



STEAM SCRUBBER FILTER

APPLICATION DATA

- Culinary Grade Steam
- Sterilizers
- Autoclaves
- Pharmaceutical & Biotechnology Process Equipment
- Clean Room Humidification
- Chemical Industry
- Electronic Industry
- Plastic Industry

OPTIONS

- 316L Housing
- Silicone, Viton or Buna N Gaskets
- Flange or Welded Ends
- 4" to 8" with ANSI Flanged End

Canadian Registration #OE8186.80

**REQUIRES DRIP TRAP.
COMBINE WITH DS200 TRAP
FOR MOST CLEAN STEAM APPLICATIONS**

DS200 TRAP ON
PAGE 10

STEAM SCRUBBER STAINLESS STEEL FILTER

SIZES 1/2" to 3"
PRESSURES to 145 PSIG at 353°F

1 and 5 Micron Filters—meet or exceed FDA guidelines and comply with 3A

304 Stainless Steel Housing—Electropolished and Passivated

Double O-ring EPDM Housing Gasket

Inline NPT Connections

Single Clamp Closure

Sintered 316 Stainless Steel Filter Media

Porosity Level—greater than 50%

Filter Media—in 1, 5 or 25 Micron Absolute Ratings

Filter Element Endcaps—304 Stainless Steel

Renewable Filter Media

Single Open End Filter Media

MODELS

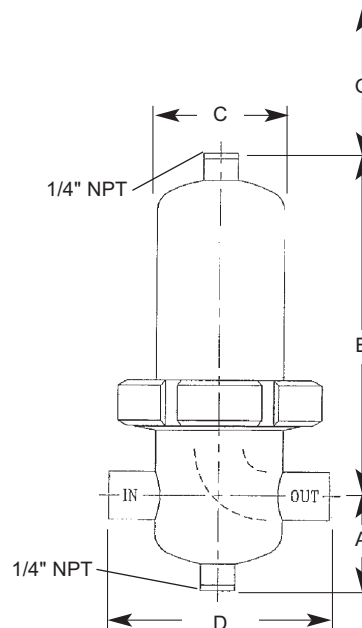
- SS2L—2" low capacity
- SS3L—3" low capacity
- SS12—1/2" standard capacity
- SS34—3/4" standard capacity
- SS1—1" standard capacity
- SS114—1 1/4" standard capacity
- SS112—1 1/2" standard capacity
- SS2—2" standard capacity
- SS212—2 1/2" standard capacity
- SS3—3" standard capacity

NOTE: Please specify if Material Test Reports (MTR) or Certificates of Conformance (COC) are required.

STEAM SCRUBBER STAINLESS STEEL FILTER

SPECIFICATION

Furnish and install as shown on the plans, high efficiency, inline horizontal, filter for air, steam or gas constructed with 304 or 316L stainless steel housing and single, open ended element. Filter shall have an absolute rating of 1, 5 or 25 microns and utilize double o-ring gaskets to reduce potential downstream leakage of unfiltered medium. External surface finish of filter housing shall be no less than 180 grit (25-35 Ra microinch) and joined utilizing a single clamp. Filter media shall be of sintered 316L stainless steel and be regenerable. 1 and 5 micron media shall conform to 3A sanitary standards for production of culinary steam and be USDA accepted. Connections shall be NPT, flanged ANSI 150 or welded.



Connections:
1/2" – 3" NPT, Flanged or Welded

MAXIMUM OPERATING CONDITIONS*

| | |
|---------------------------------|--|
| PMO: Max. Operating Pressure | 145 psig (10 barg) Limit for Saturated Steam 125 psig (8.6 barg) |
| TMO: Max. Operating Temperature | 353°F (178°C) |
| PMA: Max. Allowable Pressure | 232 psig / 0-400°F (16 barg / 0-204°C) |
| TMA: Max. Allowable Temperature | 400°F / 0-232 psig (204°C / 0-16 barg) |

*For differential pressures greater than 75 psig, consult factory.

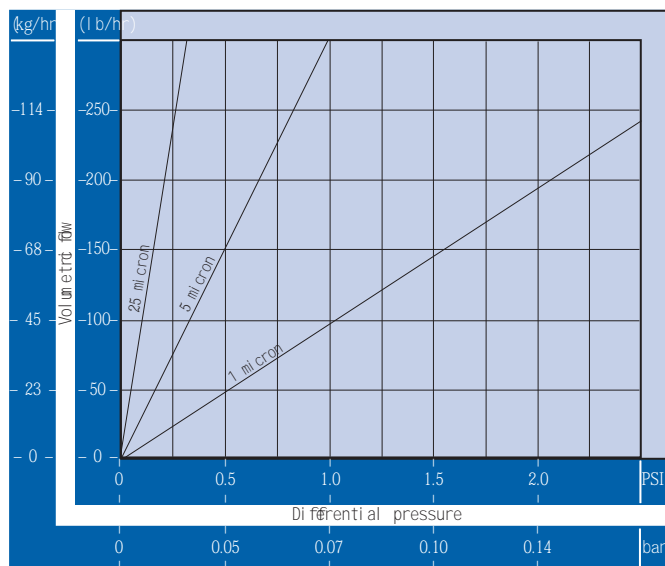
MATERIALS OF CONSTRUCTION

| | |
|-----------------------|----------------------|
| Body, Standard..... | 304 Stainless Steel |
| Body, Optional..... | 316L Stainless Steel |
| Clamp..... | 304 Stainless Steel |
| Plug..... | 304 Stainless Steel |
| Gasket, Standard..... | EPDM |
| Gasket, Optional..... | Silicone |
| Gasket, Optional..... | Viton |
| Gasket, Optional..... | Buna N |
| Filter Media..... | Sintered 316L SSteel |
| Filter End Caps..... | 304 Stainless Steel |

DIMENSIONS inches (mm) and WEIGHTS pounds (kg)

| Size | A | B | C | D | G | Weight | Conversion Factors (Cs) |
|---------------|----------------|-----------------|----------------|----------------|-----------------|----------------|-------------------------|
| 1/2 (15) | 2 1/8 (55) | 7 3/8 (188) | 2 3/4 (70) | 4 1/8 (108) | 3 3/4 (95) | 4.2 (1.9) | 0.17 |
| 3/4 (20) | 2 1/8 (55) | 8 3/8 (211) | 2 3/4 (70) | 4 7/8 (125) | 6 (152) | 4.4 (2.0) | 0.25 |
| 1 (25) | 2 7/8 (74) | 8 3/8 (219) | 3 3/8 (85) | 4 7/8 (125) | 6 (152) | 5.7 (2.6) | 0.39 |
| 1 1/4 (32) | 2 7/8 (74) | 10 5/8 (270) | 3 3/8 (85) | 5 1/2 (140) | 8 (203) | 6.6 (3) | 0.50 |
| 1 1/2 (40) | 3 3/4 (94) | 11 1/2 (292) | 4 1/8 (104) | 6 5/8 (170) | 8 (203) | 10.1 (4.6) | 0.67 |
| 2L* (50) | 3 3/4 (94) | 14 3/8 (366) | 4 1/8 (104) | 6 5/8 (170) | 11 (279) | 10.6 (4.8) | 1.00 |
| 2 (50) | 3 3/4 (94) | 19 3/8 (493) | 4 1/8 (104) | 6 5/8 (170) | 17 3/4 (451) | 11.7 (5.3) | 1.50 |
| 2 1/2 (65) | 4 1/4 (106) | 24 5/8 (626) | 5 1/8 (129) | 8 1/2 (216) | 23 (584) | 19.8 (9) | 2.00 |
| 3L* (80) | 4 1/4 (106) | 34 5/8 (881) | 5 1/8 (129) | 8 1/2 (216) | 33 1/2 (851) | 23.8 (10.8) | 2.70 |
| 3 (80) | 4 5/8 (119) | 35 3/4 (907) | 6 (152) | 9 3/8 (240) | 33 1/2 (851) | 35.6 (16.2) | 4.00 |

Saturated Steam Capacity
2"L, 250°F, 15 PSI (Cm)*



*For other pressures and sizes, see conversion factors.

SELECTION EXAMPLE

For optimum service life, the filter should have a 1 psi maximum pressure drop. Select a 5 micron filter for a flow rate of 110 lbs/hr (w) of saturated steam at 45 psi.

Where: $C_s = \frac{w}{C_m C_p}$

Designing for .75 PSI differential pressure, C_m is 225 from the capacity chart and C_p is 2.0.

Therefore: $C_s = \frac{110}{(225)(2.0)} = .24$ so 3/4" should be used.

| Steam Pressure Conversion Factors (Cp) | | 0 | 15 | 30 | 45 | 60 | 75 | 90 | 105 | 120 | 135 |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Steam Pressure | PSI | 0 | 15 | 30 | 45 | 60 | 75 | 90 | 105 | 120 | 135 |
| Steam Pressure | bar | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Conversion factor | | 0.5 | 1.0 | 1.5 | 2.0 | 2.5 | 3.0 | 3.5 | 4.0 | 4.5 | 5.0 |