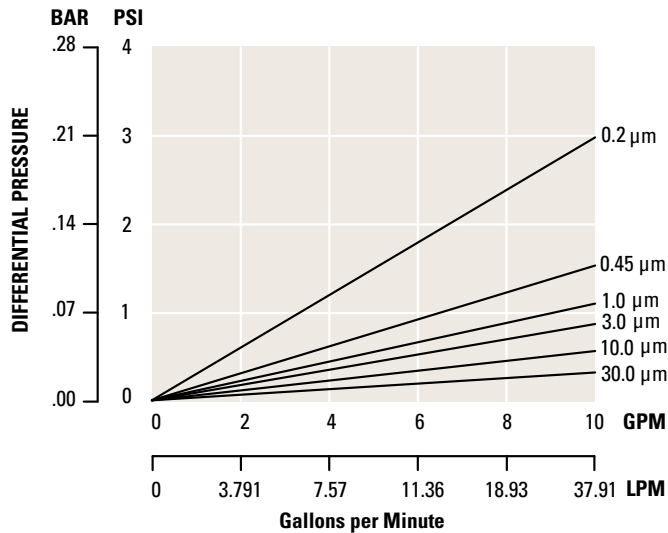
Maximum Differential (Collapse) Pressure

80 psid @ 70°F (5.5 bar @21°C), 40 psid @ 150°F (2.75 bar @60°C)

FDA and USP Compliance

All materials comply with FDA requirements for food contact per CFR Title 21 177.1520. All components meet USP Class VI Plastic biological reactivity tests.

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 ΔP of the housing becomes more apparent.

Filter Removal Efficiency

MICRON	BETA 10 90%	BETA 100 99%	BETA 1000 99.98%
0.2 micron	0.20	0.6	1.0
0.45 micron	0.45	0.8	2.0
1.0 micron	1.0	2.0	4.0
3.0 micron	3.0	5.5	10.0
10.0 micron	10.0	15.0	18.0
30.0 micron	30.0	37.0	44.0

Ordering Guide (Example: MGF3.0-10S4E)

MGF	3.0	10	S4	E
PRODUCT CODE	MICRON	LENGTH	END CAP CONFIGURATION	GASKET/O-RING
MGF	0.2 0.45 1.0 3.0 10.0 30.0	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)

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.