BULLETIN 08FP02

MICROFIBERGLASS FILTER CARTRIDGES

MET PRO CORPORATION *Keystone Filter Division*

Keystone Microfiberglass Cartridges — the lowest cost alternative for many filtration applications

These filter cartridges are designed to provide the most economical solution for a wide range of filtration problems. State of the art microfiberglass is layered with spun bonded polyester to produce highly efficient particulate removal with extremely low pressure drops. The pleated construction allows greater surface area than depth type cartridges which translates directly into longer life.

Microfiberglass with Polypropylene Endcaps

MATERIALS OF CONSTRUCTION:
Media: Microfiberglass layered with spun bonded polyester; 50 micron is 100% polyester
Support Materials: Polypropylene
End Caps: Polypropylene

NOMINAL MICRON RATINGS:
0.1, 0.2, 0.45, 1.0, 3.0, 10.0, 30.0, 50.0
Ratings derived from independent laboratory tests using latex bead suspensions and particle counter readings.

EFFECTIVE FILTRATION AREA:
4 square feet per layer per 10 inch length

DIMENSIONS:
2¾" or 2½" OD x 1"ID
Nominal 5", 9¾", 10", 19½", 20", 29¼", 30", 39", and 40" lengths

OPERATING CHARACTERISTICS:
To 75 psid at 68°F
To 40 psid at 150°F

Microfiberglass with PVC Endcaps

MATERIALS OF CONSTRUCTION:
Media: Microfiberglass layered with spun bonded polyester; 50 micron is 100% polyester
Support Materials: Polypropylene
End Caps: Plastisol (self-gasketing PVC)

NOMINAL MICRON RATINGS:
0.1, 0.2, 0.45, 1.0, 3.0, 10.0, 30.0, 50.0
Ratings derived from independent laboratory tests using latex bead suspensions and particle counter readings.

EFFECTIVE FILTRATION AREA:
4 square feet per layer per 10 inch length

DIMENSIONS:
2¾" or 2½" OD x 1"ID
Nominal 5", 9¾", 10", 19½", 20", 29¼", 30", 39", and 40" lengths

OPERATING CHARACTERISTICS:
To 75 psid at 68°F
To 40 psid at 150°F

Ordering Instructions

Use the chart below to determine the exact filter cartridge you require. Color coded netting simplifies micron identification.

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Microfiberglass

Micron Rating

*	00.1	Black
	00.2	Green
	00.4	Yellow
	01.0	Natural
	03.0	Blue
	10.0	Red
	30.0	Purple
	50.0	White

Nominal Cartridge Length (Inches)
5", 9.75", 10", 19.5", 20", 29.25", 30", 39", 40"

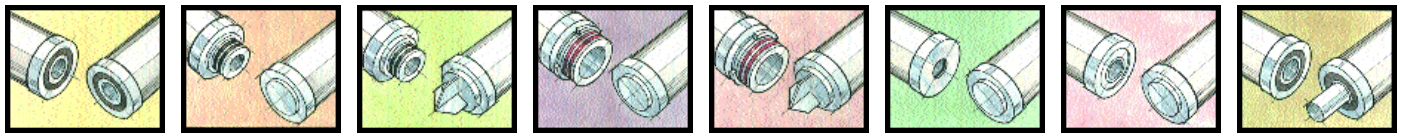
Gasket Material

E = EPR	V = Viton	T = Teflon
S = Silicone	N = Buna	

Cartridge Style
- D = PVC (Double Open End)
- H = DOE PP (Double Open End)
- J = 222 O-ring (Closed End)
- K = 222 O-Ring (Fin End)
- L = 226 O-ring (Closed End)
- M = 226 O-ring (Fin End)
- R = SOE 118 (Internal O-Ring)
- S = Spring†
- T = SOE 020 (Gelman Style)
- X = Extended Core

* FDA Grade Media

† A spring configuration endcap is available in both 2¾ and 2½ O.D.

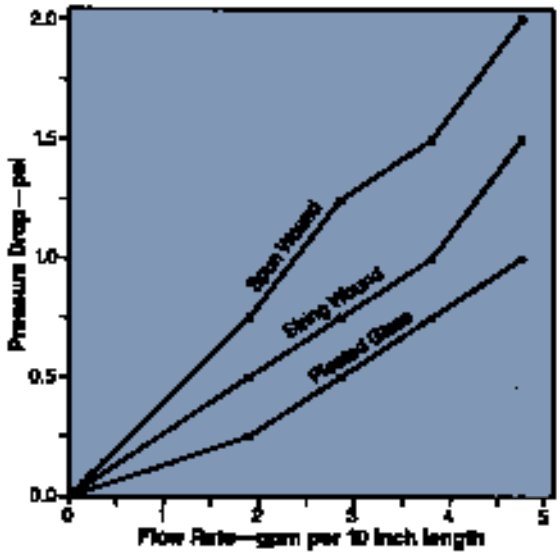


H **J** **K** **L** **M** **R** **T** **X**

Superior Performance

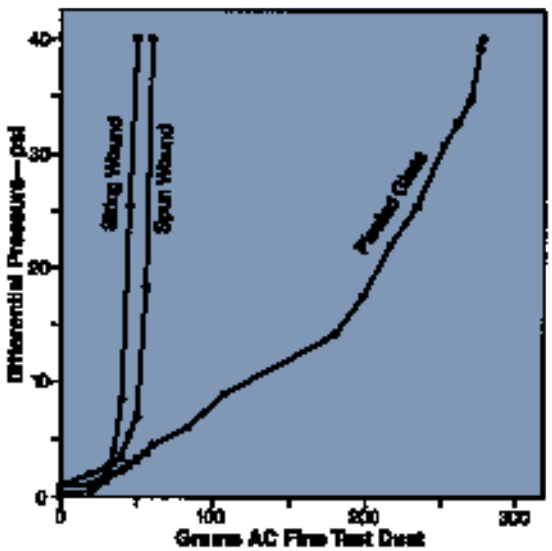
The following charts depict laboratory test results that verify the superior filtration efficiency and longer cartridge life realized by using Keystone pleated microfiberglass cartridges instead of string wound or spun type depth cartridges. All of the cartridges used in these tests were rated at one micron.

Flow Rate Comparison — 1 Micron



Clean pressure drop on the string wound cartridge is 1.5 times greater than the pleated glass, and the spun type cartridge has twice the pressure drop of the pleated glass. Lower pressure drop contributes to longer cycle time between cartridge changes.

Dirt Holding Capacity — 1 Micron

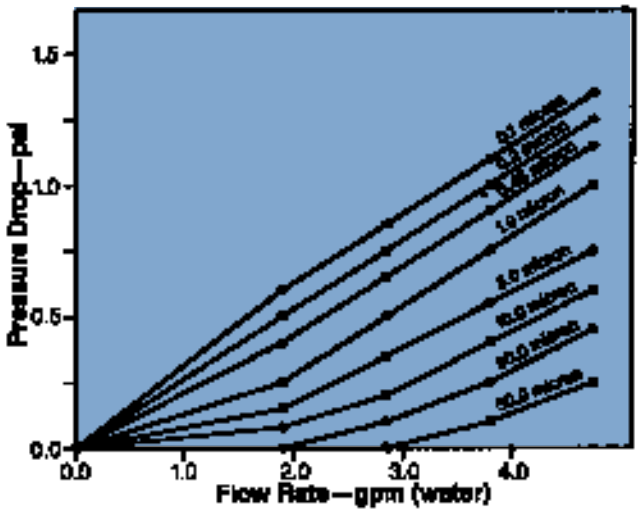


The pleated glass cartridge held five times the amount of test dust removed by either the spun or string wound types of cartridges. This test proves that the extra surface area provided by the pleated construction translates directly into greater dirt holding capacity and longer cartridge life.

Liquid Flow Rate

Microfiberglass media in a pleated construction provides excellent flow rates with minimum pressure drop. Flow rates shown are for a nominal 10 inch long cartridge. For fluids other than water, multiply the pressure drop by the fluid viscosity in centipoise.

Flow vs Pressure Drop — Microfiberglass



Retention Specifications

	Liquid Service				Gas Service
Nominal Micron Rating	Particulate Removal Efficiency				DOP Removal Efficiency
	90%	99%	99.9%	99.99%	
	Beta Ratio				
	10	100	1,000	10,000	
0.1	0.1	0.4	0.6	0.8	99.999%
0.2	0.2	0.5	0.7	1.0	99.99%
0.45	0.45	1.0	2.0	3.0	99.985%
1.0	1.0	3.0	5.0	7.0	93%
3.0	3.0	7.0	10.0	12.0	65%
10.0	7.0	10.0	15.0	25.0	50%
30.0	20.0	30.0	40.0	50.0	15%
50.0	30.0	40.0	50.0	60.0	—

Ratings are based on laboratory tests using AC Fine Test Dust and Latex Spheres in water at a flow rate of 2.5 gpm per 10 inch cartridge at room temperature. Field results will be influenced by the type of fluid and contaminant as well as flow rate and temperature.

BETA RATIO is an alternate method of expressing efficiency. Beta= 1/(1-Efficiency).

GAS: Removal ratings are for Dioctyl Pathalate (DOP) which produces a 0.3 micron particle when dispersed as an aerosol.

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Water Quality Association MEMBER