



# FILTRATION SOLUTIONS

Complete Product Catalog

**UFI**<sup>®</sup>  
UNITED FILTERS  
INTERNATIONAL

# ★ CONTENTS

01

## STRING WOUND

String Wound Overview • Types of String Wound Filters • Wound Cartridge Filters • Municipal String Filters • Dual Wound

09

## PLEATED

Pleated Overview • Pleated Cellulose Filters • Pleated Polyester Filters • Pleated Polypropylene Filters

14

## CARBON

Carbon Overview • Types of Carbon Cartridges • Carbon Cartridge Selection • Carbon Wraps • Radial Flow Carbon Cartridges • Three-in-One Carbon Cartridges • Pleated Carbon Filters

24

## ULTRA-SERIES SUBMICRON

Ultra-Series Submicron Overview • Ultra-D® Submicron Filters • Ultra-Prime® Submicron Filters

29

## MELT BLOWN

Melt Blown Overview • Melt Blown Filter Cartridge • Grooved Melt Blown Sediment Cartridge

33

## SPECIALTY

Specialty Overview • No-Scale Inhibitor • Liquid Filter Bags • Petrochemical Filters

38

## RESOURCES

Blended Media Options • End Treatments & Core Options • Nomenclature



## ★ ABOUT US

**United Filters International** has been serving the filtration needs of our customers and industry partners since 1978. Always a leader, UFI prides itself on its ability to offer simple cost effective solutions to complex problems. Short production runs, contracted inventory, warehouse distribution and custom private labeling and packaging are just a few of the services that UFI offers.

UFI's three manufacturing facilities in Amarillo, Texas, Sun Valley, California and Eastlake, Ohio are comprised of over 130,000 square feet. The largest concentration of winding machines in the United States is housed at UFI.

UFI markets products to original equipment manufacturers and through an extensive, growing network of domestic and international distributors. UFI has extensive relationships with some of the largest filtration companies in the world and manufactures proprietary filtration products to these business entities.

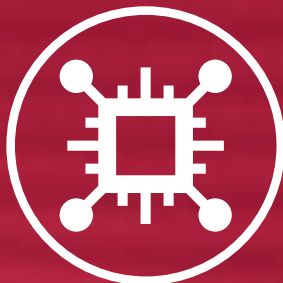
UFI product offerings are manufactured using man-made and natural fibers, stainless and mild steels, and various plastics, resins, and carbon. Many of our products are NSF/ANSI 42/61/53/372 certified, providing peace of mind to our clients and their customers.



# OUR MARKETS AND APPLICATIONS



**BIOTECH &  
HEALTHCARE**



**MICROELECTRONICS  
& SEMICONDUCTOR**



**DRINKING &  
WASTEWATER**



**POWER &  
ENERGY**



**CHEMICAL  
& PAINT**



**AGRICULTURE  
& IRRIGATION**



**PAPER &  
TEXTILES**



**MUNICIPAL &  
WELL WATER**



**HOSPITALITY &  
FOOD SERVICE**

# STRING WOUND

- 02** String Wound Overview
- 03** Types of String Wound Filters
- 04** Wound Cartridge Filters
- 06** Municipal String Filters
- 08** Dual Wound

## ★ STRING WOUND OVERVIEW

United Filters International String Wound Cartridge Filters provide true depth filtration, high dirt-holding capacity, and extremely low media migration. They are a superior, one-piece cartridge manufactured using a high speed continuous wind process and are available in a wide variety of lengths and porosities.

Especially significant is the availability of filters in an almost endless combination of media and core material to handle virtually any chemical, environment, and/or temperature.

U-Series String Cartridge Filters are available with fourteen string, seven core and twelve material and end cap options. Outside dimensions of 2 to 5 inches and lengths of 5 to 72 inches are standard. They can be sized for virtually all single- or multi-round filter housings.

The precise winding pattern defines micron ratings and results in higher dirt-holding capacity and efficiency. Our UPDN Series of polypropylene string cartridges are NSF/ANSI 42, 61, and 372 certified.

### APPLICATIONS

- Coatings
- Oil patch
- Waste, potable, and process water
- Pharmaceutical
- Photo emulsions
- Photo processing
- Electronics/plating
- Magnetic coatings
- Food and beverage
- Chemical processing





## ★ TYPES OF STRING WOUND FILTERS

### POLYPROPYLENE

Available in three grades: **standard grade** for general filtration, **FDA grade** for potable water and liquids used for food and beverage applications, and **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 and easily incinerated to traces of ash. Excellent micro-organism resistance. For use up to 180 °F.

### FIBRILLATED POLYPROPYLENE

Non-migrating silt film polypropylene free of extractable or sizing agents. For use in ultra-pure, electronic, and plating applications where non-leaching is critical. 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 up to 180 °F.

### POLYESTER

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

### COTTON

Available in three grades: **natural cotton** for standard filtration applications, including oils, water, paints, organic solvents, alcohols and petroleum, **bleached cotton** that meets FDA Food and Beverage Standards for potable water, food and beverage applications, and **industrial white cotton**. Cotton has poor microorganism resistance. For use up to 300 °F.

### FIBERGLASS

Available in **standard grade** for filtration of high concentrations of organic acids, organic solvents and petroleum solutions. Recommended for high temperatures and high-corrosion applications. For use up to 750 °F.

### RAYON

Similar chemical compatibility to nylon and fiberglass. Fluid compatibility similar to bleached cotton, but with more coarse fibers and less absorption. Swells in aqueous solutions. Excellent resistance to solvents and acids with the exception of hot sulfuric and nitric acid. For use up to 300 °F.

### RYTON

Ryton is resistant to acids, alkalies, and some solvents, even in extreme conditions. For use up to 375 °F.

### NYLON

Used for special process applications, concentrated alkalies, and hydrocarbons. Excellent microorganism resistance. For use up to 300 °F.

**WOUND CARTRIDGE FILTERS**

**★ SPECIFICATIONS**

	POLYPROPYLENE	FIBRILLATED POLYPROPYLENE	POLYESTER	COTTON	FIBERGLASS	RAYON	RYTON	NYLON
Alkalies	★	★	★			★		★
Organic Solvents	★	★	★	★	★	★		★
Demineralized Water	★	★		★				
Zinc Chloride	★	★						
Caustic Soda	★	★						
Petroleum Oils				★				
Ferric Hydroxide	★	★						
Sodium Cyanide					★			
Ethyl Alcohol	★	★						
Oxidizing Agents	★	★			★			
Dilute Acids			★		★			
Process Water				★				★
Photographic Solutions	★	★		★				
Pre-Membrane Filtration	★	★						
Vegetable Oils—Fatty Acids				★		★		
Animal, Petroleum & Vegetable Oils	★	★	★	★				
Hydrocarbons—Alcohols				★		★		★
Beverages—Citric Acids				★				
Planting Solutions	★	★						
Oxalic Acid					★			
Organic Acids	★	★	★		★	★		
Sulfuric Acid					★			
Mineral Acids	★	★						
Strong Acids			★		★			
Phosphoric Acid					★			
Portable Water	★	★						
Nitric Acid					★			
Paints				★				
Oils					★	★		



## WOUND CARTRIDGE FILTERS

UFI string wound cartridge filters provide true depth filtration, high dirt-holding capacity, and extremely low media migration. They are a superior one-piece cartridge manufactured using a high-speed continuous wind process and are available in a wide variety of lengths and porosities. Especially significant is the availability of filters with an almost endless combination of medias and core materials to handle virtually any chemical, environment, or temperature.



### ★ APPLICATIONS

- Waste water
- Potable water
- Process water
- Pharmaceutical
- Photo emulsions
- Photo processing
- Electronics/plating
- Magnetic coatings
- Food and beverage
- Chemical processing
- Coatings
- Oil patch

### ★ FEATURES

- True depth filtration
- Wide choice of porosities
- Various core and wind material
- Chemical and temperature compatibility



## MUNICIPAL STRING FILTERS (UPDN SERIES)

UFI's UPDN Series cartridges have been tested and certified to NSF/ANSI 42/61/372 standards to ensure continuity of materials and consistency in manufacturing the finished product. Each component is identified and controlled in accordance with the registered wetted parts lists. These cartridges will not impart unwanted leached materials into the downstream flow.

UPDN Series cartridges offer a wide range of options suitable for most industry standard filter housings. Cartridges are double open-ended and range in size from 5 to 72 inches. Optional end cap treatments available (see End Treatments page in *Resources* section).

UPDN cartridges are in use at state and federal correctional institutions, office buildings, municipal water districts, Department of Defense road-mobile potable water systems, and other applications where NSF/ANSI 42/61/372 standards are required.



### ★ OVERVIEW

- **End Cap Options:**
  - Polypro Core Extender
  - Polypro-226
  - Polypro-222
  - Polypro Spring
  - Polypro Fin
- **Micron Rating:** 0.5 to 200

### ★ SPECIFICATIONS

#### DIMENSIONS

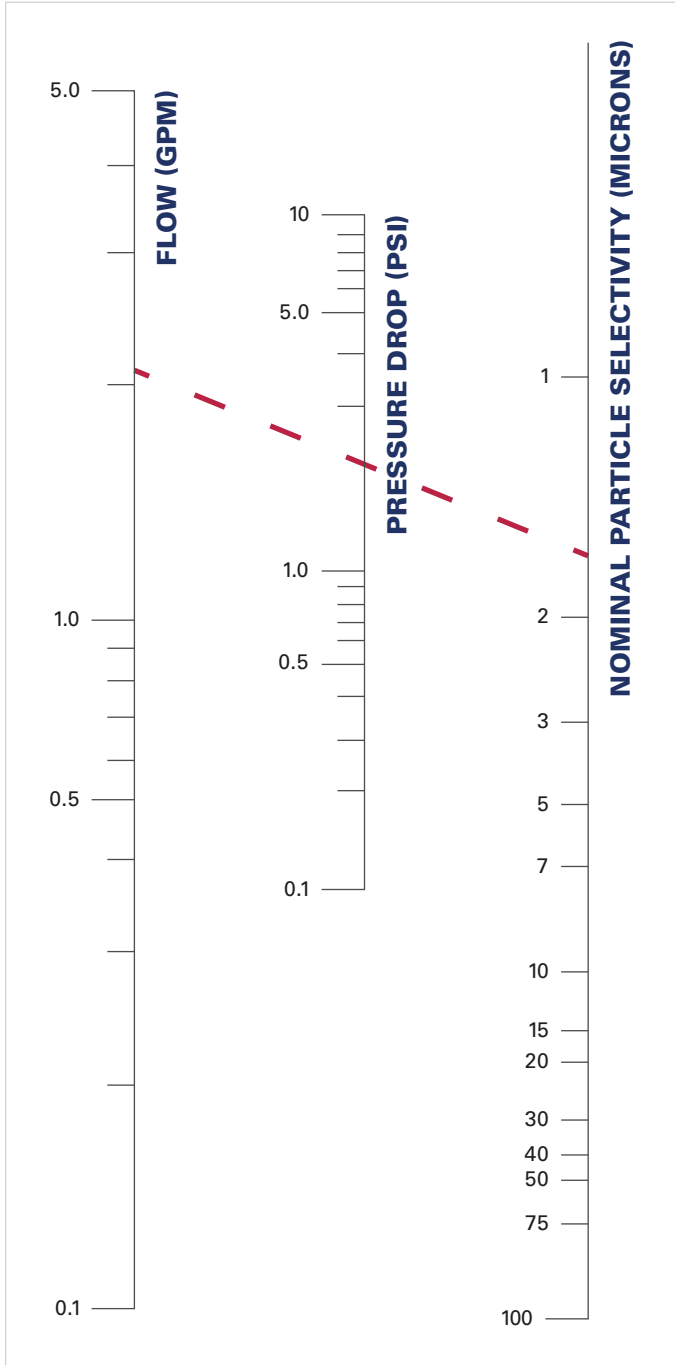
5" to 72" variable lengths

2" to 5" variable outside Øs

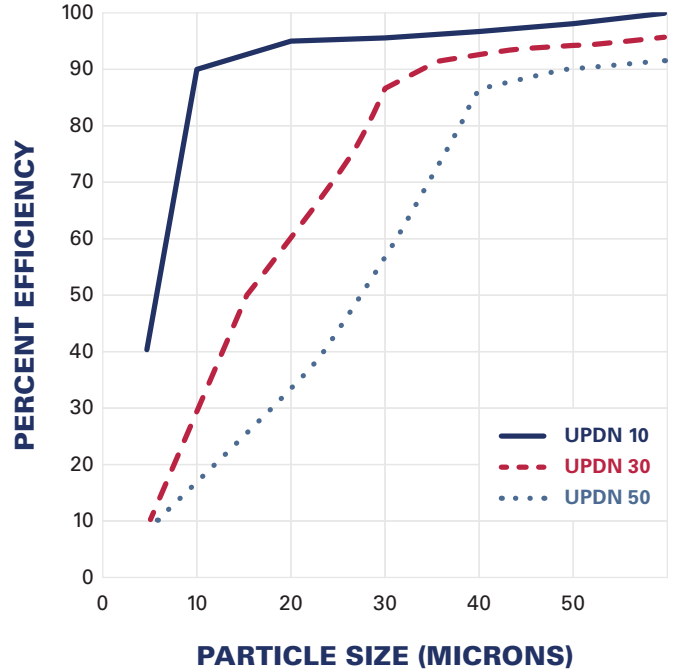


## MUNICIPAL STRING FILTERS (UPDN SERIES)

### ★ FLOW PRESSURE DROP<sup>^</sup>



### ★ FILTER EFFICIENCY CHART



<sup>^</sup>Nomograph calculates the differential clean pressure drop across the UPDN cartridge. Place one end of a ruler over the desired Flow (GPM) line with the other end over the selected Nominal Particulate Selectivity (Microns) line. The crossing point on the Pressure Drop (PSI) line will show the clean pressure drop. The manufacturer recommends you do not exceed 5 gallons per minute for each 10" equivalent filter (e.g., a 20" cartridge should not exceed 10 gallons per minute).





## DUAL WOUND

UFI Dual Wound Cartridges are particularly suitable when the contaminants within the liquid cover a broad range of particle sizes. The more open outer winding traps the larger particles, while the tighter internal winding captures the smaller, finer micron particles. This dual wind product provides longer cartridge life without altering the efficiency of the filter element.

Tested in accordance with ASTM F797-82 (“Determining the Performance of a Filter”), our dual wound elements have demonstrated the test results shown below. Several field applications involving Dual Wound elements have normal filter life with equal or superior efficiency over single micron-rated elements.

Dual Wound elements are available in various medias, cores, end caps, and micron ratings to meet your specific requirements. United Filters can support all your filtration needs, from common to custom.



### ★ SPECIFICATIONS

ELEMENT TESTED	ELEMENT CONSTRUCTION	AVERAGE EFFICIENCY	DIRT HOLDING CAPACITY
UP1R10P	1μ polypropylene	90.1%	34 grams
UP20R10P	20μ polypropylene	67.1%	107 grams
UP1-20R10P	1μ polypropylene (inner) 20μ polypropylene (outer)	90.4%	113 grams



# PLEATED

- 10** Pleated Overview
- 11** Pleated Cellulose Filters
- 12** Pleated Polyester Filters
- 13** Pleated Polypropylene Filters

## ★ PLEATED OVERVIEW

United Filters International Pleated Cartridge Filters are an alternative to string wound or spun molded filters. These filters are economical, multi-use, premium quality products that are available in various micron ratings ranging from 50 micron nominal down to 0.35 micron absolute. Filter medias available include, but are not limited to, polypropylene, polyester, and cellulose, as well as membranes constructed of polypropylene, nylon, PTFE, etc.

Pleated cartridge filters contain no surfactants or binders that can break down, leach out, or permit the typical problems of channeling and media migration. Maximum effective open surface areas allow for high flow rates at reduced pressure drop, as well as high dirt-holding capacity, long service life, large throughputs, and lower operating costs. These pleated cartridge filters may be used as either pre-filters or as final filters for bulk and point-of-use filtration, making them appropriate for use when high-efficiency filtration and economy are crucial.

## APPLICATIONS

- Water purification
- Etchants
- Colloid removal
- Solvents
- Pharmaceuticals
- Food and beverages
- Photographic and plating solutions
- Printed circuit boards
- Magnetic coatings
- Metal finishing



## PLEATED CELLULOSE FILTERS (C SERIES)

C Series cellulose cartridges are designed for general filtration purposes. They are economical, yet highly effective at reducing sediment particulates down to nominal 1 micron in size.

The pleated corrugated media provides increased surface area and strength, which results in extended life. End caps are fused to the cellulose media, preventing bypass and forming a gasket sealing area.



### ★ OVERVIEW

- **Type:** Pleated Cellulose
- **Construction:**
  - Vinyl Plastisol End Caps
  - Cellulose Media
  - Polypropylene Core
- **Operating Temperature Range:** 40 °F (4.4 °C) to 145 °F (63 °C)
- **Micron Rating:** Nominal: 1, 5, 10, 20, 50, 100

### ★ FEATURES

- Nominal particle retention ratings
- Superior flow characteristics
- High dirt holding capacity
- Many lengths and cartridge styles
- Low clean differential pressure drops
- FDA and California Prop 65 compliant

### ★ SPECIFICATIONS

DIMENSIONS	MAX. FLOW RATES
2-5/8" Ø x 9-3/4", 10" long	5–7 GPM
2-5/8" Ø x 19-1/2", 20" long	10–14 GPM
2-5/8" Ø x 30" long	15–21 GPM
2-5/8" Ø x 40" long	20–28 GPM
4-1/2" Ø x 9-3/4", 10" long	10–15 GPM
4-1/2" Ø x 19-1/2", x 20" long	20–30 GPM
4-1/2" Ø x 30" long	25–35 GPM

*Note: Pleated cellulose filters are not for water applications as they encourage mold.*



## PLEATED POLYESTER FILTERS (PE SERIES)

The chemical and bacteria resistance of the PE Series polyester media makes these cartridges suitable for potable water, most light industrial applications, swimming pool and spa, and well water applications. The durable, non-woven polyester fabric is both reusable and pleated to maximize its dirt holding capacity and extend the time period between changes.



### ★ OVERVIEW

- **Type:** Pleated Non-Woven Polyester
- **Construction:**
  - Vinyl Plastisol End Caps
  - Non-Woven Polyester Fabric Media
  - Polypropylene Core
- **Operating Temperature Range:**  
40 °F (4.4 °C) to 145 °F (63 °C)
- **Micron Rating:**
  - Nominal: 1, 5, 10, 20, 30, 50, 100
  - Absolute: 0.35, 0.5

### ★ FEATURES

- Nominal and absolute particle retention ratings
- Superior flow characteristics
- High dirt holding capacity
- Many lengths and cartridge styles
- Low clean differential pressure drops
- FDA and California Prop 65 compliant

### ★ SPECIFICATIONS

DIMENSIONS	MAX. FLOW RATES
2-5/8" Ø x 9-3/4", 10" long	5–7 GPM
2-5/8" Ø x 19-1/2", 20" long	10–14 GPM
2-5/8" Ø x 30" long	15–21 GPM
2-5/8" Ø x 40" long	20–28 GPM
4-1/2" Ø x 9-3/4", 10" long	10–15 GPM
4-1/2" Ø x 19-1/2", 20" long	20–30 GPM
4-1/2" Ø x 30" long	25–35 GPM

**Warning:** Filter is ideal for filtering out taste, color, and odor particles, but may not be suitable where water is microbiologically unsafe or with unknown quality without adequate disinfection before or after the system.

**Note:** PE product line is manufactured using FDA approved materials. It is recommended that you run the tap for 20 seconds prior to using the water for drinking or cooking purposes.

## PLEATED POLYPROPYLENE FILTERS (PP SERIES)

PP Series 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, alkalies, plating solutions, water remediation, and saline solutions. The cartridge filters employ a five layered, high-porosity bi-component polypropylene media consisting of both spun-bonded and melt blown polypropylene layers laminated together by ultrasonic sealing in order to provide depth filtration to the media. This depth filtration will allow the cartridge to collect more dirt particulate and, in most instances, offer a longer life.

The soft-spun bonded polypropylene with distinct dot patterns is employed on the outer three layers to serve as a pre-filter to reduce larger particles, while the smooth-textured melt blown polypropylene, which has been calendered in order to reduce the media pore size, is incorporated on the inner two layers for microfiltration. This arrangement of both the pre- and post-filter components provides two separate gradient layers in one filter. Gradient density filters reduce larger particles, which would blind-off ordinary surface filters on their outer layers, while reducing particles on their inner layers.

This design is an advancement in filtration technology and maximizes utilization of the filtration media while enhancing overall cartridge performance. Cartridge ends have been immersed in vinyl plastisol, creating a unitized end cap and gasket which virtually eliminates bypass.



### ★ OVERVIEW

- **Type:** Pleated Bi-Component Polypropylene
- **Construction:**
  - Vinyl Plastisol End Caps
  - Bi-Component Polypropylene Media
  - Polypropylene Outer Netting
- **Operating Temperature Range:** 40 °F (4.4 °C) to 145 °F (63 °C)
- **Micron Rating:**
  - Nominal: 1, 5, 10, 20, 30, 50, 100
  - Absolute: 0.35, 0.5

### ★ FEATURES

- Lower clean initial pressure drops
- More uniform filtration and overall enhanced cartridge performance
- High particulate reduction efficiencies up to 95%
- Operate at higher velocities and flow rates
- Greater degree of depth filtration
- Added loading capabilities

### ★ SPECIFICATIONS

DIMENSIONS	MAX. FLOW RATES
2-3/4" Ø x 9-3/4", 10" long	4–7 GPM
2-3/4" Ø x 19-1/2", 20" long	8–14 GPM
2-3/4" Ø x 30" long	12–21 GPM
2-3/4" Ø x 40" long	16–28 GPM
4-1/2" Ø x 9-3/4", 10" long	10–15 GPM
4-1/2" Ø x 19-1/2", 20" long	20–30 GPM
4-1/2" Ø x 30" long	25–35 GPM

**Warning:** Filter is ideal for filtering out taste, color, and odor particles, but may not be suitable where water is microbiologically unsafe or with unknown quality without adequate disinfection before or after the system.

**Note:** All raw material used in the manufacture of United Filters International products is compliant with RoHS III, REACH197, and California Proposition 65. All are FDA Food and Beverage grade; many are NSF 42 and or NSF 61 approved. It is recommended that you run the tap for 20 seconds prior to using the water for drinking or cooking purposes.





# CARBON

- 15** Carbon Overview
- 16** Types of Carbon Cartridges
- 17** Carbon Cartridge Selection
- 18** Carbon Wraps
- 20** Radial Flow Carbon Cartridges
- 22** Three-in-One Carbon Cartridges
- 23** Pleated Carbon Filters

## ★ CARBON OVERVIEW

United Filters International state-of-the-art Carbon Filters specialize in removing contaminants, improving water quality, and enhancing the overall taste and safety of your water supply. Our innovative filtration technology is designed to meet the unique needs of each client, whether it's for municipal water treatment, food and beverage production, pharmaceutical applications, or residential use.

All carbon filters are interchangeable with standard vessels. To ensure purity, only coconut-based carbon is used in the manufacturing process. Specially-formulated carbon cartridges address chlorine, taste, odor, lead, cyst, VOCs, chloramine/hydrogen sulfide, iron, demineralization, hardness, nitrites, and scale.

All raw material used in the manufacture of United Filters International products is compliant with RoHS III, REACH197, and California Proposition 65. All are FDA Food and Beverage grade; many are NSF/ANSI 42/61/53/372 approved and certified.

## APPLICATIONS

- Clarification
- Potable water
- Plating solutions
- Food and beverage
- Waste water treatment
- Photo processing solutions

# ★ TYPES OF CARBON CARTRIDGES

## USHL RADIAL FLOW SERIES

Porous polyethylene shells filled with six granular media options—carbon (GC), catalytic carbon (CT), resin (R), zeolite (Z), clay (CL), KDF (KDF)—or a combination of mixes to address specific customer needs. The radial flow configuration offers higher flow rates with a significantly lower pressure drop than traditional GAC filters. The USHL outer shell provides pre-filtration for the underlying reactive media while the built-in downstream filter prevents partial migration.

## UCP PLEATED CARBON SERIES

Certified to NSF/ANSI 42 and 61 standards. These pleated cartridges offer five-micron filtration with 50% PAC carbon content by weight and volume. These filters are ideally suited for single filter applications where space precludes multi-staged filtration applications. The UCP series is well-adapted to address silt, color, odor, chlorine, and biofouling common in many potable water sources.

## UGACR CATALYTIC CARBON GAC SERIES

Designed to address chloramines that are commonly added to municipal water supplies. Catalytic carbon, with its modified electronic surface, expedites chemical reactions and thus increases performance. Higher performance enhances its ability to address organics, tannins, color, odor hydrogen sulfide, chloramines trihalomethanes, phenols, dyes, and heavy metals such as arsenate, arsenide, chromium, etc.

## UGAC GRANULAR CARBON GAC SERIES

Polyethylene shells are filled with coconut-based carbon granules that have a strong attraction for organic compounds. Each pound of carbon content has a surface area of almost a football field. UGAC will reduce unwanted taste, odor, and color, as well as common disinfection byproducts, organic contaminants, and chlorinated solvents. It will also reduce other pollutants, pesticides, and select heavy metals, including lead and mercury.

## UCB CARBON BLOCK SERIES

Manufactured using 100% coconut shell-based carbon for longer life and improved contact time. Nominally rated at five microns, these cartridges reduce unwanted taste, color, and chlorine from potable water sources. The outer wrap prolongs filter life by capturing larger suspended particles that would impair long term performance if left on the carbon surface.

## UFMC SYNTHETIC CARBON WRAP SERIES

Combines five-micron barrier filtration with a polyester coconut-based carbon media. These filters provide a significant reduction of chlorine, biofouling, and sediments found in many well and municipal water sources. All components are FDA compliant, making them well-suited for water and food-based applications.

## UPAMC CELLULOSE CARBON WRAP SERIES

Combines five-micron barrier filtration with coconut-based carbon. These filters are well-suited for industrial and process applications where a reduction of fine particulates and organics are needed. Internal downstream media precludes possible media migration that may interfere with the process solution. UPAMC filters are not recommended for potable water applications due to the organic content of the cellulose content.

## UTRI/UPACP MULTI-STAGE SERIES

Provides three layers of progressive filtration for sediment and organic volatiles reduction in a single cartridge. Initial filtration utilizes customer select yarns with twelve options. The second layer of customer options include granular (UTRI) or carbon impregnated felt (UPACP). The third and final stage of filtration is comprised of yarn wound over a polypropylene core to preclude downstream carbon fine migration. Optional metal cores are offered.

*Microbiologically unsafe water may require disinfection.*



# ★ CARBON CARTRIDGE SELECTION

## PICKING A CARTRIDGE

- Activated carbon is used to purify, deodorize, and upgrade the quality of liquids. It can be used as a final step to improve product quality or as an early step to remove contaminants in the system. Activated carbon is best for chemicals with low solubility, low polarity, and a low degree of ionization.
- Several factors that affect cartridge life and efficiency are:
  - Type and amount of contaminant to be dissolved
  - Flow rate, temperature, particulate load, and pH of fluid
  - Type of system (single pass or recirculation)
  - Contact time with wash (steady or intermittent use)
- End cap options include SOE, DOE, plastisol, molded, 222, 226, fin, and spring.
- Core options include polypropylene, tin, and 304/316 stainless steel.
- Series filtration utilizing a string wound or pleated particulate filter upstream of a carbon cartridge will increase the life of the carbon cartridge.
- Higher-than-recommended flow rates can be employed, but removal efficiency may be sacrificed.

## PICKING THE SIZE

- Lengths vary from 4 to 40 inches.
- Sizing is based on contact time. Longer contact time results in higher absorption.
- The lower the GPM flow rate, the greater the efficiency of the carbon cartridge.

## PACKAGING

Packaging types include bulk, individual bag, shrink wrap, standard, or custom labeling.





## **CARBON WRAPS (UFMC, UFMC-S, AND UPAMC SERIES)**

**UFMC Series Synthetic Carbon Wraps** combine five micron barrier filtration with a polyester coconut-based carbon media. These filters significantly reduce chlorine, biofouling, and sediments found in well and municipal water sources. All components are FDA compliant, making them well-suited for water and food-based applications.

**UFMC-S Series Carbon Wraps**, identical to the UFMC Series, are cellulose-free and designed to remove sediment and organic compounds from industrial process solutions. Available in a variety of lengths and diameters, these filters have a stainless steel (SS) core and are a versatile, cost-effective, high-temperature option for today's market.

**UPAMC Series Cellulose Carbon Wraps** combine five-micron barrier filtration with coconut-based carbon. They are well suited for industrial and process applications where a reduction of fine particulates and organics are needed. Internal downstream media precludes possible media migration that may interfere with the process solution. UPAMC is not recommended for potable water applications due to the organic content of the cellulose media.



## CARBON WRAPS (UFMC, UFMC-S, AND UPAMC SERIES)

### ★ OVERVIEW

- **Type:** Polypropylene Netting
- **Construction (UFMC Series):**
  - Carbon Impregnated Polyester Media
  - Plastisol Molded Ends
  - 304SS (Stainless Steel) Core (UFMC-S Series Only)
- **Construction (UPAMC Series):**
  - Carbon Impregnated Cellulose Media
  - Plastic End Caps With EPDM Gaskets
- **Micron Rating:** FDA Polypro in 5 Microns
- **Maximum Temperature:** 180 °F (82 °C)



UPAMC

UFMC & UFMC-S

### ★ SPECIFICATIONS

PART NUMBER	DIMENSIONS	REC. FLOW RATES	ODOR REDUCTION
UFMC-10	2.50" Ø x 10", 20", 30"	5 GPM @ 4 PSI	2,000 gal. @ 1 GPM/per 10"
UFMC-20	2.50" Ø x 10", 20", 30"	5 GPM @ 4 PSI	4,000 gal. @ 1 GPM/per 10"
UFMC-30	2.50" Ø x 10", 20", 30"	5 GPM @ 4 PSI	6,000 gal. @ 1 GPM/per 10"
UFMC-40	2.50" Ø x 10", 20", 30"	5 GPM @ 4 PSI	8,000 gal. @ 1 GPM/per 10"
UFMC-BB-10	4.50" Ø x 10", 20", 30"	8 GPM @ 5 PSI	15,000 gal. @ 4 GPM/per 10"
UFMC-BB-20	4.50" Ø x 10", 20", 30"	8 GPM @ 5 PSI	25,000 gal. @ 4 GPM/per 10"
UFMC-BB-30	4.50" Ø x 10", 20", 30"	8 GPM @ 5 PSI	35,000 gal. @ 4 GPM/per 10"

**Warning:** Do not use with water that is microbiologically unsafe of unknown quality without adequate disinfection before of after the system. After installation, it is recommended to flush the filter for at least twenty seconds prior to using water.



## RADIAL FLOW CARBON CARTRIDGES (USHL SERIES)

USHL Series porous shell carbon cartridges have been designed primarily for use in removing organics and particulate contaminants from plating, acid, alkaline and hydrocarbon solutions. The cartridges are constructed with a 70-micron porous polyethylene outer shell and durable polypropylene end caps. Sandwiched between the outer shell and the core is a bed of granular activated carbon (GC).

The unique radial flow design offers the benefits of granular activated carbon (GC) filtration, such as low pressure drop, while at the same time significantly reducing the release of carbon fines commonly associated with GAC-style cartridges.

USHL Series cartridges are available in a wide variety of sizes and are ideal for point-of-entry (POE) and other high flow rate applications.



### ★ OVERVIEW

- **Construction:**
  - Polyethylene Outer Shell
  - Polypropylene Inner Wraps/Core
  - Granular Activated Carbon Media
  - Plastic End Caps
  - Buna-N Gaskets
- **Operating Temperature Range:**  
40 °F to 125 °F (4.4 °C to 51.7 °C)

### ★ FEATURES

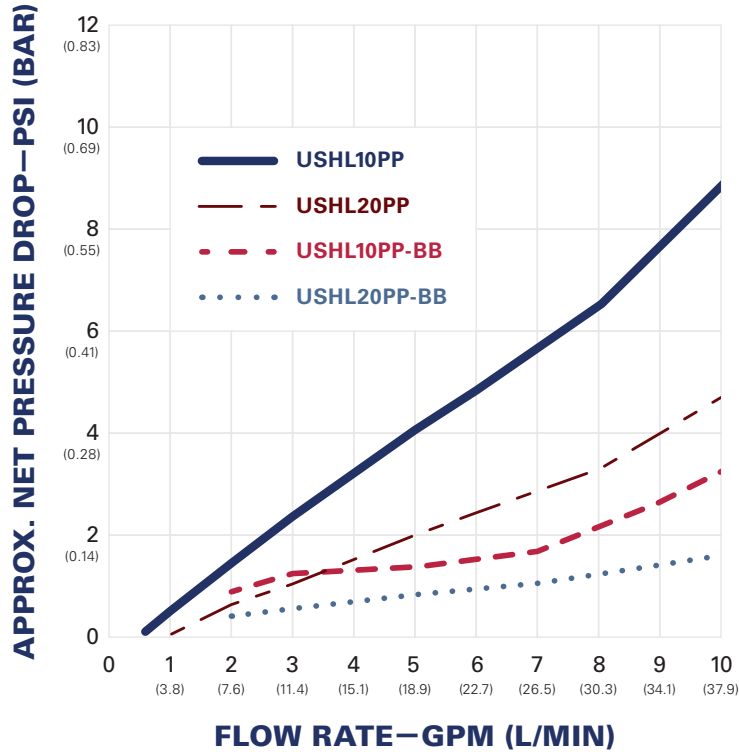
- Provides effective chlorine taste and odor reduction\*
- BB cartridges are ideal for point-of-entry (POE) and other high flow rate applications
- Unique design reduces carbon fines in filtered water
- Available in a wide variety of sizes

\* Based on manufacturer's internal testing.

### ★ APPLICATIONS

- Amines and glycols
- Water purification
- Vending machines
- Photographic
- Dechlorination
- Plating solutions
- Oil removal
- Aromatic compounds
- Color removal
- High molecule weight alcohols
- Drinking water
- Benzene/toluene
- Polychlorinated biphenyls (PCBs)
- Organic contaminants
- Clarity improvement
- Cooling tower treatment
- Beverages

## RADIAL FLOW CARBON CARTRIDGES (USHL SERIES)



### ★ SPECIFICATIONS

PART NUMBER	MAX. DIMENSIONS	INITIAL ΔP AT FLOW RATE	CHLORINE TASTE/ODOR REDUCTION
USHL10PP	2-3/4" x 9-3/4" (70 mm x 248 mm)	0.60 psi @ 1 GPM (0.04 bar @ 3.8 L/min)	> 3,000 gallons @ 1 GPM 11,400 liters @ 3.8 L/min
USHL20PP	2-3/4" x 20" (70 mm x 308 mm)	0.60 psi @ 2 GPM (0.04 bar @ 7.6 L/min)	> 6,000 gallons @ 2 GPM 22,700 liters @ 7.6 L/min
USHL30PP	2-3/4" x 30" (70 mm x 556 mm)	0.60 psi @ 3 GPM (0.04 bar @ 11.4 L/min)	> 9,000 gallons @ 3 GPM 34,100 liters @ 11.4 L/min
USHL40PP	2-3/4" x 40" (70 mm x 612 mm)	0.60 psi @ 4 GPM (0.4 bar @ 15.2 L/min)	12,000 gallons @ 4 GPM 45,400 liters @ 15.2 L/min
USHL10PP-BB	4-1/2" x 9-3/4" (114 mm x 248 mm)	0.90 psi @ 2 GPM (0.06 bar @ 7.6 L/min)	> 35,000 gallons @ 2 GPM 132,500 liters @ 7.6 L/min
USHL20PP-BB	4-1/2" x 20" (114 mm x 308 mm)	0.90 psi @ 4 GPM (0.06 bar @ 15.1 L/min)	> 70,000 gallons @ 4 GPM 265,000 liters @ 15.1 L/min

*Note: Individual wraps available. Standard micron ratings are based on industry accepted standard and are not "absolute" unless specifically requested. Adequate disinfection of potable water should be considered prior to installing any filter. Cartridges have a limited life; taste, color, odor and low flow may indicate the need to replace.*





## THREE-IN-ONE CARBON CARTRIDGES (UPACP AND UTRI SERIES)

Both UPACP and UTRI cartridges offer three-in-one filters. The outer layer acts as a pre-filter, protecting the underlying layer of carbon impregnated paper or carbon granules. The carbon layer removes chlorine, foul taste, odors, colors and trace levels of organics. The five micron finishing filter removes carbon fines from the downstream flow. These cartridges are designed to be used in either single or multi-tubed vessels. Both are one-step carbon filtration treatment cartridges that eliminate the problems associated with loose carbon treatment and the need for further downstream filtration.



### ★ OVERVIEW

- **UPACP:** Outer wound cartridge made with carbon impregnated synthetic paper with a 5 micron finishing filter
- **UTRI:** Outer wound cartridge and coconut carbon granules with a 5 micron finishing filter
- Each 10" of length has a flow of 2.5 gpm

### ★ APPLICATIONS

- Clarification
- Potable water
- Plating solutions
- Food and beverages
- Waste water treatment
- Photo processing solutions

### ★ SPECIFICATIONS

#### DIMENSIONS

**Standard:** 2-3/4" outer Ø with 7-3/4"-40" variable lengths

### ★ TREATMENTS

- Odors
- Colors
- Chlorine
- Sediments
- Foul tastes
- Trace organics

## PLEATED CARBON FILTERS (UCP SERIES)

UFI Pleated Carbon Filters are specialty products designed to incorporate the adsorption and purification benefits of activated carbon with the functionality and filtration properties of a wet-laid polyester media. These filters are certified to NSF/ANSI 42 and 61 and come in various sizes and configurations.



### ★ OVERVIEW

- **Type:** Carbon/Synthetic Blend (50/50 Blend by Volume)
- **Construction:**
  - Standard: Polypropylene Core and Plastisol Ends
  - Standard End Caps: DOE and SOE
  - Optional End Caps: 222, 226, Flat Closed, or Fin
- **Micron Rating:** 5

### ★ COMPATIBLE WITH THESE FILTER HOUSINGS

- Culligan
- CECO
- US Filter
- Ametek
- Pentek
- Keystone
- American Plumber
- Other industry standard and Big Blue housings

### ★ SPECIFICATIONS

#### DIMENSIONS

**Standard:** 2.5" outside Ø

**Big Blue:** 4.5" outside Ø

4" to 40" variable lengths

*Note: All raw material used in the manufacture of United Filters International products is compliant with RoHS III, REACH197, and California Proposition 65. All are FDA Food and Beverage grade; many are NSF 42 and or NSF 61 approved. Microbiologically unsafe water may require disinfection.*

### ★ FEATURES

- Low pressure drop
- Reduces chlorine and odor
- Improves taste
- Safe, effective prevention of biofouling
- Removes dissolved organics
- 5 microns capture sand, sediment, silt, and rust





# ULTRA-SERIES SUBMICRON

- 25** Ultra-Series Submicron Overview
- 26** Ultra-D<sup>®</sup> Submicron Filters
- 28** Ultra-Prime<sup>®</sup> Submicron Filters

# ★ ULTRA-SERIES SUBMICRON OVERVIEW

United Filters International Ultra-Series Submicron Depth Filtration technology makes it possible for a non-woven media to produce filtration efficiency comparable to ultra-filtration membranes, but with a very low pressure drop, high flow rates, and high loading capacity. Ultra-Series membranes work equally well in fresh, brackish, or salt waters.

Ultra-D® media consists of coated micro-glass fibers produced using a wet laid non-woven manufacturing technology. The base media is laminated between layers of spun-bond to provide both strength and pleat support. The media is NSF/ANSI 42 ("Drinking Water System Components—Health Effects"), USP Class VI testing, and endotoxin testing approved.

This media has been specifically engineered to have an average pore size of 0.2 microns and a mean flow pore of 0.7 microns. This allows the naturally occurring charge field to affect the total volume of the individual pores, as well as virtually the entire void volume of the filter media itself.

## APPLICATIONS

- Residential
- Food and beverage industry
- Pharmaceutical industry
- Commercial pre-RO and ultra filtration treatment
- Gray water recycling
- Desalination
- Other high-purity applications
- Water recycling treatment for circuit board industry



**ULTRA-SERIES ULTRA-D® SUBMICRON FILTERS**

UFI Ultra-D® Submicron Filters are manufactured using a proprietary electroadhesion and ion exchange media. This unique material makes it possible for a non-woven media to perform comparably to ultra-membrane filtration at 0.2 micron filtration levels. This avoids the inherent high clean pressure drop and low flow rates associated with membrane filtration. Ultra-D® filters are offered in two configurations with four media options.

ULTRA-D® cartridges are offered in an ECO configuration with fewer pleats and a life-extending five-micron outer protective wrap. The wrap supports a midlife external rinse capability not available with the standard configuration. ECO offers a cost-effective alternative to standard filters and is ideally suited for single-cartridge applications. All Ultra-D® filter options are certified to NSF/ANSI 42, 61, and 372 standards by IAPMO R&T.

★ **5283—WHITE**

Offers high flow rates with submicron filtration of 0.2 microns. Offers enhanced removal of submicron particles, including organic and inorganic compounds, colloids, and biologic material (viruses, bacteria, organic acids cell debris, and endotoxins).



5283—White

★ **5288—WHITE WITH AAI\***

Offers submicron high flow performance with AAI additive. Agion® prevents colonization of organisms captured on the filter surface.



5288—White With AAI

★ **5284—WHITE WITH CARBON**

Offers all the advantages of 5283 (blue) media, with the added benefit of PAC carbon to address chlorine, taste, odor, humic acid and other water-soluble components common to potable water sources.



5284—White With Carbon

★ **5289—WHITE WITH CARBON AND AAI\***

Combines the advantages of 5284 (black) and 5288 (red) media into a single cartridge.



5289—White With Carbon and AAI

## ULTRA-D® SUBMICRON FILTERS

### ★ LABORATORY TESTING<sup>^</sup>

ELEMENT	REDUCTION %
Lead reduction	> 95%
Ferrous iron	> 80%
Arsenic V	> 95%
Cadmium	> 95%
Chromium	> 85%
Selenium	> 75%
Mercury	> 60%
Viruses	> 99.99%
Bacteria ( <i>E. coli</i> , legionella, pseudomonas, etc.)	> 99.99%
Cysts (giardia, cryptosporidium, etc.)	> 99.95%
Chlorine (5284 PAC)	N/A
Bromine (5284 PAC)	N/A
Iodine (5284 PAC)	N/A
VOCs (volatile organic compounds)	N/A
PCB and BPA	N/A
Residual pharmaceuticals	N/A
Biofouling precursors (organic acids, proteins and polysaccharides)	N/A

### ★ SPECIFICATIONS

#### DIMENSIONS

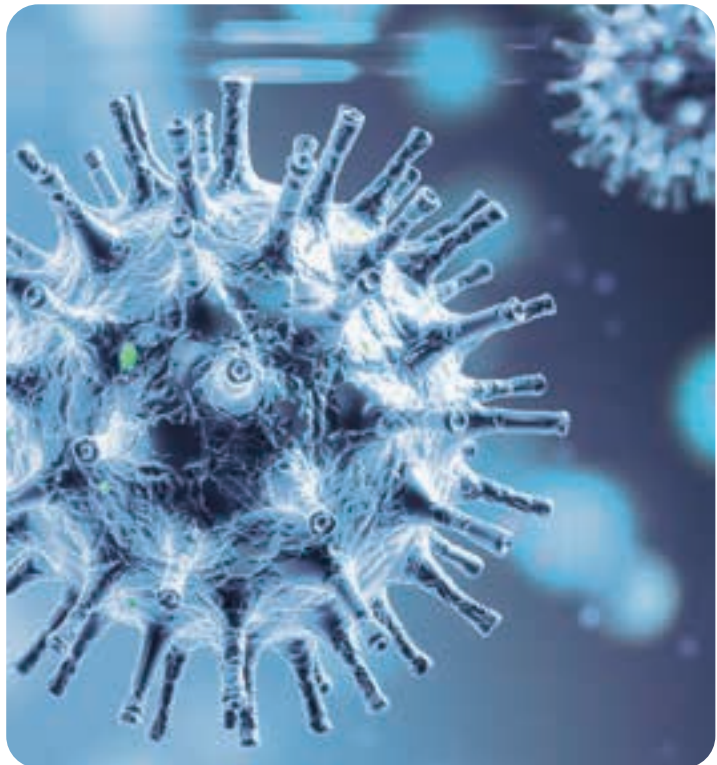
4" to 40" variable lengths

2" to 6" variable Øs

*\*Agion® Antimicrobial Inhibitor prevents growth of bacterial, virus, and fungal propagation on the upstream wetted surface of the filter. This long-lasting treatment complies with a broad range of regulatory requirements. It is an environmentally intelligent treatment, allowing the disposal of filters in standard waste facilities. This treatment inhibits the growth of odor-causing microns. Protection is limited to the filters' wetted surface only.*

*^Controlled independent laboratory testing documented the reduction of heavy metals, chemicals, and organic/inorganic compounds as shown.*

*All raw material used in the manufacture of United Filters International products is compliant with RoHS III, REACH197, and California Proposition 65. All are FDA Food and Beverage grade and are certified to meet NSF/ANSI 42/61/372 standards.*



**ULTRA-SERIES**

**ULTRA-PRIME® SUBMICRON FILTERS**

**FILTERS ARE CERTIFIED TO NSF/ANSI STANDARDS 42, 61, AND 372**

UFI Ultra-Prime® Filters merge the best of two worlds by combining electrostatic pleated media with a US-manufactured proprietary high-efficiency carbon block core.

★ **CARBON FINISHING CORE**

US-manufactured carbon block core comprised of a proprietary blend of activated carbon reduces chloramine, chlorine, VOCs, lead, PFOA/PFOS, bad taste and odor.

★ **SUBMICRON PLEATED FILTER**

Electrostatic charged media with 0.2 submicron performance allows for a < 99.9% reduction of bacteria, viruses, and cysts. Excellent reduction of pathogens, trace pharmaceuticals and heavy metals is achieved with zero wastewater and without chemical additives or electricity.

★ **PRE-FILTER WRAP**

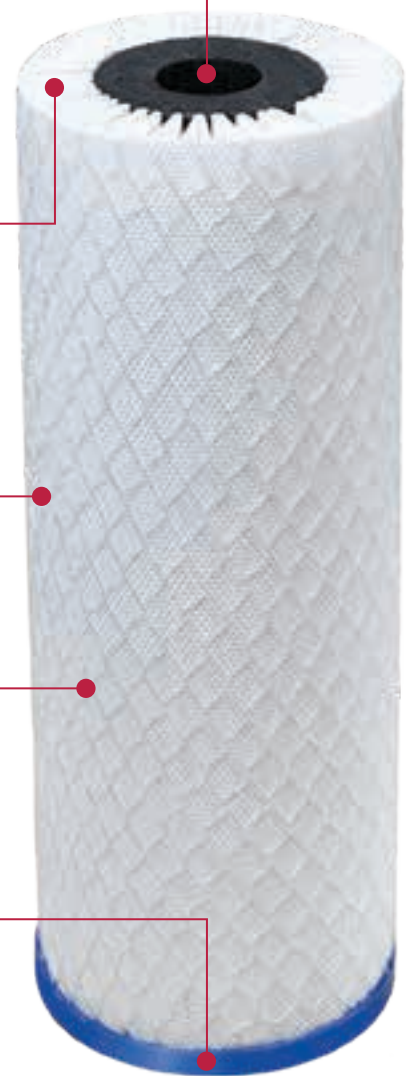
Five-micron pre-filter wrap extends life cycle costs and supports end-user rinse options.

★ **EXTERNAL NETTING**

Eliminates damage from rough handling and retains pleat spacing to ensure efficient use of media surface area and continued flow across variable flow rates.

★ **END CAP TREATMENT**

Immersed in a thermo-setting vinyl plastisol, fusing the carbon core, pleated media, pre-filter wrap and external polypropylene netting together to form a unitized end cap and gasket. Optional pre-molded end caps or customer-unique end cap options are available.



# MELT BLOWN

- 30** Melt Blown Overview
- 31** Melt Blown Filter Cartridge
- 32** Grooved Melt Blown Sediment Cartridge



## ★ MELT BLOWN OVERVIEW

United Filters International 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.

The MBG Series filters are gradient-density, grooved melt blown cartridges manufactured from FDA-graded polypropylene. A cut groove process maintains open pore construction, doubling usable surface area.

### APPLICATIONS

- Pre-filters for reverse osmosis filters
- Home water filtration
- Swimming pools
- High efficiency

## MELT BLOWN FILTER CARTRIDGE

UFI's Melt Blown Filter is manufactured from 100% polypropylene construction, offering 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. The cartridge is available in various sizes and micron ratings for a broad array of applications.



### ★ OVERVIEW

- **Construction:**
  - 100% Polypropylene Media
- **Maximum Temperature:** 180 °F (82 °C)
- **Maximum Differential Pressure:** 50 psid
- **Micron Rating:** Available in various microns

### ★ APPLICATIONS

- Pre-Filters for reverse osmosis filters
- Home water filtration
- Swimming pools
- High efficiency

### ★ SPECIFICATIONS

#### DIMENSIONS

**Standard:** 2.5" outside Ø x 9-3/4"–40" long

**Big Blue:** 4.5" outside Ø x 9-3/4"–20" long

Variable lengths on request

**Warning:** Filter may not be suitable where water is microbiologically unsafe or with unknown quality without adequate disinfection before or after the system.

**Note:** After installation, flush the cartridge for 5 minutes.



## GROOVED MELT BLOWN SEDIMENT CARTRIDGE

Multi-layered grooved polypropylene filters are ideally suited for removal of sand, silt, dirt and rust particles. Materials meet FDA specification and are specially constructed to preclude downstream contamination. Grooving effectively doubles the surface area, providing lower clean pressure drop, increased dirt holding capacity and longer life. All these qualities result in a lower cost of ownership.



### ★ OVERVIEW

- **Type:** Multi-Layered Polypropylene
- **Micron Rating:** Nominal: 1, 5, 10, 25, 50

### ★ APPLICATIONS

- Potable water
- Beverage
- RO pre-filtration
- Fine chemicals
- Metal finishing
- Plating solutions

### ★ SPECIFICATIONS

#### DIMENSIONS

**Standard:** 2.5" outside Ø x 9-3/4"-20" long

**Big Blue:** 4.5" outside Ø x 9-3/4"-20" long

**Note:** Longest filter length available = 20".



# SPECIALTY

- 34** Specialty Overview
- 35** No-Scale Inhibitor
- 36** Liquid Filter Bags
- 37** Petrochemical Filters



## ★ SPECIALTY OVERVIEW

United Filters International specialty products include No Scale Filters and Petrochemical Filters.

UFI No-Scale inhibitor consists of a well-balanced blend of food-grade organic polyphosphates. No-Scale stabilizes and inhibits the corrosion/scale process by eliminating brown water (iron oxide/hydroxide) and stopping the further build up of white scale (i.e., calcium carbonate and calcium silicate).

Liquid filter bags offer low clean pressure drop, high dirt holding capacity, and excellent particulate retention. Standard liquid filter bags are economical, disposable filter solutions manufactured in a variety of materials and a wide array of sizes and styles.

UFI Petrochemical Filters are a comprehensive line of filters and filter vessels utilized in offshore exploration and production, gas production/transmission, and petrochemical refinery applications.

## APPLICATIONS

- Water systems
- Cooling towers
- Heat exchangers
- Wells
- Hotels
- Industry
- Water heaters/tankless water heaters
- Point-of-use and point-of-entry potable water systems

## NO-SCALE INHIBITOR (NS)

**THIS OPTION IS AVAILABLE FOR ALL UFI FILTER PRODUCTS.**

UFI No-Scale inhibitor is the economical way to protect water systems against scale and corrosion. Consisting of a well-balanced blend of food-grade organic polyphosphates, No-Scale stabilizes and inhibits the corrosion/scale process. As a “threshold inhibitor”, No-Scale is slow-acting, preventing new scale from forming and loosening/softening existing scale deposits. Over time, these deposits are flushed off by the natural turbulence of the water flow.

No-Scale is compatible with galvanized, copper, and plastic pipes as well as all wetted surfaces. It will eliminate brown water (iron oxide/hydroxide) and stop the further build-up of white scale (i.e., calcium carbonate and calcium silicate).



### ★ OVERVIEW

- Can Be Added to ANY Filter
- **Micron Rating:** 1 to 250 variable ratings

### ★ APPLICATIONS

- Wells
- Hotels
- Industry
- Water systems
- Cooling towers
- Heat exchangers
- Hot water heaters
- Tankless hot water heaters
- Point of use/point of entry potable water systems

### ★ BENEFITS

- Energy savings
- Extends service life
- Prevents “brown water”
- Maintenance cost reduction
- Reverses existing scale build-up



*Before prolonged use of No-Scale*



*After prolonged use of No-Scale\**



## LIQUID FILTER BAGS

UFI Liquid Filter Bags are a cost-effective alternative for most fluid applications. Manufactured with a wide array of sizes and styles and using several media options to insure fluid compatibility, these bags are available in 1 absolute to 1,500 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. Pleated bags provide longer service life, reduce operating cost, and cause less process downtime. Custom and standard lift handles enable simple and fast removal of spent bags. Inside to outside flow promotes easy disposals with less risk of downstream contamination during change-out.



### ★ FEATURES

- Low clean pressure drop
- Excellent particulate retention
- One micron at 96% efficiency at 75 GPM flow rates
- Multiple media options
- Polypropylene mesh has better acid resistance than nylon
- Polyester/polypropylene felts and polypropylene mesh are cost-effective for temperatures up to up to 200° F
- Inside to outside flow for ease of change-out without downstream contamination
- Oil absorbing bags and inserts hold 25 times their own weight in oil/petrochemical

### ★ LIFTING DEVICES

- Galvanized carbon steel
- Stainless steel
- Molded plastic
- Woven fabric

### ★ SPECIFICATIONS

MEDIA	EFFICIENCY RATING
Polyester or polypropylene felts	50% nominal
Polyester multi-filament meshes	90% nominal
Polypropylene mesh	N/A
Nylon mono-filament meshes	90% nominal
Polypropylene micro fiber	95% nominal
Polypropylene oil removal	95% nominal
Polyester or polypropylene graded density	99% absolute
Oil-absorbing bags and inserts	N/A
Teflon	95% nominal
Cotton	90% nominal

## PETROCHEMICAL FILTERS

United Filters International provides advanced filtration solutions for the petrochemical industry, ensuring the removal of contaminants that compromise efficiency, safety, and product quality. UFI offers a range of high-performance filter cartridges, coalescers, and separators designed to handle the demanding conditions of petroleum refining and chemical processing. UFI filtration systems effectively remove particulates, water, and other impurities from fuels, lubricants, and chemical feed stocks, improving operational reliability and meeting stringent industry regulations.

UFI's product line includes depth filters (ideal for capturing fine particles and extending equipment lifespan), membrane filters (used for precise separation and purification of chemicals and solvents), coalescing filters (to efficiently remove water and emulsified contaminants from fuel and lubricants), and activated carbon filters (to eliminate organic compounds, odors, and unwanted hydrocarbons).



### ★ LABORATORY TESTING

Testing in accordance with ASTM F797-82 ("Determining the Performance of a Filter"), our dual wind elements have demonstrated the following test results:

ELEMENT TESTED	ELEMENT CONSTRUCTION	AVERAGE EFFICIENCY	DIRT HOLDING CAPACITY
UP1R10P	1u polypropylene	90.1%	34 grams
UP20R10P	20u polypropylene	67.1%	107 grams
UP1-20R10P	1u polypropylene (inner) 20u polypropylene (outer)	90.4%	113 grams

### ★ APPLICATIONS

- Refineries
- Pipelines and storage
- Gas processing plants
- Chemical production
- Power generation





# RESOURCES

- 39** Blended Media Options
- 40** End Treatments & Core Options
- 41** Nomenclature

# ★ BLENDED MEDIA OPTIONS

FOR LINEAR FLOW, RADIAL FLOW, AND TRI-FILTERS



ZEOLITE

## ACTIVATED ALUMINA

Pre-regenerated with aluminum sulfate to maximize capacity. Used for the removal of arsenic, fluoride, selenium, silica, and humic acid.



CLAY

## CALCITE

Calcium carbonate media used to correct pH to a non-corrosive equilibrium.



CARBON

## SILIPHOS

Slow-dissolving polyphosphate for remediation of scale build-up in wetted plumbing applications.



SILIPHOS

## TITANIUM OXIDE

Effectively removes arsenic, copper, chrome, lead, uranium, mercury, cadmium, selenium, and antimony.

## ACID-WASHED COCONUT SHELL CARBON

Reduction of taste, odors and dissolved organic chemicals. Very effective at reducing chlorine.



RESIN

## CATALYTIC CARBON

Enhanced carbons effectively remove chloramines, hydrogen sulfide, chloroform and other trihalomethanes.

## KDF 55

High-purity formulation of copper-zinc alloy that effectively removes most heavy metals. Effectively controls scale, bacteria and algae in both cold and hot water applications. Does not impart chemical additives down stream.

## NATURAL ZEOLITES

Effectively reduces concentrations of heavy metals, anion and organic matter in water.

## CLAY

Naturally hydrophobic with low surface tension. This media repels water and is best suited for hydrocarbon absorption.

## RESINS

Ion-exchange resins or polymers act as a medium for ion exchange. Widely used in various separation, purification and decontamination processes to address water softening and purification.



*NOTE: Customer-supplied filtration medias can be specifically made into cartridge solutions.*

## ★ END TREATMENTS



*Polypro-226*



*Polypro Core Extender*



*S/S Core Extender*



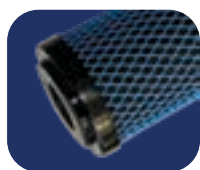
*Flat/Closed*



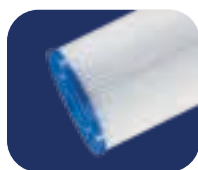
*Poly-222*



*Fin*



*Flat/Open*



*Plastisol Molded*



*3" ACS Cap and Spring Assembly*



*316SS CSA Cap and Spring Assembly*



UFI provides 10 different end caps to all of our filter lines. The diversity of these end caps provides an endless variety of filtration solutions for every industry. We can provide the following end caps:

- Polypro-226
- Polypro Core Extender
- Stainless Steel Core Extender
- Flat/Closed
- Poly-222
- Fin
- Flat/Open
- Plastisol Molded
- 3" ACS Cap and Spring Assembly
- 316SS CSA Cap and Spring Assembly

We can also provide the following O-rings:

- EPDM
- Buna-N
- Viton
- Silicone

## ★ CORE OPTIONS

DESCRIPTION	MAX TEMP	CHARACTERISTICS
<b>Polypropylene</b>	180 °F/82 °C	For lower-temperature applications of corrosive fluids and gases. Easily incinerated to a trace of ash.
<b>Tin-Plated Steel</b>	400 °F/204 °C	General purpose applications.
<b>304SS</b>	750 °F/399 °C	For high-temperature dilute acids and moderately corrosive fluids.
<b>316SS</b>	750 °F/399 °C	For high-temperature applications and highly corrosive fluids.

# ★ NOMENCLATURE—STRING WOUND FILTERS

**U P 10 R 10 P V SOC BUN ISW L**

<b>U</b>	<b>STYLE</b>
	U: Standard

<b>P</b>	<b>MEDIA</b>				
	R: Rayon (Viscose)	N: Nylon	G: Fiberglass	F: Fibrillated	K: Polyester
	PDN: NSF42/61 Polypropylene	P: Industrial Polypropylene	PD: FDA Polypropylene	RT: Ryton	C: FDA Bleach Cotton
	CCU: Industrial White Cotton	U: Natural Cotton			

<b>10</b>	<b>MICRON</b>									
	0.5	1	3	5	10	15	20	25	30	40
	50	75	100	125	150	200				

<b>R</b>	<b>OUTSIDE DIAMETER</b>									
	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"
	X: Special									

<b>10</b>	<b>LENGTHS</b>									
	5"	6"	7"	8"	9"	9.75"	10"	12"	12.50"	18"
	19.50"	19.75"	20"	29.50"	30"	36"	39"	40"	50"	60"
	70"	72"								

<b>P</b>	<b>CORE MATERIAL</b>				
	T: Tin-Plated Steel	P: Polypropylene	A: 316 Stainless Steel	S: 304 Stainless Steel	TW: Tin Steel Wild Cat
	SW: 304SS Wild Cat				

<b>V</b>	<b>CORE COVER</b>	
	No Symbol: None	V: Specific Core Cover

<b>SOC</b>	<b>END TREATMENT</b>				
	PM: Poly Cap & Metal Spring	06F: 226 O-Ring & Fin	06C: 226 O-Ring & Cap	SOC: 222 O-Ring & Cap	SOF: 222 O-Ring & Fin
	EC: Extended Crimped Core	(S)E: 316SS Insert	(P)E: Poly Core Insert	PS: Poly Spring	ACS: 3" Tin Cap & Spring
	CSA: Stad. 316SS Cap & Spring	[Blank]: No End Treatment—DOE			

NOTE: Only select an O-ring option if you selected a non-plastisol end treatment above.

<b>BUN</b>	<b>O-RINGS</b>			
	BUN: Buna	EPD: EPDM	VIT: Viton	SIL: Silicone

<b>ISW</b>	<b>PACKAGING</b>		
	ISW: Individual Shrink Wrap	IW: Individual Bag	[Blank]: Bulk Bagged

<b>L</b>	<b>LABEL</b>
	L: Individual Label

Contact factory for special lengths and configuration requests.

For more details and answers to specific compatibility questions, visit **UNITEDFILTERS.COM/COMPATIBILITY**





# ★ NOMENCLATURE—PLEATED FILTERS

**PP 0.5 ABS 20 HE BB N SW L**

<b>PP</b>	<b>STYLE—MEDIA</b>		
	PE: Polyester	PP: Polypropylene	C: Cellulose

<b>0.5</b>	<b>MICRON</b>								
	0.35	0.5	1	5	10	20	50	100	

<b>ABS</b>	<b>RATING</b>	
	[Blank]: Nominal	ABS: Absolute

<b>20</b>	<b>LENGTHS</b>								
	5"	9.5"	10"	19.50"	20"	29.25"	30"	40"	

NOTE: High efficiency (HE) adds 25% more media to the filter.

<b>HE</b>	<b>STD/HE</b>	
	[Blank]: Standard	HE: High Efficiency

<b>BB</b>	<b>OUTSIDE DIAMETER</b>	
	[Blank]: Standard 2.5"	BB: 4.5"

	<b>END TREATMENT</b>					
	[Blank]: Plastisol	PSOC: 222/SOE/Flat	PSOF: 222/SOE/Fin	6SOC: 226/SOE/Flat	6SOF: 226/SOE/Fin	
	PS: Poly Spring/SOE					

NOTE: Only select an O-ring option if you selected a non-plastisol end treatment above.

	<b>O-RINGS</b>			
	BUN: Buna	EPD: EPDM	VIT: Viton	SIL: Silicone

<b>N</b>	<b>NETTING</b>	
	[Blank]: No Netting	N: Netting

<b>SW</b>	<b>PACKAGING</b>	
	[Blank]: Bag	SW: Shrink Wrap

<b>L</b>	<b>LABEL</b>
	L: Label

Contact factory for special lengths and configuration requests.

# ★ NOMENCLATURE—ULTRA-D® FILTERS

**USM 20 BB 5289 ECO PSOF BUN SW L**

<b>USM</b>	<b>STYLE</b>
	USM

<b>20</b>	<b>LENGTHS</b>							
	5"	9.5"	10"	19.50"	20"	29.25"	30"	40"

<b>BB</b>	<b>OUTSIDE DIAMETER</b>	
	[Blank]: Standard 2-5/8"	BB: 4.5"

<b>5289</b>	<b>MEDIA</b>			
	5283	5284	5288	5289

<b>ECO</b>	<b>VERSION</b>	
	[Blank]: Standard	ECO: Economy

<b>PSOF</b>	<b>END TREATMENT</b>				
	[Blank]: Plastisol	PSOC: 222/SOE/Flat	PSOF: 222/SOE/Fin	6SOC: 226/SOE/Flat	6SOF: 226/SOE/Fin
	PS: Poly Spring/SOE				

NOTE: Only select an O-ring option if you selected a non-plastisol end treatment above.

<b>BUN</b>	<b>O-RINGS</b>			
	BUN: Buna	EPD: EPDM	VIT: Viton	SIL: Silicone

<b>SW</b>	<b>PACKAGING</b>	
	[Blank]: Bag	SW: Shrink Wrap

<b>L</b>	<b>LABEL</b>
	L: Label

Contact factory for special lengths and configuration requests.

For more details and answers to specific compatibility questions, visit **UNITEDFILTERS.COM/COMPATIBILITY**



# ★ NOMENCLATURE—BAG FILTERS

**PE 5 P 1 SS**

MEDIA				
PE	PE: Polyester Felt	P: Polypropylene Felt	N: Nylon Felt	PEM: Polyester Multifilament Mesh
	NMO: Nylon Monofilament Mesh	PEMO: Polyester Monofilament Mesh		PMO: Polypropylene Monofilament Mesh
	HT: Nylon Nomex Felt	TEF: Teflon	CT: Cotton	

NOTE: When choosing micron options, find the media you chose above in the left-hand column, then choose one number from the right column in the same row.

MICRON		
5	Polyester Felt	1.5, 1, 3, 5, 10, 15, 25, 50, 75, 100, 200
	Polypropylene Felt	1, 3, 5, 10, 25, 50, 100, 200
	Nylon Felt	5, 10, 25, 50, 100, 200
	Polyester Multifilament Mesh	75, 100, 125, 150, 200, 250, 300, 400, 600HD, 800LW, 800HD, 950HD, 1400
	Nylon Monofilament Mesh	5, 10, 20, 25, 40, 50, 55, 65, 75, 100, 125, 150, 210, 250, 300, 400, 600, 800, 1200
	Polyester Monofilament Mesh	1, 20, 25, 30, 35, 40, 65, 75, 100, 125, 150, 200, 250, 300, 400, 600, 800
	Polypropylene Monofilament Mesh	200, 300, 400, 600, 800
	Nylon Nomex Felt	1, 5, 15, 25, 50, 100, 200
	Teflon	10, 25
Cotton	5, 10, 25, 50	

BAG COVER OR FINISH					
P	NMO: Nylon Monofilament	G: Fiber-Free Glazed Finish	M: Polyester Multifilament	C: Cerex Spun Bond Nylon	P: Plain (No Cover)
	PP: Spun Bond Polypropylene				

BAG SIZE NUMBER				
1	1: #1 Size Bag (Fits CK Housing)	2: #2 Size Bag (Fits RK Housing)	3: #3 Size Bag (Fits PK Housing)	4: #4 Size Bag (Fits GK Housing)
	7: #7 Size Bag (Fits JK Housing)	8: #8 Size Bag (Fits AK Housing)	9: #9 Size Bag (Fits UK Housing)	

ADDITIONAL BAG MODELS		
[Blank]: Carbon Steel Ring	PC1: Fits #1 Cuno Housing	PC2: Fits #2 Cuno Housing
C1: Fits Commercial Housing	C2: Fits Commercial Housing	RP: Fits Ronningen-Petter Housing
KV2: Fits Knight KV Housing		

TOP STYLE					
SS	SS: Stainless Steel Ring	P: Polypropylene Ring	F: Sure-Seal™	R: Reverse Collar	L: Lifting Handle
	A: Drawstring				

Contact factory for special lengths and configuration requests.

# ★ NOMENCLATURE—CARBON FILTERS

## RADIAL FLOW (SHELLS)

**USHL GC 20 BB PP SW L**

<b>USHL</b>	<b>STYLE</b>
	USHL

<b>GC</b>	<b>MEDIA</b>						
	GC: Granular Carbon	CT: Catalytic Carbon	ZT: Zeolite	KD: KDF 55	RS: Resin	CL: Clay	XX: Special

<b>20</b>	<b>LENGTHS</b>					
	5"	9.5"	10"	20"	30"	40"

<b>BB</b>	<b>OUTSIDE DIAMETER</b>	
	[Blank]: 2-5/8"	BB: 4.5"

<b>PP</b>	<b>CORE</b>
	PP: Polypro

	<b>END TREATMENT</b>	
	[Blank]: Plastisol DOE	222: DOE

NOTE: Only select an O-ring option if you selected a non-plastisol end treatment above.

	<b>O-RINGS</b>			
	BUN: Buna	EPD: EPDM	VIT: Viton	SIL: Silicone

<b>SW</b>	<b>PACKAGING</b>	
	[Blank]: Bulk	SW: Shrink Wrap

<b>L</b>	<b>LABEL</b>	
	[Blank]: No Label	L: Filter Label

## PLEATED CARBON

**UCP 10 BB SW L**

<b>UCP</b>	<b>STYLE</b>
	UCP

<b>10</b>	<b>LENGTHS</b>					
	5"	9.5"	10"	20"	30"	40"

<b>BB</b>	<b>OUTSIDE DIAMETER</b>	
	[Blank]: 2-5/8"	BB: 4.5"

	<b>END TREATMENT</b>		
	[Blank]: Plastisol DOE	PSOC: 222/Flat SOE	PSOF: 222/Fin SOE

NOTE: Only select an O-ring option if you selected a non-plastisol end treatment above.

	<b>O-RINGS</b>			
	BUN: Buna	EPD: EPDM	VIT: Viton	SIL: Silicone

<b>SW</b>	<b>PACKAGING</b>		
	[Blank]: Bulk	IW: Individual Wrap	SW: Shrink Wrap

<b>L</b>	<b>LABEL</b>	
	[Blank]: No Label	L: Filter Label

Contact factory for special lengths and configuration requests.

For more details and answers to specific compatibility questions, visit **UNITEDFILTERS.COM/COMPATIBILITY**





# ★ NOMENCLATURE—CARBON FILTERS

<b>UTRI</b>	<b>STYLE</b> UTRI	<b>TRI FILTERS (UTRI)</b>					<b>UTRI</b>	<b>ZT</b>	<b>10</b>	<b>P</b>						
<b>ZT</b>	<b>MEDIA</b> GC: Granular Carbon    CT: Catalytic Carbon    ZT: Zeolite    KD: KDF 55    RS: Resin    CL: Clay    XX: Special															
<b>10</b>	<b>LENGTHS</b> 7"    9.5"    10"    20"    30"    40"															
	<b>OUTSIDE DIAMETER</b> [Blank]: 2.75"    2.5: 2.5"    BB: 4.5"															
	<b>MICRON</b> 5    10    20    50															
<b>P</b>	<b>YARN</b> P: Polypro    BC: Bleached Cotton															
	<b>CORE</b> P: Polypro    T: Tin    S: 304SS    A: 316SS															
	<b>END TREATMENT</b> [Blank]: Plastisol DOE    PSOC: 222/Flat SOE    PSOF: 222/Fin SOE															

NOTE: Only select an O-ring option if you selected a non-plastisol end treatment above.

	<b>O-RINGS</b> BUN: Buna    EPD: EPDM    VIT: Viton    SIL: Silicone		
	<b>PACKAGING</b> [Blank]: Individual Bag    SW: Shrink Wrap		
	<b>LABEL</b> [Blank]: No Label    L: Filter Label		

<b>UPACP</b>	<b>STYLE</b> UPACP	<b>TRI FILTERS (UPACP)</b>					<b>UPACP</b>	<b>20</b>	<b>BB</b>							
	<b>MEDIA</b> Carbon Cellulose Media															
<b>20</b>	<b>LENGTHS</b> 7"    9.5"    10"    20"    30"    40"															
<b>BB</b>	<b>OUTSIDE DIAMETER</b> [Blank]: 2.75"    2.5: 2.5"    BB: 4.5"															
	<b>MICRON</b> 5    10    20    50															
	<b>YARN</b> P: Polypro    BC: Bleached Cotton															
	<b>CORE</b> P: Polypro    T: Tin    S: 304SS    A: 316SS															
	<b>END TREATMENT</b> [Blank]: DOE    PSOC: 222/Flat SOE    PSOF: 222/Fin SOE															

NOTE: Only select an O-ring option if you selected a non-plastisol end treatment above.

	<b>O-RINGS</b> BUN: Buna    EPD: EPDM    VIT: Viton    SIL: Silicone		
	<b>PACKAGING</b> [Blank]: Individual Bag    SW: Shrink Wrap		
	<b>LABEL</b> [Blank]: No Label    L: Filter Label		

Contact factory for special lengths and configuration requests.

# ★ NOMENCLATURE – CARBON FILTERS

## CARBON WRAP (UFMC)

**UFMC** **20** **BB** **L**

<b>UFMC</b>	<b>STYLE</b>					
	UFMC					
	<b>MEDIA</b>					
	Carbon Polyester					
<b>20</b>	<b>LENGTHS</b>					
	7"	9.5"	10"	20"	30"	40"
<b>BB</b>	<b>OUTSIDE DIAMETER</b>					
	[Blank]: 2.5"		BB: 4.5"			
	<b>CORE</b>					
	[Blank]: Polypro		T: Tin	S: 304SS	A: 316SS	
	<b>END TREATMENT</b>					
	[Blank]: Plastisol DOE		PSOC: 222/Flat SOE		PSOF: 222/Fin SOE	

NOTE: Only select an O-ring option if you selected a non-plastisol end treatment above.

	<b>O-RINGS</b>			
	BUN: Buna	EPD: EPDM	VIT: Viton	SIL: Silicone
	<b>PACKAGING</b>			
	[Blank]: Individual Wrap			
<b>L</b>	<b>LABEL</b>			
	[Blank]: No Label		L: Filter Label	

## CARBON WRAP (UPAMC)

**UPAMC** **20** **BB** **L**

<b>UPAMC</b>	<b>STYLE</b>				
	UPAMC				
	<b>MEDIA</b>				
	Carbon Cellulose				
<b>20</b>	<b>LENGTHS</b>				
	7"	9.5"	10"	20"	30"
<b>BB</b>	<b>OUTSIDE DIAMETER</b>				
	[Blank]: 2.5"		BB: 4.5"		
	<b>CORE</b>				
	[Blank]: Polypro		T: Tin	S: 304SS	A: 316SS
	<b>END TREATMENT</b>				
	[Blank]: Plastic Gasket/DOE		PSOC: 222/Flat SOE		PSOF: 222/Fin SOE

NOTE: Only select an O-ring option if you selected a non-plastisol end treatment above.

	<b>O-RINGS</b>			
	BUN: Buna	EPD: EPDM	VIT: Viton	SIL: Silicone
	<b>PACKAGING</b>			
	[Blank]: Individual Wrap			
<b>L</b>	<b>LABEL</b>			
	[Blank]: No Label		L: Filter Label	

Contact factory for special lengths and configuration requests.

For more details and answers to specific compatibility questions, visit **UNITEDFILTERS.COM/COMPATIBILITY**





an **enpress group** company

**For more information, visit [UnitedFilters.com](https://www.UnitedFilters.com) or email [Info@UnitedFilters.com](mailto:Info@UnitedFilters.com)**

**UFI TEXAS PLANT:** 901 S. Grant St., Amarillo, TX 79101 / 806-373-8386 / 806-371-7783 (fax)

**UFI CALIFORNIA PLANT:** 7946 Ajay Dr., Sun Valley, CA 91352 / 818-504-9471 / 818-252-7476 (fax)

**ENPRESS GROUP:** 34899 Curtis Blvd., Eastlake, OH 44095 / 440-510-0108 / [ENPRESSgroup.com](https://www.ENPRESSgroup.com)

*United Filters International® is a trademark of United Filters International. © United Filters International 2025 / 2/2025*

**To learn more about the ENPRESS Group™ of companies, visit [ENPRESSgroup.com](https://www.ENPRESSgroup.com)**