

# FILTERCOR WOUND CARTRIDGE FILTERS SERIES FC

## WHY FILTERCOR WOUND CARTRIDGE FILTERS?

### 1. Greater Solids Holding Capacity

FilterCor's wound cartridge filters are manufactured using a high speed, continuous wind process which creates a superior one-piece filter with hundreds of diamond shaped tunnels that get progressively smaller from the outer diameter to the core. Finer particulates are progressively trapped as fluid travels to the center of the filter allowing for much greater retention capacity than that which is associated with straight surface filter media of the same dimensions and porosity. The winding pattern provides 3.5 square feet per 10" cartridge filter. For each 10" filter length there will be approximately 1/2 to 1 lb. retention of solids before replacement becomes necessary. The amount of solids retained depends on the type of solids in the solution as well as the head pressure developed by the pump.

### 2. Wide Choices of Porosities, Lengths and Diameters

Our wound cartridge filters reject particles from as low as 0.5 micron to 150 micron plus they are available in lengths ranging from 3" to 40" or longer on special orders. We offer a standard nominal 1" inside diameter and optional inside diameter to 7/8", 1 3/8", and 30mm. Our outside diameter is 2 1/2" standard with optional outside diameters ranging from 2" to 4 1/2". Thus you can tailor your filtration system to your specific needs and economics whether it be for single pass or recirculation filtration.

### 3. Temperature and Chemical Compatibility

FilterCor offers a wide selection of wind and core materials so you can select the appropriate combination for your filtration needs. Wind materials include: standard, fibrillated and utility grade polypropylene, natural cotton, bleached cotton, rayon, polyester, nylon, modacrylic and heat cleaned glass fiber. And core materials include: polypropylene, tin plated steel, 304 stainless steel and 316 stainless steel.

### 4. Longer Service Life

FilterCor's wound cartridge filters offer a true depth filtration for high dirt holding capacity and extremely low media migration. Thus, even when the particle distribution of the contaminant is broad, Penguin filters have excellent dirt holding capacity because of density and structure. Therefore, it is not unusual for a set of cartridges to filter many millions of gallons of fluid before requiring replacement. This means less equipment downtime, extended life for chemical solutions, cleaners, oils, coolants and liquids, not to mention the savings in labor and materials.



#### ***Features:***

True Depth Filtration

Longer Service Life

Various Core and Wind  
Material Combinations

High Solids Holding  
Capacity

Chemical and Temperature  
Compatibility

Ease of Service &  
Replacement

Wide Choice of Porosities,  
Lengths & Diameters

Standard & Custom Size

Continuous Wind Process

Fast Shipment



*Mineral Acids*  
*Organic Solvents*  
*Zinc Chloride*  
*Caustic Soda*  
*Ferric Hydroxide*  
*Planting Solutions*  
*Animal, Petroleum*  
*and Vegetable Oils*

*Oxidizing Agents*  
*Alkalies*  
*Organic Acids*  
*Portable Water*  
*Demineralized Water*  
*Photographic Solutions*  
*Ethyl Alcohol*  
*Pre-membrane Filtration*

### **Standard Polypropylene**

Recommended for concentrated acids and alkalies, strong oxidizing agents, corrosive fluids and gases. FDA and Non-FDA available - consult factory. Easily incinerated to trace of ash. Excellent microorganism resistance. For use to 200°F.

*Mineral Acids*  
*Organic Solvents*  
*Zinc Chloride*  
*Caustic Soda*  
*Ferric Hydroxide*  
*Planting Solutions*  
*Animal, Petroleum*  
*and Vegetable Oils*

*Oxidizing Agents*  
*Alkalies*  
*Organic Acids*  
*Portable Water*  
*Demineralized Water*  
*Photographic Solutions*  
*Ethyl Alcohol*  
*Pre-membrane Filtration*

### **Fibrillated Polypropylene - "Electronic Grade"**

Non-migrating slit film polypropylene free of extractables recommended for use in ultra-pure liquids, electronics, and plating where non-leaching is critical. No extractables or sizing agents present. Chemical resistance equal to standard polypropylene. Low moisture absorption and outstanding abrasion resistance. Lowest static propensity of any man-made fiber. High dry or wet strength.

*Strong Acids*  
*Concentrated Alkalies*  
*Oxidizing Agents*  
*Organic Acids*

*Diluted Acids*  
*Animal, Petroleum*  
*and Vegetable Oils*

### **Modacrylic**

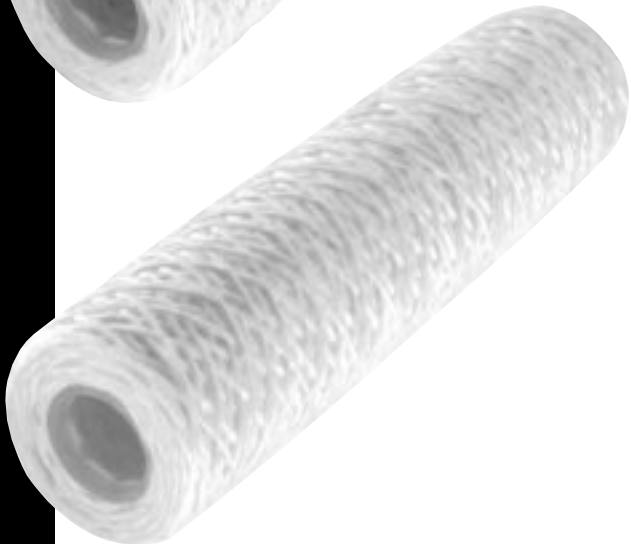
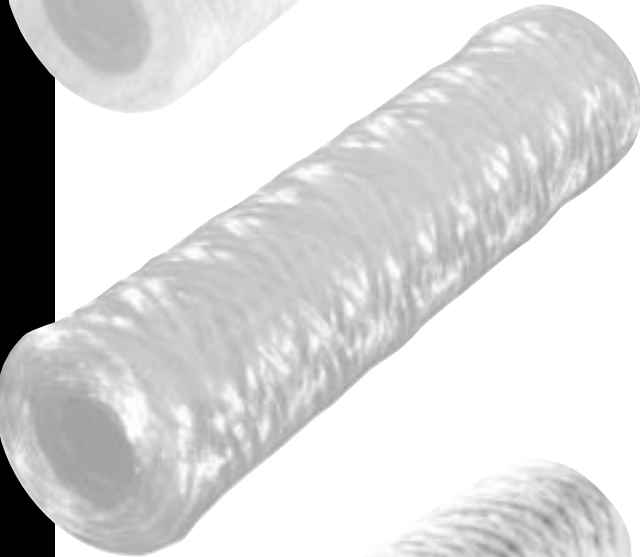
For strong acids, concentrated alkalies, oxidizing agents. For use to 200°F. Not recommended for organic solvents.

*Organic Solvents*  
*Alkalies*  
*Dilute Acids*  
*Strong Acids*

*Organic Acids*  
*Animal, Petroleum*  
*and Vegetable Oils*

### **Polyester**

Chemical resistance similar to polypropylene, with high temperature resistance. For use to 350°F.





*Vegetable Oils - Fatty Acids*  
*Beverage - Citric Acids*  
*Hydrocarbons - Alcohols*  
*Demineralized Water*  
*Photographic Solutions*  
*Organic Solvents*  
*Animal, Petroleum and Vegetable Oils*  
*Alcohol*

**Bleached Cotton**

Bleached to meet FDA standards for distilled water, beverages, vegetable oils, petroleum, fatty acid amd alcohols. For use to 300°F. Poor micro-organism resistance.

*Vegetable Oils - Fatty Acids*  
*Beverage - Citric Acids*  
*Hydrocarbons - Alcohols*  
*Process Water*  
*Paints*  
*Organic Solvents*  
*Petroleum Oils*

**Natural Cotton**

For oils, water, paints, organic solvents, alcohols, petroleum. Non-FDA, for use to 300°F

|                         |                         |
|-------------------------|-------------------------|
| <i>Oxalic Acid</i>      | <i>Organic Solvents</i> |
| <i>Phosporic Acid</i>   | <i>Oils</i>             |
| <i>Sulfuric Acid</i>    | <i>Organic Acids</i>    |
| <i>Oxidizing Agents</i> | <i>Strong Acids</i>     |
| <i>Sodium Cyanide</i>   | <i>Dilute Acids</i>     |
| <i>Nitric Acid</i>      |                         |

**Heat Cleaned Glass Fiber**

Trac of oil sizing removed by heat cleaning, to yield virgin glass fiber. Recommended for high temperatures and high corrosion applications. For use to 750°F.

*Organic Solvents*  
*Oils*  
*Organic Acids*  
*Alkalies*  
*Alcohols - Hydrocarbons*  
*Fatty Acids*

**Rayon**

Fluid compatibility similar to bleached cotton, but has more coarse fiber and is less absorbant than cotton. Swells in aqueous solutions. For use to 300°F.

*Organic Solvents*  
*Oils*  
*Process Water*  
*Alkalies*  
*Hydrocarbons*

**Nylon**

For special process applications, concentrated alkalies, and hydrocarbons. Excellent micro-organism resistance. For use to 300°F.

# WOUND CARTRIDGE FILTERS

## SERIES FC

### NOMENCLATURE

| FC                              | P                                 | 15            | R           | 10           | P                 |                                 |                                     |                        |
|---------------------------------|-----------------------------------|---------------|-------------|--------------|-------------------|---------------------------------|-------------------------------------|------------------------|
| Penguin Wound Cartridge Filters | Filter Media                      | Micron Rating | Tube O.D.   | Length       | Core Type         | Core Cover                      | End Treatment                       | Extended Core          |
|                                 | P = polypropylene                 | 0.5           | R = 2 1/2"  | 4 = 4"       | P = Polypropylene | No symbol = none                | No symbol = none                    | No symbol = none       |
|                                 | PW = fibrillated polypropylene    | 1             | A = 2"      | 6 = 6"       | T = Tin Steel     | C = cover compatible with media | T = treatment compatible with media | X = compatible to core |
|                                 | UGP = utility grade polypropylene | 3             | B = 2 3/8"  | 93 = 9 3/4"  | S = 304SS         |                                 |                                     |                        |
|                                 | U = natural cotton                | 5             | C = 2 3/4"  | 97 = 9 7/8"  | A = 316SS         |                                 |                                     |                        |
|                                 | C = bleached cotton               | 10            | S = special | 10 = 10"     | X = special       |                                 |                                     |                        |
|                                 | R = rayon                         | 15            |             | 12 = 12"     |                   |                                 |                                     |                        |
|                                 | K = polyester                     | 20            |             | 19 = 19 1/2" |                   |                                 |                                     |                        |
|                                 | N = nylon                         | 25            |             | 20 = 20"     |                   |                                 |                                     |                        |
|                                 | M = modacrylic (dynel)            | 30            |             | 29 = 29 1/4" |                   |                                 |                                     |                        |
|                                 | G = glass                         | 40            |             | 30 = 30"     |                   |                                 |                                     |                        |
|                                 |                                   | 50            |             | 39 = 39 1/4" |                   |                                 |                                     |                        |
|                                 |                                   | 75            |             | 40 = 40"     |                   |                                 |                                     |                        |
|                                 |                                   | 100           |             | 0 = special  |                   |                                 |                                     |                        |
|                                 |                                   | 150           |             |              |                   |                                 |                                     |                        |

Not all combinations available. Consult factory.

### CORE SELECTION GUIDE

#### **Media**      **Description**

*polypropylene*      Economical core of choice for most applications in water and corrosives to 200 F. FDA material.

*tin plated steel*      General purpose metal core for oils, solvents, paints and other non-FDA applications. For use to 400 F.

*304 SS*      For high temperature applications on diluted acids and moderately corrosive fluids. FDA applications. For use to 750 F. T

*316 SS*      For high temperature applications on strong acids and highly corrosive fluids. FDA applications. For use to 750 F.