

# 3M™ SS Series Cartridge Filter Housings

3M™ Model SS Series Cartridge Filter Housings, constructed of durable 316L stainless steel, meet general-purpose industrial and commercial filtration needs. All wetted welded surfaces are stainless steel. External surfaces of these filter housings are electro-polished for a consistent, easy care finish.

The filter housings are available in a variety of sizes to accommodate from 4 to 88 filter cartridges (Single length equivalents) with lengths to 40 inches (see Ordering Guide). The housing has a maximum allowable working pressure of up to 150 psig (10.3 bar) at 250°F (121°C), see Table 1.

## Specifications

Table 1 gives standard model specifications for Model SS Series cartridge filter housings. Note that maximum allowable working pressure and temperature is the rating for the housing only. Actual housing maximum operating temperature depends on temperature and chemical capability of the filter cartridge and gasket used in the housing.

## Cartridge Requirements

Model SS Series filter housings accept both single and multiple length filter cartridges. Table 2 lists the number of filter cartridges for each model housing.

## Features & Benefits

### 316L stainless steel construction.

- Provides excellent corrosion protection for rugged, long-lasting service.

### Accepts varying length cartridges.

- Allows use of 9 3/4" and 10" modular cartridges for greater flexibility.

### Shouldered seal plates.

- Solid fit into cartridge core enables positive seal and prevents bypass.

### V-Band Clamp and Swing Bolt designs.

- Optimizes cartridge change-out.

### Removable cartridge posts.

- Easy cleaning reduces maintenance.

### Housing drains located on dirty and clean chambers.

- Allows full drainage of chambers for optimized filter change-out.

### Air Vent.

- Allows venting before start-up and draining for more efficient filter operation.

### Pedestal cup fitting.

- Allows for use of both DOE or SOE cartridges.



## Applications

Chemicals & Petrochemicals

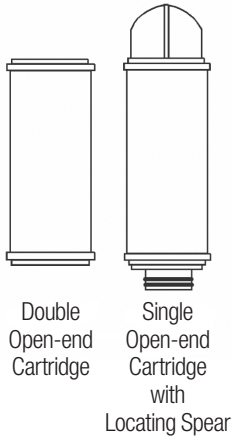
Food & Beverage

Healthcare

Industrial Processes

Paint & Coatings

Industrial Water Treatment



Picture 1: Spring Seal Assembly

## Flow Rates

Table 3 lists the maximum water flow rates in gallons per minute (GPM) for each model filter housing.

Use the data in Table 3 only as a guide in establishing the **maximum** housing flow capacity; do not use it for filter sizing. Once a flow rate for a selected cartridge is known, use Table 3 to check whether the housing's flow rate falls within the recommended guidelines.

When sizing a filter, the amount of contaminant load needs to be considered in addition to the flow rate and desired pressure drop. Low initial pressure drop enhances filter cartridge life.

## Cartridge Seal Assemblies

The SS24, SS36, SS48, SS66, and SS88 housings include spring seal assemblies (Picture 1) that permit the use of filter cartridges with single length equivalents of 9 3/4 to 10 inches.

SS4 through SS20 models use pressure plate assemblies while SS24 through SS88 models use pressure plate with individual spring and seal assemblies.

Standard housings are configured to accept double open end style cartridges. To adapt the housing to accept single open end, double o-ring cartridges with locating spear, remove the housing cartridge posts and the spring & seal assemblies. Replace the standard pressure plate with the SOE pressure plate (order separately).

## Standard Model Dimensions

To find a selected dimension, refer to Table 4 to locate the model in the left column and the selected dimension symbol (A-D) in the top row. These dimensions can be used for rough plumbing. For critical installations, request a certified drawing.

Table 1: Standard Model Specifications

Operating Data	SS Models - 316L Stainless Steel
Max. Allowable Working Pressure @ Temperature*	150 psi @ 250°F (10.3 bar @ 121°C)
Flow Rate (GPM)	See Table 3
Connection Sizes	See Ordering Guide
Vent & Drain Connections	SS4 - SS20 Housings – ¼" NPT Vent, ¾" NPT Drains
	SS24 - SS88 Housings – ½" NPT Vent, 1" NPT Drains
Cartridge Sizes	9 ¾"-10" modular cartridges, 1-, 2-, 3-, or 4-high configurations
Standard Cover Gasket	Nitrile
Options	Cover gasket is available in EPR, Fluorocarbon or Silicone

\*Models SS24, SS36, SS48, SS66, SS88 maximum allowable working pressure @ temperature is 150 psi @ 212°F (10.3 bar @ 100°C)

Table 2: Cartridge Requirements

Housing Model	Single Length (9 ¾ 9 7/8, or 10") Cartridge Capacity
SS4	4
SS8	8
SS12	12
SS5	5
SS10	10
SS15	15
SS20	20
SS24	24
SS36	36
SS48	48
SS66	66
SS88	88

Table 3: Maximum Housing Flow Rate

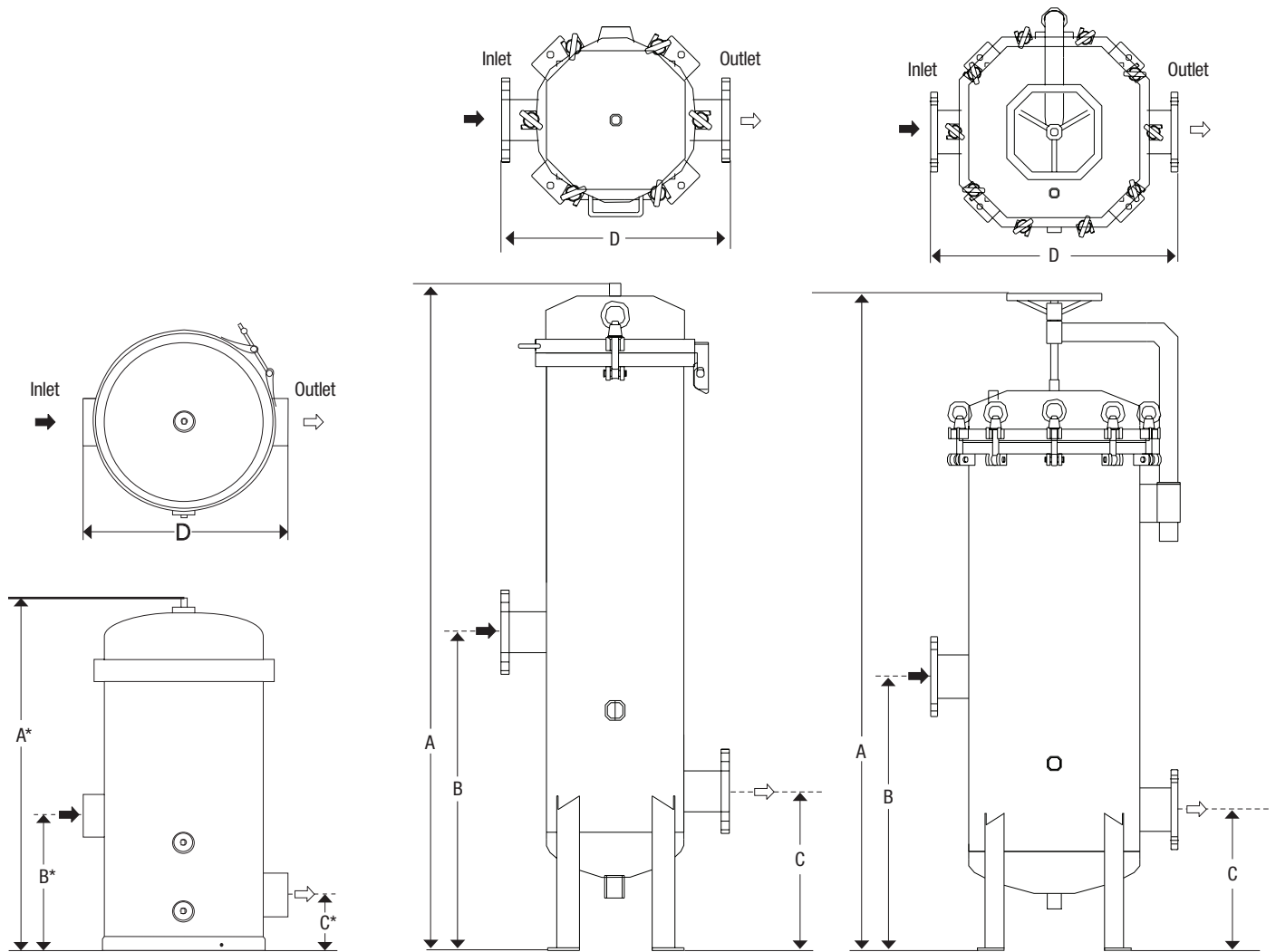
Housing	Water (GPM/LPM)
SS4, SS8, SS12	65/246
SS5, SS10, SS15, SS20	105/397
SS24, SS36, SS48	230/871
SS66, SS88	400/1,514

**Figure 1: SS Series Configurations**

Models SS4, SS5, SS8, SS10, SS12, SS15, & SS20

Models SS24, SS36, & SS48

Models SS66 & SS88



**Table 4: Standard Model Dimensions**

Housing Model	A* (in / mm)	B* (in / mm)	C* (in / mm)	D (in / mm)	Cartridge Removal Clearance (in / mm)	Housing Weight (lbs / kg)	Approx. Shipping Weight (lbs / kg)
SS4	19 1/2 / 495.3	6 3/4 / 171.4	2 7/8 / 73	12 / 304.8	26 / 660.4	19 / 8.6	29 / 13.1
SS8	29 1/2 / 749.3				46 / 1168.4	24 / 10.9	34 / 15.4
SS12	39 1/2 / 1003.3				66 / 1676.4	28 / 12.7	39 / 17.7
SS5	19 1/2 / 495.3	6 3/4 / 171.4	2 7/8 / 73	12 / 304.8	26 / 660.4	20 / 9.0	30 / 13.6
SS10	29 1/2 / 749.3				46 / 1168.4	25 / 11.3	35 / 15.9
SS15	39 1/2 / 1003.3				66 / 1676.4	29 / 13.1	40 / 18.1
SS20	49 1/2 / 1257.3				86 / 2184.4	33 / 15.0	45 / 20.4
SS24	48 1/8 / 1222.4	27 9/16 / 700	13 25/32 / 350	19 11/16 / 500	62 / 1574.8	152 / 69	175 / 79.4
SS36	58 / 1473.2				82 / 2082.8	170 / 77	195 / 88.5
SS48	67 13/16 / 1722.4				102 / 2590.8	187 / 85	215 / 97.5
SS66	67 / 1701.8	27 9/16 / 700	13 25/32 / 350	25 5/8 / 650	82 / 2082.8	269 / 122	320 / 145.1
SS88	76 3/4 / 1949.5				102 / 2590.8	324 / 147	375 / 170.1

\*Add 3/4" for leg installation on SS4 - SS20 housings

# Model SS Series Ordering Guide

## CUNO SS Series Housing

Model (316L SS)	Connection Type	Catalog Number
SS4 EPE-316L	1 1/2" NPT (Male per ASME B1.20.1)	4808713
SS8 EPE-316L	2" NPT (Male per ASME B1.20.1)	4808714
SS12 EPE-316L	2" NPT (Male per ASME B1.20.1)	4808715
SS5 EPE-316L	1 1/2" NPT (Male per ASME B1.20.1)	4808813
SS10 EPE-316L	2" NPT (Male per ASME B1.20.1)	4808814
SS15 EPE-316L	2" NPT (Male per ASME B1.20.1)	4808815
SS20 EPE-316L	2" NPT (Male per ASME B1.20.1)	4808816
SS24 EPE-316L	3" 150# RF FLG (ANSI B16.5)	4808907
SS36 EPE-316L	3" 150# RF FLG (ANSI B16.5)	4808908
SS48 EPE-316L	3" 150# RF FLG (ANSI B16.5)	4808909
SS66 EPE-316L	4" 150# RF FLG (ANSI B16.5)	4809005
SS88 EPE-316L	4" 150# RF FLG (ANSI B16.5)	4809006

## Optional Kit for Single Open End Cartridge Use

Kit Part Number	Fits Housing Model
9885501	SS4 - SS12
9885502	SS5 - SS20
9885504	SS24
9885505	SS36
9885506	SS48
9885509	SS66
9885510	SS88

All units supplied with center rods, posts, pressure plates, spring and seal assemblies for double opened ended (DOE) style cartridges. To convert units to use single open ended (SOE) style cartridges, order the appropriate optional kit.

### Important Notice

CUNO MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Since a variety of factors can affect the use and performance of a CUNO product in a particular application, some of which are uniquely within the user's knowledge and control, user is responsible for determining whether or not the CUNO product is fit for a particular purpose and suitable for user's method of application.

### Warranty

Seller warrants its equipment against defects in workmanship and material for a period of 12 months from date of shipment from the factory under normal use and service and otherwise when such equipment is used in accordance with instructions furnished by Seller and for purposes disclosed in writing at the time of purchase, if any. Any unauthorized alteration of modification of the equipment by Buyer will void this warranty. Seller's liability under this warranty shall be limited to the replacement or repair, F.O.B., point of manufacture, of any defective equipment or part which, having been returned to the factory, transportation charges prepaid, has been inspected and determined by Seller to be defective. THIS WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EITHER EXPRESSED OR IMPLIED, AS TO DESCRIPTION, QUALITY, MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE OR USE, OR ANY OTHER MATTER. Under no circumstances shall Seller be liable to Buyer or any third party for any loss of profits or other direct or indirect costs, expenses, losses or consequential damages arising out of or as a result of any defects in or failure of its products or any part or parts thereof or arising out of or as a result of parts or components incorporated in Seller's equipment but not supplied by the Seller.

## Gasket Ordering Guide

Housing Model	Nitrile	EPR	Fluorocarbon	Silicone
SS4, SS5, SS8, SS10, SS12, SS15, and SS20	3792031	3756437	3756434	3756440
SS24, SS36, and SS48	3756455	3756456	3756457	3756458
SS66 and SS88	3756459	3756460	3756461	3756462

Supplied with Nitrile vessel gasket. Ethylene Propylene Rubber (EPR); Fluorocarbon or Silicone.



a 3M company

## Your Local CUNO Distributor:

**CUNO Incorporated**  
400 Research Parkway  
Meriden, CT 06450  
U.S.A.  
(800) 243-6894  
(203) 237-5541  
Fax (203) 630-4530  
www.CUNO.com

CUNO is a trademark of 3M Company used under license.

3M is a trademark of 3M Company.

© 3M 2008. All rights reserved.  
70-0202-2106-8  
LITHSSS1.1108