

Series SMR

Sanitary Stainless Steel Multi-Round Housing



Features:

- Aseptic Design
- Low Hold Volume
- Easy to use low point drain valve

Benefits:

- No Dead Legs
- Fully Self draining
- Ease of filter change-out
- Removable for Cleanability
- Maximize Product Recovery
- Crevice Free Electropolished surfaces with < 25 RA internal surfaces

Applications:

- WFI
- Wine
- Reagents
- Biologicals
- Electronics
- Fine Chemicals
- Pharmaceuticals
- Food & Beverages

SANITARY STAINLESS STEEL MULTI-ROUND HOUSING

The high purity Sanitary Cartridge Housings are designed to meet your critical processing needs. These housings are commonly used in the Pharmaceutical, Food and Beverage Industries. Housings exceed standards for sterile filtration. The 316L Stainless Steel housings have machined cartridge connections to preclude flow restrictions normally associated with seat cup interfaces. The highly corrosive-resistant material is ideal because of its superior strength and chemical compatibility.

The housings are available in both 222 or 226 o-ring configurations. Housings of 3 to 100 round elements are available. Housings are designed for complete disassembly, allowing full access to all internal surfaces for easy cleaning. Sanitary vent and drain valves allow easy venting, draining and sampling. Secure swing away bolt closure design.

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Plate

Tie Rods

Design Features – The objective of our Engineers was to design a filter housing that is aseptic and convenient to use. The swing-away bolts were placed at the bottom of the dome to minimize hold up volume and to simplify access to inspect filter O-ring seals. The dome seal and filter manifold plate seals are installed in the up-right position to ensure the seals remain in position when tightening the bolts. The SMR Models 7-round x 30" filters and up are designed, in addition to the handles and for safety purposes, with heavy lifting lugs on the top of the dome. Optional sample valves with hose barb connections are available.

As shown in the photo, the design utilizes an alignment plate that slips over the fin at the end of the filter cartridge and tie rods to ensure that the filters stay evenly spaced.

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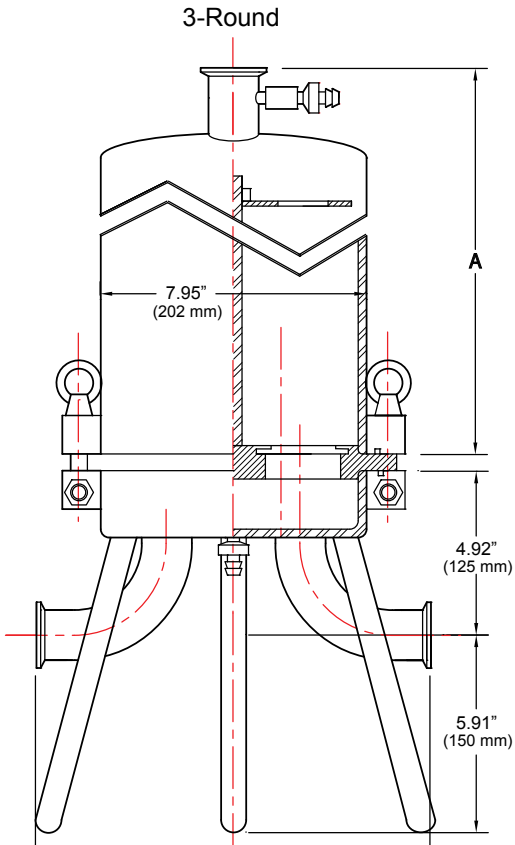
The photograph illustrates the simplicity of removing the filter manifold plate.

The filter housing is designed for the filters to sit flat on the filter manifold plate. This eliminates the need for filter seat cups and significantly reduces "Dead Space" within the housing.



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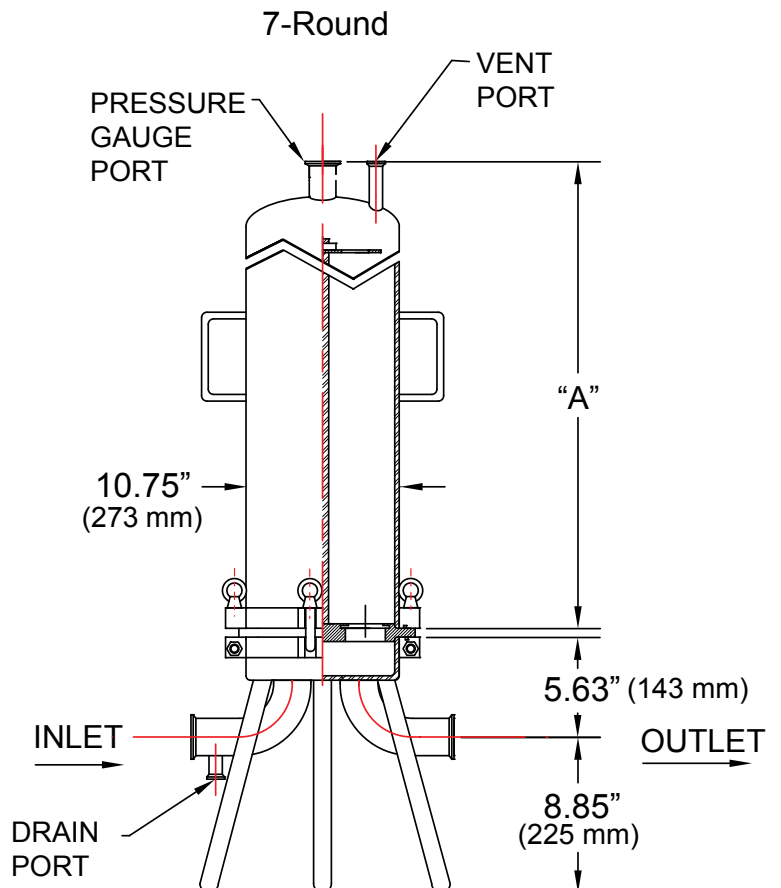
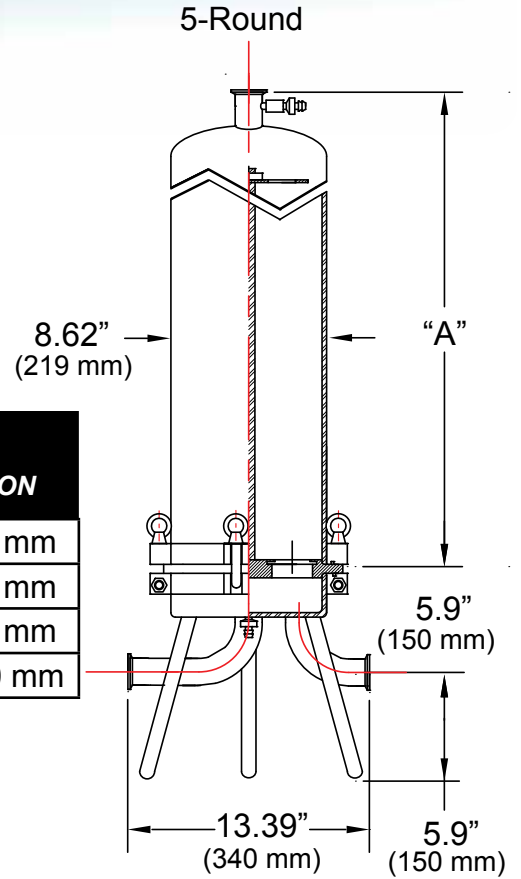
Sanitary Stainless Steel Multi-Round Housing



3-Round Tabulation		
ELEMENT LENGTH	" A " DIMENSION	
10.0 "	15.55 in	395 mm
20.0 "	25.75 in	645 mm
30.0 "	35.25 in	895 mm
40.0 "	45.08 in	1145 mm

7-Round Tabulation		
ELEMENT LENGTH	" A " DIMENSION	
10.0 "	16.54 in	420 mm
20.0 "	26.38 in	670 mm
30.0 "	36.22 in	920 mm
40.0 "	46.06 in	1170 mm

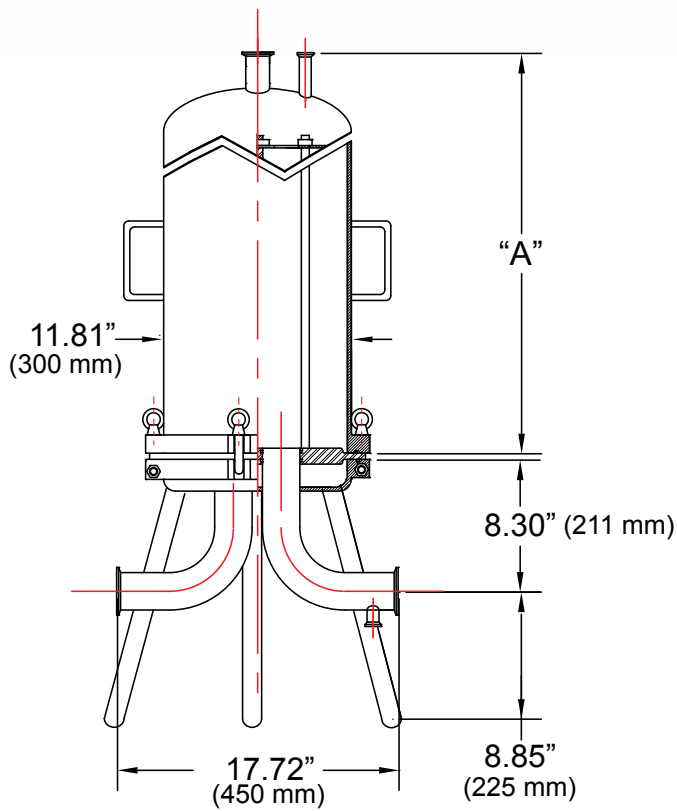
5-Round Tabulation		
ELEMENT LENGTH	" A " DIMENSION	
10.0 "	15.75 in	400 mm
20.0 "	25.90 in	650 mm
30.0 "	35.43 in	900 mm
40.0 "	45.28 in	1150 mm



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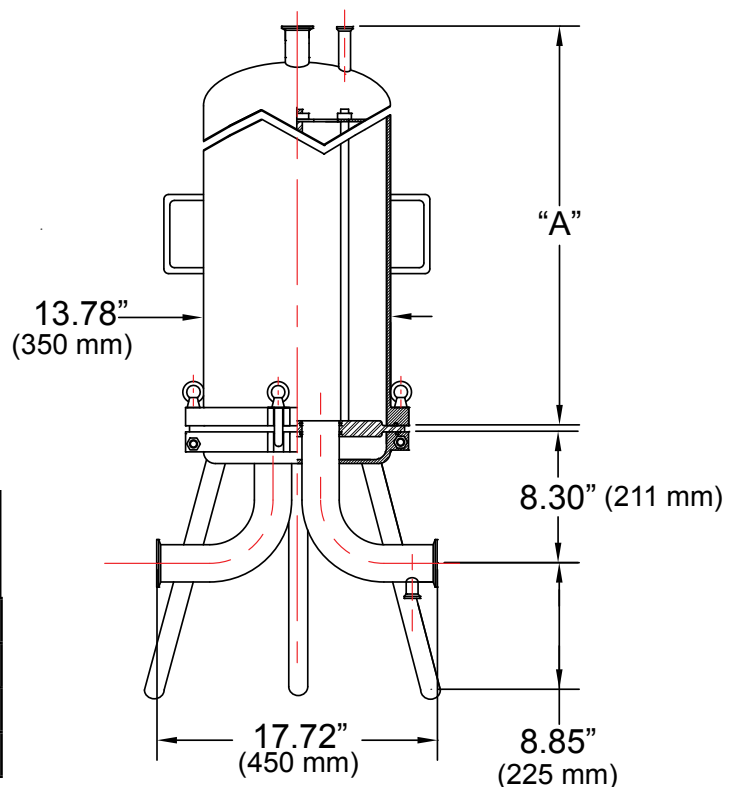
9-Round



9-Round Tabulation

ELEMENT LENGTH	" A " DIMENSION	
10.0 "	16.54 in	420 mm
20.0 "	26.38 in	670 mm
30.0 "	36.22 in	920 mm
40.0 "	46.06 in	1170 mm

12-Round



12-Round Tabulation

ELEMENT LENGTH	" A " DIMENSION	
10.0 "	16.54 in	420 mm
20.0 "	26.38 in	670 mm
30.0 "	36.22 in	920 mm
40.0 "	46.06 in	1170 mm

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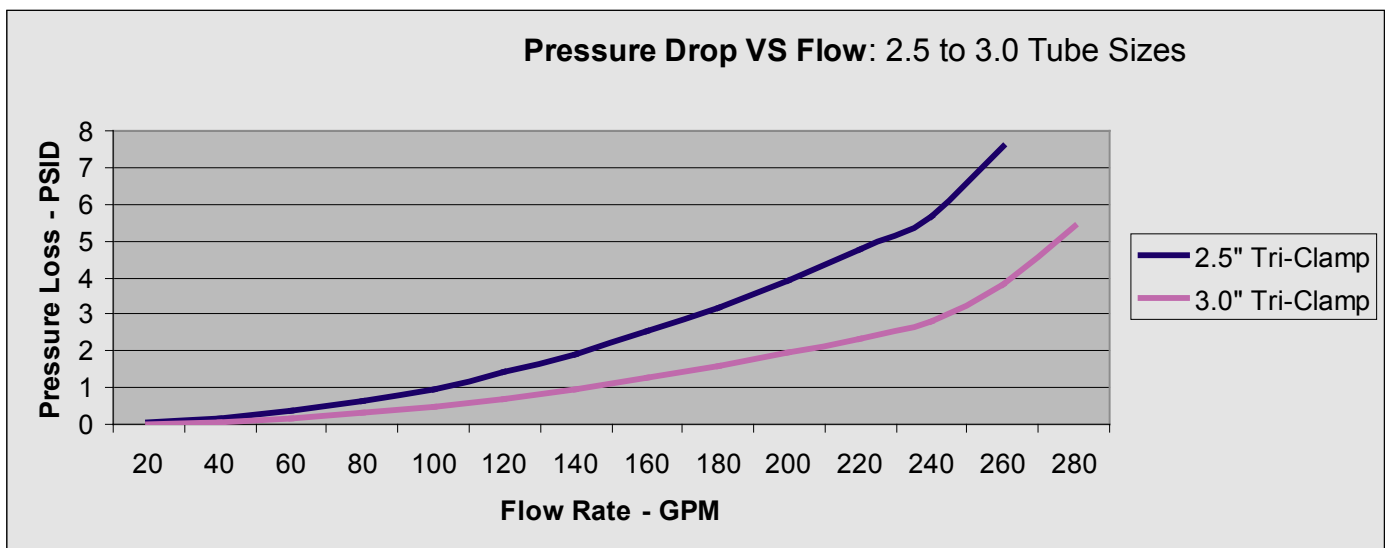
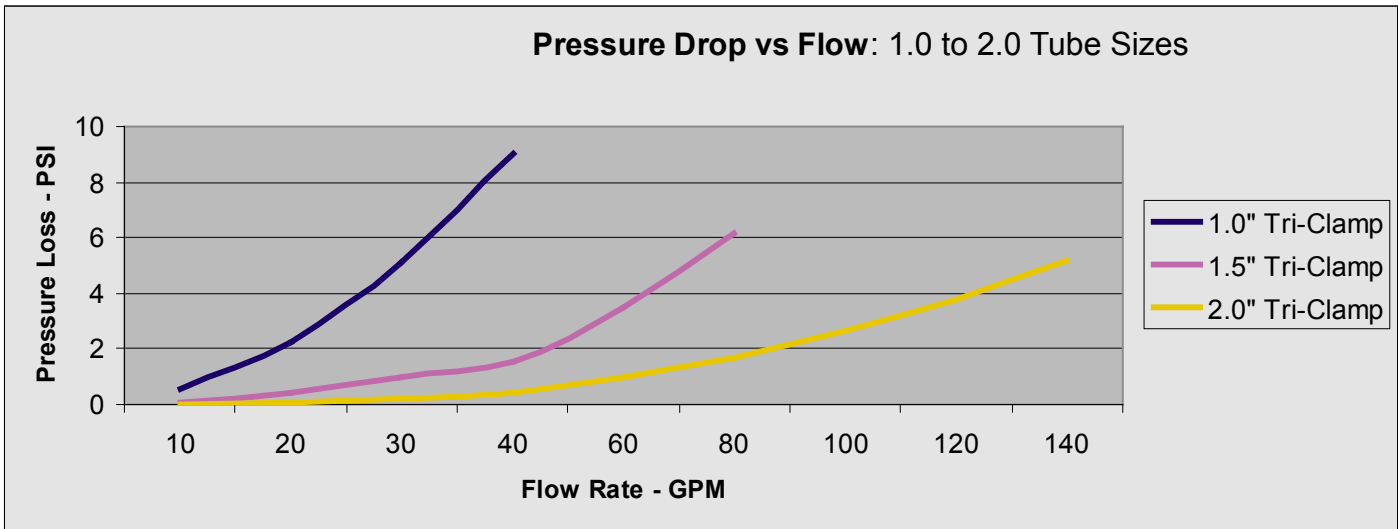
Sanitary Stainless Steel Multi-Round Housing

MULTI-ROUND SPECIFICATION TABLE				
Housing Model	GPH Based on 70 F Water	LPH Based on 20 C water	Cartridge No. & Length	Inlet & Outlet Size
01-0270-3	540 - 990	2,045 - 3,750	3-10"	1.0" TC
01-0270-3	1,080 - 1,980	4,090 - 7,495	3-20"	1.0" TC
01-0270-3	1,620 - 3,000	6,130 - 11,355	3-30"	1.5" TC
01-0270-3	2,160 - 3,600	8,175 - 13,625	3-40"	2.0" TC
01-0280-5	900 - 1,500	3,410 - 5,680	5-10"	1.5" TC
01-0280-5	1,800 - 3,000	6,815 - 11,355	5-20"	1.5" TC
01-0280-5	2,700 - 4,500	10,220 - 17,040	5-30"	2.0" TC
01-0280-5	3,600 - 6,000	13,625 - 22,710	5-40"	2.0" TC
01-0290-7	1,260 - 2,100	4,770 - 7,950	7-10"	1.5" TC
01-0290-7	2,520 - 4,200	9,540 - 15,900	7-20"	2.0" TC
01-0290-7	3,780 - 6,300	14,310 - 23,850	7-30"	2.0" TC
01-0290-7	5,040 - 8,400	19,075 - 31,800	7-40"	2.0" TC
01-0300-9	1,620 - 2,700	6,130 - 10,220	9-10"	1.5" TC
01-0300-9	3,240 - 5,400	12,265 - 20,440	9-20"	2.0" TC
01-0300-9	4,860 - 8,100	18,400 - 30,660	9-30"	2.0" TC
01-0300-9	6,480 - 10,800	24,530 - 40,880	9-40"	2.5" TC
01-0310-12	2,160 - 3,600	8,175 - 13,625	12-10"	2.0" TC
01-0310-12	4,320 - 7,200	16,350 - 27,250	12-20"	2.0" TC
01-0310-12	6,480 - 10,800	24,530 - 40,880	12-30"	2.5" TC
01-0310-12	8,640 - 14,400	32,700 - 54,500	12-40"	3.0" TC

The Multi-Round Specification Table is provided to allow the user to select a filter housing with the correct number of filter cartridges to handle the designed flow rate. Our engineers provide recommended inlet and outlet connections sizes for the various flow rates. The table is a guide line only.

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Flow VS pressure loss Curves – To obtain an accurate pressure loss across a filter housing, select the curve that list the inlet & outlet connections size that is planned for the filter housing under consideration and then move to the correct flow rate and read the pressure loss. If you discover the pressure loss is too great, select a larger inlet & outlet connection. Remember, the listed pressure drops are for the filter housing only and don't include loss for the filter cartridges.

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Materials of Construction:

Head:	316L Stainless Steel
Bowl:	316L Stainless Steel
Clamp:	304 Stainless Steel
Legs:	304 Stainless Steel
Vent/ Drain:	316L Stainless Steel
O-Rings:	Silicone, EPDM, Buna N, or Kalrez

Cartridge Dimension (nominal)

Lengths (in) 10, 20, 30 and 40

Connections:

Inlet/ Outlet Sanitary Flange, refer to drawing.
 Vent/ Drain: 1/4" valve w hose barb or TC, see drawing.
 Sample Port: 1/4" valve w/hose barb.

Finish:

Exterior Finish: Electropolished < 32 RA
 Interior Finish: Electropolished < 25 RA

Operating Conditions:

Max Operating Pressure, 125 PSI (10 Bar) @212 F (100 C)

Cleaned & Packaged:

Cleaned per specification NAS 1638, Class 5 on a Class 100 flow bench and packaged.

NOMENCLATURE

Housing Style	Style #	Element Length	Inlet/ Outlet	Filter Style	Vent	Drain	Gauge Port	Seal	Cleaning Option
	XX-XXXX	-X	-X	-X	-X	-X	-X	-X	-X
3-Round	01-0270	05 = 5.0"	1 = 1.0" TC	1 = 222 w/fin	1 = 1/4" Valve	2 = 1/4" Valve	1 = 1.5" TC	S = Silicone	0 = No Cleaning
5-Round	01-0280	10 = 10"	2 = 1.5" TC	2 = 226 w/fin	2 = 1/2" TC	3 = 1/2" TC	2 = 1/4" FNPT	B = Buna N, FDA	C = Cleaning
7-Round	01-0290	20 = 20"	3 = 2.0" TC		3 = 1.0" TC	4 = 1.0" TC	3 = 1/2" FNPT	E = EPDM	
9-Round	01-0300	30 = 30"	4 = 2.5 TC		4 = 1/2" FNPT	5 = 1.5" TC		K = Kalrez	
12-Round	01-0310	40 = 40"	5 = 3.0 TC		5 = 1.0" FNPT	6 = 2.0" TC		TES = TES	
						7 = 1/2" FNPT		TEV = TEV	
						8 = 1.0" FNPT		V = Viton	
						9 = 1.5" FNPT			
						10 = 2.0" FNPT			