# 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 diameter configurations and other

## 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, 30, 50, 75, 100, 150 microns

**Nominal Lengths**   4 3/4", 4 7/8", 9 3/4", 9 7/8", 10", 19 1/2", 20", 29 1/4", 30", 39", 40"

**Outside Diameters**   2", 2 3/8", 2 1/2", 2 3/4", 4 1/2"

**Inside Diameter**   1"

### Materials of Construction

Filter Media: Fibrillated Polypropylene FDA Polypropylene, Industrial Polypropylene, Natural Cotton, FDA Bleached Cotton, Industrial Bleached Cotton, Polyester, Glass Fiber, Nylon, Rayon

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) |
| Glass | 140°F (60°C) | 750°F (402°C) |
| Nylon | 140°F (60°C) | 275°F (135°C) |
| Polypropylene | 140°F (60°C) | 180°F (82°C) |
| Polyester | 140°F (60°C) | 275°F (135°C) |
| Rayon | 140°F (60°C) | 275°F (135°C) |

### Recommended Change-out Differential Pressure

20 psid (1.4 bar)

### FDA and USP 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 | RAYON | POLYESTER | GLASS FIBER | NYLON |
|---|---|---|---|---|---|---|---|---|
| Compatible with | | | | | | | | |
| Potable liquids, water | 4 | 0 | 4 | 0 | 3 | 3 | 1 | 1 |
| Organic Solvents | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 4 |
| Oils | 4 | 4 | 2 | 2 | 4 | 3 | 4 | 4 |
| Organic Acids | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 2 |
| Alkalies | 3 | 3 | 4 | 4 | 3 | 0 | 1 | 4 |
| Oxidizing Acids | 2 | 2 | 1 | 1 | 2 | 3 | 4 | 2 |
| Strong Inorganic Acids | 0 | 0 | 4 | 4 | 1 | 2 | 4 | 0 |
| Dilute Inorganic Acids | 2 | 2 | 4 | 4 | 2 | 3 | 4 | 1 |

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

## Flow vs. Pressure Drop
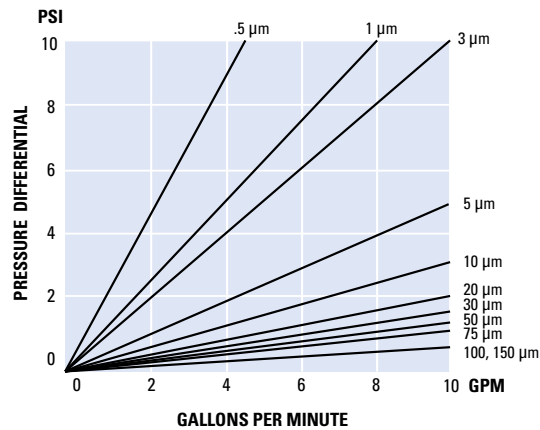


This chart represents the typical flow rate of polypropylene media per 10" cartridge length. The test fluid is water at ambient temperature. Extrapolations for multiple lengths tend to be linear, but as flows increase the differential pressure across the housing becomes more apparent.

## Ordering Guide (Example: MS10FP5)

| MS | 10 | F | P | 5 | | | |
|---|---|---|---|---|---|---|---|
| PRODUCT CODE | LENGTH | MEDIA | CORE | MICRON | CORE COVER | DIAMETER | END CAP CONFIGURATION |
| MS | 47 = 4 3/4"<br>5 = 4 7/8"<br>97 = 9 3/4"<br>98 = 9 7/8"<br>10 = 10"<br>195 = 19.5"<br>20 = 20"<br>294 = 29.25"<br>30 = 30"<br>40 = 40" | B = Fribilated Polypropylene<br>C = FDA Bleached Cotton<br>E = Polyester<br>F = FDA Polypropylene<br>G = Glass Fiber<br>N = Nylon<br>P = Industrial Polypropylene<br>R = Rayon<br>U = Natural Cotton<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>30<br>50<br>75<br>100<br>150 | Blank = None<br>N = Non Woven<br>W = Woven | Blank = 2.5"<br>45 = 4.5"+<br>2 = 2"<br>3 = 2 3/8"<br>4 = 2 3/4" | Blank = None<br>S1 = DOE w/ Gasket<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 |

+ Available without end cap

## 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.

**Shelco Filters**
100 Bradley Street
Middletown, CT 06457 USA
Tel: 800-543-5843 / Fax: 860-854-6120 / E-mail: info@shelco.com

Manufacturer reserves the right to make changes without notice.