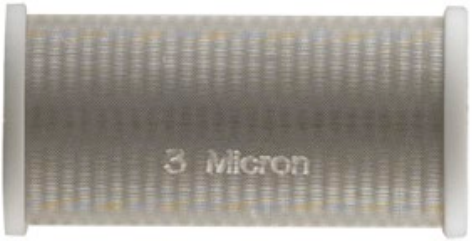
316L Stainless Steel Five-Layer Mesh Elements

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.