

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

4-inch Side Entry

Stainless Steel Membrane Housings

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

Options Available

- Grade304L Stainless Steel
.....316L Stainless Steel
- Side Ports3/4", 1-1/4", and 1-1/2"-inch port
.....Multi-port; (2 & 4 port standard)
.....Tri-clamp (standard is Victaulic)
- FinishesOriginal steel mill finish (standard)
.....Painted with acrylic polyurethane paint in most colors (i.e., bright aluminum)
.....Electropolished for a glossy, shiny, metallic look
.....Mechanical polished (180 grit), inside diameter and/or outside diameter
- Design OptionsLow pressure made with Noryl* end caps (500 psi)
.....High pressure made with 316 stainless steel end caps (1,000 psi)
.....Sanitary made with polished 316 stainless steel end caps

Mechanical Coupling Closure

Osmonics 4" Side Entry 4-Port housings have a single-piece end cap held securely in place with a mechanical coupling. The Victaulic closure system seals with a single gasket fitted tightly around each end cap. The mechanical coupling eliminates the need for grooves or holes in the housing wall that can lead to torn O-rings. This easy-to-use design allows membrane elements to be changed quickly, without any special tools.

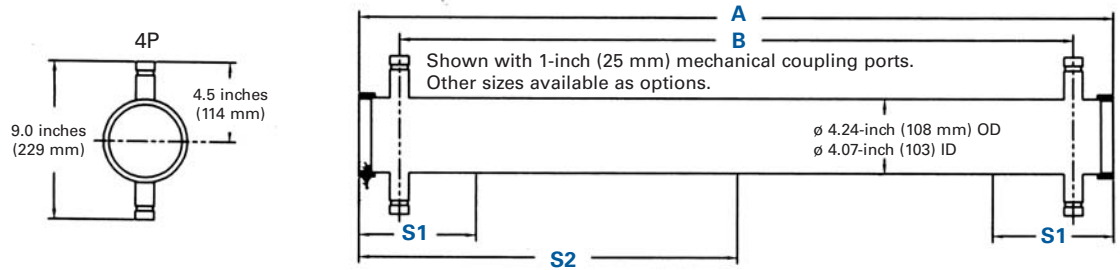
Housing Features and Benefits

The 4-Port design uses four side ports in place of high-pressure interconnecting manifolding. Directly coupling the side ports to one another reduces both fabrication time and overall assembly costs. By using interstage port plugs to direct the flow, 4-Port housings deliver superior performance in any array scheme (including two-pass systems).

Materials of Construction (500 psi)

- End Cap316 SS or Noryl (GFN)
- Victaulic CouplingGalvanized Steel
- Coupling GasketEPDM
- Support Straps304 SS
- Mounting PadsRubber
- O-ringBuna-N
- Housing Body304/304L or 316/316L SS
- Permeate PlugNylon

*Noryl is a registered trademark of General Electric Company
 Note: End cap adapters are available for all major membrane element manufacturers



- 0.75-inch (13 mm) FNPT Permeate Port Standard (1 – 3 long)
- 1.25-inch (31.75 mm) Victaulic Permeate Port Standard (3 – 6 long)
- 1.5-inch (38 mm) Tri-Clamp Permeate Port Optional

Housing Lengths (# of Elements)	Dimensions								Empty Weight with End Caps	
	A*		B		S1**		S2**		lbs	(kg)
	inch	(mm)	inch	(mm)	inch	(mm)	inch	(mm)		
1 – 4 x 40***	47.0	(1194)	43.0	(1092)	7.0	(178)	–	–	20	(9)
2 – 4 x 40s***	87.1	(2212)	83.1	(2111)	15.0	(381)	–	–	30	(14)
3 – 4 x 40s***	127.1	(3228)	123.1	(3127)	23.0	(584)	–	–	40	(18)
4 – 4 x 40s	167.1	(4244)	163.1	(4143)	21.0	(533)	–	–	50	(23)
5 – 4 x 40s	207.0	(5258)	203.0	(5156)	28.0	(711)	83.5	(2121)	60	(27)
6 – 4 x 40s	247.0	(6274)	243.0	(6172)	34.0	(864)	103.5	(2629)	70	(32)

- * Add 2-inches (51 mm) to the overall length, dimension A, to include the end caps with the housing length.
- ** 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).
- *** The two-port configuration is standard. Also available in four-port configuration.

SPECIFICATIONS	402P – 500	404P – 500	402P – 500 – TC
Material	304 or 316 SS	304 or 316 SS	304 or 316 SS
Design	500 psi	500 psi	500 psi
Closure Kits	Noryl	316 SS	316 SS
Tested at	3 times design pressure	3 times design pressure	3 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 Max	105° F	105° F	200° F
Element Capacity	1 – 3 long	2 – 6 long	2 – 6 long
Number of Ports	2	4	2
Port Size and Connection	3/4" FNPT	1-1/4" Victaulic	1-1/2" Tri-Clamp



For More Information:
 Call the Process Water Group at (952) 933-2277 or (800) 766-2599, or visit www.osmonics.com



North American Sales
 5951 Clearwater Drive
 Minnetonka, MN
 55343-8995
 USA
 (952) 933-2277 Phone
 (952) 988-6060 Fax

Euro/African Sales
 230 rue Robert Schuman
 ZA des Uselles
 77350 Le Mée sur Seine
 FRANCE
 +33 1 64 10 2000 Phone
 +33 1 64 10 3747 Fax

Asian/Pacific Sales
 1044/8 SOI 44/2
 Sukhumvit Road Prakanong
 Bangkok 10110
 THAILAND
 +66 2 38 14213 Phone
 +66 2 39 18183 Fax