



Aqua  Fair



FILTER CARTRIDGES

Higher-Level Filtration Technology

Filtration Products Division

www.aquafairpk.com

TRUE DEPTH FILTRATION

Aqua Fair depth filters have revolutionized filtration with Higher-level technology that overcomes the limitations and drawbacks of other filters.

HIGHER-LEVEL FILTRATION TECHNOLOGY

Aqua Fair technology produces higher depth filters with increased filtration capacity, longer lifetime, and higher performance that reduce overall costs. Aqua Fair filters have high structural integrity combined with a greater void volume, giving a lower pressure drop, much improved dirt holding capacity and efficiency compared to conventional filters. Aqua fair filters are made of polypropylene, a recognized environmentally safe and recyclable material for purity and ease of disposal.

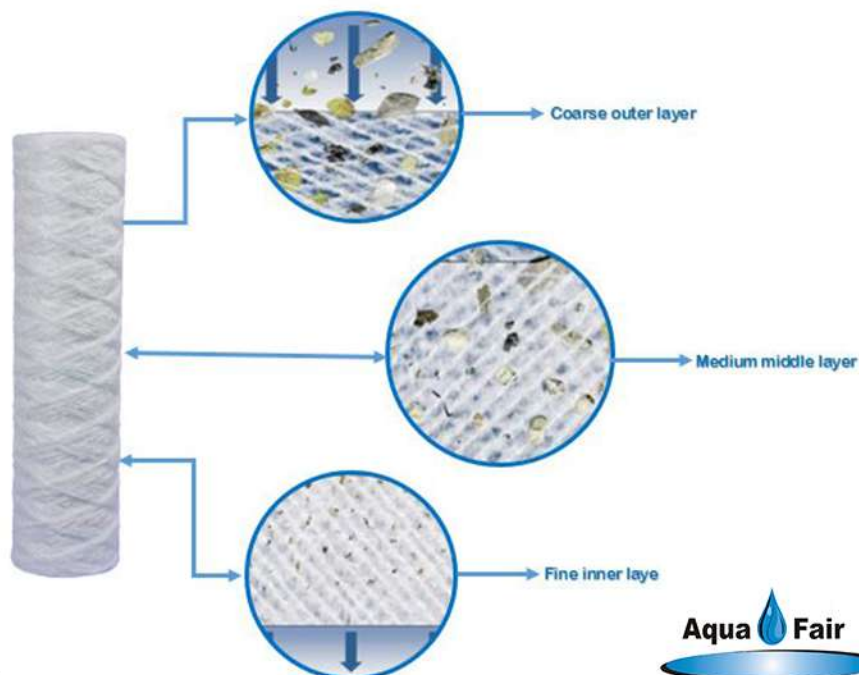
FEATURES:

- > No chemicals to leach-out with new melt spinning and yarn forming process.
- > No media migration because the yarn consists of continuous filaments.
- > True graded density – new winding technology gives denser winding in inner layers and coarser winding in outer layers.
- > High dirt holding capacity and longer life as particles are trapped throughout the entire cross section of the filter.
- > Better performance – multi-lobal cross section filaments with random 3-dimensional media structure captures more particles compared to conventional filters.
- > High bulk media having improved void to solid ratio gives higher flow rates with low pressure drop.
- > 100% polypropylene - wide chemical compatibility and excellent micro-organism resistance.
- > High structural stability, i.e. no shifting of media, excellent knife-edge sealing.
- > Firmer structure gives improved resistance to particle unloading and more consistent performance.
- > Incinerates to trace ash with no hazardous volatiles for environmentally friendly disposal.

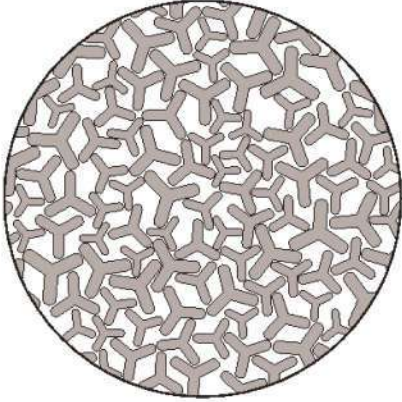


THE PROCESS

- The patented Aqua Fair process begins with 100% pure polypropylene that is melt-spun (extruded) without use of any chemicals. The extruded media consists of continuous filaments of multi-lobal cross-section with numerous micro voids between each individual filament. These chemical-free continuous filaments are then randomly oriented to each other, intermixed, looped and entwined into a non-round, highly stable, bulky yarn. The multi-lobal cross-section of filaments combined with the random yarn structure gives much improved void to solid ratio. This improved porosity gives a higher dirt holding capacity and reduced resistance to flow.
- When this media is wound into a filter cartridge, each of the filaments continues, without a break, throughout the length of the yarn, making the cartridge free from any media migration problem. There are no short fibers that can come loose and migrate, a common problem with conventional string-wound filters. Each yarn also traps the randomly protruding short loops of adjacent yarns resulting in a highly stable media structure wherein the yarns are locked in place and prevented from rolling or shifting aside. The stable structure provides an excellent knife-edge sealing property to the cartridge. Under conditions of varying flow and pressure fluctuations, the new cartridge is more resistant to particle unloading.
- With the improved media, there are no typical diamond-shaped open spaces (a characteristic winding pattern of typical string-wound media) and the yarn media covers all the area. The liquid flows through the entire yarn structure and contaminant particles are forced to change direction as they proceed through the depth of the cartridge. The physics of flow is such that it becomes possible to trap particles smaller than the size of the complex pathways.
- Finally, through improved winding technology, the pitch, number of crossings and space between each yarn is continuously varied and controlled from start to finish in making together and the space between yarns is gradually increased towards the outer layers, while the yarns remain locked together because of the random protruding loops. This winding technology gives improved true density grading, trapping coarser particles in the outer layers and finer particles in the inner layers. By maintaining the same winding tension, the structure has the same firmness throughout the depth of the cartridge, giving more consistent and better performance.
- Aqua Fair test results have shown that this patented process provides up to twice the dirt holding capacity and filter life at equivalent competitive efficiencies, while reducing pressure drop up to half. All this translates into improved filtration performance and reduced costs.



AQUA FAIR MEDIA

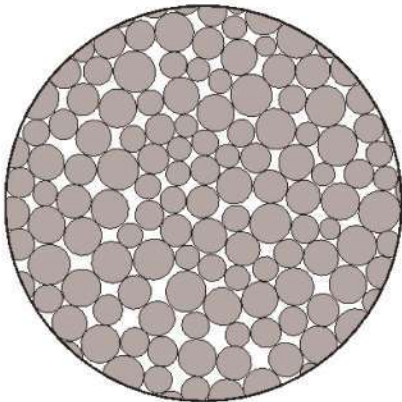


Aqua Fair multi-lobal cross section of individual filaments has more micro-voids giving higher dirt holding capacity and lower resistance to flow.

High bulk, stable, three-dimensional random structure comprising continuous filaments.



CONVENTIONAL MEDIA



Conventional round cross section of individual fibres has fewer micro-voids giving lower dirt holding capacity and higher resistance to flow.

Low bulk, non-stable, round structure comprising short fibres.



Extractable-Free Media



Pure polypropylene AquaFair filter cartridges are free from any extractables and contain no lubricants, wetting agents, emulsifiers, ant-oxidants or anti-static agents, etc. They are suitable for use in applications like RO pretreatment (SDI reduction), drinking water and beverage processing, sea water desalination, gas purification, electronics and electroplating, photographic solutions, oil and gas production (deep well injection of produced water and wastewater disposal), cooling tower water filtration, etc.

The standard pure polypropylene cartridge is extractable-free and engineered for higher-level filtration performance. It has been certified by ISO 9001-2015.

Available in up to 72 inch (1270 mm) length and 4.5 inch (115 mm) diameter.

Polyester Media



Polyester media filter cartridges with stainless steel core are also available for applications where their temperature and chemical resistance is more suitable; e.g. for filtration of edible and petroleum oils, etc.

Cotton Media

Cotton media cartridges with stainless steel or galvanized carbon steel core are also available for applications where their temperature and chemical resistance is more suitable in filtration of edible and petroleum oils, organic solvents, etc.



Bleached cotton cartridge with stainless steel core meets food standards for use up to 130 °C. For distilled water, beverages, vegetable oils, petroleum, fatty acids, and alcohols.



Natural cotton cartridge with galvanized carbon steel core for oils, paints, organic solvents, alcohols, petroleum and other non-food applications (for use up to 130 °C).

End Adapters

All end adapters are thermally-welded to the pure polypropylene Aqua Fair filter. The positive weld assures bypass-proof performance and structural integrity without adhesives or additives, maintaining cartridge purity. All adapters are molded of the same polypropylene as the cartridge for chemical compatibility, ease of disposal, and to comply with requirements for food and beverage contact.



Pure polypropylene molded adapter with "222" O-rings.



Pure polypropylene closed end cap forms a complete seal.



Reusable knife-edge seal end cap with stainless steel spring.



Pure polypropylene molded spring.



Pure polypropylene molded fin end cap.

Filter Cores

Filter cores are available in polypropylene, stainless steel (304/316L) and galvanized carbon steel, in regular and extended configurations.



Polypropylene core is the economical choice for most applications.



Stainless Steel core extends chemical, temperature, and delta P limits of cartridge. Recommended for higher temperature



Galvanized Carbon Steel core is a general purpose core for oils, solvents, paints and other non-food applications.

JUMBO FILTER CARTRIDGE

Aqua Fair jumbo filter cartridges are available in up to 50 inch (1270 mm) lengths and 4 inch (100 mm) diameter. All media, cores and extended cores are available in jumbo diameters.



PP ROVING YARN

Aqua Fair filter cartridges made of pure polypropylene are devoid of any extractables and don't have any lubricants, wetting agents, emulsifiers, anti-oxidants, anti-static agents, or other additives. They can be used for tasks such as RO pretreatment (SDI reduction), processing of drinking water and beverages, desalination of sea water, gas purification, electronics and electroplating, photographic solutions, oil and gas production (deep well injection of produced water and wastewater disposal), cooling tower water filtration, and other similar ones.

The standard, extractable-free pure polypropylene cartridge is designed for optimal filtration performance. It has received ISO 9001-2015 certification. Available in lengths up to 50 inches (1270 mm) and a diameter of 4 inches (100 mm) (according to client request).



Liquid Filter Bags

For remove liquids of solid particle contaminants

- Aqua Fair Liquid Filter Bags are in a perfect world suited for pre-filtration, final filtration and prepare treatment. Aqua Fair Fluid Filter Bags are made in polypropylene, polyester or polyester cotton.
- The bag filter is a customized product. According to the actual working conditions, the suitable materials and post-treatment processes are different; according to the different configuration of the dust collector, the suitable specifications and models may be different; according to the above two situations and the different procurement plans, the length of the warranty period may be different. Yes, generally the actual service life is longer than the warranty period..
- About the appearance and color: Due to the photographing situation, the color difference of the display, different product batches, and different post-processing schemes, the color of the product may have differences visible to the naked eye, but the quality is the same.
- All seams are welded / sewn, and combined with our positive sealing cast bypass free (polypropylene or polyester) welded rings, no process liquid can bypass through the needle holes. Our monofilament mesh bags are constructed of individual, twisted threads are woven with evenly distributed holes for better strength, perfectly suitable for accurate screening, straining and classify

Product Information

PRODUCT CODES	LENGTH (Inch)	DIAMETER (Inch)	Micron (Nominal)	QTY. (Pecs) CART ON
AF-FB-1	32	7	1μm,5μm,10μm,20μm,25μm,50μm	50
AF-FB-2	21	7	1μm,5μm,10μm,20μm,25μm,50μm	50
AF-FB-3	21	6	1μm,5μm,10μm,20μm,25μm,50μm	50
AF-FB-4	18	4	1μm,5μm,10μm,20μm,25μm,50μm	50



Liquid Filter Bags

Product Type

Product Type: Element

- Up to 95% efficient with micron ratings available from 1µm to 100µm.
- Industry-standard sizes 1 and 2 are available. 7/32 & 6/21
- Handles standard on all bags.
- Available with plastic flanges or steel rings.
- Polypropylene and Polyester media comply with FDA standards for food and beverage contact.
- Suitable for most industry standard bag housings

Liquid Bags Filter with Plastic Flanges



Liquid Bags Filter with steel rings



- We can produce as per client sample / requirement.

Test Method

Ratings are based on laboratory tests for 10 inch cartridges as per ASTM F795 specifications at ambient temperature and 3 gpm (US) water flow rate. Flow rate vs. pressure drop data is based on clean water at an ambient temperature of 25 °C. Results in actual use will be influenced by the type of fluid and contaminant as well as flow rate and temperature.

1 Micron

Test: Initial Efficiency per ASTM F795-88
Instrumentation: M-count 05
Contaminant: ISO A2 (Fine)
Shut Off DP: 30 PSI

5 Micron

Test: Retention Efficiency and Capacity per ASTM F795
Instrumentation: LD 400
Contaminant: ISO Fine Test Dust
Shut Off DP: 20 PSI

10 Micron

Test: Retention Efficiency and Capacity per ASTM F795
Instrumentation: LD 400
Contaminant: ISO Coarse Test Dust
Shut Off DP: 30 PSI

20 Micron

Test: Retention Efficiency and Capacity per ASTM F795
Instrumentation: LD 400
Contaminant: ISO Coarse Test Dust
Shut Off DP: 20 PSI

40 Micron

Test: Retention Efficiency and Capacity per ASTM F795
Instrumentation: LD 400
Contaminant: ISO Coarse Test Dust
Shut Off DP: 30 PSI

80 Micron

Test: Retention Efficiency and Capacity per ASTM F795
Instrumentation: LD 400
Contaminant: ISO Coarse Test Dust, sieved for efficiency points
Shut Off DP: 30 PSI

5 Micron Cotton Cartridge

Test: Retention Efficiency and Capacity per ASTM F795
Instrumentation: M-count 05
Contaminant: ISO Fine Test Dust
Shut Off DP: 30 PSI

5 Micron Jumbo Cartridge

Test: Retention Efficiency and Capacity per ASTM F795
Instrumentation: LD 400
Contaminant: ISO Fine Test Dust
Shut Off DP: 20 PSI

Food Grade Compliance

Standard Aqua Fair cartridge filters are made from 100% homopolymer polypropylene resin that meets requirements for food, beverages and drinking water, etc.

Chemical Compatibility

Please consult our chemical resistance guide for chemical compatibility information on our filter media and core material.

ISO certified 9001-2015

Aqua Fair polypropylene string wound filter cartridges are certified by ISO9001-2015

Applications

Aqua Fair cartridges are ideally suited for applications such as: RO pre-filtration, electronics manufacture, deep well injection & gas purification, ED automotive paint, electroplating, pharmaceuticals & healthcare, chemical industry, metal working, industrial process water, drinking water, food & beverage, residential water and more.

PRODUCTS INFORMATION

**10
INCHES**

PRODUCT CODES	Micron (Nominal)	LENGTH		DIAMETER		QTY. / CARTON	20 ft Container Load
		INCHES	MM	INNER (MM)	OUTER (MM)		
AF-10-1	1µm	10	251	28	60	50	525
AF-10-2	5µm	10	251	28	60	50	525

**20
INCHES**

PRODUCT CODES	Micron (Nominal)	LENGTH		DIAMETER		QTY. / CARTON	20 ft Container Load
		INCHES	MM	INNER (MM)	OUTER (MM)		
AF-20-1	1µm	20	504	28	60	25	525
AF-20-2	5µm	20	504	28	60	25	525
AF-20-4 J	1µm	20	504	28	100	16	315
AF-20-5 J	5µm	20	504	28	100	16	315

**30
INCHES**

PRODUCT CODES	Micron (Nominal)	LENGTH		DIAMETER		QTY. / CARTON	20 ft Container Load
		INCHES	MM	INNER (MM)	OUTER (MM)		
AF-30-1	1µm	30	754	28	60	25	350
AF-30-2	5µm	30	754	28	60	25	350

**40
INCHES**

PRODUCT CODES	Micron (Nominal)	LENGTH		DIAMETER		QTY. / CARTON	20 ft Container Load
		INCHES	MM	INNER (MM)	OUTER (MM)		
AF-40-1	1µm	40	1010	28	60	25	270
AF-40-2	5µm	40	1010	28	60	25	270

**50
INCHES**

PRODUCT CODES	Micron (Nominal)	LENGTH		DIAMETER		QTY. / CARTON	20 ft Container Load
		INCHES	MM	INNER (MM)	OUTER (MM)		
AF-50-1	1µm	50	1270	28	60	25	210
AF-50-2	5µm	50	1270	28	60	25	210

**60
INCHES**

PRODUCT CODES	Micron (Nominal)	LENGTH		DIAMETER		QTY. / CARTON	20 ft Container Load
		INCHES	MM	INNER (MM)	OUTER (MM)		
AF-60-1	1µm	60	1524	28	60	25	180
AF-60-2	5µm	60	1524	28	60	25	180

**72
INCHES**

PRODUCT CODES	Micron (Nominal)	LENGTH		DIAMETER		QTY. / CARTON	20 ft Container Load
		INCHES	MM	INNER (MM)	OUTER (MM)		
AF-72-1	1µm	60	1830	28	60	25	160
AF-72-2	5µm	60	1830	28	60	25	160

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The information given in this publication is based on the show state of our information. Any conclusions and suggestions are made without obligation on our portion. Buyers and clients should make their possess evaluation of our products beneath their own conditions and for their claim requirements..

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