

GE Housings

Quality Stainless Steel

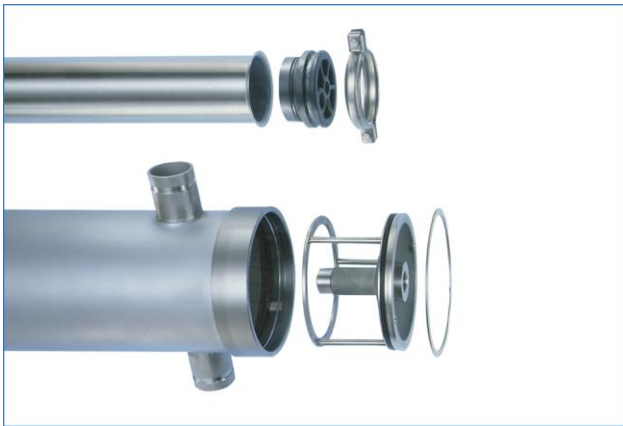


Figure 1: Stainless steel housings

Stainless Integrity

A membrane element housing is more than a piece of process pipe. GE Water & Process Technologies stainless steel housings are precision engineered to improve the overall design and performance of your system. To achieve accurate dimensions and precise tolerances, we use stainless steel tubing formed with proprietary rolls and dies. These uniform dimensions eliminate flow by-pass and ensure a tighter membrane element seal. Membrane elements stay in place, without buckling, twisting or leaking.

Whether your application requires a low-pressure process or a sanitary alternative, our host of options make it easy for you to find the perfect housing for your system or machine.

Choose from:

- 4 housing diameters
- 3 end cap variations
- Multiple entry-port options
- 3 housing finishes

GE Water & Process Technologies has come a long way since pioneering reverse osmosis (RO) technology back in 1969. GE is now leading the commercialization of RO technology to simplify system design, improve durability, and speed of delivery.

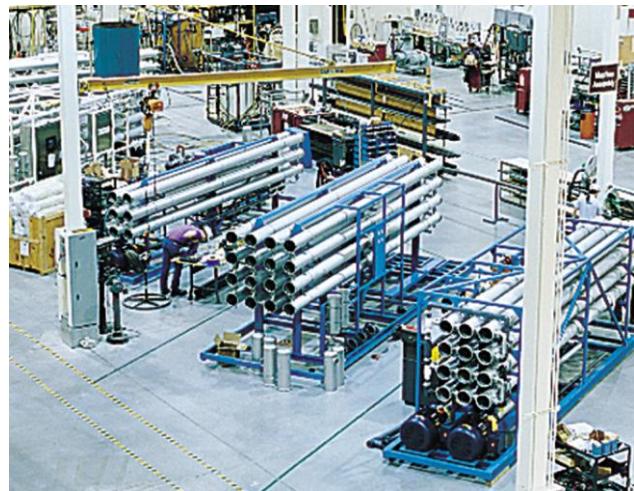


Figure 1: GE Manufacturing Facility

Why Stainless Steel?

- No seals involved in side port connections
- Can withstand high temperatures, up to 190°F (90°C)
- Capable of supporting process piping
- During assembly, stainless housings are lighter and easier to handle than PVC and FRP housings with equivalent pressure ratings
- Unlike fiberglass, does not warp, crack or weep
- Is not affected by UV rays or sunlight
- Stainless steel is a preferred and universally accepted material for water systems



Benefits

- ISO 9001 certified manufacturer
- Most energy efficient designs
- Continuing innovation in housing designs
- Single source accountability—we manufacture all of the major components of an RO system
- Delivery in 1–4 weeks

8-Inch Option List

Choose from our 8-inch housing menu, offering a variety of materials, ports and finishes.

Grade

- 304L Stainless Steel
- 316L Stainless Steel

Side Ports

- 2-inch port (standard)
- 3-inch port (optional)
- Multi-port (2–8 ports)
- Tri-clamp (standard is Victaulic)

Finishes

- Mill for a steel factory original finish (standard)
- Painted with acrylic polyurethane paint in most colors (e.g. bright aluminum)
- Electropolished for a glossy, shiny, metallic look



Figure 2: Finishes

End Caps

- Low-Energy, (LE) made with Noryl*
- High-Pressure made with 316 stainless steel
- Sanitary made with polished 316 stainless steel

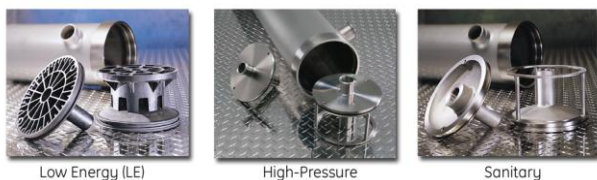


Figure 3: End Caps

GE housings are engineered with your element in mind. End Cap adapters are available for all membrane element brands, including Desal*, Osmo*, Hydranautics¹, FILMTEC² and elements manufactured by Koch Membrane Systems and FilmTec Corporation.

¹Hydranautics is a registered trademark of Hydranautics Corporation.

²FILMTEC is a registered trademark of FilmTec Corporation.

Product Families



Figure 4: Product Families



Figure 5: Painted Finish

Technical Expertise

Table 1: Housing Specs

Housing Model	Feed Port Style	Pressure Rating	Housing Lengths	Housing Material	Feed Port Connections	Feed Port Connections	Closure Design	Endcap Material	Permeate Port Connections
80 (8 Inch)	Side-Entry (2 or 4 port)	300 psi	1 – 7 element (40") long	304L SS	2 inch	Victaulic	Retaining Ring	GFN	Threaded
		450 psi		316L SS	3 inch	Tri-Clamp		316 SS	Tri-Clamp
		600 psi							
40 (4 Inch)	Side-Entry (2 or 4 port)	500 psi	1 – 6 element (40") long	304L SS	¾ inch	Victaulic	Victaulic Tri-Clamp	GFN	Threaded
		1000 psi		316L SS	1 ¼ inch	Tri-Clamp		316 SS	Victaulic
					1 ½ inch	Threaded		Tri-Clamp	Tri-Clamp
40 (4 Inch)	End-Entry	300 psi	14 – 180 inch	304L SS	¾ inch	Threaded	Half-Clamp	GFN	Threaded
25 (2.5 Inch)	End-Entry	300 psi	14 – 40 inch	304L SS	3/8 inch	Threaded	Half-Clamp	GFN	Threaded
20 (2 Inch)	End-Entry	300 psi	14 – 40 inch	304L SS	3/8 inch	Threaded	Half-Clamp	GFN	Threaded

Assuring Quality

All GE housing designs are quality certified. Each design is qualified by rapidly simulating their performance in a membrane system. Each housing design has been cycle-tested from 0 to their rated design pressure over an expected life of the housing (minimum of 100,000 cycles), as well as a hydrostatic tested to 1.3 times their design pressure. (Our Noryl endcaps are pressure tested to three times the rated operating pressure.)

All GE housings are built in our ISO 9001 certified manufacturing facility.



Figure 6: Mill Finish

Precision Manufacturing

You can see the craftsmanship in a GE housing just by looking at it. Each component is precision machined on CNC equipment. Large feed and concentrate side ports are cold-formed and welded for maximum performance. The result is the strongest side ports in the industry. No need for o-ring seals and the potential problems that can result. Our pulled-port design insures a quality circular weld on every side port.



Figure 7: Welder

To help integrate GE housings into your membrane system we provide, upon request, CAD drawings electronically. Detailed technical information is available from individual product bulletins and assembly guides. Knowledgeable application engineers can answer component integration questions. Detailed pressure drop and flow characteristics are also available.

