# RE8040 -SHN 400

**CSM**°

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High Rejection RO element with extended area for seawater and high salinity well water

## SPECIFICATIONS

General Features

Permeate flow rate: 6,500 GPD (24.6 m<sup>3</sup>/day)

Nominal salt rejection: 99.75%

Effective membrane area: 400 ft<sup>2</sup> (37.2 m<sup>2</sup>)

1. The stated product performance is based on data taken after 30 minutes of operationat the following test conditions:

• 32,000 mg/L NaCl solution at 800 psig (5.5 MPa) applied pressure

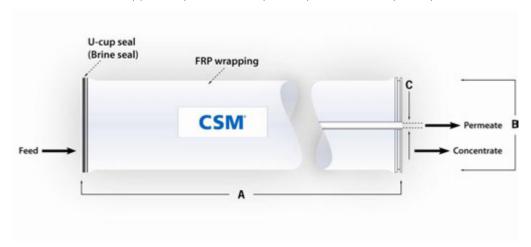
- 8% recovery
- 77 °F (25 °C)
- pH 6.5 -7.0
- 2. Boron rejection is 92.0% at pH 8.0 and 5 mg/L boron feed with the same test conditions as above.
- 3. Minimum salt rejection is 99.6%.
- 4. Permeate flow rate for each element may vary but will be no more than 5%.
- 5. All elements are vacuum sealed in a polyethylene bag containing 0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type: Thin-Film Composite
Membrane material: Polyamide(PA)

Element configuration: Spiral-Wound, FRP W rapping

#### **Dimensions**

A = 40.0 inch (1,016 mm) B = 8.0 inch (201 mm) C = 1.12 inch (28 mm)



- $1. \ Each \ membrane \ element \ upplied with \ one \ brine \ seal, one \ interconnector \ (coupler) \ and \ four \ o-rings.$
- 2. All RE8040 elementsfit nominal 8.0 inch (201 mm) I.D. pressure vessels.

The information provided in this document is solely for informative purposes It is the user's responsibility to ensure the appropriate usage of this productWoongjin Chemical assumes no obligation, liability or damages incurred for the misuse of the product or for the information provided in this document. This document does not express or implies any warranty as to the merchantability or fitness of the product.

## RE8040 -SHN 400



Normal grade RO element with extended area for seawater and high salinity well water

ΔPPI	IC AT	ION	DATA	

Operating Limits	<ul> <li>Max. Pressure Drop / Element</li> </ul>	15 psi (0.1 MPa)

· Max. Pressure Drop / 240" Vessel 60 psi (0.41 Mpa) · Max. Operating Pressure 1,200 psi (8.27 MPa) 75 gpm (17.0 m<sup>3</sup>/hr) · Max. Feed Flow Rate · Min.Concentrate Flow Rate 16 gpm (3.6 m<sup>3</sup>/hr) Max. O perating Temperature 113 °F (45 °C) · Operating pH Range 2.0-11.0 · CIP pH Range 1.0 - 13.0· Max.Turbidity 1.0 NTU · Max.SDI (15 min) 5.0

• Max. Chlorine Concentration < 0.1 mg/L

Design Guidelines for Various Water Sources

 Wastewater Conventional (SDI < 5)</li> 8-12 gfd Wastewater Pretreated by UF/MF (SDI < 3)</li> 10-14 afd 7-10 gfd · Seawater, Open Intake (SDI < 5) · Seawater, Beach Well (SDI < 3) 8-12 gfd SurfaceWater (SDI < 5)</li> 12-16 qfd SurfaceWater (SDI < 3)</li> 13-17 gfd 13-17 gfd Well water (SDI < 3)</li> · RO permeate (SDI < 1) 21-30 gfd

Saturation Limits (Using Antiscalants)

Langlier Saturation Index(LSI)
 Stiff and Davis Saturation Index(SDSI)
 +0.5

CaSO 4
 SrSO 4
 BaSO 4
 SiO 2
 230% saturation
 800% saturation
 6,000% saturation
 100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user's responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membranesystem to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

## GENERAL HANDLING PROCEDURES

Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40 –95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged a new preservative solution (sodium bisulfite) must be added and airtight seabd to prevent drying and biological growth.

Permeate from the first hour of operation should be discarded to flush out the preservative solution.

Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.

Keep elements moist at all times after initial wetting.

Avoid excessive pressure and flow spikes.

Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.

Permeate pressure must always be equal or less than the feed concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

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