



12S Series

High Pressure Filters



High Pressure Filters

12S Series

Features/Applications

- Offshore – High pressure and aggressive environment
- DI Water – Water fogging
- Food Processing – Caustic washdown (poultry, etc.)
- Test Stands – High pressure

Feature	Advantage	Benefit
Lightweight	Ease of service and installation	Reduced installation cost
Porting	Flexibility	Reduction in piping and use of adaptors
Multipass tested elements (per ANSI/NFPA T3.10.8.8 R1-1990)	Filter performance backed by recognized and accepted laboratory test standards	Filters you select have known performance levels
Optional visual and electrical indicators	Know exactly when to service elements	Keeps system clean
Drain port	Drain all oil from assembly prior to servicing	Eliminates cross contamination
Optional upstream & downstream sensing ports	Add additional instrumentation	Product flexibility
High strength Microglass III elements	2000 psid collapse strength Multi-layer media Wire reinforced pleats	High capacity with high efficiency No performance loss from pleat bunching
100% pressure tested	Quality	Reliability

12SMP (10,000 psi) Specifications

Pressure Ratings:

Maximum Allowable Operating Pressure (MAOP): 10,000 psi (690 bar)
 Proof: 15,000 psi (1035 bar)

Operating Temperatures:

Fluorocarbon (FKM) -15°F (-26°C) to 275°F (-135°C)
 Ethylene Propylene (EPR) -40°F (-40°C) to 225°F (-107°C)
 Perfluoroelastomer (FFKM) 5°F (-15°C) to 536°F (280°C)*

* Consult factory when requesting this seal. A special element may be required to withstand operating temperature.

Element Collapsing Rate:

High Collapse "H" option: 2,000 psi (138 bar)

Materials:

Head: Stainless Steel 316L
 Bowl: Stainless Steel 316L

Weight (approximate):

Model	Single Length	Double Length
12SMP	14 lbs. (6.35 kg.)	17 lbs. (7.71 kg.)

12SHP (20,000 psi) Specifications

Pressure Ratings:

Maximum Allowable Operating Pressure (MAOP): 20,000 psi (1,380 bar)
 Proof: 30,000 psi (2,070 bar)

Operating Temperatures:

Fluorocarbon (FKM) -15°F (-26°C) to 275°F (-135°C)
 Ethylene Propylene (EPR) -40°F (-40°C) to 225°F (-107°C)
 Perfluoroelastomer (FFKM) 5°F (-15°C) to 536°F (-280°C)*

* Consult factory when requesting this seal. A special element may be required to withstand operating temperature.

Element Collapsing Rate:

High Collapse "H" option: 2,000 psi (138 bar)

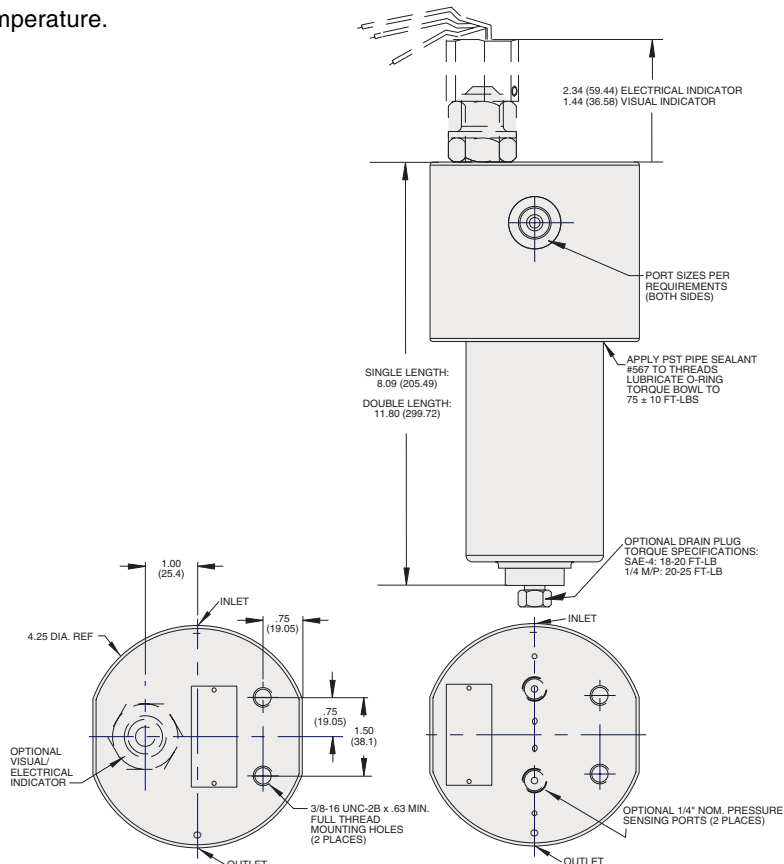
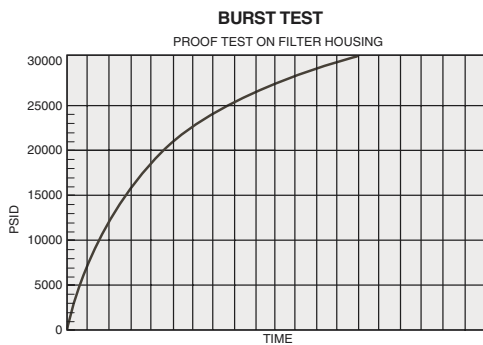
Materials:

Head: Stainless Steel 17-4
 Bowl: Stainless Steel 17-4

Weight (approximate):

Model	Single Length	Double Length
12SHP	14 lbs. (6.35 kg.)	17 lbs. (7.71 kg.)

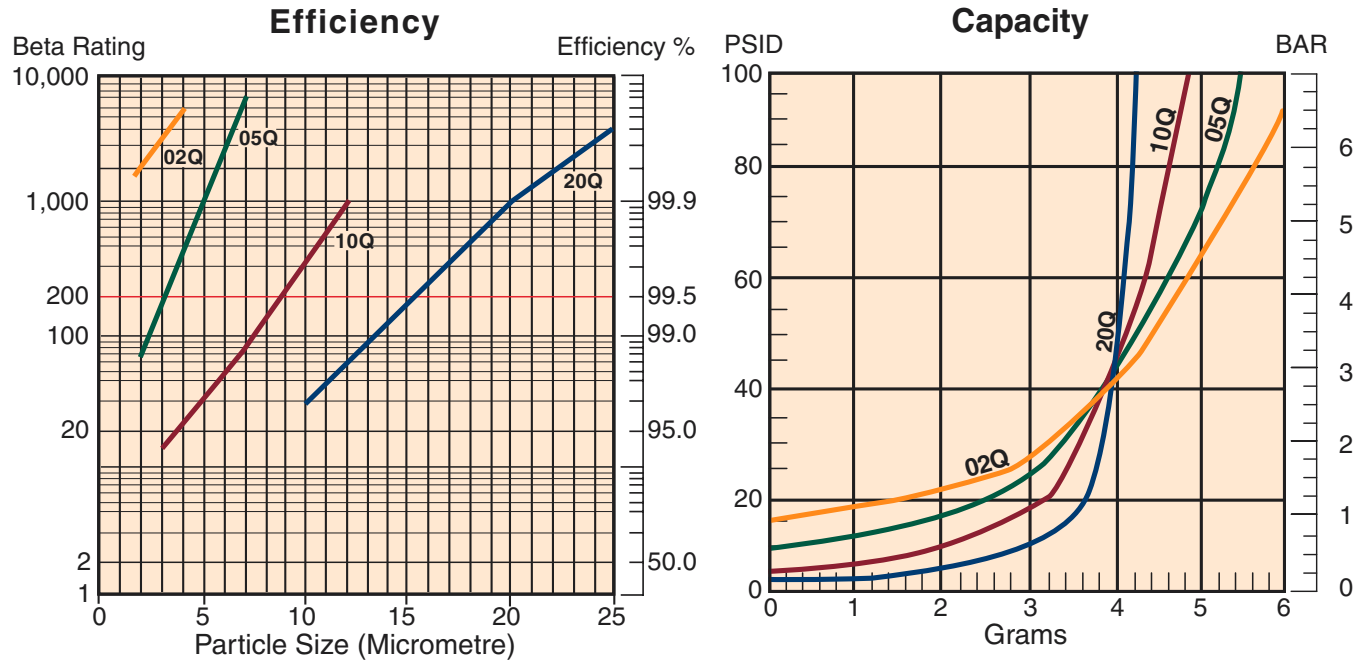
Dimensions



High Pressure Filters

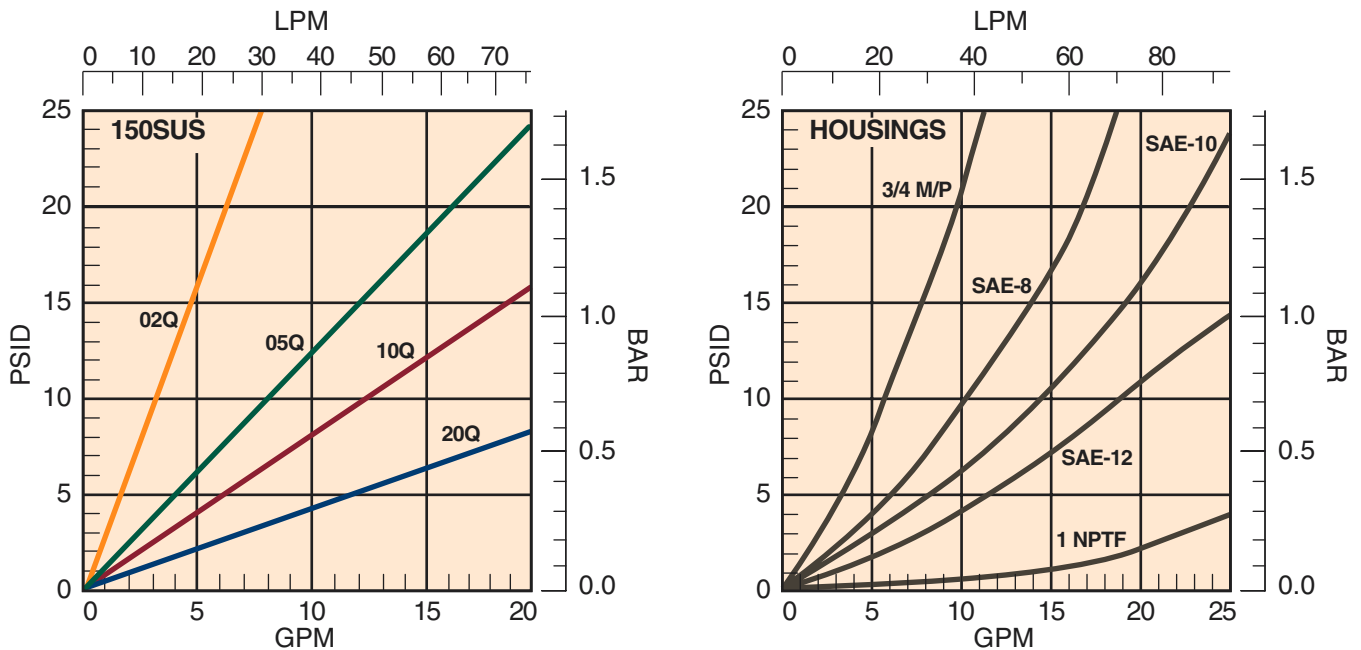
12S Series

12S-1 Element Performance

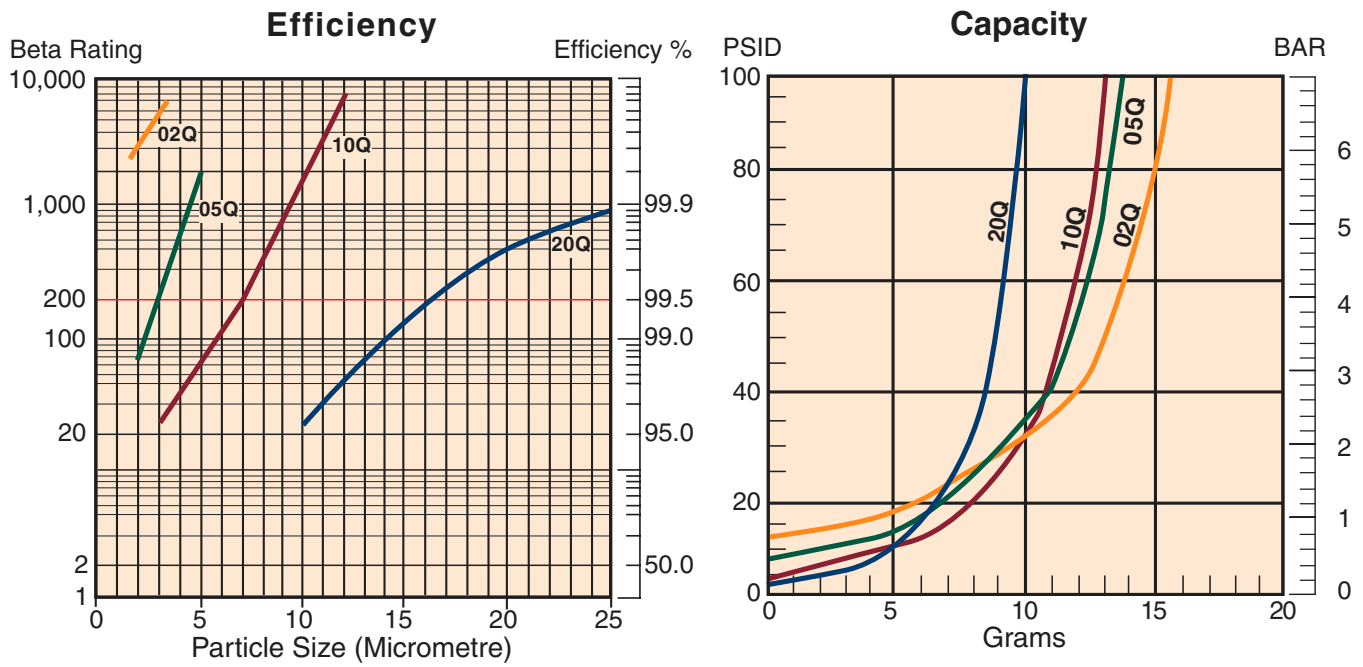


Multipass tests run @ 10 gpm to 100 psid terminal - 5mg/L BUGL

Flow vs. Pressure Loss

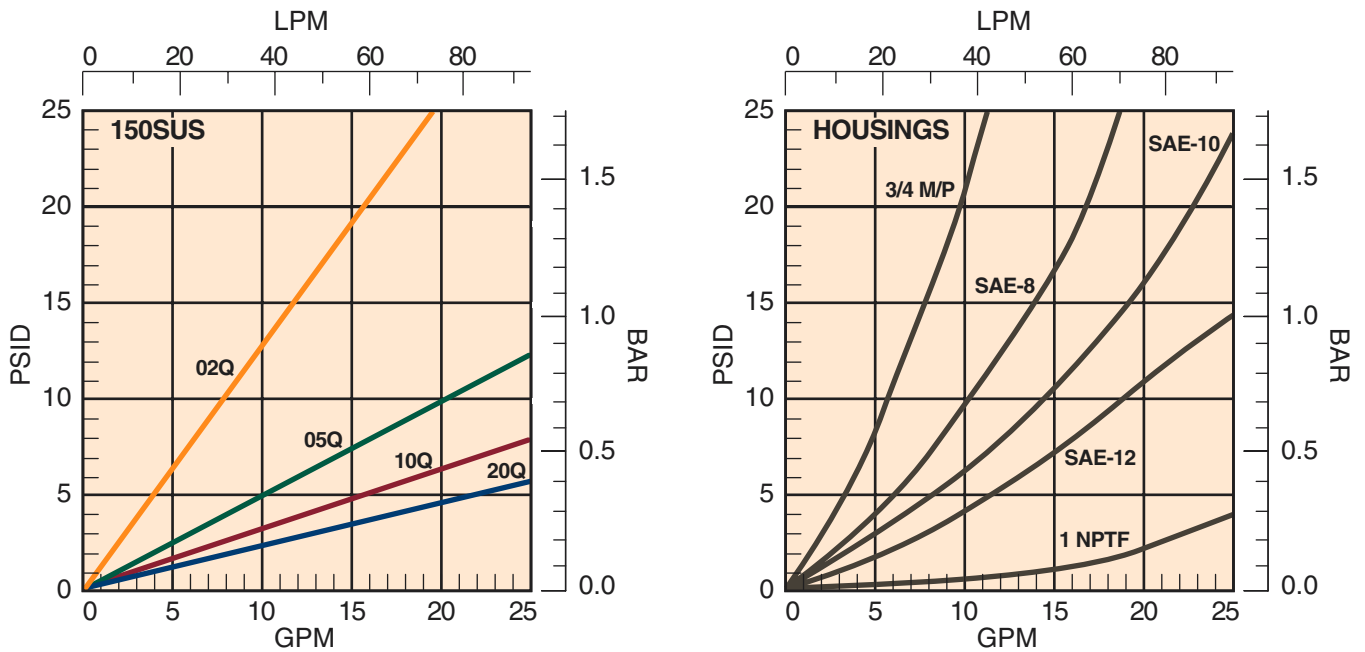


12S-2 Element Performance



Multipass tests run @ 15 gpm to 100 psid terminal - 5mg/L BUGL

Flow vs. Pressure Loss



High Pressure Filters

12S Series

HOW TO ORDER:

Select the desired symbol (in the correct position) to construct a model code.

Assembly Example:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8
<i>P9</i>	<i>12SHP</i>	<i>1</i>	<i>10QH</i>	<i>SP</i>	<i>HP</i>	<i>10</i>	<i>11</i>

BOX 1: Seals	
Symbol	Description
None	Fluorocarbon (FKM)
E8	Ethylene Propylene (EPR)
P9	Perfluoroelastomer (FFKM)

BOX 2: Basic Assembly	
Symbol	Description
12SMP	10,000 psi MAOP (316 SS)
12SHP	20,000 psi MAOP (17-4 SS)

BOX 3: Length	
Symbol	Description
1	Single
2	Double

BOX 4: Element Media	
Symbol	Description
20QH	20µm Microglass III, 2000 psid collapse
10QH	10µm Microglass III, 2000 psid collapse
05QH	5µm Microglass III, 2000 psid collapse
02QH	2µm Microglass III, 2000 psid collapse

BOX 5: Indicator	
Symbol	Description
N	No indicator, no pressure port
E250 ^{1,2}	Electrical/Visual (DIN), 50 psid setting
M250 ^{1,2}	Visual auto reset, 50 psid setting
SP ³	1/4" pressure ports only

Notes:

1. Available for operating pressure <6,000 psi only.
2. Mineral base and synthetic hydraulic fluids only.
3. Pressure ports will match port types selected in Box 6.

BOX 6: Port Type ³	
Symbol	Description
S ¹	SAE O-ring port
N ²	NPTF port
MP	Medium pressure Autoclave type port
HP	High pressure Autoclave type port

Notes:

1. Available for operating pressure <6,000 psi only.
2. Available for operating pressure <10,000 psi only.
3. For Socket Weld or other port options, please contact Hydraulic Filter Division.

BOX 7: Port Size		
Symbol	Description	Type
4	1/4" Nominal	S, N, MP, HP
6	3/8" Nominal	S, MP, HP
8	1/2" Nominal	S, N
10	9/16" Nominal	S, MP, HP
12	3/4" Nominal	S, N, MP
16	1" Nominal	S, N

BOX 8: Options	
Symbol	Description
11	No bypass (standard)
21 ¹	No bypass and 1/4" drain port

Note:

1. Drain port will be SAE-4 or 1/4 M/P as required.

REPLACEMENT ELEMENTS

Filter Model (Fluorocarbon seals)		
Media	12SMP-1/12SHP-1	12SMP-2/12SHP-2
20QH	403400	403404
10QH	403399	403403
05QH	403398	403402
02QH	403397	403401