

# Sanitary Stainless-Steel Membrane Housings

## FACT SHEET

### 3A approved 8-inch side entry



**Figure 1: Sanitary Stainless-Steel Membrane Housings**

Veolia combines our rugged design of stainless steel membrane element housings (Figure 1) with 30+ years of history in the applications of RO/NF/UF machine assembly.

### General Properties

#### Features and Benefits

The design and fabrication of the membrane housing and endcap have been reviewed and approved by the USDA. Largest port available in any membrane housing design. Allows for superior flow and reduced pressure drop. All ports are tri-clamp connections with 180 grit polished ID. Welds and edges are all polished to be smooth and tapered to eliminate the potential for any product hold-up. A superior finish is available on these housings by electro polishing or mechanically polishing the stainless steel, or by using a metallic two-coat epoxy paint.

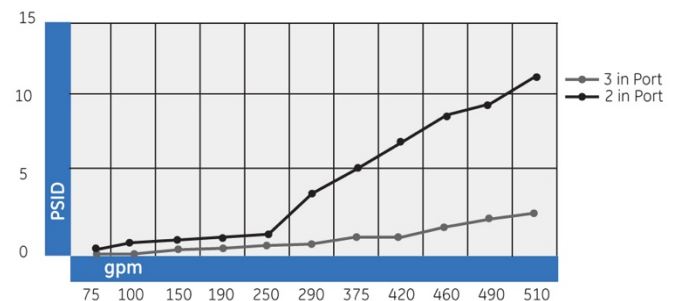
#### Why Stainless Steel

- No seals involved in side port connections
- Unlike fiberglass, doesn't warp or weep

- Is not affected by UV rays or sunlight
- Stainless steel is a preferred and universally accepted material for water systems and sanitary process applications
- Can withstand high temperatures, up to 200°F
- Capable of supporting process piping
- During assembly, stainless housings are lighter, and easier to handle than PVC, and FRP housings with equivalent pressure ratings

**Table 1: Options Available**

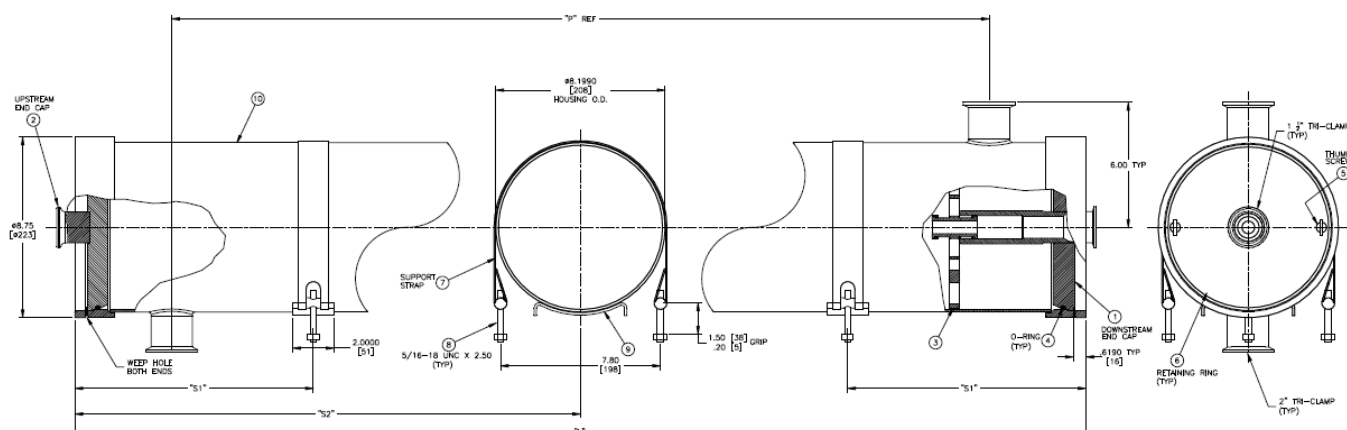
Item	Description
Grade	316L Stainless Steel
Side Ports	2", 3" and 4" port Multi-port; (2 port standard)
Exterior Finishes	Electro polished for a glossy, shiny, metallic look Bead blast surface Metallic painted epoxy Mechanical polished (180 grit)
Finish	Satin Finish



**Figure 2: Housing Pressure Drop**

**Table 2: Materials of Construction**

Item	Description
End Cap	316 SS
Victaulic Coupling	Galvanized Steel
Coupling Gasket	EPDM
Support Straps	304 SS
Mounting Supports	304 SS
O-Ring	EPDM
Housing Body	316/316L SS



**Figure 3: Membrane Housings**

**Table 3: Housing Lengths and Parts**

Part Number	Element Lengths (# of Elements)	L Length inch (mm)	P Port To Port inch (mm)	2 Supports S1 Recommended inch (mm)	3 Supports S2 Recommended inch (mm)	Approximate Empty Weight lbs (kg)
316SS						
1267626	1 – 8 x 40	52.1 (1323)	42.7 (1085)	12.0 (305)	NA	75 (34)
1232592	2 – 8 x 40	92.1 (2339)	82.2 (2103)	15.0 (381)	NA	106 (48)
1232593	3 – 8 x 40	132.2 (3358)	122.8 (3119)	23.0 (584)	NA	138 (62)
1232594	4 – 8 x 40	172.2 (4374)	162.9 (4138)	31.0 (787)	NA	169 (76)
1232595	5 – 8 x 40	212.3 (5392)	202.9 (5154)	28.0 (711)	106.2 (2697)	210 (91)
1232596	6 – 8 x 40	252.3 (6408)	243.0 (6172)	34.0 (864)	126.2 (3205)	232 (105)

\*The S1 and S2 dimensions are the recommended housing support locations measured from each end of the housing. If there is no S2 dimension, then no middle support is required (i.e., use the two end supports only).

**Table 3: Housing Parts Continued**

Item	Qty. Req'd	Description	Material
1	1	End cap, A3, RC, 8"	316SS
2	1	End cap, A3, RC, 8" Solid	316SS
3	2	ATD/Interconn, Sanitary	316SS
4	4	O-Ring, Buna-N 367	BUNA-N
5	2	Screw, Thumb, 18-8, 31-18x38	1 - - 8 SS
6	2	Ring, Retaining, 815, RC, 302	302SS
7	4	Clamp, Band, SS, 20, w/Barrel Nut	304SS
8	2	Screw, Cap, HH, 18-8, 31-18x2.50	18-8 SS
9	1	Saddl	304SS
10	1	HSG, 802-3A	See Table

**Table 4: Specifications**

Specifications	802P – 3A	Option, TC Housing: 802p – TC
Material	316 SS	316 SS
Design	600 psi	600 psi
Closure Kits	316 SS	316 SS
Tested at	3 times design pressure	3 times design pressure
Tested Cycles	100,000 cycles at design pressure	100,000 cycles at design pressure
Element Capacity	1 – 6 long	1 – 6 long
# of Side Ports	2	2
Side Port Size & Connection	2" Tri-Clamp (option for 3" & 4")	2" Tri-Clamp (option for 3" & 4")
3A Approved Design	Yes	No
Interior Finish	180 grit mechanicals	Mill finish
Exterior Finish	Polish Mill finish	Mill finish
End Cap & Load Transfer	SS and 3A Design	SS
Permeate Port	1.5" Tri-Clamp	1.5" Tri-Clamp

**Veolia Water Technologies**  
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