

Stainless Steel Membrane Housings

8-inch Side Entry



Figure 1: Stainless Steel Membrane Housings

GE Water & Process Technologies combines our rugged design of stainless steel membrane element housings with 30+ years of history in the applications of RO/NF/UF machine assembly.

Why Stainless Steel?

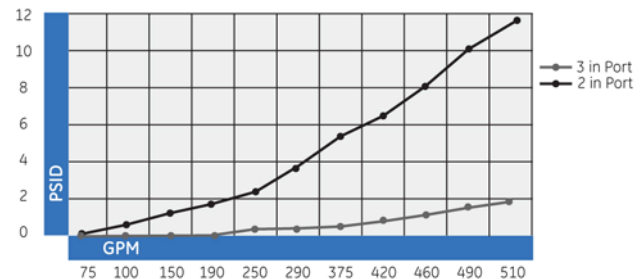
- No seals involved in side port connections
- Unlike fiberglass, doesn't warp or weep
- Is not affected by UV rays or sunlight
- Stainless steel is a preferred and universally accepted material for water systems
- Can withstand high temperatures, up to 200°F
- Capable of supporting process piping
- During assembly, stainless housings are lighter and easier to handle than PVC and FRP housings with equivalent pressure ratings

Table 1: Options Available

Grade	304L Stainless Steel 316L Stainless Steel
Side Ports	2" and 3" port Multi-port; (2 port standard)
Exterior Finishes	Original steel mill finish (standard) Painted with acrylic polyurethane paint in most colors (i.e., bright aluminum) Electropolished for a glossy, shiny, metallic look
Design Options	Low Energy, (LE) made with Noryl* end caps (300 & 400 psi) High pressure made with 316 stainless steel end caps (600 psi) Sanitary made with polished 316 stainless steel end caps

Table 2: Materials of Construction

End Cap	316 SS
Retaining Ring	302 SS
Support Straps	304 SS
Mounting Pads	Rubber
O-ring	Buna-N
Housing Body	304/304L or 316/316L SS
Permeate Plug	Nylon
Cap Screws	18-8 SS



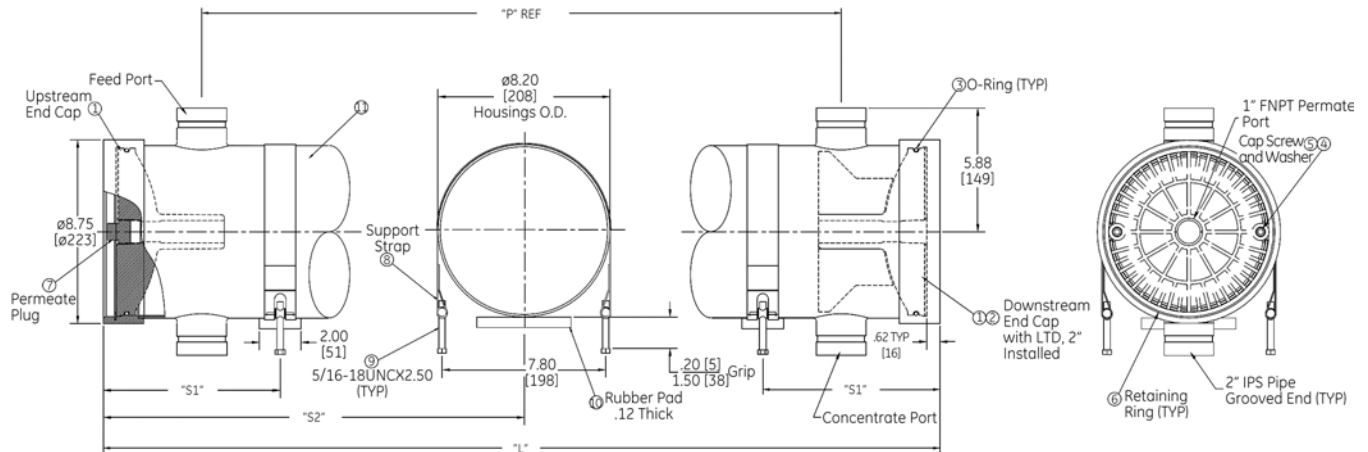
Note: End cap adapters are available for all major membrane element manufacturers

Figure 2: Housing Pressure Drop

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Standard housing packages are available in 804P-300 (300 psi), 804P-450 (450 psi), 804P-600 (600 psi), and customized. The standard packages include: Housing body, end caps, load transfer device, closure devices, mounting saddles and straps.

Figure 3: Stainless Steel Membrane Housings

Table 3: Housing Lengths

Housing Lengths (# of Elements)	L inch (mm)	P inch (mm)	S1 inch (mm)	S2 inch (mm)	Empty Weight lbs (kg)
2 – 8 x 40's	92.1 (2339)	82.8 (2103)	15.0 (381)	--	106 (48)
3 – 8 x 40's	132.2 (3358)	122.8 (3119)	23.0 (584)	--	139 (63)
4 – 8 x 40's	172.2 (4374)	162.9 (4138)	31.0 (787)	--	172 (78)
5 – 8 x 40's	212.3 (5392)	202.9 (5154)	28.0 (711)	106.2 (2697)	205 (93)
6 – 8 x 40's	252.3 (6408)	243.0 (6172)	34.0 (864)	126.2 (3205)	238 (108)

"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 4: Specifications

Specifications	804P – 300	804P – 450	804P – 600
Material	304 or 316 SS	304 or 316 SS	304 or 316 SS
Design	300 psi	450 psi	600 psi
40" Closure Kits	Noryl	Noryl and 316 SS	316 SS
Tested at	3 times design pressure	3 times design pressure	2.85 times design pressure
Tested Cycles	100,000 cycles at design pressure	100,000 cycles at design pressure	100,000 cycles at design pressure
Operating Temperature Mix	105°F	105°F	200°F
Element Capacity	2 – 6 long	2 – 6 long	2 – 6 long