UNITED FILTERS INTERNATIONAL

Wound Cartridge Filters

Recommended Applications:

- Coatings
- Oil Patch
- Waste Water
- Potable Water
- Process Water
- Pharmaceutical
- Photo Emulsions
- Photo Processing
- Electronics/Plating
- Magnetic Coatings
- Food and Beverage
- Chemical Processing

Features:

- True Depth Filtration
- Wide Choice of Porosities
- Various Core and Wind Material
- Chemical and Temperature Compatibility

Nomenclature

ex: UP10R10PVSOCISWL

U	P	10	R	10	P	V	SOC	ISW	L
United Type U - Standard	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 - Ryton	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	Lengths 3.75" 4" 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"	Core Material T - Tin Plated Steel P - Polypropylene A - 316 Stainless Steel S - 304 Stainless Steel TW - Tin Steel Wild Cat PW - Polypro Wild Cat SW - 304SS Wild Cat	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 Label

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Mineral Acids	Oxidizing Agents
Organic Solvents	Alkalies
Zinc Chloride	Organic Acids
Caustic Soda	Portable Water
Ferric Hydroxide	Demineralized Water
Planting Solutions	Photographic Solutions
Animal, Petroleum and Vegetable Oils	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 traces of ash. Excellent microorganism resistance. For use to 200˚F.

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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 adsorption and outstanding abrasion resistance. Lowest static propensity of any man-made fiber. High dry or wet strength.

Strong Acids	Diluted Acids
Concentrated Alkalies	Animal, Petroleum
Oxidizing Agents	and Vegetable Oils
Organic Acids	

Modacrylic

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

Organic Solvents	Organic Acids
Alkalies	Animal, Petroleum
Dilute Acids	and Vegetable Oils
Strong Acids	

Polyester

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

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

Bleached Cotton

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

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

Natural Cotton

For oils, water, paints, organic solvents, alcohols, and petroleum. Non-FDA applications. For use to 300˚F.

Oxalic Acid
Phosphoric Acid
Sulfuric Acid
Oxidizing Agents
Sodium Cyanide
Nitric Acid
Organic Solvents
Oils
Organic Acids
Strong Acids
Dilute Acids

Heat Cleaned Glass Fiber

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

Organic Solvents
Organic Acids
Alcohols - Hydrocarbons
Oils
Alkalies
Fatty Acids

Rayon

Fluid compatibility similar to bleached cotton, but with more coarse fibers, and less absorbent than cotton. Swells in aqueous solutions. For use to 300˚F.

Organic Solvents
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 Guides

Core Selection Guide

Media Type	Description
Polypropylene	Economical core of choice for most applications in water and corrosives to 200º F. FDA material.
Tin Plated Steel	General purpose metal core for oils, solvents, paints, and other non-FDA applications. For use to 400º F. These cores are vapor de-greased to remove trace amounts of oil or residue prior to winding.
304 SS	For high temperature applications on diluted acids and moderately corrosive fluids. FDA applications. For use to 750º F. These cores are vapor helically-welded to eliminate a possible source of filtrate contamination and vapor-degreased to remove trace amounts of oil or residue prior to winding.
316SS	For high temperature applications on strong acids and highly corrosive fluids. FDA applications. For use to 750º F. These cores are vapor helically-welded to eliminate a possible source of filtrate contamination and vapor-degreased to remove trace amounts of oil or residue prior to winding.
Core Cover	For fiber migration control. Core material compatible with and/or equal to the resistance of the fiber is standard. Materials include voile, polypropylene, nylon, polyester, fiberglass, etc.
End Treatment	For additional fiber migration protection. End treatment is compatible with and/or equal to the resistance of the fiber medium.
Extended Core	Available in polypropylene and 316SS only. Extended cores eliminate chamber V-posts and increase cartridge change-out time.

General Cartridge Filtration Guide

1. Cartridge filtration is favored in systems where the contaminant levels are less than 0.01% by weight (<100ppm)
2. Cartridges need to be replaced when the differential pressure (AP) approaches 35 psid.
3. Never exceed a differential pressure (AP) of 75 psid because the cartridge could collapse or “unload” the contaminants.
4. Clean initial pressure drop in liquid applications should be a differential pressure of 2-5 psid.
5. The cost of filtration increases as the micron rating of the cartridge decreases. “Never do a better job of filtration than you must or than is required.”
6. The lower the flow rate, the greater the contaminate-holding capacity of the filter tube. Flows in excess of 5 gpm per 10” tube are not recommended, with 2.5-3 gpm being preferred.
7. Over sizing your cartridge vessel will help minimize the flow rate per cartridge. We recommend a minimum of 1-10” cartridge per 50 gallons of solution to be filtered. When 2-10” cartridges per 50 gallons are employed, cartridge consumption is reduced by approximately 29%. When 4-10” cartridges per 50 gallons are employed, cartridge consumption is reduced by approximately 50%.
8. Also, over sizing by a factor of 4 doubles the dirt holding capacity per cartridge as well. Consider series filtration in lieu of single.

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