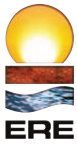


NEWBRO



 **SAMPSON LIQUID
FILTER BAG SYSTEMS**



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Also Available...

Compact Systems



Trailer Systems



Ultrafiltration Systems



Sampling

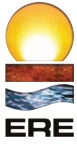


Monitoring



Health and Safety





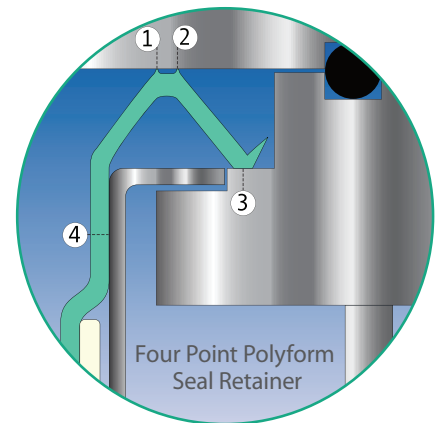
Sampson PLATINUM Welded Filter Bag Technology



We use only the best, most consistent polyester and polypropylene needle felt in the industry. Silicone free and FDA approved, our media comes standard with a fibre free surface treatment to prevent fibre contamination downstream. The result is durability, consistency & performance for industry's most challenging applications.

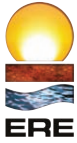
Our retainer, moulded only from virgin resins, offers a unique four point positive seal. Made from chemically resistant flexible plastic. This unique design adapts to most any filter vessel, ensuring bypass free filtration. Raised integral handles make bag removal quick and easy, saving you time and money.

Ultra strong 100% thermally bonded welding process ensures bypass free, thread free seams and improved filtration efficiencies. Flexible construction allows the filter bag to form to the shape of the retainer basket creating support as differential pressure builds. Available in all standard sizes.



Let us demonstrate how our manufacturing capabilities can work for you.





Welded Technology... See the difference

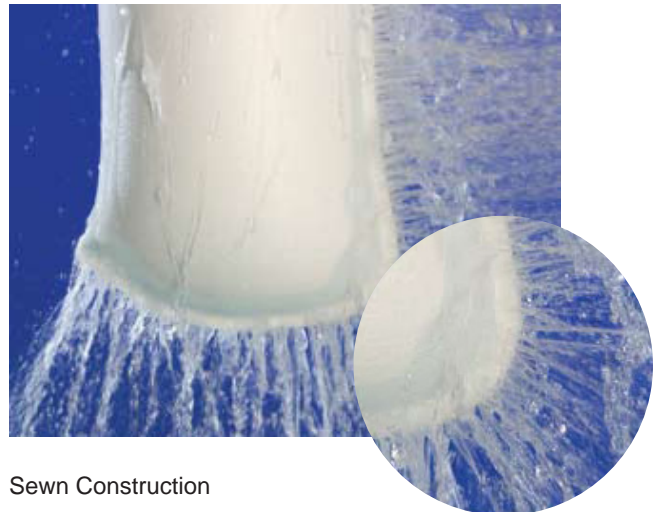
Welded vs. Sewn Construction

ERE Inc has always strived for higher quality and efficiencies in the products we manufacture. Investment in research and technical advancement have enabled us to manufacture a fully welded non-woven filter bag from polyester or polypropylene media.

The key benefits of our fully welded filter bag are:

- Increased performance efficiencies due to the elimination of needle holes. This means no unnecessary bypass through sewn seams when trying to filter fine particulate.
- Eliminates the use of sewing thread.
- More cost effective production equates to a more competitively priced product.

The end result is a higher quality, value added filter bag without the added cost.

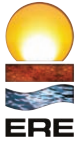


Sewn Construction

Welded Construction

Thermally bonded seam construction provides improved filtration efficiency by eliminating needle holes and thread. Our Sampson Platinum Seals offers excellent sealing characteristics and easy bag removal with its raised handles. The end result is increased bag life. This means less time spent on bag change-outs, and therefore dollars saved.





Sampson PLATINUM Steel Seal Welded Filter Bag Technology

Our unique thermal bonding process has been developed to produce welded filter bags with steel ring retainers. The result is the best ring seal in the industry for one very important reason...no lump. Our steel ring filter bags do not have the lump found in sewn bags.

Conventional sewn seams create a lump when the seam wraps around the steel ring. This is a primary area of contaminant bypass, allowing unwanted particulate to travel down stream. Sampson PLATINUM steel ring felt filter bags from ERE Inc have no lump resulting in better filtration efficiencies. Rings are available in zinc plated carbon steel, stainless steel or polypropylene in a wide variety of standard and custom sizes.

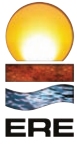


All configurations come standard with double integral handles for easy filter bag change-out, so you don't pay extra for a feature that makes the bag better. Made from the bag material itself, the handles eliminate the need for additional material and stitching. All welded filter bags are available in polyester and polypropylene felt in micron ratings from 1 to 200.



Our welded stainless steel snap band retainer bags are another innovative product from ERE Inc. Snap bands are always in stock to fit standard Commercial™ filter housings, in both single and double lengths.





Sampson Platinum High E - High Efficiency Filter Bag Technology (POMF)

High efficiency filter bags have been developed for demanding applications that require critical particle size retention and dirt holding capacity. They are constructed from chemically resistant polypropylene microfibre, which can be used in a wide range of process applications. It is the orientation of the microfibrres creating tremendous void volume in the structure that delivers enhanced particle retention capabilities. This unique product line is available in all industry standard sizes with efficiencies up to 99.9%†.



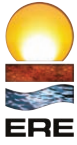
In addition to the high dirt holding capabilities of microfibre, the key to providing high efficiency particle retention is in the selection and placement of media layers within the filter bag structure. It is the combination of graded density layers that allows us to achieve filtration efficiencies up to 99.9%†. Inner layers are thicker and more open, allowing excellent pre-filtration and dirt holding capacity. Middle and outer layers increase in density and fineness for a polishing effect.

Our Sampson PLATINUM High E high efficiency filter bags are configured with up to 12 different graded density and transfer layers, which give substantial depth to the filtration structure. The result is high void volume providing long service life and increased dirt holding capacity. In addition, our high efficiency filter bags remove trace amounts of hydrocarbons (oil) from fluid streams.

POMF Configurations are available in 1, 2, 5, 10 & 25 micron ratings, with efficiencies up to 99.9%†. With our Sampson PLATINUM High E line you enjoy the convenience of bag filtration without the expense found in other high efficiency technologies. Sampson PLATINUM High E filter bags provide lower operating costs while maintaining all the benefits of a filter bag system.

Micron	Efficiency	Size Removed
1	99.0%	1–2 micron
2	99.6%	2–5 micron
5	99.3%	5–10 micron
10	99.8%	10–15 micron
25	99.9%	20–30 micron

† Verified by independent laboratory testing using latex beads yielding efficiencies up to 99.9% under controlled laboratory conditions.



Sampson PLATINUM Oil Adsorbing Filter Bags



Remove greater volumes of oil and dirt with our micron rated multi-layer POMB and POMF filter bags. Our Sampson PLATINUM High E (POMF) filter bags offer high dirt holding capacities in efficiencies up to 99.9%† while trapping trace amounts of oil in the depth of the multi-layers. For less critical applications, we offer the standard micron rated felt with added adsorbent layers (POMB) to increase the oil catching capacity. These bags are available in all standard configurations.

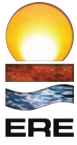
Sampson PLATINUM PSORB™ oil removal technology offers enhanced oil removal capabilities by including a specially blended microfibre core which dramatically increases the available surface area for oil adsorption. This unique design channels the process liquid through the microfibre core where it can adsorb trace amounts of oil from the fluid stream. The specially blended microfibre core has the ability to adsorb up to 50 times its weight in oil.



OWS technology or oil/water separator as it is known, incorporates the oil adsorption of granular activated carbon in a bag style element. This technology is intended for very low flow rates (below 7.6 LPM), but provides the best oil removal capabilities of all the liquid filter bag configurations. These bags can be supplied pre-filled with activated carbon or can be purchased in a carbon ready format to be filled on site. The carbon ready version allows you to select the right grade of carbon for the application.

† Verified by independent laboratory testing using latex beads yielding efficiencies up to 99.9% under controlled laboratory conditions.





Sampson PLATINUM Polyester Multifilament (PEM) and Nylon Monofilament (NMO) Woven Mesh Filter Bags



Polyester multifilament (PEM) filtration media provides the basis for a disposable mesh filter bag with very good dirt removal characteristics. Each strand within the weave (see inset) is comprised of many smaller strands twisted together resulting in a strong, but economical filter. PEM filter bags are available in micron ratings from 100 to 2000.

Nylon monofilament (NMO) precision woven filtration media offers enhanced removal characteristics and improved strength and durability. Each filament in the weave has been extruded with a consistent yarn diameter enabling the filtration structure to deliver exact pore openings (see inset). As well, the smooth extruded surface allows the filter to be cleaned and reused in certain applications. NMO filter bags are available in micron ratings from 1 to 1200.

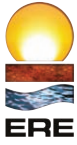


All mesh bags are manufactured with silicone free thread and double stitched for maximum strength.



Our Sampson PLATINUM Seal retainer is available on all standard mesh filter bag configurations. This unique design adapts to most any filter vessel ensuring bypass free filtration. Raised integral handles make bag change-out quick and easy. Retainer ring versions are available in carbon steel, stainless steel and polypropylene as well as stainless steel snap band configurations to fit Commercial™ filter housings.

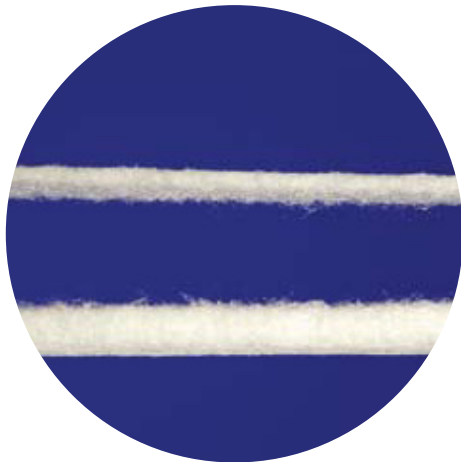
We manufacture a complete line of automotive paint kitchen and mix room filter bags from silicone free raw materials. Our bound automotive seams ensure fibre free filtration for the most demanding applications.



Sampson PLATINUM XL - Extended Life Filter

Bag Technology

As the name suggests, extended life filter bags are designed to give longer service life, therefore reducing operating costs and process down time. The unique blend of fibres in extended life media offers 2 to 5 times the dirt holding capacity of traditional needle felt material.

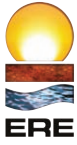


When you compare a cross section of traditional needle felt with that of Extended Life media, the improved dirt holding capacity is obvious. What you cannot see is the unique blend of fibres with a finer diameter providing the same great filtration efficiencies as standard felt in a loftier structure. The result is increased void volume leaving more space to trap dirt without sacrificing filtration efficiency or filter life. As with standard felts, Extended Life (XL) technology provides the same fibre free surface treatment to prevent downstream fibre migration.

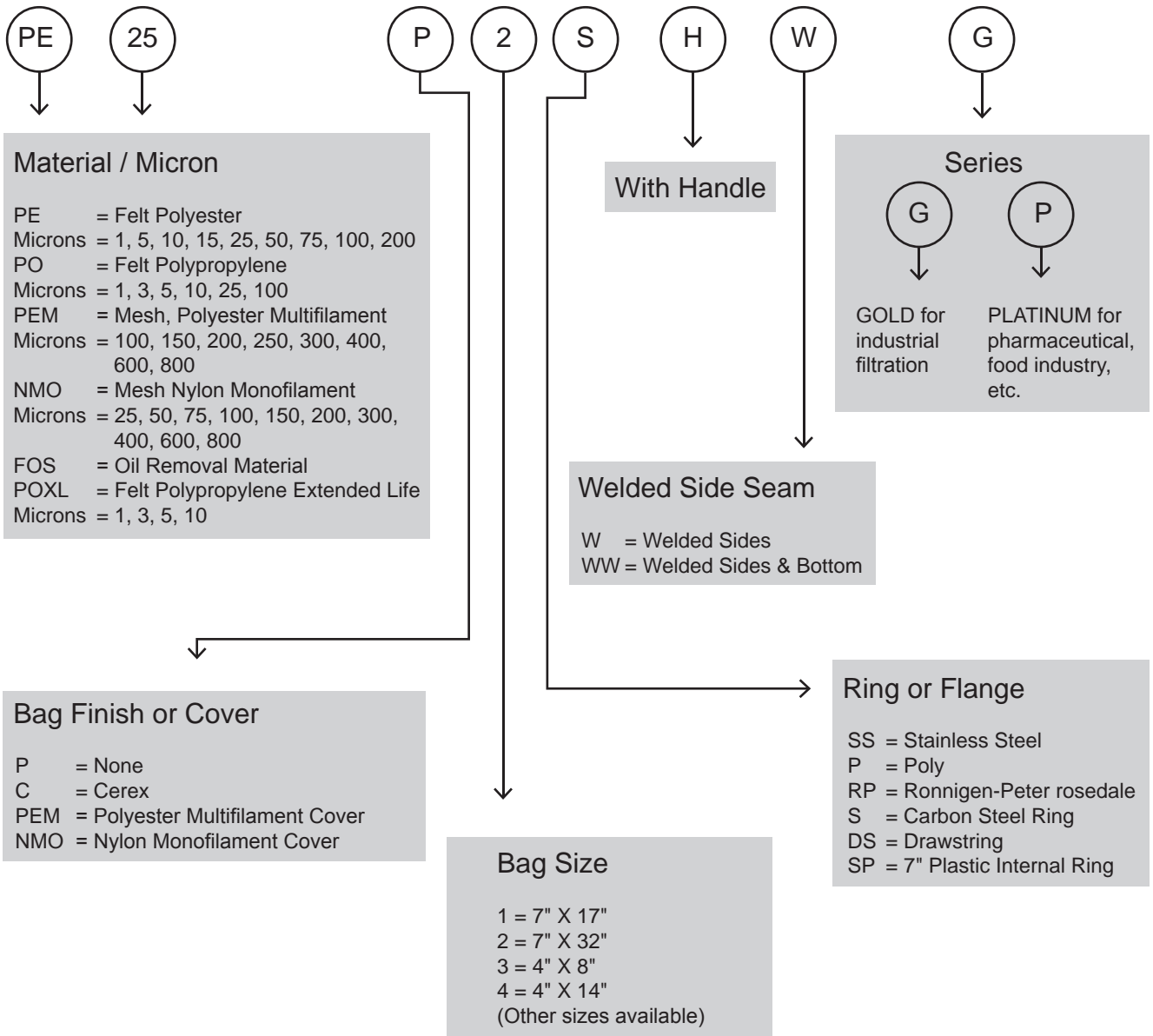
Specialty and Custom Filter Bags

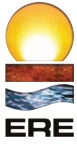
We offer numerous modifications to our standard filter bag line to meet our customers' needs. Additionally, ERE Inc manufactures a complete line of specialty and custom filter bags to suit your unique application. With virtually no limit to dimension and configuration, we will custom tailor a filter bag to suit. Our versatility is limited only by your imagination. With our private label filter bag program, we will label filter bags with your name, logo, and contact information at no additional cost.





How to Customize Your Filter Bags





Open System Filtration

An Open System is the most economical bag filter system consisting of a filter bag simply tied onto a pipe or secured to an adapter head through which unfiltered liquid passes.

Strainer Bag System

Perhaps the simplest filter bag is the gravity flow strainer bag. These bags can be fabricated from almost any media, but, are most commonly constructed from polyester and nylon woven media. Standard sizes include four, eight, twelve and twenty litre configurations and are usually used in a corresponding sized container. These strainer bags are produced with an elastic, drawstring, or a raw top. They are the most economical choice for coarse gravity flow filtration.



Tie-on Filter Bag System

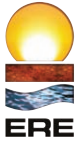
Adaptability is one clear benefit of a tie-on filter bag system. Eliminating the need for specialty hardware, tie-on filter bags offer versatility and simplicity for a great many industrial applications. Any media, any shape, any size, we can manufacture to your exact specifications.

Adapter Head System

The adapter head system is a low cost, user friendly solution for gravity fed or low pressure filtration. The adapter head is available in either Celcon® or stainless steel with a threaded connection. Filter bags for the adapter head system can be of any combination of media/micron. They are installed by simply sliding the ring over the adapter head and securing the bag, creating a positive seal. Removal of the bag is quick and easy with no clamps to undo, no tools required. For an even easier change-out, our filter bags come complete with integral handles and custom ring size for a perfect fit. Remember, no lump for bypass free filtration.

Note: for pressures higher than 0.7 Bar a stainless steel restrainer basket is recommended.





Closed System Filtration

Closed System is a pressurized filtration system where the liquid is delivered through the inlet of a filter housing into the top of a filter bag which is supported by a retainer basket.

The fluid then travels through the supported filter media, where the contaminant is entrapped while the cleaned filtrate exits an outlet connection.

The filter media is designed to trap particles of a particular micron size. Contaminant particles are retained inside the filter bag for ease of changeout and disposal.

Advantages of a Filter Bag System:

- minimal initial pressure loss, providing extended service life
- filter bag surface area allows for high dirt loading
- quick and easy bag change-out, resulting in labour costs savings and reduced downtime
- cost effective filtration system tailored to suit your system parameters and
- minimal process fluid loss and reliable consistent performance



The goal of sizing a filter housing is to achieve minimal pressure loss (ΔP) across the clean filter while balancing process effluent cleanliness, maintenance and bag change-out requirements.

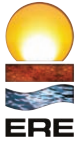
When sizing a vessel for a particular application many variables must be considered, some of which are: type and viscosity of processed fluid, operating pressure, temperature, flow rate and dirt load. The data collected is analyzed to determine the size and number of the filter bag(s) required. Standard available options are listed on page 16 "Vessel Design Configuration".

Vessel Size	Bag Dimension	Flow Rate in LPM
1	178mm D x 419mm OAL	302
2	178mm D x 813mm OAL	568
3	102mm D x 203mm OAL	95
4	102mm D x 355mm OAL	190

This chart relates the size of vessel with the industry standard filter bag sizes and estimated flow rate capacity. The flow rate capacity is only a guideline and is dependent on process variables.

ERE Inc offers a full line of quality liquid filter bag vessels, engineered in a variety of configurations, filtering capacities and materials of construction to suit your specific application.





Sampson ERS Filter Bag Housings



Bag filter housings may be used in a side stream system where only a portion of the process fluid is filtered or in a full flow filtration system where 100% of the fluid is processed.

The single bag housing is ideal for low dirt load applications and rated to handle flow rates from 95 LPM to 568 LPM.

They are available in side or top entry configurations.

- The most economical option is the side entry housing.
- The top-entry style is a superior option. It allows for easier bag change-out by avoiding the need to reach into the housing and fluid to remove the filter bag.

A duplex housing consists of two separate bag vessels that share the same inlet and outlet connections. This versatile arrangement offers the following benefits.

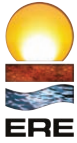
- Double your filtration capacity by using both housings simultaneously.
- Isolate one housing for a bag change-out without interrupting the flow of fluid to the second vessel.



A multi-bag filter housing is used in applications with high flow rates and/or heavy dirt load.

- The size of the multi-bag filter housing will be determined by the process parameters.
- Standard multi-bag vessels are manufactured to hold size 2 filter bags and can range from 3 to 24 bags per vessel.

Whether you are replacing an aging vessel or designing a new filtration system, we deliver quality workmanship and reliable performance.



Sampson PVC Bag Filter Housings

Sampson's PVC bag filter housings are characterized with high precision, high flow capacity, easy installation and maintenance. Their unique body design made of uPVC makes them ideal for corrosive environments and processes.

Industries where it can be used are:

- petrochemical
- construction
- cosmetic
- chemical
- medical
- textile,
- food (waste water), etc.

Product Features

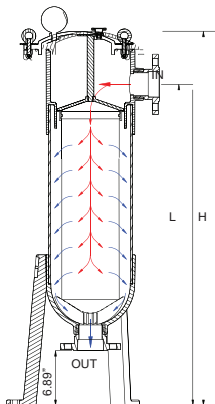
1. Most parts of this filter are made of uPVC
2. uPVC material is resistant to corrosion
3. Light weight design and very easy to install
4. Side entry and bottom outlet
5. The distribution system is from top (side entry) to bottom
6. The lid and the body are connected using flanges to ensure the housing can withstand higher pressure



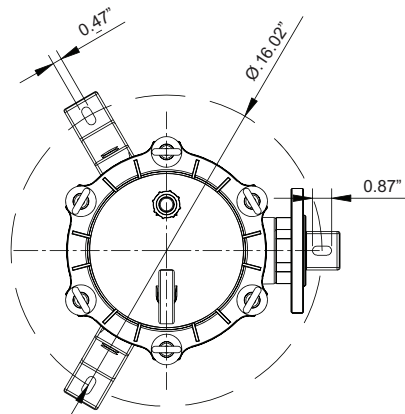
Type	Size	Bag size	In / Out	L	Max pressure	Flow
ERS-90-SE-PL	8.86"Ø- 32.28"H	7"Ø - 17" long (Bag #1)	FLG 2"/ANSI 2.5"NTP	26.18"	100 psi	90 GPM
ERS-180-SE-PL	8.86"Ø- 47.29"H	7"Ø - 32" long (Bag #2)		41.14"	100 psi	180 GPM

Note:

- Compatible with all filter bags (all micron sizes and materials)
- Max. operating temperature is 45°C,
- Size of pressure gauge holes on cover is 1/4"



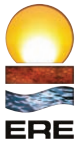
Water flow diagram



Plan drawing



Accessories also available!



Big Blue Polypropylene Filter Vessels



The Big Blue™ is a filtration system solution for food grade applications or harsh chemical environments. The housings are manufactured from 100% Polypropylene, with both 1" and 1 ½" FNPT connections. Available in two sizes with flow rate capacities of 95 LPM or 190 LPM, it is also an economical choice for low flow applications. Maximum working pressure is 8.61 Bar. Big Blue™ housings provide all the advantages of bag filtration and are easily converted for cartridge use.

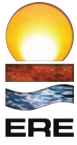
Components

- | | | |
|--------------------------------|-------------------------------------|--------------------------------|
| a) Head | f) Mesh support basket | k) Teflon tape |
| b) Bowl | g) "O" ring seal | l) White Port Hole Plugs(2pcs) |
| c) Pressure Gauge | h) Gasket (Black EPDM or White FDA) | |
| d) Flow modifier/bag hold down | i) Wrench | |
| e) Bag retainer | j) Drain ball valve | |

Accessories

From pressure gauges to displacement balloons, omega springs, and support baskets, ERE Inc has all the accessories to keep your filter systems operating.





Filter Bag Viscosity - Flow Rate Conversion Chart

To Use Chart

- Select micron rated bag at the top of the chart.
- Follow the corresponding vertical row down until it intersects the selected viscosity in centipoise.
- The top number in the square indicates the flow rate for a size #1 filter bag at 0.07 Bar pressure drop and the bottom number represents the flow rate for a size #2 (both figures are in LPM).

Notes

- For greater than 0.07 Bar Δ P simply multiply the resultant LPM times Bar desired to obtain flow - or - divide desired flow by the resultant flow to obtain ΔP.
- For #3 size filter bag multiply size 1 flow rate by 0.28.
- For #4 size filter bag multiply size 1 flow rate by 0.44.
- For bags with covers reduce results by 25%.

To calculate required # of size #2 filter bags, if you know bag micron, viscosity and desired flow rate, use the following formula:

Example: If you want to use a 10 micron, size 2, Polyester felt filter bag @ 567 LPM, 200 CPS with 0.21 Bar delta P:

$$\frac{\text{Desired flow (567)}}{\text{Flow rate from chart (128)}} \div \frac{\text{Target clean delta P (0.21)}}{0.07} = 1.47 \text{ bags (Round up to eliminate decimal points = 2 bags)}$$

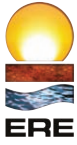
PE,PO: Polyester/Polypropylene Felts

NMO,PEM: Nylon Monofilament and Polyester Multifilament woven mesh

Filter bag flow rate @ desired viscosity with 0.07 Bar delta P for size 1/size 2 filter bags									
VISCOSITY- CPs	PE,PO 1um	PE,PO 5um	PE,PO 10um	PE,PO 25um	PE,PO 100um	PE,PO 200um	NMO,PEM 150-250um	NMO,PEM 300-600um	NMO,PEM 600-800um
20	189								
	355								
30	128	242							
	241	455							
40	102	181	265						
	192	341	498						
60	79	151	227						
	149	284	426						
80	64	113	170	283					
	120	213	320	533					
100	53	90	128	208	302				
	99	170	241	391	569				
200	24	49	68	113	158	208			
	46	92	128	213	298	391			
400	14	26	45	68	94	117	181	230	
	26	49	85	128	177	220	341	434	
500	10	19	28	49	68	83	128	170	246
	19	36	54	92	128	156	241	320	462
800	7	13	20	34	49	64	94	128	181
	14	25	39	64	92	120	177	241	341
1000	6	11	17	27	37	56	79	102	151
	12	21	32	51	71	106	149	192	284
1500	4	9	12	20	26	35	56	68	102
	9	16	22	37	49	67	106	128	192
2000	3.4	6.8	9.5	14.4	20.8	27.3	45	60	83
	6.4	12.8	17.8	27	39.1	51.3	85	114	156
4000	2.3	4.5	6.1	10.2	13.2	18.2	28.4	37.8	56.8
	4.3	8.5	11.4	19.2	24.9	34.1	53.4	71.2	106
6000	1.5	2.9	4.5	7.2	9.8	12.8	19.3	25.7	37.8
	2.8	5.6	8.6	13.5	18.5	24.2	36.3	48.3	71.2
8000	1.1	2.1	3.1	5.3	6.8	9.5	14	18.9	27.6
	2.1	4.1	5.9	9.9	12.8	17.8	26	35.6	51.9
10000	.98	1.7	2.6	4.5	6.1	7.9	12.5	15.9	24
	1.8	3.2	5	8.5	11.4	14.9	23.5	29.9	45.5

Zone	Recommendation
White	Excellent
Yellow	Good
Blue	Poor
Purple	Not Recommended





Principles of Liquid Filtration

Liquid filtration involves the removal of contaminant particles in a fluid system. The grade of filter chosen for a specific application is usually determined by the size of the particle to be removed. Contaminant particles are measured using the micron unit of measurement.

Micron

- A micron is a metric unit of measurement where one micron is equivalent to one one-thousandth of a millimetre [1 micron (1 μ) = 1/1000 mm] or 1 micron (micrometer) = 1/1,000,000 of a metre.
- The micron unit of measurement is used not only to measure the size of a contaminate particle, it is also used to measure the size of the openings in filter media, hence a media's micron rating.
- Visualizing a micron
 - a human red blood cell is 5 microns
 - an average human hair has a diameter of 100 microns
 - most humans cannot see anything smaller than 40 microns with the unaided eye
- The following chart relates to the size of some common particles:

Lower Limit (Micron)	Upper Limit (Micron)	Typical Contaminant
0.3	0.4	Smoke, Paint Pigments
0.4	0.55	Bacteria
0.55	0.7	Lung Damaging Paint
0.7	1	Atmospheric Dust
1	1.3	Molds
1.6	2.2	Flour Mill Dust
3	4	Cement Dust
4	5.5	Pulverized Coal
5.5	7	7 Commercial Dust
7	10	Pollen
10	75	Silt
75	1000	Sand

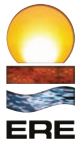
Mesh vs. Micron

The old standard imperial system of gauging a woven filtration media's ability to remove contaminant particles was the mesh system. This system simply counted the number of strands or yarns per inch of woven media, it did not provide the measurement for the pore opening. The mesh system's main value now is in the determination of a percentage of open area in a structure, which provides an understanding of flow rate capacity.

The micron system has replaced the mesh system; it provides an exact window opening for a woven media and a guide to the particle retention for non-woven media.

See mesh/micron conversion chart on page 20.





Liquid Filtration Media

Fibre Content

Filtration media, whether they are woven or non woven, are constructed from either natural or synthetic fibres. Today, the only natural fibres still used in limited applications are wool and cotton. Their primary benefit is in their ability to withstand higher temperatures.

The development of synthetic fibres, such as polyester, polypropylene, nylon, aramid, rayon, viscose and polyethylene has all but eliminated the use of natural fibre media in liquid filtration. When we select a media for a specific application, its fibre content can be critical due to the fibres' ability to withstand specific chemical and thermal environments. Basic compatibilities are outlined in the table labelled Thermal and Chemical Compatibilities (see page 20).

Surface Media

- Surface media are filtration structures which remove contaminate particles on the surface of the structure. They are generally two dimensional woven structures and are only as deep as the diameter of the yarn from which they are woven. They will only trap particles that are larger than the window opening of the structure. Their advantage is that they can be woven with great precision, therefore offering exact window openings that entrap particles of a specific size. Their disadvantage, however, is that they do not offer high particle loading or dirt holding capacity. As a result, they tend to plug up or blind off more quickly than a filter made from media with depth or loft.
- The most widely used surface media are woven structures using either **multifilament** or **monofilament** yarn made from polyester, polypropylene, and nylon.
- **Multifilament media** are woven from strands of fibres (most commonly polyester) that have been spun or twisted together. They are generally inexpensive woven media, and therefore produce a very low cost disposable filter bag. An individual yarn may vary 50% or more in diameter and generally produce a woven structure that has a rectangular rather than a square window opening. Contaminate particles tend to get trapped within the fibres of the yarn making this media very difficult to clean and re-use. Despite these shortcomings, they are well suited to a great many filtration applications where high precision is not required and low cost is key.

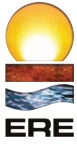
Monofilament media are woven from strands of extruded polymer with a consistent diameter and a very smooth surface. The advantage of this type of yarn is that they can be woven into a very precise filtration structure with consistent square window openings. The resulting smooth surface enables it to be cleaned and re-used in many applications. Monofilaments offer precision rated media with high mechanical strength.

- Not all surface media are woven. There are surface structures that are constructed mainly from matted fibres which are bonded together with heat or binding agents. They are commonly known as spun bonded or point bonded structures and are primarily used in multi-layer applications as covers or bypass and transfer layers due to their low inherent strength characteristics.

Depth Media

- Depth media are filtration structures which remove contaminant particles both on the surface and within the depth of the media. They are typically of needled felt or melt blown construction in a three dimensional structure. This creates a tortuous path for particles to follow, often resulting in a large range of particulate sizes being trapped within the structure.
- The advantages are: high dirt holding capacity, higher void volume or pore volume, the capability of removing gelatinous particles and most importantly, a long service life.
- The most common depth media used in filtration are polyester and polypropylene needled felt and melt blown polypropylene media.





Charts and Tables

Thermal and Chemical Compatibilities*

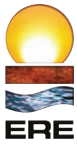
	Polyester	Polypropylene	Nylon	Cotton	Aramid	Viscose
Max. Temp (C)	135	93	135	93	190	107
Specific Gravity	1.38gr/cm3	0.91gr/cm3	1.14gr/cm3	1.55gr/cm3	1.38gr/cm3	1.52gr/cm3
Weak Acids	Very good	Excellent	Fair	Poor	Fair	Poor
Strong Acids	Good	Excellent	Poor	Poor	Poor	Poor
Organic Acids	Good	Excellent	Poor	Poor	Poor	Good
Weak Alkali	Good	Excellent	Excellent	Excellent	Excellent	Poor
Strong Alkali	Poor	Excellent	Excellent	Excellent	Excellent	Poor
Aliphatic Solvents	Good	Fair	Good	Good	Good	Good
Aromatic Solvents	Good	Poor	Good	Good	Good	Good
Alcohols	Good	Good	Good	Good	Good	Good
Ethers	Good	Poor	Good	Good	N/A	Good

* This guide contains general information. Actual use or soak tests must be performed to confirm compatibility.

Mesh/Micron Conversion Chart

Micron	U.S. Mesh	Inches
2000	10	0.0787
1680	12	0.0661
1410	14	0.0555
1190	16	0.0469
1000	18	0.0394
841	20	0.0331
707	25	0.028
595	30	0.0232
500	35	0.0197
420	40	0.0165
354	45	0.0138
297	50	0.0117
250	60	0.0098
210	70	0.0083
177	80	0.007
149	100	0.0059
125	120	0.0049
105	140	0.0041
88	170	0.0035
74	200	0.0029
63	230	0.0024
53	270	0.0021
44	325	0.0017
37	400	0.0015



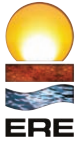


Filter Media Selection Guide																												
	0.5	1	2	3	5	10	25	45	50	55	70	75	80	100	125	150	175	200	250	300	400	500	600	800	1000	1500	2000	
PE		X			X	X	X		X			X		X				X										
PO		X		X	X	X	X		X					X				X										
NMO		X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
PEM														X		X		X	X	X	X	X	X	X	X	X	X	X
PEXL		X			X	X	X		X					X														
POXL		X			X	X	X		X					X														
POMF	X	X	X		X	X	X																					
POMB		X			X	X	X		X					X					X									
POX							X																					
PSORB		X			X	X	X		X					X					X									
PEX																X												
PPMO																		X		X	X		X	X				
PEMO		X			X	X						X		X	X	X		X	X	X	X							
NX		X			X	X	X		X					X														
NY					X	X	X		X					X														

Filter Cross Reference							
	Size 1	Size 2	Size 3	Size 4	Size 7	Size 8	Size 9
(Refer to page 11 for filter bag sizes)							
Industrial Filter	P1S	P2S	P3S	P4S	P7S	P8S	P9S
Eaton/Hayward	P01S	P02S	P03S	P04S	P07S	P08S	P09S
FSI	P1S	P2S	P3S	P4S			
Rosedale	P1S	P2S	P3S	P4S	P7S	P8S	P9S
UF Strainrite	P1S	P2S	P3S	P4S	P612S	PP618S	P630S
Tate-Andale	P1S	P2S	LFB1	LFB2			
ISP/GAF	P1S	P2S	P1X	P2X			
So-Clean	P1SN	P2SN	X1RSN	X2RSN			

Filter Bag Design Data										
Size	Diameter		Length		Surface Area		Flow Rate		Volume	
	inches	cm	inches	cm	sq.ft.	sq.cm	US GPM	L/sec	US gal.	litres
1	7	17.8	16.5	41.9	2.5	2341	80	5.0	1.8	6.8
2	7	17.8	32	81.3	4.9	4540	150	9.5	4.0	15.1
3	4	10.2	8	20.3	0.7	649	25	1.6	0.4	1.3
4	4	10.2	14	35.6	1.2	1135	50	3.2	0.6	2.3
5	7.5	19.1	16	40.6	2.6	2432	80	5.0	2.5	9.5
6	7.5	19.1	32	81.3	5.2	4864	160	10.1	5.0	18.9
7	5.5	14.0	15	38.1	1.8	1672	55	3.5	1.2	4.5
8	5.5	14.0	21	53.3	2.5	2341	75	4.7	1.6	6.1
9	5.5	14.0	31	78.7	3.7	3455	140	8.8	2.4	9.1

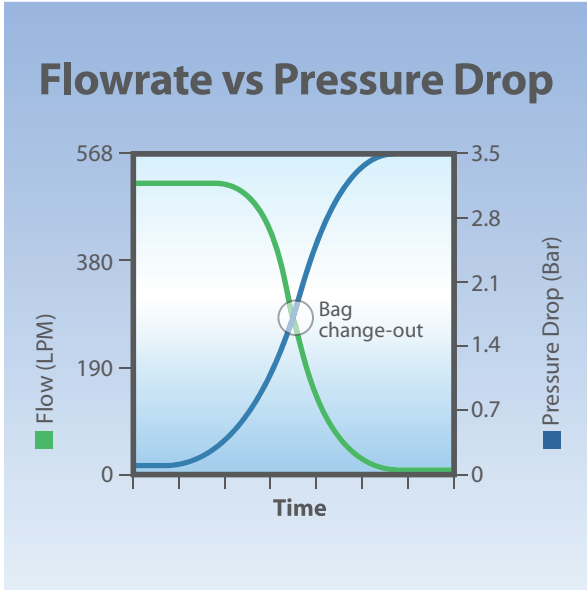




Filter Bag Operating Guidelines

Recommended Change-out

As the filter bag traps contaminant it creates a differential pressure (ΔP) defined as the downstream pressure subtracted from the upstream pressure. This represents the level of force the bag and restrainer basket are supporting.



It is recommended that a liquid filter bag be changed out when the differential pressure (ΔP) between the upstream and downstream sides reaches 1.38 - 1.72 Bar; beyond this you can jeopardize your effluent quality and filter bag integrity. Although this is a rule of thumb, other factors in your system may cause you to change-out the bags earlier, however under no circumstances should ΔP be allowed to exceed 1.72 Bar.

FDA Compliance and Silicone Certification

FDA Compliance

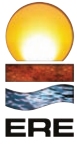
The raw materials used in the production of our polypropylene felt filters are certified compliant with the following Code of Federal Regulations (CFR'S):

- FDA 21 CFR 176.170
- FDA CFR 177.1520(C) 3.2a

Silicone-Free Certification

The raw materials used in the production of our filter bags are certified by our suppliers as being silicone free.





Do you need a filter bag or filter bag system?

If filter bags are the solution to your processing problems, contact us and we'll gladly help you design your system, or send you a free filter bag. Call us at 1-888-287-3732 or email sales@ereinc.com.

The key things you need to know are:

Contaminant

- Fluid to be filtered
- Nature of the contaminant you are trying to remove
- The size of particles you are trying to remove
- Dirt load or concentration of contaminate (ppm)

Process information

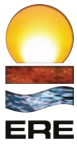
- Maximum temperature
- Maximum pressure
- Flow rate
- Viscosity (see chart on page 16)
- Chemical compatibility (see chart on page 19)
- Open system or closed system (see page 11, 12)
- Single pass or multiple pass system
- Material of construction requirements

Typical Applications

Typical applications suited to liquid filter bags include:

- Paint, coating and ink industries
- Process water, water treatment and cooling tower applications
- Petro chemical, solvents and general chemical applications
- Food and beverage industries
- Pharmaceutical and cosmetics applications
- Adhesive and resin industries





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- Garage stations
- Car washes
- Equipment wash downs
- Industrial effluents
- Remediation sites
- And many more!

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Oil/Water Separation, Filtration & Treatment System

- Mobile! Ready to go on-site and work
- Compact, user friendly design
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- Meet stringent environmental regulations or simply reuse your dirty water.

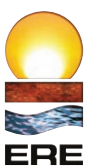
Applications :

- Metal working fluids
- Machine and grinding solutions
- Coolants
- Wash water
- Cooling towers
- Waste water treatment





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