

Brackish Water RO Membranes GBW Series (GBW4040)

GSI BW RO membrane elements are an important component of brackish water desalination systems, which are used to remove dissolved salts and other impurities from water sources that have a higher salt content than freshwater but lower salt content than seawater.

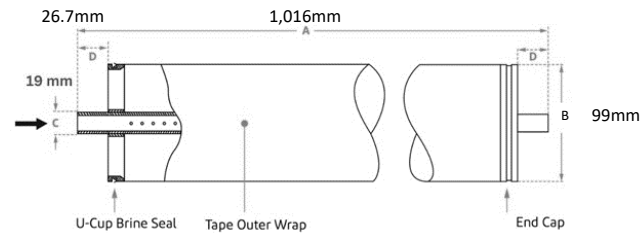
The GBW RO membrane elements are designed to provide stable and consistent membrane performance, making them ideal for use in industrial water treatment systems. Their high rejection rate for dissolved salts such as TOC and SiO₂ means they are highly effective in removing difficult-to-remove impurities, which makes them a suitable option for near zero discharge for oil and petrochemical industry waste water treatment.

One of the benefits of GBW RO membrane elements is their low operating pressure, which makes them a more cost effective alternative for industrial-grade water treatment applications. They are also suitable for use in feed water for thermal power plant boilers, as they are capable of removing impurities that can cause scaling and corrosion in the boiler system.

It's worth noting that GBW RO membrane elements are available in two sizes 4" and 8" providing flexibility in system design and installation.

Operating Specifics

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| • pH Range Continuous Operation | 2-11 |
| • pH Range Short-Term Cleaning (30min) | 1-13 |
| • Maximum Operating Temperature | 45°C (113°F) |
| • Maximum Feed Flow ³ 4040 Elements | 16 gpm (3.6m ³ /h) |
| • Maximum Operating Pressure | 41bar (600 psi) |
| • Maximum Pressure Drop per Element | 1.0 bar (15psi) |
| • Free Chlorine Tolerance | < 0.1 ppm |



Model	Membrane Area ft ² (m ²)	Max. Salt Rejection	Min. Salt Rejection	Flux, gpd (m ³ /d)	A Inch (mm)	B Inch (mm)	C Inch (mm)	D Inch (mm)
GBW4040	85(7.9)	99.7%	99.5%	2,600(9.8)	40.0(1016)	3.9(99)	0.75(19)	1.05(26.7)

Rejection & Flux rate:

- 77°F (25°C)
- PH 8-feedwater
- 2,000 ppm NaCl solution
- 15.5 bar (225 psi) pressure
- 15% recovery

Details:

- Permeate flow for individual elements from the value specified: ±15 percent.
- Guaranteed active membrane area: ±4%.
- Stabilized salt rejection is generally achieved within 24-48 hours of continuous use; depending upon feedwater characteristics and operating conditions.
- GBW4040 Element fits nominal 4-inch I.D. pressure vessel