Filter Elements

PRODUCT FEATURES / BENEFITS

- High Efficiency Coalescing Filters
- CNG Coalescing Filters
- Five-Layer Stainless Steel Elements
- Sintered Polyethylene Elements
- PTFE Elements for Corrosive Applications
- Emission Testing Elements
- Vapor Adsorption Cartridges
- High Flow Rates, Low Pressure
- Pleated Liquid & Pleated Stainless Steel Elements
- Pleated Microglass Elements

This overview provides a concise snapshot of our complete range of filter elements. United Filtration–Headline offers a broad selection of elements for our own housings, as well as replacement elements for select proprietary brands. We also welcome the opportunity to manufacture custom products within our capabilities.

Traditionally, UFS has supplied microfiber elements for high-efficiency coalescing applications, along with particulate elements for environmental instrumentation and emission analyzer protection. Today, our microfiber portfolio delivers high-efficiency solutions across a wide spectrum of applications—from instrumentation, analytical systems, and emission analyzer protection to CNG/NGV service.

In addition to our standard microfiber elements, we offer stainless steel, PTFE, polypropylene, vapor adsorption, pleated microglass, and pleated stainless steel options in a wide range of micron ratings. This extensive selection expands the range of applications we can support and is available across our complete housing catalog.

Coalescing Filter Elements

PRODUCT FEATURES / BENEFITS

- Completely Disposable
- High Flow Rates, Low Pressure Drop
- Custom Sizes Available
- Minimum of 95+% Efficiency of 0.01 Micron
- Compressed Air & Gas Service
- Instrumentation & Analytical Protection
- Natural Gas (CNG)
- Natural Gas Vehicle

Our microfiber disposable filter elements are manufactured from precisely controlled blends of borosilicate glass microfibers, produced to rigorous quality standards. The highly uniform microfiber matrix delivers exceptional filtration efficiency while maintaining very low pressure drop. With a void volume exceeding 90%, these elements provide high contaminant holding capacity, quick liquid drainage, and extended service life.

The microfibers are chemically bonded to ensure high mechanical strength, dimensional stability, and resistance to fiber migration or shedding under operating conditions. Multiple binder systems are available, enabling optimization of element construction for specific fluid compatibility, operating temperatures, and environmental conditions. Filter elements are offered across a broad range of nominal and absolute efficiencies, from coarse bulk particulate removal (Grade 80) to near-complete elimination of sub-micron contaminants.

At the core of our coalescing filters is a fully disposable element made entirely from borosilicate glass microfiber. The coalescing elements feature a two-layer structure: an inner particle capture layer and an outer drainage layer. Captured liquid droplets remain mobile within the fine-pored capture layer, migrating along the intersecting microfibers and growing in size as they progress. These coalesced droplets are then transferred to the large-pored drainage layer, from which they drain by gravity into the filter bowl.

The coalescing elements are completely self-supporting and are installed in the filter housing simply by tightening a retaining nut. No end caps, gaskets, or support cores are required. The elements are designed for an initial dry pressure drop of less than 2 psi. During operation, the pressure drop increases gradually as solid particles are captured within the media. We recommend replacing the element when the differential pressure reaches 10 psi.

Coalescing elements must always operate with flow from the inside to the outside of the element to ensure proper liquid drainage. These elements also simultaneously collect solid particulates, which will shorten element life.

C Grade - Coalescing (Oil and Water Removal)

The C-Type element is specifically designed to remove liquid aerosols and particulates from gases in both corrosive and non-corrosive applications. It is constructed of two layers of borosilicate microfiber. The inner layer consists of very fine, densely packed fibers that capture microscopic aerosols. The outer layer is made of slightly larger fibers, allowing the captured liquids to migrate through the depth of the media and drain from the filter element. This two-layer construction is critical to effective coalescing, and borosilicate microfiber is ideally suited for this function.

This element has an off-white, toasted appearance due to the fluorocarbon resin binder. This coloration is normal and does not affect element performance.

TECHNICAL INFORMATION	
Materials of Construction:	Borosilicate Microfiber Glass with PVDF Fluorocarbon Resin Binder
Type of Application:	Coalescing - Instrumentation
Maximum Temperature:	300°F
Appearance:	Off-White Toasted Color
Flow Direction:	Inside to Outside

Efficiency at 0.01 microns. Suffix Grade designation:					
99.99998%	**99.9999%**	**+99.99%**	**+99.5%**	**+95%**	**+75%**
30C	40C	50C	60C	70C	80C

The 70-grade elements are formulated to provide 95% efficiency at 0.01 microns while maintaining a low pressure drop. For best overall performance, we recommend starting with this grade of element.

CS Grade – Heavy Coalescing

These elements are designed for heavy coalescing applications, including CNG and vacuum pump exhaust service. They are rated for continuous operation up to 900°F and provide excellent performance in demanding coalescing conditions. The elements are constructed to mimic the performance of the C-grade media, utilizing a silica binder in place of a PVDF binder.

They are typically used with our 3/4" NPT filter housings and larger.

TECHNICAL INFORMATION	
Materials of Construction:	Borosilicate Microfiber Glass with Silica Inorganic Resin
Type of Application:	Heavy Coalescing / CNG
Maximum Temperature:	900°F
Appearance:	White in Color
Flow Direction:	Inside to Outside

Efficiency at 0.01 microns. Suffix Grade designation:					
99.99998%	**99.9999%**	**+99.99%**	**+99.5%**	**+95%**	**+75%**
30CS	40CS	50CS	60CS	70CS	80CS

The 70-grade elements are formulated to provide 95% efficiency at 0.01 microns while maintaining a low pressure drop. For best overall performance, we recommend starting with this grade of element.

The 50CS elements are recommended for the coalescing of oils in vacuum pump exhaust applications.

Specialty Options for Coalescing Elements

We offer several options for our coalescing elements designed to fit within existing CS Grade elements, including interior and exterior support cages as well as a pleated element insert. These features enhance element strength and durability where additional protection is required for demanding coalescing applications.

We also offer a high pressure coalescing element that incorporates an epoxy resin binder to further strengthen the element for applications involving high pressure or heavy contaminants.

For additional support or application assistance, please contact us at 1-800-311-5561 or sales@unitedfiltration.com.

EC Grade – Coalescing with High Differential Pressure

Elements are designed for high pressure coalescing or systems with high differential pressure caused by valve operations. These elements consist of two layers of borosilicate microfiber glass with a two-stage epoxy resin binder for added strength. For heavy liquid coalescing service, we recommend the CS grade.

Please consult the factory regarding our EC Elements. 1-800-311-5561 or sales@unitedfiltration.com

Dual Pleated Coalescing Series

Our DPCS series of elements incorporates an inner reinforced pleated microglass 3 micron pre-filter encapsulated with an outer microfiber glass coalescing layer. The pleats provide excellent dirt holding capacity thus protecting the coalescing layer allowing it to drain liquids efficiently. This cartridge combines the pleated and coalescing elements into one package. We typically recommend this on our larger vessels which hold 2” diameter elements; i.e. 51-230 & 51-476 sizes. However, we do have the ability to assemble this configuration in the 25mm and 38mm elements.

TECHNICAL INFORMATION	
Materials of Construction:	Borosilicate Microfiber Glass with Silica Inorganic Resin MicroGlass, Epoxy Coated Steel
Type of Application:	Heavy Particulate and Coalescing
Maximum Temperature:	300°F
Appearance:	White In Color
Flow Direction:	Inside to Outside

Efficiency at 0.01 microns. Suffix Grade designation:					
99.99998%	**99.9999%**	**+99.99%**	**+99.5%**	**+95%**	**+75%**
N/A	N/A	50DPCS	60DPCS	70DPCS	N/A

Our 70DPCS is the recommended standard grade element that provides good coalescing efficiency with high flow rates and long element life.

X1 Type – Exterior Cage for CS Elements

For Added Protection we can encapsulate the CS grade coalescer with an Exterior Cage (designated as X1)
These configurations are for Heavy Coalescing in systems with large pressure swings. These stainless-steel supports provide microfiber integrity to minimize fracturing the elements due to system environments.

TECHNICAL INFORMATION	
Materials of Construction:	Borosilicate Microfiber Glass with Silica Inorganic Resin with 304 SS Cage
Type of Application:	Heavy Coalescing / CNG
Maximum Temperature:	900°F
Appearance:	White in Color with SS Cage
Flow Direction:	Inside to Outside

Efficiency at 0.01 microns. Suffix Grade designation:

99.99998%	99.9999%	+99.99%	+99.5%	+95%	+75%
30CSX1	40CSX1	50CSX1	60CSX1	70CSX1	80CSX1

Our 70CSX1 is the recommended standard grade element that provides good coalescing efficiency with high flow rates and long element life.

X3 Type – Interior & Exterior Cage for CS Elements

For Added Protection we can encapsulate the CS grade coalescer with an Interior and Exterior Cage (designated as X3).
These configurations are for Heavy Coalescing in systems with large pressure swings. These stainless-steel supports provide microfiber integrity to minimize fracturing the elements due to system environments.

TECHNICAL INFORMATION	
Materials of Construction:	Borosilicate Microfiber Glass with Silica Inorganic Resin with 304 SS Cage
Type of Application:	Heavy Coalescing / CNG
Maximum Temperature:	900°F
Appearance:	White in Color with SS Cage
Flow Direction:	Inside to Outside

Efficiency at 0.01 microns. Suffix Grade designation:

99.99998%	99.9999%	+99.99%	+99.5%	+95%	+75%
30CSX3	40CSX3	50CSX3	60CSX3	70CSX3	80CSX3

Our 70CSX3 is the recommended standard grade element that provides good coalescing efficiency with high flow rates and long element life.

Ordering Information

All disposable filter elements have a part number arranged with three figures, e.g. 25-64-70C.
The first figure refers to the inside diameter, the second figure refers to the overall length and the third position refers to the grade designation. Replace the 'XX' in the part numbers with the grade designation. Please enquire with specific requirements.

Grades Available:
30 (99.99998%); 40 (99.9999%); 50 (+99.99%); 60 (+99.5%); 70 (+95%); and 80 (+75%)

Example Part Number: 25-178-70C

Standard Sizes Offered Per Grade / Type

Size	C Grade	CS Grade	EC Grade	X1 Type	X3 Type	Dual Pleated
12-25-xx	YES	YES	-	-	-	-
12-32-xx	YES	YES	YES	-	-	-
12-57-xx	YES	YES	YES	YES	-	-
12-83-xx	YES	YES	YES	-	-	-
25-51-xx	YES	YES	YES	YES	YES	YES
25-64-xx	YES	YES	YES	YES	YES	YES
25-127-xx	YES	YES	YES	YES	YES	YES
25-178-xx	YES	YES	YES	YES	YES	YES
38-58-xx	YES	YES	-	-	-	-
38-152-xx	YES	YES	YES	YES	YES	YES
51-89-xx	YES	YES	-	YES	YES	-
51-230-xx	YES	YES	YES	YES	YES	YES
51-476-xx	YES	YES	YES	YES	YES	YES
63-762-xx	YES	YES	YES	YES	YES	-

We are able to produce elements with the inner diameters from 0.27" (7mm) to 3.94" (100mm), and lengths from 0.3.94" (10mm) to 39.4" (1000mm).

Particulate Filter Elements

PRODUCT FEATURES / BENEFITS

- Completely Disposable
- Suitable For Corrosive Applications
- High Flow Rates, Low Pressure Drop
- Custom Sizes Available
- Up To 0.01 Micron Particle Efficiency
- Natural Gas
- Corrosive Gas Filtration
- Instrumentation & Analytical Protection
- Particulate Filtration

Our microfiber disposable filter elements are manufactured from precisely controlled blends of 100% borosilicate glass microfibers and produced to rigorous quality standards. The highly uniform microfiber matrix delivers exceptional filtration efficiency while maintaining very low pressure drop, ensuring effective particulate removal without altering the sample—making these elements ideal for analytical applications.
With a void volume exceeding 90%, the filter structure provides high contaminant holding capacity and extended service life. Particles are captured throughout the full depth of the element, increasing usable surface area and maintaining consistent performance over time.

The microfibers are chemically bonded to provide high mechanical strength, dimensional stability, and resistance to fiber migration or shedding under operating conditions. Multiple binder systems are available, allowing element construction to be optimized for specific fluid compatibility, operating temperatures, and corrosive environments. As a result, these elements are suitable for high-temperature, highly corrosive, and emissions-related applications.

Environmental, emissions, and sample conditioning filtration present unique challenges due to corrosive service conditions, elevated temperatures, and the analyzer's requirement for a clean, representative sample. To address these demands, we offer one of the industry's widest selections of microfiber borosilicate glass filter elements, with binder formulations tailored to specific operating requirements.

Fiber size and binder blends can be customized to optimize filtration performance for individual applications. Please consult our technical team with your specific requirements so we may recommend the optimal solution.

K Grade – Non-Reactive PVDF Binder

Elements are specified for particulate removal where corrosive gases are to be filtered as they have excellent chemical resistance. They are also used when highly reactive gases are being analyzed since they exhibit very low levels of adsorption. The borosilicate microfiber provides relatively high flow rates with low pressure drops which is critical in any analytical application. The PVDF binder creates a non-reactive surface which allows accurate sample analysis.
K Grade Elements offer all around high efficiency particulate filtration.

Typically Used with Our SS, PTFE & Kynar Sample Conditioning Products.

TECHNICAL INFORMATION	
Materials of Construction:	Borosilicate Microfiber Glass with PVDF Fluorocarbon Resin Binder
Type of Application:	Particulate Analytical, Emission Testing, Sample Conditioning
Maximum Temperature:	300°F
Appearance:	Off-White Toasted Color
Flow Direction:	Typically Outside to Inside

Efficiency at 0.01 microns. Suffix Grade designation:

99.99998%	99.9999%	+99.99%	+99.5%	+95%	+75%
30K	40K	50K	60K	70K	80K

Our 70K is the recommended standard grade element that provides good particulate efficiency with high flow rates and long element life.

S Grade – High Temperature Silica Inorganic Resin

S Grade elements are completely inorganic and specifically designed to be used in automotive and diesel particulate filter applications where sampling is above 300°F (150°C). These elements have the ability to function up to 900°F (480°C).

Typically Used with Our SS Sample Conditioning Filters and H Series Heatable Housings.

TECHNICAL INFORMATION	
Materials of Construction:	Borosilicate Microfiber Glass with Silica Inorganic Resin
Type of Application:	Emissions / Stack Gas
Maximum Temperature:	900°F
Appearance:	White in Color
Flow Direction:	Typically Outside to Inside

Efficiency at 0.01 microns. Suffix Grade designation:

99.99998%	99.9999%	+99.99%	+99.5%	+95%	+75%
30S	40S	50S	60S	70S	80S

Our 70S is the recommended standard grade element that provides good particulate efficiency with high flow rates and long element life.

ET Grade – PVDF Proprietary for Automotive Emission Testing

These elements are hydrocarbon-free filters developed to remove particulate for automotive/diesel emission testing up to 400°F.

TECHNICAL INFORMATION	
Materials of Construction:	Borosilicate Microfiber Glass with PVDF Proprietary
Type of Application:	Automotive Emission Testing
Maximum Temperature:	400°F
Appearance:	Off-White Toasted Color
Flow Direction:	Typically Outside to Inside

Efficiency at 0.01 microns. Suffix Grade designation:					
99.99998%	**99.9999%**	**+99.99%**	**+99.5%**	**+95%**	**+75%**
30ET	40ET	50ET	60ET	70ET	80ET

Our 70ET is the recommended standard grade element that provides good particulate efficiency with high flow rates and long element life.

S21-R Diesel Emissions with Heavy Particulate

The **S21-R Type** elements are constructed with a loose inner layer designed to provide more surface area thus capturing diesel particles without blinding off the element. The final stage of filtration is accomplished by the outside layer of the element.

Typically Used with Our H Series Tie Rod Heatable Housings.

TECHNICAL INFORMATION	
Materials of Construction:	Borosilicate Microfiber Glass with Silica Inorganic Resin Binder
Type of Application:	Heavy Diesel Emissions
Maximum Temperature:	900°F
Appearance:	White In Color
Flow Direction:	Inside to Outside

Efficiency at 0.01 microns. Suffix Grade designation:					
99.99998%	**99.9999%**	**+99.99%**	**+99.5%**	**+95%**	**+75%**
N/A	N/A	50S21-R	60S21-R	70S21-R	N/A

Our 70S21-R is the recommended standard grade element that provides good particulate efficiency with high flow rates and long element life.

E Grade – OEM Particulate Filtration

These elements are suitable for general particulate removal in non-corrosive gases and liquids. The coarsest grade that provides adequate protection for the application should be selected, as this delivers the most economical solution to contamination control. As our most cost-effective particulate filters, these elements are commonly specified for OEM applications.

Typically Used in OEM Applications.

TECHNICAL INFORMATION	
Materials of Construction:	Borosilicate Microfiber Glass with Epoxy Ester Resin
Type of Application:	Particulate Only
Maximum Temperature:	300°F
Appearance:	Light Manilla Color
Flow Direction:	Outside to Inside

Efficiency at 0.01 microns. Suffix Grade designation:					
99.99998%	**99.9999%**	**+99.99%**	**+99.5%**	**+95%**	**+75%**
30E	40E	50E	60E	70E	80E

Our 70 is the recommended standard grade element that provides good particulate efficiency with high flow rates and long element life.

L Grade – Sterile Air

These elements are bonded with a hydrophobic binder making them ideal for use where steam sterilization is required. The silicone binder prevents the pores from being filled with condensate, which can encourage bacterial growth. Maximum recommended steam pressure is 60 PSIG.

TECHNICAL INFORMATION	
Materials of Construction:	Borosilicate Microfiber Glass with Silicone Resin
Type of Application:	Sterile Air Applications
Maximum Temperature:	300°F
Appearance:	White In Color
Flow Direction:	Outside to Inside

Efficiency at 0.01 microns. Suffix Grade designation:					
99.99998%	**99.9999%**	**+99.99%**	**+99.5%**	**+95%**	**+75%**
N/A	40L	N/A	N/A	N/A	N/A

In air applications the 40L element must be protected by two coalescing (70C and 50C) pre-filters, which remove solids, and any liquids within the system. The 40L element remains dry. The 40L element can be independently steam sterilized in an air system to discourage bacterial growth.

Acid Wash Elements – Selective Catalytic Reduction

K Grade and S Grade filter elements are suitable for Selective Catalytic Reduction (SCR) applications. When processed using a specialized Acid Wash (AW), these elements are capable of capturing excess ammonia introduced into the emission stream. Ammonia scrubbing occurs through a chemical bonding mechanism between the ammonia (NH_3) and the phosphoric acid–washed filter media, helping to protect downstream analyzers and other sensitive equipment.

See our brochure on Acid Wash (SCR) Elements.

Ordering Information

All disposable filter elements have a part number arranged with three figures, e.g. 25-64-70C.
The first figure refers to the inside diameter, the second figure refers to the overall length and the third position refers to the grade designation. Replace the 'XX' in the part numbers with the grade designation. Please enquire with specific requirements.

Grades Available:
30 (99.99998%); 40 (99.9999%); 50 (+99.99%); 60 (+99.5%); **70 (+95%)**; and 80 (+75%)

Example Part Number: 25-178-70K

Standard Sizes Offered Per Grade / Type

Size	K Grade	S Grade	ET Grade	S21-R Grade	E Grade	L Grade	Acid Wash
12-25-xx	YES	YES	-	-	YES	-	-
12-32-xx	YES	YES	-	-	YES	YES	-
12-57-xx	YES	YES	YES	YES	YES	YES	YES
12-83-xx	YES	YES	-	-	YES	YES	-
25-51-xx	YES	YES	YES	-	YES	-	YES
25-64-xx	YES	YES	YES	YES	YES	YES	YES
25-127-xx	YES	YES	YES	YES	YES	YES	-
25-178-xx	YES	YES	YES	YES	YES	YES	YES
38-58-xx	YES	YES	YES	-	YES	YES	-
38-152-xx	YES	YES	YES	-	YES	YES	-
51-89-xx	YES	YES	-	-	YES	-	-
51-230-xx	YES	YES	-	-	YES	YES	-
51-476-xx	YES	YES	-	-	YES	YES	-
63-762-xx	YES	YES	-	-	YES	-	-

We are able to produce elements with the inner diameters from 0.27" (7mm) to 3.94" (100mm), and lengths from 0.3.94" (10mm) to 39.4" (1000mm).

316L Stainless Steel Five-Layer Mesh Elements

PRODUCT FEATURES / BENEFITS

- High Strength / No Media Migration
- Excellent Chemical Resistance
- Able To Withstand Up To 2000 PSIG Differential
- Wide Micron Range: 0.5, 01, 03, 10, 25, 50, 100 and 200
- Liquid / Fast Loop Service
- For Service In High Pressure Swing Systems
- Compressed Natural Gas (CNG)

Stainless steel filter elements are recommended for the filtration of heavily contaminated gases, liquids, polymers, and steam. Designed for long service life, these cartridges are environmentally friendly due to their durable, non-absorbent construction. This allows service in gas and liquid applications.

Each filter element is manufactured from five layers of precision-woven 316L stainless steel mesh formed into a cylindrical shape and sintered together. The individual layers are diffusion-bonded at high temperature in a controlled-atmosphere furnace, creating metallurgical bonds at every contact point. This process produces a bonded filtration media that is exceptionally strong, ductile, and highly resistant to corrosion.

The five-layer construction provides both surface and depth filtration, enabling efficient capture of solid contaminants and separation of entrained liquids. This rigid, durable design ensures precise pore size distribution, high flow permeability, and a low initial pressure drop.

Seven standard filtration grades are available to fit Headline Filters housings, as well as many other proprietary brands. Available micron ratings include 0.5, 1, 3, 10, 25, 50, 100, and 200 microns, all rated at 98% efficiency for both gases and liquids. Grade 25 (25 micron) is commonly used for pump and valve protection, while Grade 03 (3 micron) is recommended for the removal of pipe scale from steam systems and hospital sterilization equipment.

These elements can be backwashed, ultrasonically cleaned, and reused multiple times, significantly reducing waste and eliminating disposal challenges associated with disposable filter media. Service life is reduced with each cleaning.

Exotic Materials Available

In addition to standard stainless steel elements, we offer exotic material filter elements—including Hastelloy, Titanium, and other specialty alloys—on a quotation basis. They are ideally suited for demanding applications such as stack gas probes.

For custom configurations or specialty materials, simply contact us with your application details, and we will provide a quick and comprehensive quote.

Stainless Steel Model Number	Dimensions I.D. x Length	Collapse Rating (1)	Fits (Housing Series)
SS-12-32-µm	0.5 X 1.25”	2000 PSID	Model 110, 315, 700/710 Series
SS-12-57-µm	0.5” X 2.25”	2000 PSID	Model 120, 126IL-3, 315L, 720/725 Series
SS-12-76-µm	0.5” X 2.99”	2000 PSID	Model 122LB-PVF
SS-12-127-µm	0.5” X 5.00”	750 PSID	Model 127IL-3
SS-25-64-µm	1.0” X 2.50”	750 PSID	Model 130, 136IL-3, 360, 755/760 Series
SS-25-178-µm	1.0” X 7.00”	750 PSID	Model 140, 146IL-3, 370, 780 Series
SS-38-152-µm	1.5” X 6.00”	400 PSID	Model 380AHP Series
SS-51-230-µm	2.0” X 9.00”	70 PSID	Model 150, 385AHP Series
SS-51-476-µm	2.0” X 18.75”	70 PSID	Model 160, 390AHP Series

Notes: (1) This is a maximum differential pressure, not maximum throughput pressure.

Ordering Information

Stainless steel filter elements are supplied with a standard PTFE gasket set, designated by the suffix **“T”**, or with a Viton® seal, designated by “**V**”, at no additional charge. A Grafoil® gasket set is also available for a nominal charge for high-temperature applications ranging from 500°F to 1000°F and is designated by “**G**”.

Please specify the micron size (µm) and gasket material by adding the appropriate suffix to the part number. Micron Sizes Available: 0.5, 01, 03, 10, 25, 50, 100, and 200.
Example Part Number:
SS-12-57-25T

Temperature Ratings

- PTFE gaskets and elements: Maximum temperature 500°F (Standard)
- Viton® gaskets and elements: Maximum temperature 400°F (Optional)
- Grafoil® gaskets and elements: Maximum temperature 1000°F (Optional – additional charge)

Custom Options

Our SS filter elements are incorporated into a wide range of custom OEM and CNG applications, where strength, durability, and filtration efficiency are critical.

Stainless steel elements offer exceptional strength and a broad micron range, making them highly versatile. The elements can be integrated as exterior support mechanisms to microfiber coalescing CS grade elements thus providing high efficiency protection and durability in one element. This element is ideal for systems exposed to volatile compression swings.

Fittings and connectors can be welded directly into the element, supporting stack gas, and sparging applications. These capabilities represent key areas where we thrive. Consult United Filtration Systems for more information.

PTFE Elements

PRODUCT FEATURES / BENEFITS

- Corrosive Resistant
- For Use in our PTFE and Kynar Housings
- Naturally Hydrophobic
- 3 and 25 Micron (µ) Available
- Corrosive Service
- High Purity Gas Service
- Chorine Service
- Liquid / Fast Loop Service

PTFE filter elements are an excellent choice for compressed gas and liquid filtration in applications where traditional microfiber or stainless-steel elements are not suitable. They are naturally compatible with our PTFE and Kynar® housings, making them a reliable solution for highly corrosive or demanding environments.

Each element is constructed from pure PTFE, sintered under pressure into a durable, uniform cylinder. These "PT" series elements offer exceptional chemical resistance and extreme hydrophobic properties—ideal for precise liquid sampling and other critical applications. Their monolithic design requires no end caps or gasket materials, ensuring a clean, positive seal every time.

Custom Options:
If you require a custom configuration, our engineering team is ready to help. We routinely supply stainless-steel elements with male connectors for stack-gas monitoring, as well as PTFE elements in non-standard dimensions tailored to specific system requirements.

PTFE Model Number	Dimensions I.D. x Length	Fits (Housing Series)
PT-12-32-µm	0.5" X 1.25"	Model 110, 315, 705/710 Series
PT-12-57-µm	0.5" X 2.25"	Model 120, 126IL-3, 315L Series
PT-12-76-µm	0.5" X 3.00"	Model 122LB-PVF
PT-12-127-µm	0.5" X 5.00"	Model 127IL-3
PT-25-64-µm	1.0" X 2.50"	Model 130, 136IL-3, 360, 755/760 Series
PT-25-178-µm	1.0" X 7.00"	Model 140, 146IL-3, 370, 775/780 Series

The PTFE elements do not require gaskets. Remember to add the micron size to the end of the model number. Available micron sizes (µm) are 03 and 25.

Example Part Number: PT-25-64-03

Sintered Polyethylene (PEL) Elements

PRODUCT FEATURES / BENEFITS

- Excellent Pre-Filters in Compressed Air
- Protect Final High Efficiency Filters From Excess Debris
- Economical Coalescing Pre-Filter
- High Strength
- For Use as Diffusers / Mufflers
- Point-of-Use Liquid Filter
- 10, 25, 75 and 100 Micron Available

Our high-efficiency PEL filter elements are manufactured from virgin high-density polyethylene (HDPE). The structure allows service in both gas and liquid applications. The material begins as a powdered or granular resin and is compressed into a sintered tube, eliminating the need for binders or additives. As a result, material compatibility is limited only to polyethylene itself. No end caps or gaskets are required; a reliable seal is achieved through axial compression directly against the flat element surfaces. PEL elements are inherently hydrophobic.

In compressed air and gas systems, PEL elements are well suited as pre-coalescers or coarse first-stage filters in heavily contaminated environments. For these applications, the 75-micron grade is recommended due to its superior flow characteristics.

In liquid applications, modest pressure forces fluid through the element while repelling encapsulated particulate. Filtration occurs through a combination of surface and depth mechanisms. The recommended flow direction is from outside to inside, allowing contaminants to accumulate on the exterior surface for easy inspection while taking advantage of the larger outer diameter for increased surface filtration. PEL elements may be back-flushed or ultrasonically cleaned; however, their low cost often makes replacement the most economical option.

Polyethylene (PEL) Model Number	Dimensions I.D. x Length	Fits (Housing Series)
PEL-12-32	0.5” X 1.25”	Model 110, 315, 705/710 Series
PEL-12-57	0.5” X 2.25”	Model 120, 126IL-3, 315L Series
PEL-12-76	0.5” X 3.00”	Model 122LB-PVF
PEL-12-127	0.5” X 5.00”	Model 127IL-3
PEL-25-64	1.0” X 2.50”	Model 130, 136IL-3, 360, 755/760 Series
PEL-25-127	1.0” x 5.00”	Model 130-4233
PEL-25-178	1.0” X 7.00”	Model 140, 146IL-3, 370, 775/780 Series

PEL Elements are designed to integrate seamlessly with our point-of-use filter housings.

Vapor Adsorption Cartridges

PRODUCT FEATURES / BENEFITS

- Desiccants For Moisture Removal Include Silica Gel, Molecular Sieves, and More
- Wide Range of Adsorbents For Vapor Removal
- Coconut Charcoal for Hydrocarbon Adsorption
- Purify Gas
- Analyzer Protection
- No Handling of Loose Media

We offer a complete line of disposable adsorption cartridges filled with desiccant media for moisture removal, as well as adsorbents designed for surface binding of contaminant gases within process streams. Vapor adsorption cartridges incorporate inner and outer filter elements rated 99.99% efficient at 0.01 micron. The adsorption media is securely sandwiched between these elements and fully encapsulated with bonded end caps to ensure zero media migration. Cartridges are designed to fit our standard housings for easy installation and replacement, providing a clean, disposable solution with no loose media handling.

Vapor adsorption cartridges are constructed with concentric inner and outer support tubes, forming a uniformly packed annular volume of adsorbent media. The assembly is sealed with bonded end caps and incorporates positive O-ring seals at both ends to prevent bypass, maintaining system integrity.

Nominal flow rates are equivalent to those of a disposable Grade 50 filter element of the same physical size. In adsorption applications, however, performance is governed primarily by adsorbent volume and contact (residence) time, rather than flow capacity alone.

For point-of-use, tube-connection applications, we also offer Disposable In-line Adsorbers (DIA), available with encapsulation in nylon or Kynar®.

Cartridges (1) For Stainless Steel Housings	Cartridges (1) For Aluminum & Plastics	Adsorbent Volume in Cubic Centimeters	Length (Inches)	End Caps/Seal	Flow at 100 PSIG
12-32-xx-TS	**TRE12-32-XX**	6	1.25”	Nylon/No Seal	5 SCFM
12-57-xx-TS	**TRE12-57-XX**	9	2.25”	Nylon/Buna-N	11 SCFM
25-64-xx-TS	**TRE25-64-XX**	20	2.50”	Nylon/Buna-N	15 SCFM
25-178-xx-TS	**TRE25-178-XX**	90	7.00”	Nylon/Buna-N	40 SCFM
38-152-xx-TS	**TRE38-152-XX**	130	6.00”	PVC/Buna-N	80 SCFM
51-230-xx-TS	**TRE51-230-XX**	220	9.00”	PVC/Buna-N	125 SCFM
51-476-xx-TS	**TRE51-476-XX**	530	18.75”	PVC/Buna-N	250 SCFM
63-762-xx-TS	**63-762-xx-TS**	1010	30.00”	PVC/Buna-N	560 SCFM

Notes: (1) Replace “xx” with adsorption required: CC, 4A, 13X, SG, DR, MB, PP, HO, SB, CS

Adsorbent	Code	Principles
Activated Carbon Cloth	**CC***	Adsorption of hydrocarbons and other organic vapors Zero Air Calibration
Molecular Sieve 4A	**4A**	Adsorption of CO_2, NH_3, H_2S, SO_X
Molecular Sieve 13X	**13X**	Adsorption of CO_2, NH_3, H_2S, SO_X, aromatics, amines
Silica Gel	**SG**	Adsorption of water vapor
Drierite - Anhydrous Calcium Sulfate	**DR**	Adsorption of water vapor
Mixed Bases	**MB**	Removal of acidic gases, CO_2, SO_X, NO_X, HCI
Potassium Permanganate	**PP**	Removal of SO_X, Hg, and other acidic gases
Hopcalite	**HO**	Removal of CO by catalytic oxidation to CO_2
Sodium Bicarbonate	**SB**	Acid Neutralizer
Copper Sulfate	**CS**	Removal of ammonia

Note: (*) Headline's **CC Adsorption Cartridges** are constructed entirely of highly adsorbent fibrous activated carbon formed into a strong, flexible cloth. This **carbon cloth** provides significantly greater dynamic adsorption capacity than granular carbon or carbon-impregnated media.

Unlike conventional charcoal materials, the **carbon cloth** maintains performance in moist conditions, exhibiting far less degradation when exposed to humidity. To prevent carbon dust carryover, the carbon cloth is fully encapsulated on both the upstream and downstream sides with a high-efficiency borosilicate glass microfiber layer.

For optimal performance and service life, carbon cloth adsorbers should be protected by **70C and 50C coalescing prefilters**. Under typical operating conditions, activated carbon can adsorb approximately **20–30% of its own weight** in contaminants.

The following factors should be considered when designing a system that incorporates vapor adsorption cartridges:

1. **Phase Compatibility (Vapor vs. Liquid)**
   Adsorbents are effective only for vapor-phase contaminants. Exposure to liquids will damage or deactivate most solid adsorbents. Therefore, adsorption cartridges or DIAs must be protected upstream by an efficient coalescing filter (e.g., Grade 70C or 50C) to remove entrained liquids and aerosols.

2. **Finite Adsorption Capacity and Breakthrough Behavior**
   Unlike microfiber filters, which operate at essentially constant efficiency throughout their service life, adsorption cartridges have a finite holding capacity. Once this capacity is reached, additional adsorption does not occur. The limiting capacity, commonly referred to as the *breakthrough point*, is not sharply defined; instead, outlet vapor concentration rises rapidly as saturation is approached.

   To prevent downstream contamination, adsorption cartridges must be replaced well before reaching full saturation. Determining the appropriate change-out point is application-specific and depends on multiple variables. As a general rule of thumb, many adsorbents can retain approximately 20% of their own weight in adsorbed vapor (see Item 3).

3. **Adsorption Efficiency and Operating Conditions**
   The adsorption efficiency of a given adsorbent for a specific vapor is highly dependent on operating conditions. Consequently, unlike filtration, adsorption media cannot be assigned a single, fixed efficiency rating. In addition to the intrinsic affinity between the adsorbent and the target vapor, key influencing factors include:
   - **Temperature** – Adsorption efficiency generally increases as temperature decreases and decreases at elevated temperatures.
   - **Vapor Concentration** – Percentage removal efficiency is typically higher at low inlet vapor concentrations, whereas total adsorption capacity increases at higher vapor concentrations.
   - **Contact Time (Residence Time)** – Adsorption efficiency improves with increased contact time; therefore, the lowest practical flow rate should be maintained for optimal performance.
   - **Presence of Competing Vapors** – Adsorption of a target vapor is reduced in the presence of other vapors with affinity for the same adsorbent. For example, high concentrations of water vapor significantly reduce the adsorption of other vapors on carbon, silica gel, or molecular sieves.

4. **Reversibility and Desorption Effects**
   Adsorption is generally a reversible process. Changes in operating conditions may cause desorption rather than adsorption. This reversibility is intentionally exploited during adsorbent regeneration via heating, vacuum application, or purging with a low-contaminant gas stream. However, inadvertent desorption can also occur during normal operation. For example, a temporary increase in inlet vapor concentration may result in significant adsorption, followed by desorption if the inlet concentration subsequently decreases.

While adsorption efficiency cannot be precisely predicted or guaranteed for all operating conditions, system performance can be optimized by maximizing conditions favorable to adsorption and minimizing factors that inhibit or reverse the adsorption process.

Adsorbent	Final Numbers In Designation	Vapor Adsorption Activity	
		Good To Excellent Adsorption	Little Or No Absorption
Carbon	**CC**	Most C_4 and heavier hydrocarbons, ketones, alcohols, esters, ethers, organic acids, chlorinated organic, Freons, all aromatic hydrocarbons, carbon disulfide	Carbon monoxide, carbon dioxide, amines, ammonia, acetylene, most C_3 and lighter hydrocarbons, sulfur dioxide
Silica Gel	**SG**	Water vapor	Recommended only for water vapor adsorption
Molecular Sieve Type 4A	**4A**	Carbon Dioxide Ammonia Sulfur Dioxide Hydrogen Sulfide Acetylene Propylene Methane Ethane Water Vapor Ethylene Ethylene Oxide Carbon Disulfide	Organic compounds C_4 or larger, carbon monoxide
Molecular Sieve Type 13X	**13X**	All materials adsorbed by Type 4A Sieve plus: Methanol Straight Chain Mercaptans Freon 11 Freon 12 Freon 114 Sulfur Hexafluoride Straight Chain Hydrocarbons to C_{22} Cyclohexane Diphenyl Butene-1 Isopentane Benzone, Toluene, Xylene Boron Trifloride Triethylamine and Smaller Amines	Organic Compounds C_7 Or larger, Carbon Monoxide
Calgon Type HGR Sulfur –Impregnated Carbon	**CC-RD**	Mercury Vapor	Recommended only for mercury vapor adsorption
Mixed Sodium and Calcium Hydroxides	**MB**	All acidic gases, including: Sulfur Trioxide, Sulfur Dioxide, Nitrogen Dioxide, Carbon Dioxide, Hydrogen Sulfide, Hydrogen Chloride, Chloride, Phosphorus Chlorides	Inert and non-acidic gases
Potassium Permanganate Impregnated Aluminum	**PP**	Removal of SO_X in stack gas	

TABLE

Y	Denotes that chemical is Adsorb
N	Denotes No Adsorption
MB	Represents Mixed Bases
PP	Represents Potassium Permanganate

Chemical Substance	Formula	PP	MB	TLV (ppm)
Acetic Acid	CH_3COOH	Y	Y	10
Acetone	$CH_3CO\ CH_3$	Y	N	750
Acrylic Acid	$H_2C\ CH\ COOH$	Y	Y	
Alcohols	ROH (General)	Y	N	
Aldehydes	RCHO (General)	Y	N	
Allychloride	$H_2C\ CHCH_2Cl$	Y	N	1
Ammonia	NH_3	Y	N	25
Arsine	AsH_3	N	Y	0.05
Bromoform	$CHBr_3$	Y	N	0.05
Butyl Alcohol	$CH_3(CH_2)_2CH_2OH$	Y	N	50
Carbon Dioxide	CO_2	N	Y	5000
Carbon Oxysulphide	COS	N	Y	
Chloroform	$CHCl_3$	Y	N	10
Diacetone Alcohol	$CH_3COCH_2C(CH_3)_2OH$	Y	N	50
Diesel Fuel	General Hydrocarbons	Y	N	
Esters	General	Y	N	
Ethers	ROR (General)	Y	N	
Ethyl Acetate	$CH_3COOC_2H_5$	Y	N	400
Ethyl Alcohol	C_2H_5OH	Y	N	1000
Ethyl Benzene	$C_6H_5C_2H_5$	Y	N	100
Ethylene	C_2H_4	Y	N	
Formaldehyde	HCHO	Y	N	1
Formic Acid	HCOOH	Y	Y	5
Gasoline	Hydrocarbon Mixture	Y	N	100
Hydrogen Chloride	HCl	N	Y	5
Hydrogen Cyanide	HCN	N	Y	10
Hydrogen Sulphide	H_2S	Y	Y	10
Ketones	R_1COR_2 (General)	Y	N	
Mercaptans	RSH (General)	Y	Y	
Methyl Alcohol	CH_3OH	Y	N	200
Methyl Chloroform	$CH_3C\ Cl_3$	Y	N	
Methyl Ethyl Ketone	$CH_3COC_2H_5$	Y	N	
Nitrogen Oxides	NO_X ($NO+NO_2$)	NO oxidized	N	
Ozone	O_3	Decomposed	N	0.1
Petrols	Hydrocarbon Mixtures	Y	N	
Phenol	C_6H_5OH	Y	N	5
Phosphine	PH_3	Y	N	0.3
Pyridine	C_5H_5N	Y	N	5
Stibine	SbH_3	Y	N	
Sulphur Dioxide	SO_2	Y	Y	2
Toluene	$C_6H_5CH_3$	Y	N	100
Vinyl Acetate	$CH_3COOCHCH_2$	Y	N	10
Vinyl Chloride	CH_2CHCl	Y	N	5
Xylene	$C_6H_4CH_3CH_3$	Y	N	

Filters for Emission Service

PRODUCT FEATURES / BENEFITS

- Complete Removal of Sub-Micron Contaminants
- Completely Disposable
- Suitable for Corrosive Applications
- High Flow Rates, Low Pressure Drops
- Emission Test Bench Protection
- Diesel Testing
- Analyzer Protection
- Stack Gas Testing

Ensure reliable emission test bench performance and compliance with Headline Filters microfiber elements. Protect your test standards with consistent, repeatable filter element quality.

Our disposable microfiber elements are manufactured from carefully controlled blends of borosilicate glass microfibers to the highest standards. With over 90% void volume, these elements deliver outstanding filtration efficiency at very low pressure drops. Designed to exceed industry requirements, they are fully compatible with standard proprietary filter housings.

For test cells operating below 300°F (150°C), our **K-Type fluorocarbon binder elements** provide proven reliability. They are the most widely used option, offering consistently low levels of adsorption. Additional grades are available, each engineered to meet specific application requirements.

K Grade	Elements are specified for particulate removal where corrosive gases and liquids are to be filtered as they have excellent chemical resistance. They are also used when highly reactive gases are being analyzed since they exhibit very low levels of adsorption.
ET Grade	Elements are hydrocarbon-free filters developed to remove particulate for automotive emission testing up to 400°F.
RPT Grade	Elements are constructed of a proprietary blend of microfiber glass and resin binders which virtually eliminate initial hydrocarbon content and fiber migration. This feature provides fast initial response times for emission analysis. These elements have the ability to function up to 650°F (342°C).
S Grade	Elements are completely inorganic and are used to filter particulate at temperatures from 300°F to 900°F.
S21-R Grade	The **S21-R Type** are used in diesel emission applications.
SCR Filter Elements (Acid Washed)	Acid Washed (AW) series of elements capture the excess ammonia that is introduced into the emission stream. This scrubbing is done by a chemical bond between the ammonia (NH_3) and the acid washed (Phosphoric) filter elements, thus protecting sensitive equipment. These are commonly referred to as Selective Catalytic Reduction (SCR) Filter Elements.

Our emission elements are engineered for efficient particulate removal in automotive gas streams and other demanding analytical applications. Constructed from borosilicate microfibers, they provide high flow rates with minimal pressure drop—an essential factor in maintaining analytical accuracy. The PVDF binder forms a chemically inert, non-reactive surface, ensuring precise sample analysis even when handling highly reactive gases. With excellent chemical resistance and low adsorption characteristics, these filters are ideally suited for critical gas filtration and analytical environments.

Our advantages are well recognized and include a broader product range for greater flexibility, superior quality standards, faster delivery times, and competitive, realistic pricing. Our filter elements conform to industry-standard sizes and grades, allowing seamless use in other manufacturers' filter housings while maintaining equivalent efficiency and performance.

K-Type
For reliable, all-around test bench protection, the 70K grade offers excellent full-range performance.

S-Type
Ideally suited for hot gas (diesel) testing applications operating above 300 °F. The 70S grade is recommended as a full-range element for optimal performance.

RPT Type
Designed for highly sensitive testing benches that demand exceptionally low initial hydrocarbon content. For optimal performance, we recommend the 70RPT grade as a full-range element.

Part Number Element Size	Temperature Rating 0° - 300°F	Temperature Rating 300°F - 900°F	
12-57- (0.50" x 2.25")	12-57-xxK	12-57-xxS	12-57-xxRPT
25-64- (1" X 2.5")	25-64-xxK	25-64-xxS	25-64-xxRPT
25-178- (1" X 7")	25-178-xxK	25-178-xxS	25-178-xxRPT
51-230- (2" X 9")	51-230-xxK	51-230-xxS	51-230-xxRPT

Please replace the "xx" with either 50 or 70 Grade. Example: 25-178-70S

The "70" Grade element is rated at 95% efficiency against 0.01 micron particles.

The "50" Grade element is rated at 99.99% efficiency against 0.01 micron particles.

Heatable Housings

Designed for applications such as diesel exhaust sampling and continuous emission monitoring systems (CEMS), these housings maintain sample integrity at elevated temperatures.

- Suitable for use under vacuum (sample draw) or pressurized up to 30 psig.
- Four standard models available: H122S-TR, H130S-TR, H140S-TR, H254S-TR.
- Bayonet-type closure: Enables rapid element replacement in seconds, even at operating temperatures.
- The element is connected directly to the bayonet handle, allowing it to be completely removed from the housing body for quick change-out.

Pyrex Glass Housings for Monitoring

Low pressure monitoring our 127G-147G filters for emission testing utilize a Pyrex bowl for at-a-glance monitoring of particle build-up.

- Positive O-Ring design eliminates leak points
- No tools needed for element service

Disposable In-Line Filters & Adsorbers

Our Disposable In-Line Filters and Adsorbers are ideal for portable analyzers and systems requiring an easily last chance protection replaceable filter.

- Four sizes to choose from.
- Last chance filter ideal for portable systems.

Nylon Housings for Portable Service

Our 100% nylon housings are an inexpensive, robust solution for emission analyzer service. Typically used on portable in field applications.

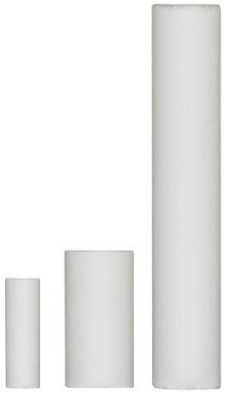
- Light Weight
- No Metal Parts

Selective Catalytic Reduction – Acid Wash Filter Elements

PRODUCT FEATURES / BENEFITS

- Capture Ammonia
- Protect NO_X Analyzers Using CLD
- Low Cost Disposable Filter Elements
- Remove Ammonia While Not Interfering with Other Measurements
- Measure NO_X in the Presence of Ammonia
- Emission Testing
- Meets New Standards
- Protect Analyzers from Ammonia Residue

United Filtration Systems' borosilicate microfiber, Acid Washed (AW) series elements are designed to capture excess ammonia (NH_3) introduced into the emission stream.
The scrubbing process occurs through a chemical bond between the ammonia and the acid-washed (phosphoric) filter media, effectively protecting sensitive downstream equipment.



Key Advantage

- Direct replacement design – the AW series is fully compatible with standard filter housings already in service, eliminating the need for new installations or modifications.

Part Number Element Size	Temperature Rating 0° - 300°F	Temperature Rating 300°F - 900°F
12-57- (0.50" x 2.25")	12-57-50KAW	12-57-50SAW
25-64- (1" X 2.5")	25-64-50KAW	25-64-50SAW
25-178- (1" X 7")	25-178-50KAW	25-178-50SAW

The "50" Grade element is rated at 99.99% efficiency against 0.01 micron particles.

The "70" Grade element is rated at 95% efficiency against 0.01 micron particles.

Please allow 5 days for delivery of the Acid Washed elements.
For further information, please contact United Filtration Systems at 1-800-311-5561.

Spring Loaded Cartridges

PRODUCT FEATURES / BENEFITS

- Robust Design for Dynamic Pressure Swings
- Positive Sealing- Secure Fit
- Built-In Pressure Relief
- High Efficiency Coalescing to Stainless Steel for bulk knockout (up to 200µm)
- O-Ring Sealing

Spring Loaded Push-In Version (SL) For Stainless Housings

We offer two variations of spring-loaded elements. The most common is our **Spring Loaded (SL) Series** of positive-fit elements, specifically designed for use in our 150 thru 162VP–4401 series stainless steel filter housings. The metal end cap construction provides added security in compressed gas systems operating under high velocity and high vibration conditions.

Final-grade coalescing elements are available encapsulated within a five-layer stainless steel structure or with a stainless steel support cage for enhanced durability and strength.

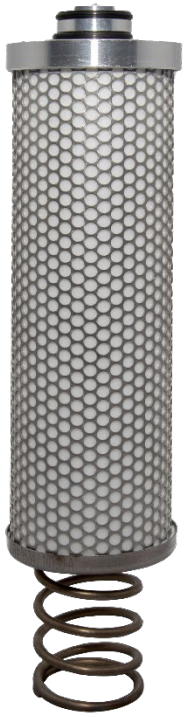
For applications involving heavy liquid and/or particulate loading, stainless steel pre-filter elements are also available. Our coalescing microfiber elements feature integral stainless steel inner and outer cages, metal end caps for maximum durability, and a captured O-ring to ensure a positive seal. Standard element seals are Buna-N, with housing seals matched accordingly.

Alternative seal materials are available using the following ordering suffixes:

- **V** = Viton
- **E** = EPDM
- **KZ** = Kalrez

Example: **SL38-172-70CSX3-V**

Five-layer stainless steel elements are also offered in a range of micron ratings for bulk contaminant removal in demanding applications.



TECHNICAL INFORMATION

Materials of Construction:	Borosilicate Microfiber, Stainless Steel Spring / End Cap, Aluminum Push-In Cap, Stainless Steel Outer Cage
Type of Application:	Coalescing / Particulate Removal
Maximum Temperature:	250°F (Based on O-Ring)
Appearance:	Microfiber White Element, Aluminum Cap, Spring
Flow Direction:	Outside to Inside

Spring Loaded Threaded Version (SL-TRE)

The **SL-TRE Series** of spring-loaded elements is engineered for high differential pressure applications and features both inner and outer stainless steel cages for maximum strength and structural stability. Reinforced support cores and an integrated spring base protect the element from dynamic pressure fluctuations, ensuring consistent filtration performance under variable operating conditions.
SL-TRE elements are specifically designed for use in our 380-383AHP, 385AHP, and 390AHP aluminum housings.

For continuous liquid removal in natural gas service, we recommend our **CS Grade** (all-glass fiber) coalescing spring-loaded elements. These elements deliver high efficiency while maintaining performance over extended service life without degradation.

For extreme service conditions, our **EC Epoxy Coalescing Cartridges** provide exceptional durability. These cartridges offer superior mechanical strength and enhanced resistance to harsh operating environments.

For the most demanding applications, we also offer coalescing elements encapsulated within a five-layer stainless steel structure. Please consult us for configuration options and detailed performance specifications.

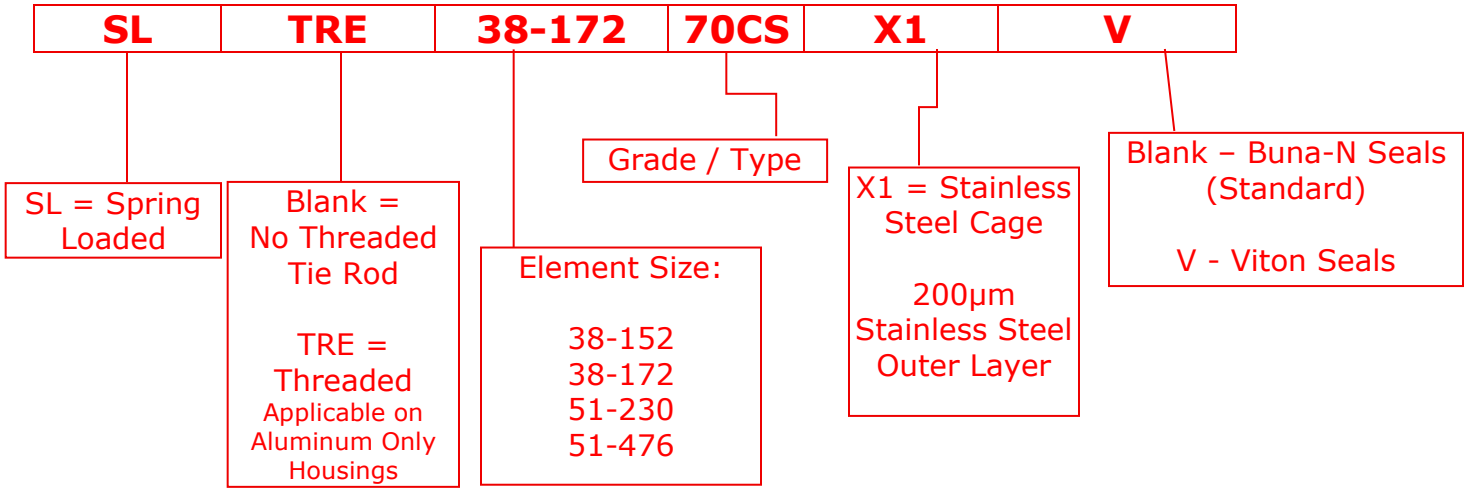
TECHNICAL INFORMATION

Materials of Construction:	Borosilicate Microfiber, Stainless Steel Spring, Nylon Threaded Cap, Stainless Steel Outer Layer
Type of Application:	Coalescing / Particulate Removal
Maximum Temperature:	212°F
Appearance:	Stainless Steel Element, Black Nylon Threaded Cap, Steel Spring
Flow Direction:	Outside to Inside

Ordering Information

The ordering process is streamlined by following the part number schematic below:

Example Part Number:



Standard Sizes Offered

Size	SL-TRE Version	SL Version	Housings these Fit
38-152	SL-TRE38-152-xx	-	380AHP Series
38-172	-	SL-38-172-xx-X1 SL-180-38-172-xx-X1	UHPC Series 180VP Series
51-230	SL-TRE51-230-xx-200	SL-51-230-xx-X1	SL-TRE Version: 385AHP Series SL Version: 150 Series
51-476	SL-TRE51-476-xx-200	SL-51-476-xx-X1	SL-TRE Version: 390AHP Series SL Version: 160 Series

Pleated Microglass Cartridges

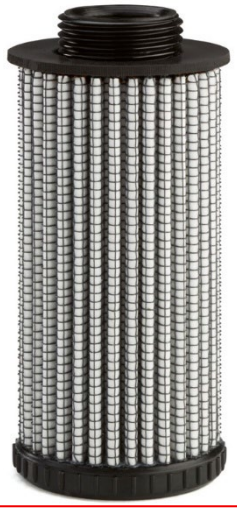
PRODUCT FEATURES / BENEFITS

- Reinforced Stainless Steel Inner Support Allowing Higher Differential
- Epoxy Coated Reinforced Steel Exterior Mesh
- 3, 10, and 25 Micron Available
- Pre-Filter For Coalescing Elements
- Heavy Loading Particulate Applications
- Postive Sealing Eliminates ByPass
- High Pleat Count For Extra Surface Area
- Post Desiccant Dryer Contaminate Protection

We offer high-performance pleated microglass elements designed for use in both aluminum and stainless steel housings, delivering a robust, solution-driven option for demanding, particle-heavy applications. Engineered to maintain performance even when wetted by oil and water, this media is an ideal choice for 3–25-micron pre-filtration. Its large, pleated surface area ensures extended service life, reduced maintenance, and exceptional tolerance for heavy liquid aerosol loading. Protect final stage high efficiency coalescing elements with our pleated series.

Pleated Microglass filter elements are an excellent option for high particulate removal in both liquid and gas applications. The deep-pleated construction provides superior contaminant holding capacity while maintaining high flow rates and low pressure drop.

In heavily contaminated systems, Pleated Microglass elements can be used as pre-filters to extend the service life of downstream coalescing elements. Compared to paper and cellulose media, Microglass offers superior performance due to its inert characteristics and enhanced durability in harsh operating conditions.



TRE25-64-03PLMG-RB

51-230-10PLMG-RV

Threaded Version (TRE)

Our TRE Series pleated elements are designed to thread directly into our 360 through 390AHP Compressed Air/Gas Housings. The integral threaded end, built-in support core, and exterior epoxy-coated screen protect the pleated microglass media while ensuring a secure, positive element fit.

Pleated elements are commonly used as pre-filters for coalescers in applications where solid contaminants are present. In addition, our 3-micron pleated elements are recommended as post-filters on desiccant-type dryers to capture desiccant dust and prevent downstream contamination.

TECHNICAL INFORMATION

Materials of Construction:	Microglass, Epoxy Coated Steel, Nylon, Viton Seals -Larger units contain 304SS Core
Type of Application:	Particulate Removal
Maximum Temperature:	212°F / 300°F (Dependent on Size)
Appearance:	Pleated White Microglass with Steel Screen
Flow Direction:	Outside to Inside

Double Open End Version (DOE)

These elements are specifically designed to be used in our 150/160 high pressure filter housings where high flow rates and high efficiency filtration is required. The inner spiral wound 304 Stainless Steel support core and reinforced pleats provide high flows along with added durability.

TECHNICAL INFORMATION

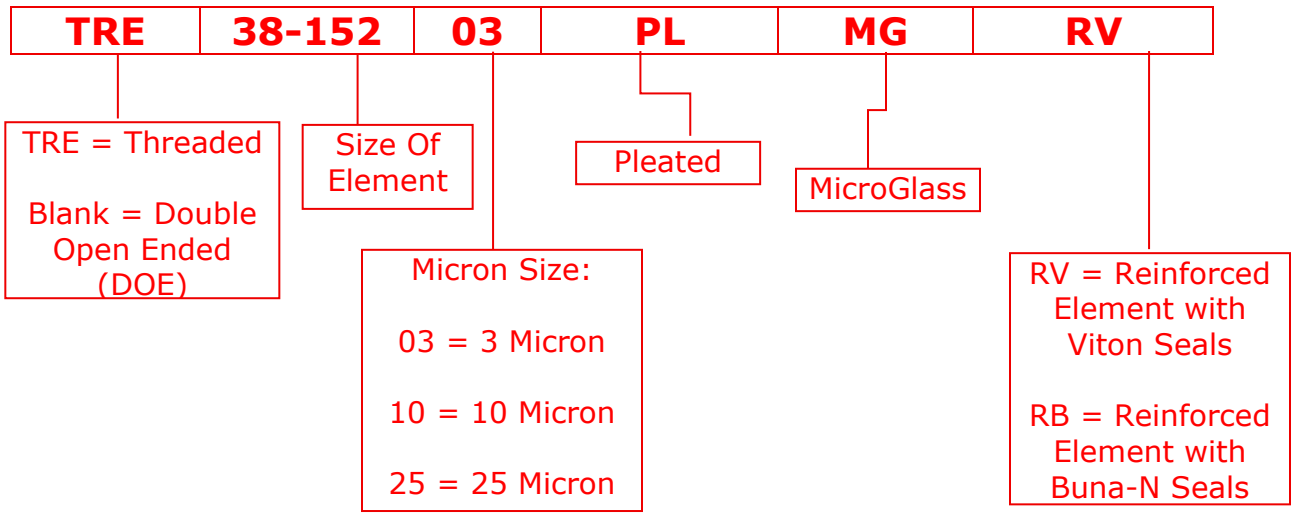
Materials of Construction:	Pleated Glass Microfiber Epoxy Coated Steel Reinforced Screen Inner 304 Stainless Steel Support PVC End Caps, Viton Seals
Type of Application:	Remove Particles from Liquid Stream
Maximum Temperature:	212°F
Appearance:	Perforated Metal with Black End Caps
Flow Direction:	Outside to Inside

Ordering Information

The ordering process is streamlined by following the part number schematic below:

Micron Sizes Available (µm):
3 (03), 10 (10), 25 (25)

Example Part Number:



Standard Sizes Offered

Size	TRE Version	DOE Version	Housings these Fit
25-64	TRE25-64-µm	-	TRE Version: 360 Series, 750/760 Series
25-178	TRE25-178-µm	-	TRE Version: 370 Series, 775/780 Series
38-152	TRE38-152-µm	-	TRE Version: 380AHP Series
51-230	TRE51-230-µm	51-230-µm	TRE Version: 385AHP Series DOE Version: 150 Series
51-476	TRE51-476-µm	51-476-µm	TRE Version: 390AHP Series DOE Version: 160 Series

Stainless Steel Screen Filter Elements

PRODUCT FEATURES / BENEFITS

- Inexpensive, Disposable with Re-Cleaning Capability in Suitable Applications
- Remove Bulk Contaminates
- Custom Micron Sizes Available
- Protect Coalescing Filters from Excess Particulate
- Drop Out Excess Liquid in a Gas Stream
- Diffuser in Liquid Service
- Can Be Intergrated Into Our Disposable In-Line Filters (DIF)

Our inexpensive LSS and CSS ranges of mesh screen filter elements are ideal for the removal of bulk contamination in corrosive streams and desiccant powder after dryers. They are primarily used as prefilters in both gaseous and liquid applications. The low cost allows them to be "disposable" in many corrosive or heavily contaminated operations.

The LSS screens are not intended to replace our five-layer stainless steel elements; rather, they expand the range of applications where a screen-based solution can be used. In addition, they can be integrated into our Disposable In-Line Filters (DIF) for a variety of gas and liquid applications. Their low cost makes the LSS screen a unique and economical filtration solution.

The LSS is a one layer precision woven screen that offers moderate filtration efficiency. Because of the small diameter and short length, these elements do not require a support core. The LSS is offered in the following filter sizes:

One Layer Element	Dimensions
LSS-12-32-µm	0.5" I.D. x 1.25" Length
LSS-12-57-µm	0.5" I.D. x 2.25" Length
LSS-25-64-µm	1.0" I.D. x 2.5" Length
LSS-25-127-µm	1.0" I.D. x 5" Length
LSS-25-178-µm	1.0" I.D. x 7" Length
LSS-38-152-µm	1.5" I.D. x 6" Length

Micron Sizes Available (µm):	10, 25, 50, 75, 100, 200 & 500 - other sizes available
Filtration Efficiency:	55 to 70% (based on micron)
Maximum Temperature:	400º F

Parker Finite® J-Series Element Cross Reference

PRODUCT FEATURES / BENEFITS

- Completely Compatible with the Parker J-Series High Pressure Housings
- Robust Exterior Stainless Steel Layer Offers Superior Durability & Strength
- Upgrade from Xebec J-Series Replacement Elements to UFS Products
- Enhanced for Better Performance and Reliability

Across the various stages of compression, contaminants—both particulate and liquid aerosols—can create serious issues in high-pressure air and CNG systems. Our high-efficiency filters are engineered to address these challenges, reducing downtime and minimizing maintenance costs. **Fully compatible with Parker J-Series** housings, they provide a more durable, readily available, and cost-effective alternative.

Our J-Series replacement elements are constructed with durable metal end caps—rather than plastic like Finite—for superior strength and long-term reliability.

Use the chart below to locate your existing Finite filter housing and/or filter element and identify the correct UFS upgrade element for a direct, drop-in replacement.

Media Types Equal to J-Series

Coalescing Elements (Grades 5, PLMG/W, 7) - Constructed from high-efficiency borosilicate glass fiber, these elements are engineered to remove liquid aerosols from a gas stream with exceptional performance.

Bulk Separator (Grade SS) - A durable stainless-steel element designed with a tortuous flow path to strip slugs of moisture while allowing air or gas to pass through free of large droplets.

Particulate (Grade PLMG) - Efficiently removes solid contaminants to ensure a clean, debris-free air or gas flow downstream of the filter.

Adsorber (Grade CC) - Featuring activated carbon media, this grade targets vapor-phase hydrocarbons and other contaminants that are not captured by coalescing elements.

UFS Grade	Parker Grade	Media Type	Coalescing Efficiency	Micron Rating
5	4C	Coalescing	99.99%	0.01
PLMG/W	7CP	Coalescing	99.50%	0.5
7	10C	Coalescing	95%	0.01
SS	WS	Bulk Separator	98%	100
PLMG	3P	Particulates	NA	3
CC	A	Vapor	99%	3

Cross Reference Chart for J-Series Replacement Elements

UFS Element Part Number	Parker Housing Part Numbers	Parker Element Part Number	Xebec Element Part Number
PFA7	JN1A-10CN JS1A-10CN JN2A-10CN JS2A-10CN	10CJAK	FE-P-10CJAK
PFA3PL	JN1A-3PN JS1A-3PN JN2A-3PN JS2A-3PN	3PJAK	FE-P-3PJAK
PFA4	JN1A-4CN JS1A-4CN JN2A-4CN JS2A-4CN	4CJAK	FE-P-4CJAK
PFAPC	JN1A-7CPN JS1A-7CPN JN2A-7CPN JS2A-7CPN	7CPJAK	FE-P-7CPJAK
PFACC	JN1A-AN JS1A-AN JN2A-AN JS2A-AN	AJAK	FE-P-AJAK
PFA100SS	JN1A-WSN JS1A-WSN JN2A-WSN JS2A-WSN	WSJAK	FE-P-WSJAK

UFS Element Part Number	Parker Housing Part Numbers	Parker Element Part Number	Xebec Element Part Number
PFB7	JN2B-10CN JS2B-10CN JN3B-10CN JS3B-10CN	10CJBK	FE-P-10CJBK
PFB3PL	JN2B-3PN JS2B-3PN JN3B-3PN JS3B-3PN	3PJBK	FE-P-3PJBK
PFB4	JN2B-4CN JS2B-4CN JN3B-4CN JS3B-4CN	4CJBK	FE-P-4CJBK
PFBPC	JN2B-7CPN JS2B-7CPN JN3B-7CPN JS3B-7CPN	7CPJBK	FE-P-7CPJBK
PFBCC	JN2B-AN JS2B-AN JN3B-AN JS3B-AN	AJBK	FE-P-AJBK
PFB100SS	JN2B-WSN JS2B-WSN JN3B-WSN JS3B-WSN	WSJBK	FE-P-WSJBK

UFS Element Part Number	Parker Housing Part Numbers	Parker Element Part Number	Xebec Element Part Number
PFC7	JN4C-10CN JS4C-10CN	10CJCK	FE-P-10CJCK
PFC3PL	JN4C-3PN JS4C-3PN	3PJCK	FE-P-3PJCK
PFC4	JN4C-4CN JS4C-4CN	4CJCK	FE-P-4JCK
PFCPC	JN4C-7CPN JS4C-7CPN	7CPJCK	FE-P-7CPJCK
PFCCC	JN4C-AN JS4C-AN	AJCK	FE-P-AJCK
PFC100SS	JN4C-WSN JS4C-WSN	WSJCK	FE-P-WSJCK

UFS Element Part Number	Parker Housing Part Numbers	Parker Element Part Number	Xebec Element Part Number
PFD7	JN6D-10CN JS6D-10CN	10CJDK	FE-P-10CJDK
PFD3PL	JN6D-3PN JS6D-3PN	3PJDK	FE-P-3PJDK
PFD4	JN6D-4CN JS6D-4CN	4CJDK	FE-P-4JDK
PFDPC	JN6D-7CPN JS6D-7CPN	7CPJCK	FE-P-7CPJDK
PFDCC	JN6D-AN JS6D-AN	AJDK	FE-P-AJDK
PFD100SS	JN6D-WSN JS6D-WSN	WSJDK	FE-P-WSJDK

UFS Element Part Number	Parker Housing Part Numbers	Parker Element Part Number	Xebec Element Part Number
PFE7	JN8E-10CN JS8E-10CN	10CJEK	FE-P-10CJEK
PFE3PL	JN8E-3PN JS8E-3PN	3PJEK	FE-P-3PJEK
PFE4	JN8E-4CN JS8E-4CN	4CJEK	FE-P-4JEK
PFEPC	JN8E-7CPN JS8E-7CPN	7CPJEK	FE-P-7CPJEK
PFECC	JN8E-AN JS8E-AN	AJEK	FE-P-AJEK
PFE100SS	JN8E-WSN JS8E-WSN	WSJEK	FE-P-WSJEK

Legacy J-Series Replacement Element Chart

UFS Element Part Number	Parker Housing Part Numbers	Parker Element Part Number
PF24	J2SD J2SL	4CWC11-035
PF210	J2SD J2SL	10CWC11-035
PF23PL	J2SD J2SL	3PWC11-035
PF2CC	J2SD J2SL	AWC11-035
PF44	J4SF J4NF	4CWC15-070
PF410	J4SF J4NF	10CWC15-070
PF43PL	J4SF J4NF	3PWC15-070
PF4CC	J4SF J4NF	AWC15-070
PF64	J6SH J6NH	4CWC23-130
PF610	J6SH J6NH	10CWC23-130
PF63PL	J6SH J6NH	3PWC23-130
PF6CC	J6SH J6NH	AWC23-130

NGV Filter Elements

To simplify maintenance and ensure optimal performance, we offer **NGV Filter Service Kits** that include everything needed for quick and reliable servicing.

Each kit contains the correct replacement filter element, the appropriate O-ring, and a lubricant pack to ensure proper sealing and easy installation.

For Finite/Parker Housing FFC-112 & FFC112SAE:
Order Kit# PF112-01

This kit includes the following:

- One PEL-12-57-01NGV (Polyethylene Element)
- One BNCLS112 (Buna-N O-Ring)
- One Super Lube Individual Pack (1cc)

For Headline / UFS Housing 315ALHP-1/4" & 315ALHP-SAE:
Order Kit# NGV-315ALHP

This kit includes the following:

- One PEL-12-57-01NGV (Polyethylene Element)
- One BN325ALHP (Buna-N O-Ring)
- One Super Lube Individual Pack (1cc)
- One CPS315 (Nylon Element Stem)

For Headline / UFS Housing 325ALHP-1/4" & 325ALHP-SAE:
Order Kit# NGV-325ALHP

This kit includes the following:

- One PEL-12-57-01NGV (Polyethylene Element)
- One BN325ALHP (Buna-N O-Ring)
- One Super Lube Individual Pack (1cc)

If you simply want to order the filter element by itself:
Order Part# PEL-12-57-01NGV

FM80 Fuel Regulation Module Replacement Cartridge

PRODUCT FEATURES / BENEFITS

- Direct Replacement for Parker® DLSS113 Series Natural Gas Filter Cartridge
- Remove Solids and Liquid Aersols from Gaseous Streams
- FM80 Fuel Regulation Module Replacement Cartridge
- Form-Fit-Function (FFF) Meets or Exceeds OEM Specifications
- Protects Critical Components In High Pressure Natural Gas Vehicle Applications

Our PF113 Coalescing Cartridges are a high-quality, cost-effective, form-fit-function alternative to Parker® DLS113 Series Natural Gas Filter Cartridges. Designed for seamless replacement, these cartridges meet or exceed the performance of the DLS113-6K and DLS113-10K grades of filtration.

At the core of the PF113 cartridge is a high-efficiency microfiber filter element that ensures superior coalescing and particulate removal. Each element is encapsulated between durable nylon end caps, reinforced with a polypropylene support core, and bonded with a two-stage epoxy system for enhanced structural integrity and long service life.

The PF113 cartridges are engineered to fit FM80 Fuel Regulation Module and other OEM housings perfectly—requiring no modifications or additional components—while delivering reliable, consistent filtration performance in demanding natural gas applications.

Element Model	PF113-5	PF113-7
Material of Construction:		
Element	Borosilicate Microfiber Glass	Borosilicate Microfiber Glass
Inner Core	Polypropylene	Polypropylene
Top Cap / End Cap	Nylon	Nylon
Gasket	Buna-N	Buna-N
Adhesive	Two-Part Epoxy	Two-Part Epoxy
Dimensions	1.70” x 6.00” Long	1.70” x 6.00” Long
Efficiency of Filter Element	99.99% of 0.01 Micron	95% of 0.01 Micron
Recommend Flow Rate	46 SCFM @ 100 PSIG	58 SCFM @ 100 PSIG
Equivalent **Parker Finite**	**DLS113-6K**	**DLS113-10K**

Exceeds Branded OEM Specifications

Liquid Filter Elements

PRODUCT FEATURES / BENEFITS

- Variety of Microns Available
- Wide Chemical Compatibility
- Corrosive Liquids and Gases
- High Dirt Holding Capacity
- Durable and Cleanable
- Stainless Steel Is Welded with No Adhesives
- Viscous Fluids

Liquid filter elements are designed to capture particulate contaminants from liquid streams. UFS offers two primary filter types: melt-blown depth filters and pleated filter elements.

Polyspun (melt-blown) depth filters provide an economical solution for non-critical and general filtration applications. Our pleated filter line includes polypropylene, stainless steel, and microfiber glass media, allowing UFS to deliver a wide range of filtration efficiencies and extended service life across a broad spectrum of applications. Typical applications include, but are not limited to, fuel processing, chemical processing, and cooling systems.

All liquid filter elements are manufactured to industry standards, ensuring compatibility with other proprietary filter housings as well as UFS Onstream SLH-series filter assemblies. Elements are produced in standard dimensions with a 2.50" outside diameter and are available in lengths of 4.875", 9.75", 19.875", and 29.875".

SLH-Series Liquid Filter Housings

UFS offers a specialized line of low-pressure stainless steel liquid filter housings rated up to 250 PSIG and designed for nominal flow rates up to 30 GPM. The SLH-series housings accept industry-standard double-open-ended (DOE) filter elements and are suitable for a wide range of liquid filtration applications. Available filter media include pleated stainless steel, pleated polypropylene, spun polypropylene, and activated carbon elements, each offered in multiple micron ratings to meet diverse filtration requirements.

Spun Polypropylene – Liquid Applications

Our Polyspun filter cartridges are nominally rated and manufactured from 100% pure polypropylene. A high-performance melt-blown process uses fine-diameter fibers to form multiple spun-bonded layers, creating a true depth filtration structure.

This construction provides excellent pore size consistency and exceptionally high void volume, allowing for increased dirt-holding capacity and extended service life. The outer layers feature progressively graded pore sizes that act as pre-filtration, capturing larger particles first, while smaller contaminants are retained by the finer fibers within the inner core.

TECHNICAL INFORMATION	
Materials of Construction:	Spun Polypropylene
Type of Application:	Remove Particles from Liquid Stream
Maximum Temperature:	160°F
Appearance:	White Polypropylene Microfiber
Flow Direction:	Outside to Inside

Micron Sizes Available (µm):
01, 05, 10, 25, 50, 75, 100, 150

Example Part Number: LE-820-05

Pleated Polypropylene – Liquid Applications

These elements are suitable for particulate removal applications in non-corrosive gases and liquids. For optimal performance and cost efficiency, the coarsest micron grade that adequately protects the application should be selected, as this provides the most economical solution for contamination control.

TECHNICAL INFORMATION	
Materials of Construction:	Polypropylene, EPDM
Type of Application:	Remove Particles from Liquid Stream
Maximum Temperature:	180°F
Appearance:	White Pleated with Polypropylene Cage, Black EPDM Seals
Flow Direction:	Outside to Inside

Micron Sizes Available (µm):
01, 10, 25, 50, 75

Example Part Number: LE-820-10PL

Pleated Stainless Steel – Liquid Applications

Pleated stainless steel elements offer exceptional strength and durability, making them ideal for demanding applications where disposable filter elements present limitations. These elements are compatible with UFS Onstream™ SLH housings as well as other industry-standard proprietary housings.

TECHNICAL INFORMATION

Materials of Construction:	304 Stainless Steel, Viton*
Type of Application:	Remove Particles from Liquid Stream
Maximum Temperature:	400°F
Appearance:	Pleated SS Mesh, Brown Viton Seals
Flow Direction:	Outside to Inside

*Buna (B), Silicone (S), and PTFE (T) Seal Available

Micron Sizes Available (µm):
05, 10, 25, 50, 75, 100, 150, 200

Example Part Number: SS-820-05V

Activated Carbon Elements

Our Carbon Cartridges are designed to remove organics and odor from a variety of industrial applications. Carbon cartridges provide a cost-effective solution to remove unwanted taste, odor and chlorine from drinking water. The cartridges also effectively remove hydrocarbons in compressed air and gas systems.

TECHNICAL INFORMATION

Materials of Construction:	Borosilicate Microfiber Glass with Silica Inorganic Resin Binder
Type of Application:	Heavy Diesel Emissions
Maximum Temperature:	900°F
Appearance:	White In Color
Flow Direction:	Inside to Outside

Micron Sizes Available (µm):
05, 10, 25, 50, 75, 100, 150, 200

Example Part Number: SS-820-05V

Ordering Information

These elements are compatible with our stainless steel SLH Series Liquid Housings (SLH818, SLH820, SLH895, and SLH897). Ordering is simple—just follow the part number schematics for each filter type listed below.

Example Part Number:
Spun Polypropylene: LE-818-05
Pleated Polypropylene: LE-818-10PL
Pleated Stainless Steel: SS-820-05V
Activated Carbon: LE-820-CC

Standard Sizes Offered

SL Housing Size	Spun Polypropylene Micron Sizes: 01, 05, 10, 25, 50, 75, 100, 150	Pleated Polypropylene Micron Sizes: 01, 10, 25, 50, 75	Stainless Steel Pleated Micron Sizes: 05, 10, 25, 50, 75, 100, 150, 200	Activated Carbon
818 (4.875″)	LE-818-µm	LE-818-µm-PL	SS-818-µm-V	LE-818-CC
820 (9.75″)	LE-820-µm	LE-820-µm-PL	SS-820-µm-V	LE-820-CC
895 (19.875″)	LE-895-µm	LE-895-µm-PL	SS-895-µm-V	LE-895-CC
897 (29.875″)	LE-897-µm	LE-897-µm-PL	SS-897-µm-V	LE-897-CC