### Wound Cartridge

#### Polypropylene

Available in three grades:
- Standard Grade for general filtration.
- FDA grade for Potable Water and liquids used for Food and Beverage applications.
- NSF/ANSI 42/61 - When certifiable material content and traceability of materials of construction are required.

All Polypropylene is compatible with most organic acids, alkalies, and chemical process applications. Very effective in low viscosity solutions. For use to 180°F.

#### Fibrillated Polypropylene

Non-migrating silt film polypropylene free of extractable use in Ultra-Pure, Electronics, and Plating where non-leaching is critical. No extractable or sizing agents present. Chemical resistance equal to standard polypropylene. Low moisture adsorption and outstanding abrasion resistance. Lowest static propensity of any man-made fiber. High dry or wet strength. For use to 180°F.

#### Polyester

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

Available in two grades:
- Natural Cotton for standard filtration applications to includes oils, water, paints, organic solvents, alcohols and petroleum.
- Bleached Cotton meets FDA Food and Beverage Standards for Potable Water, Food and Beverage applications. Cotton has poor micro-organism resistance. For use to 300°F.

#### Cotton

Similar chemical compatibility to both Nylon and Fiberglass. Excellent resistance to solvents and acids with exception of hot sulfuric and nitric acid. For use to 300°F.

#### Fiberglass

Available in two grades:
- Heat Treatment removes residual material used in manufacture of yarn. For use to 750°F.

Similar chemical compatibility to both Nylon and Fiberglass. Excellent resistance to solvents and acids except for Hot Sulfuric and Nitric Acid. For use to 375°F.

#### Rayon

Available in two grades:
- Heat Treatment removes residual material used in manufacture of yarn. For use to 750°F.

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

### Nomenclature

<table>
<thead>
<tr>
<th>U</th>
<th>P</th>
<th>10</th>
<th>R</th>
<th>10</th>
<th>P</th>
<th>V</th>
<th>SOC</th>
<th>ISW</th>
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<tbody>
<tr>
<td>U</td>
<td>Natural Cotton</td>
<td>CCU - Industrial White Cotton</td>
<td>C - FDA Bleach Cotton</td>
<td>P - Industrial Polypropylene</td>
<td>PDN - FDA Polypropylene</td>
<td>UPDN/NSF42/61 Polypropylene</td>
<td>R - Rayon</td>
<td>K - Polyester</td>
<td>N - Nylon</td>
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<tr>
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**Label**

- **UFI Media**
  - U - Natural Cotton
  - CCU - Industrial White Cotton
  - C - FDA Bleach Cotton
  - P - Industrial Polypropylene
  - PDN - FDA, Polypropylene
  - UPDN-NSF42/61 Polypropylene
  - R - Rayon (Viscose)
  - K - Polyester
  - N - Nylon
  - G - Fiberglass
  - GH - Baked Fiberglass
  - F - Fibrillated
  - RT - Rayon

- **Micron Rating**
  - 0.5
  - 1
  - 3
  - 5
  - 10
  - 15
  - 20
  - 25
  - 30
  - 40
  - 50
  - 75
  - 100
  - 125
  - 150
  - 200

- **OD**
  - T - 2" 
  - E - 2-1/4" 
  - F - 2-3/8" 
  - R - 2-1/2" 
  - H - 2-5/8" 
  - S - 2-3/4" 
  - L - 2-7/8" 
  - P - 3" 
  - BB - 4" 
  - J - 4-1/2" 
  - K - 4-5/8" 
  - X - Special

- **Core Cover**
  - No Symbol None
  - V - Specific Core Cover

- **End Treatment**
  - (P)E - Poly Core Insert
  - (S)E - 316SS Insert
  - EC - Extended Crimped Core
  - SOC - 222 O-Ring & Cap
  - SOF - 222 O-Ring & Fin
  - 06C - 226 O-Ring & Cap
  - 06F - 226 O-Ring & Fin
  - PS - Poly spring
  - PM - Poly Cap & Metal Spring
  - B - Buna Gasket
  - CSA - Stad. 316SS Cap & Spring
  - W - Wildcat Cap & Spring
  - ACS - 3" Tin Cap & Spring

- **Packaging**
  - IW - Individual Bag
  - ISW - Individual Shrink Wrap

- **Label**
  - Individual Bag
  - ISW - Individual Shrink Wrap
Carbon Cartridges are available in different styles:

UCP  Pleated Carbon/Polypropylene. Engineered carbon/polypropylene felt that provides all of the benefits of a non-woven filter with the absorption characteristic of carbon. These units are used to remove chlorine, organics, silt and odor.

UGACR  Catalytic Carbon GAC. Utilizing Granular Catalytic Coconut Shell Carbon contained within GAC housings these cartridges act as chloramine “grabbers”. They were specifically designed to address consumers wanting immediate reduction of chloramines from their drinking water.

UPC  Polypropylene/Carbon Blended Yarn. Manufactured using a proprietary 50/50 blend of coconut based carbon locked into polypropylene fiber these units were designed for general-purpose water filtration as well as process and industrial applications.

UGAC  Granular Carbon GAC. These filter cartridges offer longer fluid contact time with the granular carbon content resulting in improved chlorine reduction and odor removal from drinking water. The internal downstream filter pad precludes downstream carbon fine migration.

UCB  Carbon Block with Protective Outer Wrap. Made with washed coconut carbon nominally rated at 1 micron these filters will remove unwanted taste, color and chlorine from potable water sources. The outer wrap prolongs filter life.

UFMC/UFMC-S  Carbon Impregnated Polyester Wrap. Food and beverage grade coconut carbon matrix locked into polyester nonwoven media felt wrapped over a polypropylene core. Option Stainless steel core recommended for high pressure applications. This product was designed for applications not compatible with cellulose.

UPPGC  Pleated Polyester/Granular Carbon. These pleated polyester cartridges are back filled with coconut based granular carbon. These filters offer long life sediment filtration combined with chlorine reduction.

UPACG  Radial Flow Carbon Shell. Granular coconut carbon encapsulated with a porous synthetic polymer outer shell. These filters reduce chlorine, trace amounts of organics to include oil mist, water vapor and fine dust, scale, and smoke particles. This unit has excellent coalescing properties and is cleanable.

UPACM  Ultra Clean, Polyolefin Impregnated Carbon Block. This cellulose-free carbon block features patented carbon locked into a long polyolefin fiber matrix to prevent premature clogging. These filters are ideally suited for food, beverage applications as well as process fluids.

UPAMC  Carbon Impregnated Cellulose Wrap. Carbon impregnated cellulose media wrapped around a polypropylene core. Economically priced filter suited for sediment, taste/odor reduction.

UPACP  String, Carbon/Cellulose, with integrated upstream & downstream string media. This 3 stage filter integrates carbon impregnated cellulose media with pre-stage and post stage wound yarn filtration. This single cartridge provides pre-filtration, carbon polishing, and final filtration in a single cartridge.

UPAGC  String, Granular Carbon/Polyester with integrated upstream & downstream string media. This 3 stage filter integrates carbon impregnated polyester media with pre-stage and post stage wound yarn filtration. This single cartridge provides pre-filtration, carbon polishing, and final filtration in a single cartridge.

Nomenclature

<table>
<thead>
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<th>Description</th>
<th>LENGTHS</th>
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<th>NO symbol = Std 2-3/4&quot;</th>
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<td>(Pleated Carbon/Polypropylene)</td>
<td>UCP</td>
<td>1-1/2&quot; x 5&quot;</td>
<td>BB = 4-1/2&quot;OD</td>
<td>NO Symbol = Std 2-3/4&quot;</td>
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<td>(Catalytic Carbon GAC)</td>
<td>UGACR</td>
<td>1&quot; x 10&quot;</td>
<td>T = Tin Steel</td>
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<td>(Carbon/Polypropylene Yarn)</td>
<td>UPC</td>
<td>2&quot; x 20&quot;</td>
<td>S = 304 SS</td>
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<td>UGAC</td>
<td>3&quot; x 30&quot;</td>
<td>A = 316 SS</td>
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<td>(Carbon Block with Protective Outer Wrap)</td>
<td>UCB</td>
<td>93 x 9-3/4&quot;</td>
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<td>(Carbon Impregnated Polyester Wrap, SS Core)</td>
<td>UFMC-S</td>
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<td>(Carbon Impregnated Polyester Wrap, Poly Core)</td>
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<td>(Pleated Polyester/Granular Carbon)</td>
<td>UPPGC</td>
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<td>(Radial Flow Carbon Shell)</td>
<td>UPACG</td>
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<tr>
<td>(Ultra Clean, Polyolefin Impregnated Carbon Block)</td>
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<td>(Carbon Impregnated Cellulose Wrap)</td>
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<td>(String, Carbon/Cellulose, String Tri-Filter)</td>
<td>UPACP</td>
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<tr>
<td>(String, Granular, String Tri-Filter)</td>
<td>UPAGC</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Not for use with fluids that are microbiologically unsafe or unknown without adequate upstream or downstream disinfection.
Pleated Cartridges

Recommended Applications:
- Water Purification
- Etchants
- Colloid Removal
- Solvents
- Pharmaceuticals
- Food and Beverages
- Photographic and Plating Solutions
- Printed Circuit Boards
- Chemicals: Ethers, Ketones, Acids, Esters, Alcohols, Bases, and Solvents
- Magnetic Coatings
- Metal Finishing
- Biologicals
- Microorganisms/Bacteria Retention

Features:
- Nominal and Absolute Particle Retention Ratings
- Superior Flow Characteristics
- High Dirt Holding Capacity
- Many Lengths and Cartridge Styles
- Low Clean Differential Pressure Drops
- Multiple End Treatment Options
- Multi Color End Caps Available

Polypropylene - UPP
Series UPP polypropylene cartridges are designed for residential, commercial, and industrial filtration applications. Constructed of durable, chemical resistant polypropylene media, they can be employed on many acids, alkalis, plating solutions, water remediation, and saline solutions. The cartridge filters employ a five (5) layered, high porosity.

Polyester - UPE
The chemical and bacteria resistance of the Series UPE polyester media makes these cartridges suitable for potable water and most light industrial applications.

Cellulose - UC
Series UCE cellulose cartridges are for general water filtration purposes. They are economical, yet highly effective at reducing sediment particulates down to nominal 1 micron in size.

Nomenclature

<table>
<thead>
<tr>
<th>Filter Media</th>
<th>Micron Rating</th>
<th>Length</th>
<th>Tube O.D.</th>
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<tbody>
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<td>9-3/4&quot;</td>
<td>All filters are standard</td>
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<td>UPE - Polyester</td>
<td>5</td>
<td>10&quot;</td>
<td>2-5/8&quot; O.D. unless</td>
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<tr>
<td>UC - Cellulose</td>
<td>10</td>
<td>19-1/2&quot;</td>
<td>otherwise specified.</td>
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<tr>
<td></td>
<td>20</td>
<td>20&quot;</td>
<td>BB = 4-1/2&quot;</td>
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<td>30&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>50</td>
<td>40&quot;</td>
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</tbody>
</table>
Melt Blown Cartridges

Applications:
- Pre Filters for Reverse Osmosis Filters
- Home Water Filtration
- Swimming Pools
- High Efficiency

Specifications:
- Construction: 100% Polypropylene Media
- Maximum Temperature: 140°F (60°C)
- Micron Rating: Available in various microns
- Maximum Differential Pressure: 50 PSID
- Multiple End Treatment Options
- Custom Lengths

Melt Blown Cartridges are manufactured from 100% Polypropylene construction. They offer excellent filtration and good thermal stability. The unique density gradient construction maximizes efficiency and minimizes pressure drop. This filter will not impart taste, odor, or color to the filtered product and has superior chemical resistance for process fluid applications. Optional Grooving effectively doubles the surface area providing lower clean pressure drop, increased dirt holding capacity and longer life. Cartridges are available in various sizes, micron ratings, and end treatments.
Resin Bonded Filters

Resin Bonded Filters have a two-stage filtration design to maximize particle removal and service life in viscous fluid filtration applications. An outer, spiral, prefilter wrap increases cartridge strength and eliminates residual debris associated with conventional, machined, resin bonded cartridges.

Resin Bond filter cartridges are available in eight differentiated removal ratings from 2µm, 5µm, IOµm, 25µm, 50µm, 75µm, 125µm and 150µm pore sizes to meet a wide range of performance requirements.

Features and Benefits:

• Outer, spiral wrap collects large particles, loose debris, and agglomerates, while inner layers control particle removal at rated size.

• Extra-long acrylic fibers provide added strength, resist breakage and migration.

• Multiple End Treatment Options.

• Phenolic resin impregnation strengthens cartridge for use with fluid viscosities up to 15,000 SSU (3200cks).

• Withstands pressure surges up to 150 psid across cartridge (depending on fluid temperature).

• One-piece construction eliminates bypass concerns with multi length cartridges and eases change out.

• Silicone-free construction ensures no contamination to adversely affect adhesion properties of coatings.

Applications:

- Paints
- Printing Inks
- Adhesives
- Resins
- Emulsions
- Chemical Coatings
- Organic Solvents
- Petroleum Products
- Process Water
- Oil field Fluids
- Animal Oils
- Waxes
- Plasticizers
Liquid Filter Bags are a cost effective alternative for most fluid applications. Manufactured using several media options to insure fluid compatibility these bags are available in 1 absolute to 1500 nominal micron ratings and are 100% interchangeable with all industry standard #1 through 9 filter bag housings. Used extensively in hydrocarbon and natural gas processes as well as RO pre-filters. Liquid filter bags offer ease of removal while containing contaminants for proper disposal.

Filter bag options:

Media:

• Polyester or polypropylene felts, nominally rated at 50% efficiency. Its cost effectiveness makes it ideal for applications up to 200° F.
• Polyester multifilament meshes, nominally rated at 90% efficiency.
• Polypropylene Mesh Similar to nylon mono filament mesh, which has better acid resistance than nylon and is more cost effective for temperatures up to 200° F.
• Nylon mono filament meshes, nominally rated at 90% efficiency.
• Polypropylene high efficiently micro fiber, nominally rated at 95% efficiency.
• Polypropylene oil removal, nominally rated at 95% efficiency.
• Polyester or Polypropylene Graded Density, 99% absolute efficiency.
• Teflon, nominally rated at 95% efficiency.
• Cotton, nominally rated at 90% efficiency.
• Oil absorbing bags and inserts (hold 25 times their own weight in oil/petro-chemical).

Lifting Devices:

• Galvanized carbon steel.
• Stainless Steel.
• Molded plastic.
• Woven fabric.

Applications:

• Pre RO membrane protection.
• Sand & algae, removal from sea water.
• Filtering amine, oil, gas, glycol, naphtha, waist vegetable oil and bio-diesel.
• Gas purification processes.
• Offshore filler stations.
• Food, beverage, potable water.
• Dairy processing.
• Pulp removal.
• Poultry and meat washing & packing.
## Multiple End Treatment Options

### Core Options

<table>
<thead>
<tr>
<th>Description</th>
<th>Max Temp</th>
<th>Characteristics</th>
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<tbody>
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<td>Polypropylene</td>
<td>120ºF</td>
<td>For lower temperature applications of corrosive fluids and gases. Easily incinerated to a trace of ash.</td>
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<td>49ºC</td>
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<td>Tin Plated Steel</td>
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<td>304SS</td>
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<td>For high temperature dilute acids and moderately corrosive fluids.</td>
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<td>316SS</td>
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### General Notations:

- Do Not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection.
- It is recommended that all newly installed filters be flushed 20 seconds for potable water or cooking applications.
- Private labeling, custom packaging, and blind third party shipping is available.