



# Nylon, PTFE, & Exotic Materials for Corrosive Applications

## PRODUCT FEATURES / BENEFITS

- ◆ All Nylon Housing for Emission and OEM Air Applications
- ◆ Kynar and PTFE for Chemical Compatibility
- ◆ Brass for Off-Shore Service
- ◆ Brass and Monel for Oxygen Service
- ◆ Hastelloy, Duplex for High Strength Applications

### Exotic Materials. Exceptional Solutions.

When your application demands more than standard materials, we deliver. Our complete range of filter housings and elements are engineered from specialty and exotic materials to give you the performance, strength, and chemical compatibility your process requires.

From economical Nylon assemblies for OEM service to high-strength Hastelloy, Monel, Titanium, Inconel, and Duplex housings for the toughest environments—we've got you covered. Need non-metallic chemical resistance? Choose from Nylon, Polypropylene, Kynar, or PTFE. For oxygen service, our brass housings with bronze elements offer a proven solution.



And if your requirement calls for something not listed, just ask—we can build it.

### Why Choose Our Exotic Solutions?

- **Unmatched Material Options** – from engineering plastics to high-performance alloys
- **Versatile Applications** – designed to handle both gases and liquids with confidence
- **Proven Performance** – microfiber, stainless steel, Hastelloy, bronze, PTFE, and polyethylene elements available
- **Ready When You Are** – many configurations available directly from stock
- **Engineered for Demanding Service** – Viton O-rings standard, Kalrez options in stock for aggressive applications
- **Built Around You** – custom porting configurations available

With our expertise and materials range, **your toughest filtration challenges already have a solution.**

# Nylon Filter Housings

## PRODUCT FEATURES / BENEFITS

- ◆ Filter Gases and Liquids
- ◆ Complete Nylon Construction
- ◆ Low Cost, Corrosion Resistant Filter Housings
- ◆ No Metal Contact Surfaces
- ◆ Replaceable Elements for Low Running Costs
- ◆ Emission / Environmental Filters
- ◆ Low Cost OEM Filters
- ◆ Point-Of-Use Instrument Air Filter

Nylon Housings provides an economical solution for both sample systems and low-pressure compressed air applications. Their durability, reliable performance, and price point the 700 series nylon filters offer an ideal OEM filtration solution. A wide selection of filter elements is available to accommodate even the most demanding requirements.

Each housing can be configured with two drain options:

- Manual Twist Drain
- No Drain (recommended for liquid filtration)



Model with Twist Drain	701N	710N	721N	730N	751N	760N	771N	780N
Model w/o Drain	700N	705N	720N	725N	750N	755N	772N	775N
Port Size (NPT)	1/8"	1/4"	1/8"	1/4"	1/4"	1/2"	1/4"	1/2"
Maximum Pressure (psig)	100	100	100	100	100	100	100	100
Internal Volume (cc)	40	40	52	52	150	150	290	290
Weight of Housing (lbs)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Principle Dimensions: (inches)								
Center Of Port To Head	0.39	0.39	0.39	0.39	0.61	0.61	0.61	0.61
Head Diameter	1.73	1.73	1.73	1.73	2.72	2.72	2.72	2.72
Overall Length Without Drain	3.78	3.78	4.41	4.41	5.86	5.86	9.92	9.92
Overall Length With Drain	4.25	4.25	4.92	4.92	6.34	6.34	10.35	10.35
Element Removal Clearance	1.50	1.50	2.01	2.01	3.07	3.07	7.21	7.21
Maximum Temperature (120°F) Standard Viton O-Ring	GV710	GV710	GV710	GV710	GV760	GV760	GV760	GV760
Filter Element Codes (1): Coalescing Element (Standard) <b>**Other Elements Available- View Drawing**</b>	12-32-□	12-32-□	12-57-□	12-57-□	25-64-□	25-64-□	25-178-□	25-178-□
<b>Drawing</b> <b>**For More Detail &amp; Options**</b>	<b><u>701N</u></b> <b><u>700N</u></b>	<b><u>710N</u></b> <b><u>705N</u></b>	<b><u>721N</u></b> <b><u>720N</u></b>	<b><u>730N</u></b> <b><u>725N</u></b>	<b><u>751N</u></b> <b><u>750N</u></b>	<b><u>760N</u></b> <b><u>755N</u></b>	<b><u>771N</u></b> <b><u>772N</u></b>	<b><u>780N</u></b> <b><u>775N</u></b>

Notes: (1) Replace '□' with grade required, e.g. 12-32-50C

# Nylon Emission Filter Housings

## PRODUCT FEATURES / BENEFITS

- ◆ Filter Emission Gases
- ◆ Low Cost, Corrosion Resistant Filter Housings
- ◆ Complete Nylon Construction, No Metal Contact Surfaces
- ◆ Replaceable Elements for Low Running Costs
- ◆ Durable, Threaded Head to Bowl Connection
- ◆ Accepts Disposable Microfiber Elements
- ◆ Engine Emission Testing
- ◆ Portable Analyzer Protection
- ◆ Ideal Dual Stage Compressed Air Filter

Our OEM Nylon Emission filters are specifically designed for gasoline engine analysis. We offer a traditional T-Type design or our unique inverted configuration.

The 745N (1/4") and 746N (1/2") are single-element assemblies designed to accept industry-standard element sizes and grades, ensuring complete interchangeability. With their compact footprint and low internal volume (108 cc), these housings are particularly well suited for portable emission systems. Based on the 750N design (see first page), the short-bowl 745N and 746N are mounted in the traditional T-type format.

The 707N and 778N utilize our unique inverted 2 stage element design within one housing. Eliminating the need to break a connection for service or draining liquids. A secondary benefit is the unit having two elements, a coalescing pre-filter and particulate final filter. This minimizes internal volume and less leak pints since only one body is utilized.



Housing Model	745N	746N	707N	778N
Port Size (NPT)	1/4"	1/2"	1/4"	1/4"
Drain (NPT)	No Drain	No Drain	1/8"	1/8"
Maximum Pressure (psig)	100	100	100	100
Internal Volume (cc)	108	108	60	115
Principle Dimensions: (inches)				
Port to Top of Head	0.61	0.61	0.59	0.59
Head Diameter	2.72	2.72	1.73	2.36
Overall Length	4.75	4.75	3.54	4.53
Element Removal Clearance	3.07	3.07	2.36	2.75
Maximum Temperature (120°F) Standard Viton O-Ring	GV745	GV745	GV707	GV778N
Filter Element Codes: Coalescing / Particulate Element (One of Each) <b>*Other Elements Available- View Drawing*</b>	25-64-□	25-64-□	12-25-80C / 12-32-60K	25-35-80C / 25-30-60K
<b>Drawing</b> **For More Detail & Options**	<b>745N</b>	<b>746N</b>	<b>707N</b>	<b>778N</b>

# Polypropylene Filter Housings

## PRODUCT FEATURES / BENEFITS

- ◆ Filter Gases and Liquids
- ◆ Low Cost, Corrosion Resistant Filter Housings
- ◆ Metal Free Construction
- ◆ Replaceable Elements for Low Running Costs
- ◆ Built-In Element Support
- ◆ C.I.P for Food and Dairy Plant
- ◆ Corrosive Applications
- ◆ Low Cost OEM Filters
- ◆ Medical / Pharmaceutical

Polypropylene housings offer a cost-effective alternative to PTFE and PVDF designs. Constructed entirely from polypropylene, they are suitable for a broad range of liquid and gas applications.

Each housing is available with two drain options: Manual Twist Drain or No Drain. For liquid filtration, the no-drain version is recommended.



Model with Twist Drain	701P	710P	721P	730P	751P	760P	771P	780P
Model w/o Drain	700P	705P	720P	725P	750P	755P	772P	775P
Port Size (NPT)	1/8"	1/4"	1/8"	1/4"	1/4"	1/2"	1/4"	1/2"
Maximum Pressure (psig)	100	100	100	100	100	100	100	100
Internal Volume (cc)	40	40	52	52	150	150	290	290
Weight of Housing (lbs)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Principle Dimensions: (inches)								
Center Of Port To Head	0.39	0.39	0.39	0.39	0.61	0.61	0.61	0.61
Head Diameter	1.73	1.73	1.73	1.73	2.72	2.72	2.72	2.72
Overall Length Without Drain	3.78	3.78	4.41	4.41	5.86	5.86	9.92	9.92
Overall Length With Drain	4.25	4.25	4.92	4.92	6.34	6.34	10.35	10.35
Element Removal Clearance	1.50	1.50	2.01	2.01	3.07	3.07	7.21	7.21
Maximum Temperature (120°F) Standard Viton O-Ring	GV710	GV710	GV710	GV710	GV760	GV760	GV760	GV760
Filter Element Codes (1): Coalescing Element (Standard) <b>**Other Elements Available- View Drawing**</b>	12-32-□	12-32-□	12-57-□	12-57-□	25-64-□	25-64-□	25-178-□	25-178-□
<b>Drawing</b> <b>**For More Detail &amp; Options**</b>	<b>701P</b> <b>700P</b>	<b>710P</b> <b>705P</b>	<b>721P</b> <b>720P</b>	<b>730P</b> <b>725P</b>	<b>751P</b> <b>750P</b>	<b>760P</b> <b>755P</b>	<b>771P</b> <b>772P</b>	<b>780P</b> <b>775P</b>

Notes: (1) Replace '□' with grade required, e.g. 12-32-50C, PT-12-57-03

# Polypropylene / Polycarbonate Filter Housings

## PRODUCT FEATURES / BENEFITS

- ◆ Filter Gases and Liquids
- ◆ Polycarbonate Allows for Instant Monitoring
- ◆ Low Cost, Corrosion Resistant Filter Housings
- ◆ Replaceable Elements for Low Running Costs
- ◆ Metal Free Construction
- ◆ Point-of-Use Water Filters
- ◆ Low Cost OEM Filters
- ◆ Medical Air Filters

Polypropylene housings with transparent polycarbonate bowls provide an economical solution for low-pressure applications where chemical resistance is adequate. **The clear bowl makes it easy to visually monitor element condition.**

Each housing is offered with two drain configurations: Manual Twist Drain or No Drain. For liquid filtration, the no-drain version is recommended.



Model with Twist Drain	701PC	710PC	721PC	730PC	751PC	760PC	771PC	780PC
Model w/o Drain	700PC	705PC	720PC	725PC	750PC	755PC	772PC	775PC
Port Size (NPT)	1/8"	1/4"	1/8"	1/4"	1/4"	1/2"	1/4"	1/2"
Maximum Pressure (psig)	100	100	100	100	100	100	100	100
Internal Volume (cc)	40	40	52	52	150	150	290	290
Weight of Housing (lbs)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Principle Dimensions: (inches)								
Center Of Port To Head	0.39	0.39	0.39	0.39	0.61	0.61	0.61	0.61
Head Diameter	1.73	1.73	1.73	1.73	2.72	2.72	2.72	2.72
Overall Length Without Drain	3.78	3.78	4.41	4.41	5.86	5.86	9.92	9.92
Overall Length With Drain	4.25	4.25	4.92	4.92	6.34	6.34	10.35	10.35
Element Removal Clearance	1.50	1.50	2.01	2.01	3.07	3.07	7.21	7.21
Maximum Temperature (120°F) Standard Viton O-Ring	GV710	GV710	GV710	GV710	GV760	GV760	GV760	GV760
Filter Element Codes (1): Coalescing Element (Standard) <b>**Other Elements Available— View Drawing**</b>	12-32-□	12-32-□	12-57-□	12-57-□	25-64-□	25-64-□	25-178-□	25-178-□
<b>Drawing</b> <b>**For More Detail &amp; Options**</b>	<b>701PC</b> <b>700PC</b>	<b>710PC</b> <b>705PC</b>	<b>721PC</b> <b>720PC</b>	<b>730PC</b> <b>725PC</b>	<b>751PC</b> <b>750PC</b>	<b>760PC</b> <b>755PC</b>	<b>771PC</b> <b>772PC</b>	<b>780PC</b> <b>775PC</b>

Notes: (1) Replace '□' with grade required, e.g. 12-32-50

# Kynar Filter Housings

## PRODUCT FEATURES / BENEFITS

- ◆ Filter Gases and Liquids
- ◆ Complete Kynar Construction
- ◆ Low Cost, Corrosion Resistant Filter Housings
- ◆ Metal Free Construction
- ◆ Replaceable Elements for Low Running Costs
- ◆ Durable, Threaded Head to Bowl
- ◆ Caustic Applications
- ◆ Low Cost PTFE Alternative Filters

PVDF (Kynar) Housings offers an economical solution for corrosive applications. Constructed entirely of Kynar, these housings are highly resistant to chemical attack and are suitable for a broad range of liquid and gas filtration applications.

Each housing is available with two drain configurations:

- Manual Twist Drain
- No Drain (recommended for liquid filtration)



Model with Twist Drain	701K	710K	721K	730K	751K	760K
Model w/o Drain	700K	705K	720K	725K	750K	755K
Port Size (NPT)	1/8"	1/4"	1/8"	1/4"	1/4"	1/2"
Maximum Pressure (psig)	100	100	100	100	100	100
Internal Volume (cc)	40	40	52	52	150	150
Weight of Housing (lbs)	0.5	0.5	0.5	0.5	0.5	0.5
Principle Dimensions: (inches)						
Center Of Port To Head	0.39	0.39	0.39	0.39	0.61	0.61
Head Diameter	1.73	1.73	1.73	1.73	2.72	2.72
Overall Length Without Drain	3.78	3.78	4.41	4.41	5.86	5.86
Overall Length With Drain	4.25	4.25	4.92	4.92	6.34	6.34
Element Removal Clearance	1.50	1.50	2.01	2.01	3.07	3.07
Maximum Temperature (120°F) Standard Viton O-Ring	GV710	GV710	GV710	GV710	GV760	GV760
Filter Element Codes (1): Coalescing Element (Standard) <b>**Other Elements Available-- View Drawing**</b>	12-32-□	12-32-□	12-57-□	12-57-□	25-64-□	25-64-□
<b>Drawing</b> <b>**For More Detail &amp; Options**</b>	<b><u>701K</u></b> <b><u>700K</u></b>	<b><u>710K</u></b> <b><u>705K</u></b>	<b><u>721K</u></b> <b><u>720K</u></b>	<b><u>730K</u></b> <b><u>725K</u></b>	<b><u>751K</u></b> <b><u>750K</u></b>	<b><u>760K</u></b> <b><u>755K</u></b>

Notes: (1) Replace '□' with grade required, e.g. 12-32-50C, PT-12-57-03

# PTFE Filter Housings

## PRODUCT FEATURES / BENEFITS

- ◆ PTFE & PTFE / Pyrex Glass Construction
- ◆ Viton O-Ring Standard
- ◆ Pyrex Glass Allows Instant Monitoring
- ◆ Stainless Steel Head Band for Added Strength
- ◆ Corrosive Applications
- ◆ Environmental Service
- ◆ Caustic Applications

PTFE filter housings are engineered specifically for applications requiring exceptional chemical resistance and minimal adsorption. These housings support a range of filter elements for both gaseous and liquid filtration.

### Element Compatibility:

- Disposable Fluorocarbon Elements
  - For coalescing and particulate filtration.
- Sintered PTFE Elements
  - For particulate filtration only.

### Construction Features:

- Standard O-rings: Viton®
- Recommended O-rings for aggressive chemicals: Kalrez®
- Optional Pyrex® Glass Bowl:
  - Allows visual inspection of the filtration process.

### Filtration Applications:

- Media: Gases or liquids.
- Element Selection: Determined by service type (coalescing vs. particulate).
- PTFE Elements in Liquid Service:
  - Flow direction: Outside-to-inside
  - Benefits:
    - Integral support core enhances structural integrity.
    - Enables visual monitoring of element condition.

Please keep in mind that the maximum pressure is 100 PSIG and the maximum temperature is 300°F regardless of O-ring material. **We also offer exotics such as Monel, Hastelloy, Titanium and others which provide higher temperature and pressure ratings.**



Housing Model	120P	122P	120PG	122PG
Port Size (NPT)	1/8"	1/4"	1/8"	1/4"
Drain Type (NPT)	1/8"	1/4"	1/8"	1/8"
Maximum Pressure (psig)	100	100	100	100
Internal Volume (cc)	35	35	81	81
Weight of Housing (lbs)	0.5	0.5	1.0	1.0
Principle Dimensions: (inches)				
Center Of Port To Head	0.39	0.39	0.59	0.39
Head Diameter	1.69	1.69	1.97	1.69
Overall Length	3.86	3.86	4.33	3.86
Element Removal Clearance	2.44	2.44	2.44	2.44
Maximum Temp. (400°F) Standard Viton O-Ring	GV120P	GV120P	GV120PG	GV120PG
Filter Element Codes: (1) Disposable Element (Standard) <b>**Other Elements Available-View Drawing**</b>	12-57-□	12-57-□	12-57-□	12-57-□
<b>Drawing</b> <b>**For More Detail &amp; Options**</b>	<b><u>120P</u></b>	<b><u>122P</u></b>	<b><u>120PG</u></b>	<b><u>122PG</u></b>

Notes: (1) Replace '□' with grade required, e.g. 12-57-50C, PT-12-57-03

Housing Model	130P	132P	130PG	132PG	140P	142P
Port Size (NPT)	1/4"	1/2"	1/4"	1/2"	1/4"	1/2"
Drain Type (NPT)	1/4"	1/4"	1/8"	1/8"	1/4"	1/4"
Maximum Pressure (psig)	100	100	100	100	100	100
Internal Volume (cc)	85	85	147	147	260	260
Weight of Housing (lbs)	1.0	1.0	2.0	2.0	3.0	3.0
Principle Dimensions: (inches)						
Center Of Port To Head	0.59	0.59	0.59	0.59	0.59	0.59
Head Diameter	2.48	2.48	2.95	2.95	2.48	2.48
Overall Length	4.80	4.80	5.00	5.00	9.29	9.29
Element Removal Clearance	2.76	2.76	2.76	2.76	7.24	7.24
Maximum Temp. (300°F) Standard Viton O-Ring	GV120P	GV130P	GV130PG	GV130PG	GV140P	GV140P
Filter Element Codes: (1) Disposable Element (Standard) <b>**Other Elements Available-View Drawing**</b>	25-64-□	25-64-□	25-64-□	25-64-□	25-178-□	25-178-□
<b>Drawing</b> <b>**For More Detail &amp; Options**</b>	<b><u>130P</u></b>	<b><u>132P</u></b>	<b><u>130PG</u></b>	<b><u>132PG</u></b>	<b><u>140P</u></b>	<b><u>142P</u></b>

Notes: (1) Replace '□' with grade required, e.g. 25-64-50C, PT-25-178-03

# Brass Filter Housings

## PRODUCT FEATURES / BENEFITS

- ♦ Brass with Nylon Internals for Air Service
- ♦ One Piece Bowl for Easy Service
- ♦ 500 PSIG Rated – Higher Pressures Available
- ♦ Off-Shore Instrumentation Service
- ♦ Oxygen Service – All Brass with Bronze Element
- ♦ All Brass Internals with "OS" Models

For air service, Headline Filters brass filter housings are precision-machined from solid brass bar stock, with durable nylon internals and a Viton seal. They are ideal for point-of-use instrument air filtration and are available in the **B360 series**, which comes equipped with our high-flow 80C grade coalescing filter element. This element is engineered for heavily saturated air systems, efficiently removing large volumes of liquid while providing long service life for particulate filtration.

**For oxygen service** or enhanced chemical compatibility, we recommend our **OS series**, which replaces nylon internals with brass. When ordered for oxygen service, housings must be properly cleaned to remove hazardous grease and contaminants. We offer this service upon request by specifying "**oxygen cleaning**" at the time of order. This process is performed in accordance with **ASTM G93**, ensuring housings are free of harmful residues and reassembled using **Krytox 205 lubricant** for safe, reliable performance.

Our T-Type filters are ideal for oxygen. They capture contaminants to ensure a clean system and help prevent oxygen fire ignition. This design also provides easy element replacement without disconnecting the filter housing.

We offer No Drain Port options for one less leak point, designated with an "ND" suffix. Example: B365ND-OS.



## For oxygen service we offer oxygen compatible sintered Bronze element.



Sintered bronze filter elements are particularly well suited for oxygen service because bronze exhibits greater resistance to ignition than metals such as aluminum or stainless steel. Manufactured from spherical bronze powder, these elements provide effective contamination control while maintaining ignition resistance, making them a safe and dependable choice for gaseous and breathing air systems.

The porous metal construction gives these elements exceptional mechanical strength while forming a capillary-like network of interconnecting pores throughout the structure. This unique design enables both surface and depth filtration performance with high strength and consistent porosity.

**We can manufacture filter housings in Brass in any size.  
The following charts list the most common sizes.**

Housing Model	B122-OS	940-B315L	B360-1/4"	B365-1/2"
Port Size (NPT)	1/4"	1/4"	1/4"	1/2"
Drain (NPT)	1/4"	Petcock	Petcock	Petcock
Maximum Pressure (psig)	3500	500	500	500
Internal Volume (cc)	30	45	140	140
Weight of Housing (lbs)	1.0	1.0	2.1	2.1
Principle Dimensions: (inch)				
Center Of Port To Head	0.39	0.39	0.37	0.536
Head Diameter	1.42	1.57	2.22	2.328
Overall Length	3.98	4.65	6.22	6.57
Element Removal Clearance	2.36	2.01	2.74	2.74
Maximum Temp. (400°F) Standard Viton O-Ring	GV110	GV315	GVB360	GVB360
Filter Element Codes: Standard Element (Included) <b>*Other Elements Available-View Drawing</b>	12-57-80C	PEL-12-57-01	25-64-80C	25-64-80C
<b>Drawing (Nylon Internals)</b> <b>**For More Detail &amp; Options**</b>	<b>N/A</b>	<b>940-B315L</b>	<b><u>B360</u></b>	<b><u>B365</u></b>
<b>Drawing (Brass Internals)</b> <b>**For More Detail &amp; Options**</b>	<b><u>B122-OS</u></b>	<b>N/A</b>	<b><u>B360-OS</u></b>	<b><u>B365-OS</u></b>

Housing Model	B370-3/4"	B370-1"	B150
Port Size (NPT)	3/4"	1"	1"
Drain (NPT)	Petcock	Petcock	Petcock
Maximum Pressure (psig)	500	500	500
Internal Volume (cc)	315	315	1350
Weight of Housing (lbs)	5.5	5.5	22.0
Principle Dimensions: (inch)			
Center Of Port To Head	0.84	0.84	1.18
Head Diameter	2.92	2.92	4.33
Overall Length	10.63	10.63	15.04
Element Removal Clearance	9.25	9.25	9.72
Maximum Temp. (400°F) Standard Viton O-Ring	GVB370	GVB370	GV150
Filter Element Codes: Standard Element (Included) <b>*Other Elements Available-View Drawing</b>	25-178-80C	25-178-80C	51-230-80C
<b>Drawing (Nylon Internals)</b> <b>**For More Detail &amp; Options**</b>	<b><u>B370-3/4"</u></b>	<b><u>B370-1"</u></b>	<b><u>B150</u></b>
<b>Drawing (Brass Internals)</b> <b>**For More Detail &amp; Options**</b>	<b><u>B370-OS-3/4"</u></b>	<b><u>B370-OS-1"</u></b>	<b>N/A</b>

# Exotic Material Filter Housings

## PRODUCT FEATURES / BENEFITS

- ♦ Large Range of Material Available
- ♦ Some Items In Stock for Quick Delivery
- ♦ Hastelloy, Duplex for High Strength / Extreme Conditions
- ♦ Titanium for Strength and Light Weight Conditions
- ♦ Brass, Nickel, Monel, and Inconel for Chemical Compatibility and Oxygen Service

Our Extensive Material Capabilities for Custom Filtration Solutions  
United offers a comprehensive library of exotic materials designed to meet the demands of specialized filtration applications. Our capabilities include the fabrication of custom filter housings and elements from a wide range of metals tailored to suit diverse operating environments.

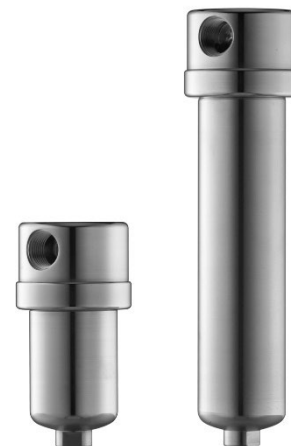
Whether your application demands corrosion resistance, high-temperature durability, or unique mechanical properties, United provides filtration solutions built to perform under the most challenging conditions.

### Filter Elements

- Available in Hastelloy and Monel
- Many sizes in stock for immediate delivery

### Material Certifications

- Full certifications are available for all housings and elements upon request.



**We also can Silconert® (Inert Silicone Coating) our 316L Stainless Steel Filter Housings for H2S, Mercury, Ammonia, and Active Compound Sampling and Transfer.**