## **RE8040-BN**



Low pressure grade RO element with thick feed spacer for brackish water

### **SPECIFICATIONS:**

General Features

**Permeate flow rate:** 9,500 GPD (36.0 m<sup>3</sup>/day)

Nominal salt rejection: 99.7%

**Effective membrane area:** 365 ft<sup>2</sup> (33.9 m<sup>2</sup>)

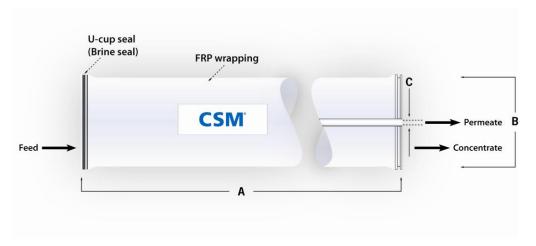
- 1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
  - 2,000 mg/L NaCl solution at 225 psig (1.5 MPa) applied pressure
  - I5% recovery
  - 77 °F (25 °C)
  - pH 6.5-7.0
- 2. Minimum salt rejection is 99.4%.
- 3. Permeate flow rate for each element may vary but will be no more than 15.
- 4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

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

**Element configuration:** Spiral-Wound, FRP Wrapping

#### **Dimensions**

Model Name	A	В	С	Weight	Part Number	
					Inter- connector	Brine Seal
RE8040-BN	40.0 inch (1,016 mm)	8.0 inch (201 mm)	1.12 inch (28 mm)	15 kg	40000308	40000309



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

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### **APPLICATION DATA:**

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)	
	· Max. Pressure Drop / 240" Vessel	60 psi (0.41 Mpa) 600 psi (4.14 MPa) 75 gpm (17.0 m³/hr) 16 gpm (3.6 m³/hr) 113 °F (45 °C) 2.0–11.0 1.0–13.0 1.0 NTU 5.0	
	· Max. Operating Pressure		
	Max. Feed Flow Rate		
	· Min. Concentrate Flow Rate		
	· Max. Operating Temperature		
	· Operating pH Range		
	· CIP pH Range		
	· Max.Turbidity		
	· Max. SDI (15 min)		
	· Max. Chlorine Concentration	< 0.1 mg/L	
Design Guidelines for Various	· Wastewater Conventional (SDI < 5)	8–12 gfd	
Water Sources	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd	
	· Seawater, Open Intake (SDI < 5)	7–10 gfd	
	Seawater, Beach Well (SDI < 3)	8–12 gfd	
	Surface Water (SDI < 5)	12–16 gfd	
	· Surface Water (SDI < 3)	13–17 gfd	
	· Well water (SDI < 3)	13–17 gfd	
	· RO permeate (SDI < I)	21–30 gfd	
	No permeate (SDI < 1)	21-30 glu	
Saturation Limits	· Langlier Saturation Index (LSI)	<+1.5	
(Using Antiscalants) <sup>T</sup>	· Stiff and Davis Saturation Index (SDSI)	<+0.5	
	· CaSO <sub>4</sub>	230% saturation	
	· SrSO <sub>4</sub>	800% saturation	
	· BaSO4	6,000% saturation	
	· SiO <sub>2</sub>	100% saturation	
	<sup>†</sup> 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 membrane system 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 air-tight sealed 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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