# MicroSentry™ MS Series

*Wound Filter Cartridges*

- Precision winding patterns ensure accurate filtration ratings and high retention efficiencies
- State-of-the-art computerized production machinery eliminates product variability
- Various fibers and core materials for compatibility with a broad range of chemicals and high temperature applications
- Suitable for filtration of liquids, compressed air and gases
- Cost-effective and proven versus melt blown, spun-bond and resin-bonded cartridges
- Available in standard 2 1/2" and 4 1/2" (BB Style) cartridge diameters

## Applications

| | |
|---|---|
| Oils | Air / Gas |
| Petrochemicals | Photo Solutions |
| Magnetic Coatings | Process Water |
| Food & Beverage | Solvents |
| Pre-filtration | Paint / Inks |
| Water & Wastewater | Chemicals |

## Specifications & Operating Parameters

**Pore Sizes** 0.5, 1, 3, 5, 10, 20, 25, 50, 100 microns

**Nominal Lengths** 2.5" Dia - 9 3/4", 9 7/8", 10", 20", 30", 40"
4.5" Dia - 10" & 20" Only

**Outside Diameters** 2 1/2" & 4 1/2"

**Inside Diameter** 1"

### Materials of Construction

Filter Media:
FDA Polypropylene, Industrial Polypropylene, FDA Bleached Cotton, Industrial Bleached Cotton, Polyester

Core:
Polypropylene, 304 Stainless Steel, 316 Stainless Steel, Tin Steel

### Maximum Operating Temperature

| Material | Polypropylene Core | Metal Core |
|---|---|---|
| Cotton | 140°F (60°C) | 250°F (121°C) |
| Polypropylene | 140°F (60°C) | 180°F (82°C) |
| Polyester | 140°F (60°C) | 275°F (135°C) |

### Recommended Change-out Differential Pressure

20 psid (1.4 bar)

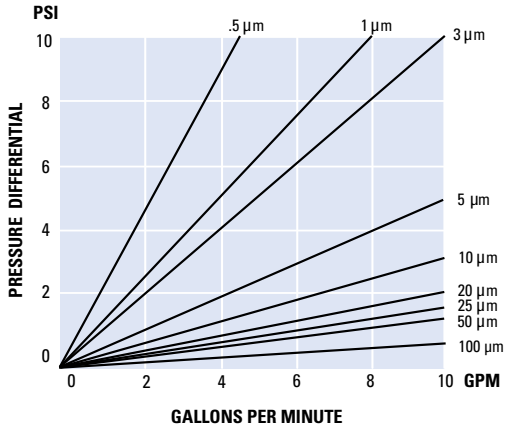
### FDA Compliance

FDA Bleached Cotton and FDA Polypropylene filters are manufactured of materials that comply with FDA requirements for food contact per CFR Title 21

| FILTER MEDIUM | FDA COTTON | COTTON | FDA POLYPROPYLENE | INDUSTRIAL POLYPROPYLENE | POLYESTER |
|---|---|---|---|---|---|
| Compatible with | | | | | |
| Potable liquids, water | 4 | 0 | 4 | 0 | 3 |
| Organic Solvents | 4 | 4 | 3 | 3 | 4 |
| Oils | 4 | 4 | 2 | 2 | 3 |
| Organic Acids | 3 | 3 | 4 | 4 | 3 |
| Alkalies | 3 | 3 | 4 | 4 | 0 |
| Oxidizing Acids | 2 | 2 | 1 | 1 | 3 |
| Strong Inorganic Acids | 0 | 0 | 4 | 4 | 2 |
| DiluteInorganic Acids | 2 | 2 | 4 | 4 | 3 |

0 = Not Recommended, 1 = Poor, 2 = Fair, 3 = Good, 4 = Excellent

## Flow vs. Pressure Drop




This chart represents the typical flow rate of polypropylene media per 10" cartridge length. The test fluid is water at ambient temperature. Extrapolations for multiple lengths tend to be linear, but as flows increase the differential pressure across the housing becomes more apparent.

## Ordering Guide (Example: MS10FP5)

| MS | 10 | F | P | 5 |
|---|---|---|---|---|

| PRODUCT CODE | LENGTH | MEDIA | CORE | MICRON | CORE COVER | DIAMETER | END CAP CONFIGURATION & Options |
|---|---|---|---|---|---|---|---|
| MS | 97 = 9 3/4"<br>98 = 9 7/8"<br>10 = 10"<br>20 = 20"<br>30 = 30"<br>40 = 40" | C = FDA Bleached Cotton<br>E = Polyester<br>F = FDA Polypropylene<br>P = Industrial Polypropylene<br>W = Industrial Bleached Cotton | P = Polypropylene<br>S = 304 Stainless Steel<br>G = 316 Stainless Steel<br>T = Tin Steel | 0.5<br>1<br>3<br>5<br>10<br>20<br>25<br>50<br>100 | Blank = None<br>N = Non Woven<br>W = Woven | Blank = 2.5" +<br>45 = 4.5" | Blank = None<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>S8 = SOE w/Spring<br>S12* = 222 w/ spring<br>F = Fin End Only<br>FL = Flat End Only<br>EXP = PP Extended Core<br>EXS = SS Extended Core<br>B = Individual Bag<br>BT = Bag and Tag |

+ Capping only available on 2.5" diameter filters with polypropylene media and poly core

* Specify O-ring: B = Buna, E = EPR, S = Silicone, V = Viton

## Filter Housings

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