

8" Sanitary Family

A Full Line of Membrane Elements, Housings and Interconnectors



Figure 1: 8" Sanitary Family

A Leader in Innovative Solutions

As an industry leader in membrane technology for the past 30 plus years, GE Water & Process Technologies is dedicated to continually develop solutions for the most unique process challenges.

For critical applications in the food, beverage and biotech/pharmaceutical markets, GE has developed the new Eight-Inch Sanitary Family (Figure 1). The eight-inch sanitary membrane elements, interconnectors, housings and closure kits are precision engineered to improve the overall performance of your membrane system. Extensive in-house technical know-how, combined with the largest membrane offering available, makes GE a single-source solution for all your membrane product requirements.

8" Elements for Optimal Systems

Historically, high pressure sanitary systems have been built with four-inch elements, which has proven to have high element integrity.

A growing industry, requiring larger systems, is faced with the challenge of building plants with either thousands of four-inch elements or with hundreds of eight-inch elements.

To meet this challenge, GE has designed a full Eight-Inch Sanitary Family of spiral wound membrane elements, revolutionary interconnectors, stainless steel housings and closure kits that provides optimal performance while maintaining element integrity for larger plants. GE proven solution offers increased efficiency and overall cost savings. We manufacture the elements, housings, interconnectors and adapters in order to control tolerances and optimize system performance. The Eight-Inch Sanitary Family provides a new and economical way of high pressure and high temperature processing for sanitary applications utilizing reverse osmosis and nanofiltration.

Industry and Applications for 8" Elements

With ever-changing and more demanding markets, GE is committed to creating breakthrough solutions to improve any process operation. Table 1 illustrates a current sampling of successful eight-inch membrane applications.



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Table 1: Industry and Applications

Industry	Applications
Dairy	Protein concentration for sweet whey, lactose, milk and skim milk
Food & Beverage	Juice clarification and concentration, egg white concentration, meat brine clarification for bacteria removal and brine re-use, clarification and concentration of soy proteins
Starch and Sweeteners	Dextrose and fructose clarification and purification, dextrose enrichment, fractionation/concentration of steep water
Pharmaceutical	Purification and concentration of amino acids, protein purification and recovery, de-mineralization of blood plasma, peptide concentration, water for injection WFI, enzyme concentration, penicillin, imaging contrast agents

Protect Your Membrane Investment

Innovative in design, GE eight-inch sanitary housing elements are ideal for food and beverage processing, as well as biotech and pharmaceutical applications. The stainless steel housing is developed for operations up to 600 psig and can accommodate as many as five membrane elements. Due to its unique construction, all surfaces exposed to product are accessible to cleaning and flushing agents - meeting both USDA and 3A certification requirements. Additional benefits include:

- Ideal for Expansion and Retrofits
- Lower Membrane Replacement Cost
- Reduces Labor and System Downtime Cost by Handling Fewer Elements
- Savings in Capital for Larger Plants
- Reduces Potential for Leaks by Having Fewer Connections
- Durable Stainless Steel Construction

Reliable and easy-to-service, GE stainless steel housings can withstand even the most rugged of applications. User-friendly housings and closure kits, precision crafted stainless steel tubing and cold-formed side-entry ports ensure optimal performance.

Bringing it All Together

For successful eight-inch system operation, all elements within the housing must be properly interconnected and connected to the housing itself. To complete your eight-inch sanitary solution, GE designs and manufactures a full line of compatible interconnectors and housing adaptors that conform to both USDA and 3A standards.

GE Eight-Inch Sanitary Family maximizes your system's overall performance. With excellent technical support and the ability to customize to your specific requirements, GE is your single-source solution provider for all your membrane application needs. For additional information on the Eight-Inch Sanitary Family and available discount package options, call us today at one of the numbers listed on the back page or visit us on the Web at www.ge.com/water.

Table 2: Materials of Construction for 8" Sanitary Housings

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