

Over-The-Top® Vessel



Design

Technology

Performance

Solutions

Using our patented ultrasonic laminating process, *Ultrafit*® Welded Liquid Filter Bags set new standards for high performance liquid filtration.

Composite layers of graded-density, melt-blown polypropylene microfibers provide optimum efficiency and enhanced solids loading.

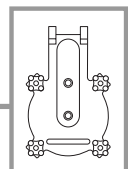
Compression of the unique *Zero-Bypass*® collar by our vessel lid eliminates solids bypass.

Improved performance does not have to cost more. *Ultrafit* Welded Liquid Filter Bags, manufactured by *Filtration Systems*, provide superior filtration at prices far below other high performance disposable filters and cartridges.

We pride ourselves on superior customer service and technical support for industries with Critical Liquid Process Applications. All products are available for next day shipment, worldwide.

Filtration Systems

Division of Mechanical Mfg. Corporation



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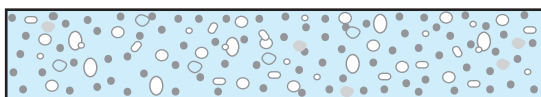
Filtration Systems

ULTRAFIT® WELDED HIGH PERFORMANCE LIQUID FILTER BAGS

Absolute Rated, Graded-Density, Composite Layer Design Technology™

ULTRAFIT 500

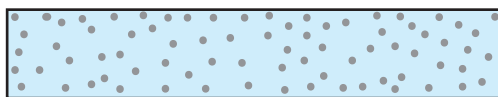
MODEL	DESCRIPTION
500-P001-P2-EXP 500-P002-P2-EXP	< 0.5 Micron, Size #2 < 1 Micron, Size #2
500-P001-P2-IP 500-P002-P2-IP 500-P005-P2-IP 500-P010-P2-IP 500-P025-P2-IP 500-P050-P2-IP	1 Micron, Size #2-IP 2 Micron, Size #2-IP 5 Micron, Size #2-IP 10 Micron, Size #2-IP 25 Micron, Size #2-IP 50 Micron, Size #2-IP



Ultrafit 500 filter bags are designed to filter liquids where particles vary in both size and distribution, as illustrated below.

ULTRAFIT 100

MODEL	DESCRIPTION
100-P001-P2-IP 100-P002-P2-IP 100-P005-P2-IP 100-P010-P2-IP 100-P025-P2-IP 100-P050-P2-IP 100-P100-P2-IP 100-P200-P2-IP	1 Micron, Size #2-IP 2 Micron, Size #2-IP 5 Micron, Size #2-IP 10 Micron, Size #2-IP 25 Micron, Size #2-IP 50 Micron, Size #2-IP 100 Micron, Size #2-IP 200 Micron, Size #2-IP



Ultrafit 100 filter bags are ideally suited to filter liquids where the range of particle size and distribution is more uniform, as illustrated below.

Ultrafit Welded 500

For applications demanding both high loading and efficiency, the Ultrafit Welded 500 filter bag has the unique ability to effectively filter liquids where particles vary in both size and distribution. The Ultrafit 500 filter bag consists of graded-density layers of melt-blown polypropylene, serving as a primary upstream filter. Separately jacketed, this pre-filter collects larger particles, preventing them from prematurely blinding the media below. As fluid progression continues downstream, redundant layers of absolute-rated microfiber capture finer particles, assuring filtration efficiency levels of at least 99% at the micron ratings available.

Ultrafit Welded 100

The Ultrafit Welded 100 liquid filter bag is ideally suited for batch or smaller applications, or as a final filter where the range of particle size is narrower and more consistent. Designed to provide highly efficient liquid filtration for applications requiring consistent levels of purity, this product is superior to either felt bags or cartridges. The Ultrafit 100 liquid filter bag is constructed of FDA compliant, melt-blown polypropylene microfiber. The use of absolute-rated material achieves 97% filtration efficiency at the micron ratings available. Additional layers of non-woven spunbond are used to jacket the filtering membrane, providing support to the product and minimizing fiber migration downstream. The result is a superior product at an economical price.

IP - Integrated Polymeric Support™

IP is a structural layer of polypropylene monofilament ultrasonically laminated to the internal composite of the Ultrafit Welded Liquid Filter Bag. Integrated Polymeric Support allows the filter bag to sustain significant differential pressure before change-out is required, without increasing initial pressure drop. Longer run times allow enhanced solids loading. Integrated Polymeric Support is a standard feature of the Ultrafit Welded 100, 500 & 800 Series filter bags.

Filtration Systems

Clear Solutions for Improved Filtration Performance™

ULTRAFIT 500 Filter Bag Composition

MODEL NUMBER	MICRON RATING	FILTERING LAYERS (INSIDE TO OUTSIDE)										TOTAL LAYERS	SURFACE AREA sq.ft.
500-P001-P2-EXP	< 0.5	Z	1μ	1μ	1μ	CL	1μ	1μ	1μ	IP	Z	10	44.0
500-P002-P2-EXP	< 1	Z	2μ	2μ	2μ	CL	2μ	2μ	2μ	IP	Z	10	44.0
500-P001-P2-IP	1	Z	25μ	10μ		CL	1μ	1μ	1μ	IP	Z	9	39.6
500-P002-P2-IP	2	Z	25μ	10μ		CL	2μ	2μ	2μ	IP	Z	9	39.6
500-P005-P2-IP	5	Z	25μ	10μ		CL	5μ	5μ	5μ	IP	Z	9	39.6
500-P010-P2-IP	10	Z	50μ	25μ		CL	10μ	10μ	10μ	IP	Z	9	39.6
500-P025-P2-IP	25	Z	100μ	50μ		CL	25μ	25μ	25μ	IP	Z	9	39.6
500-P050-P2-IP	50	Z	200μ	100μ		CL	50μ	50μ		IP	Z	8	35.2



ULTRAFIT 100 Filter Bag Composition

MODEL NUMBER	MICRON RATING	FILTERING LAYERS (INSIDE TO OUTSIDE)							TOTAL LAYERS	SURFACE AREA sq.ft.	
100-P001-P2-IP	1	Z	25μ		1μ	1μ		IP	Z	6	26.4
100-P002-P2-IP	2	Z	25μ		2μ	2μ		IP	Z	6	26.4
100-P005-P2-IP	5	Z	25μ		5μ	5μ		IP	Z	6	26.4
100-P010-P2-IP	10	Z	25μ		10μ	10μ		IP	Z	6	26.4
100-P025-P2-IP	25	Z	50μ		25μ	25μ		IP	Z	6	26.4
100-P050-P2-IP	50	Z	100μ		50μ	50μ		IP	Z	6	26.4
100-P100-P2-IP	100	Z	200μ		100μ	100μ		IP	Z	6	26.4
100-P200-P2-IP	200	Z	200μ		200μ			IP	Z	5	22.0



Materials of Construction (100% FDA Compliant):

Filter Media: Polypropylene Microfiber

IP - Integrated Polymeric Support™: Polypropylene Monofilament

Support Jacket: Polypropylene, Non-Woven, Spunbond

Zero-Bypass® Collar: Polypropylene

Maximum Operating Temperature: 180°F

Maximum Recommended Flow Rate- P2 Size (water):

Ultrafit 500 EXP - 30gpm (1,800gph)

Ultrafit 500 - IP Series - 60gpm (3,600gph)

Ultrafit 100 - IP Series - 70gpm (4,200gph)

Recommended Change-Out:

Initial pressure plus: 34psig

Available Filter Bag Sizes:

P1 size = 7" dia. x 16" long

P2 size = 7" dia. x 33" long

P4 size = 4" dia. x 14" long

P5 size = 4" dia. x 24" long

Legend

Z = Support Jacket

μ = Micron

CL = Core Layer

IP = Integrated Polymeric Support

Filtration Systems

Clear Solutions for Improved Filtration Performance™

ULTRAFIT® WELDED 800 SERIES HIGH PERFORMANCE LIQUID FILTER BAGS

Sub-Micron, Absolute Rated, Graded-Density, *Composite Layer Design Technology™*

Ideal for high-purity and critical liquid process applications, Ultrafit Welded 800 Filter Bags achieve 99.98% efficiency (Beta 5000), at ratings less than 1 micron. Filter Bags are individually wrapped for cleanliness, packaged 20 pieces per case, and are available in Size #1, #2, #4, #5.

ULTRAFIT 800 Filter Bag Composition

MODEL NUMBER	MICRON RATING	FILTERING LAYERS (INSIDE TO OUTSIDE)										TOTAL LAYERS	SURFACE AREA sq.ft.
800-P02-P2-EXP	0.2	Z	0.7μ	0.7μ	0.7μ	0.7μ	0.7μ	0.7μ	0.7μ	IP	Z	9	39.6
800-P04-P2	0.4	Z	6.2μ	3.2μ	3.2μ	0.7μ	0.7μ	0.7μ	0.7μ	IP	Z	9	39.6
800-P06-P2	0.6	Z	6.2μ	3.2μ	3.2μ	3.2μ	0.7μ	0.7μ	0.7μ	IP	Z	9	39.6
800-P08-P2	0.8	Z	6.2μ	6.2μ	3.2μ	3.2μ	3.2μ	0.7μ	0.7μ	IP	Z	9	39.6



Product Applications

- ❑ Micro-filtration for Industrial and Process Liquids
- ❑ Pharmaceutical, Biological, Electronic, and Nuclear Applications
- ❑ Pre-filtration for Reverse Osmosis Membranes and Expensive Cartridges
- ❑ Filtration of Surface Water and Groundwater
- ❑ Recycling of Wastewater and Reclaimed Water

Product Features

- ❑ Sub-Micron, Absolute Rated Performance... 99.98% efficient, down to 0.2 micron
- ❑ Graded-Density, Composite Layer Design... allows enhanced solids loading
- ❑ Fully Welded Ultrasonic Construction... eliminates solids bypass
- ❑ Zero-Bypass® Collar... assures an optimum compression seal
- ❑ Integrated Polymeric Support™... provides superior mechanical strength
- ❑ 100% FDA Compliant Materials

Legend

Z = Support Jacket
 μ = Micron
 IP = Integrated Polymeric Support

Materials of Construction (100% FDA Compliant):

Filter Media: Polypropylene Microfiber, ANSI/ NSF Standard 61 Certified
 IP - Integrated Polymeric Support: Polypropylene Monofilament
 Support Jacket: Polypropylene, Non-Woven, Spunbond
 Zero-Bypass Collar: Polypropylene

Maximum Operating Temperature: 180°F

Maximum Recommended Flow Rate- P2 Size (water):

Ultrafit 800 EXP - 15gpm (900gph)
 Ultrafit 800 - 25gpm (1,500gph)

Recommended Change-Out:

Initial pressure plus: 45psig

Available Filter Bag Sizes:

#1: (7" dia. x 16" long), #2: (7" dia. x 33" long)
 #4: (4" dia. x 14" long), #5: (4" dia. x 24" long)

IMPORTANT NOTE ON CHEMICAL & THERMAL COMPATIBILITY AND ULTRAFIT WELDED LIQUID FILTER BAGS

The compatibility data presented in this brochure is for general guidance only. In most cases, the use of a specific filtering material, such as polypropylene, can be safely recommended without special testing. Issues of possible filter bag incompatibility, such as swelling, leaching of the filter bag material into a fluid solution, or disintegration, can only be determined by the user under actual on site operating conditions.

Factors such as degree of concentration of a substance in a fluid, temperature, and duration of filter bag exposure are also factors to be considered. Chemical and thermal compatibility are further defined to include all materials exposed to fluids, such as the filter bag, O-Rings, and filter vessel, under elevated pressure and/or temperature. If chemical and thermal compatibility is in doubt, please check with the manufacturer.