



*"A leading worldwide supplier of high efficiency filters for a variety of industries and applications."*

## STAINLESS STEEL PROCESS ULTRA HIGH PRESSURE FILTER HOUSINGS

Our Gas and Liquid Process Filters protect equipment from sample impurities by removing solids and liquids from gases up to 99.999% efficiency at 0.01 micron. This series of filters is also ideal to use in liquid sample process applications by simply employing our pleated liquid elements, or stainless steel elements. One (1) micron efficiency can be reached in liquids with the aforementioned elements.

To satisfy the extreme wide range of requirements for process sample filters, we supply a complete line of filter elements in stainless steel, polypropylene, and other corrosion-resistant materials. A choice of high efficiency borosilicate microfiber filter elements, which are inert to most liquids and gases, are also offered.

Our 150 and 160 series of ultra high-pressure 316L stainless steel filter housings offer exceptional value and performance. The threaded head to bowl connection with captured o-ring provides positive sealing even in very corrosive and demanding applications. The 6,000 PSIG rating covers the majority of gas and liquid applications.

The HHP version of our 150 and 160 series filters are built to order which allows us to provide a custom product for your specific application. In essence, we can provide differential port taps, vents and exact face to face dimensions if flanges are required. We even have the ability to produce a complete machined filter head with integral flanges. Please contact us at 1-800-311-5561 or [sales@unitedfiltration.com](mailto:sales@unitedfiltration.com) for details and a quote.



### Features:

- Filter Gases & Liquids
- 316L Stainless Steel Construction
- 6,000 PSIG / 400°F – Standard
- Flanges Available
- 3-Port Housings For Coalescing
- Particulate, Or Bypass Filtration

### Applications:

- Ultra High Pressure Gas Systems
- Booster Compressors

**At the heart of our filter products is the filter element. Choosing the correct element insures proper results for your specific application:**

### Disposable Microfiber Elements

Disposable Microfiber Elements are most commonly used since they offer exceptional filtration, high flows with minimal pressure drops, and excellent chemical compatibility. These are ideal for use in sample conditioning, instrumentation, CNG, and Emission/Environmental service.

- For **Coalescing (liquid removal)** and particle collection use our grade "CS". We recommend starting with the 70CS which is rated at 95% efficient at 0.01 micron which provides outstanding filtration, at high flow rates.
- For **Particle removal** only use grade "K". We recommend starting with the 70K which is rated at 95% efficient at 0.01 micron which provides outstanding filtration, at high flow rates.
- For **Particulate removal** above 300°F (150°C) use grade "S".



### Stainless Steel 5-Layer Mesh Elements

Stainless steel elements (SS) are designed for the filtration of heavily contaminated gas samples, CNG, and liquid streams since they are recleanable by back flushing or ultrasonic cleaning. Standard microns available: 0.5, 1, 3, 10, 25, 50, 100, and 200.



# STAINLESS STEEL PROCESS ULTRA HIGH PRESSURE FILTER HOUSINGS

- Ideal Compressed Natural Gas Filter
- NACE Complaint MR-01-75 For Sour Service
- Mechanical Seal Filter
- Seal Gas Filtration
- Accepts Microfiber, Stainless Steel, & Pleated Glass Filter Elements



## TECHNICAL INFORMATION

Housing Model	150HHP/VP	151HHP/VP	152HHP/VP
Port Size (NPT)	1"	1 1/2"	2"
Drain Type (NPT)	1/4"	1/4"	1/4"
Maximum Pressure (psig)	3000	3000	3000
Internal Volume (cc)	1500	1500	1500
Maximum Temp. -Buna-N (250°F)	BN150HP	BN150HP	BN150HP
Maximum Temp. -EPDM (300°F)	GE150HP	GE150HP	GE150HP
<b>Maximum Temp. -Viton (400°F) Standard</b>	<b>GV150HP</b>	<b>GV150HP</b>	<b>GV150HP</b>
Maximum Temp. -Silicone (450°F)	GS150HP	GS150HP	GS150HP
Maximum Temp. -Kalrez (600°F)	KZ150HP	KZ150HP	KZ150HP
Weight of Housing (lbs)	34.0	34.0	34.0
Principle Dimensions: (inches)			
Center Of Port To Head	1.97	1.97	2.16
Head Diameter	5.91	5.91	5.91
Overall Length	16.18	16.18	17.09
Element Removal Clearance	9.69	9.69	9.69
Filter Element Codes: (1)			
Disposable Element	51-230-□	51-230-□	51-230-□
Stainless Steel Element	SS-51-230-□	SS-51-230-□	SS-51-230-□
Pleated Glass Element (2)	CA-51-230-□PLGS-R	CA-51-230-□PLGS-R	CA-51-230-□PLGS-R
Materials Of Construction:			
Head & Internals	316L Stainless Steel	316L Stainless Steel	316L Stainless Steel
Bowl	316L Stainless Steel	316L Stainless Steel	316L Stainless Steel
O-Rings (Standard)	Viton	Viton	Viton
Accessories:			
Mounting Bracket	MB150HHP	MB150HHP	MB150HHP
Support Core	SC150	SC150	SC150

## FLOW RATE IN SCFM FOR ABOVE ASSEMBLIES WITH GRADE 50CS <sup>(3)</sup> or 70CS <sup>(4)</sup>

Air Line Pressure (PSIG)	150 Series	
	50CS	70CS
15	38	86
30	56	127
60	93	210
100	151	343
150	209	470
250	319	725
500	650	1450
1500	1897	4152
3000	3411	7474
6000	6822	14948

- Notes: (1) Replace '□' with grade required, e.g. 51-230-50CS  
 (2) Replace '□' with 3 or 10 micron, e.g. CA-51-230-03PLGS-R  
 (3) Flow rates for Grade 50CS rated at 99.99% against 0.01 micron  
 (4) Flow rates for Grade 70CS rated at 95% against 0.01 micron

# STAINLESS STEEL PROCESS ULTRA HIGH PRESSURE FILTER HOUSINGS

## TECHNICAL INFORMATION

Housing Model (1)	160HHP/VP	161HHP/VP	162HHP/VP
Port Size (NPT)	1"	1 1/2"	2"
Drain Type (NPT)	1/4"	1/4"	1/4"
Maximum Pressure (psig)	3000	3000	3000
Internal Volume (cc)	2700	2700	2700
Maximum Temp. -Buna-N (250°F)	BN160HHP/2	BN160HHP/2	BN160HHP/2
Maximum Temp. -EPDM (300°F)	GE160HHP/2	GE160HHP/2	GE160HHP/2
<b>Maximum Temp. -Viton (400°F) Standard</b>	<b>GV160HHP/2</b>	<b>GV160HHP/2</b>	<b>GV160HHP/2</b>
Maximum Temp. -Silicone (450°F)	GS160HHP/2	GS160HHP/2	GS160HHP/2
Maximum Temp. -Kalrez (600°F)	KZ160HHP/2	KZ160HHP/2	KZ160HHP/2
Weight of Housing (lbs)	57.0	57.0	57.0
Principle Dimensions: (inches)			
Center Of Port To Head	1.97	1.97	2.16
Head Diameter	6.50	6.50	6.50
Overall Length	26.75	26.77	26.77
Element Removal Clearance	19.37	19.37	19.37
Filter Element Codes: (2)			
Disposable Element	51-476-□	51-476-□	51-476-□
Stainless Steel Element	SS-51-476-□	SS-51-476-□	SS-51-476-□
Pleated Glass Element	CA-51-476-□PLGS-R	CA-51-476-□PLGS-R	CA-51-476-□PLGS-R
Materials Of Construction:			
Head & Internals	316L Stainless Steel	316L Stainless Steel	316L Stainless Steel
Bowl	316L Stainless Steel	316L Stainless Steel	316L Stainless Steel
O-Rings (Standard)	Viton	Viton	Viton
Accessories:			
Mounting Bracket	MB150HHP	MB150HHP	MB150HHP
Support Core	SC160	SC160	SC160

## FLOW RATE IN SCFM FOR ABOVE ASSEMBLIES WITH GRADE 50CS <sup>(3)</sup> or 70CS <sup>(4)</sup>

Air Line Pressure (PSIG)	160HHP Series	
	50CS	70CS
15	64	87
30	125	143
60	160	221
100	256	354
150	354	488
250	546	754
500	1091	1508
1500	3248	4466
3000	5847	8004
6000	11694	16008

- Notes: (1) The 160 Series is now manufactured with a two piece bowl which makes the housings weld free  
(2) Replace '□' with grade required, e.g. 51-476-50CS, CA-51-476-03PLGS-R  
(3) Flow rates for Grade 50CS rated at 99.99% against 0.01 micron  
(4) Flow rates for Grade 70CS rated at 95% against 0.01 micron

Our wide range of filter element materials and micron sizes allow multiple uses for these housings:

### Gas Service Applications:

Coalescing and/or Particulate  
CNG Filtration  
Blow Molding Equipment  
Food Plant Caustic Service  
High Pressure Compressor Service  
General High Pressure Air Service  
Adsorption Cartridges; Carbon, Silica Gel, 13X, etc.  
Pleated for High Dirt Holding Capacity

### Liquid Service Applications:

Particulate  
High Flow Sample Service  
Fuel Filtration  
Solvents / Coolants  
Cryogenic Service  
Corrosive Environmental Service  
Lubricants  
C.I.P. Service (Clean In Place)