# **RE2540-CE**



Innovative chlorine resistant RO element for prolonged membrane lifetime

### **SPECIFICATIONS:**

General Features

**Permeate flow rate:** 600 GPD (2.3 m<sup>3</sup>/day)

Stabilized salt rejection: 99.5%

Effective membrane area: 27 ft<sup>2</sup> (2.5 m<sup>2</sup>)

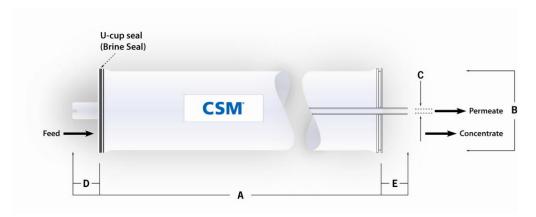
- 1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
  - 2,000 mg/L NaCl solution at 225 psig (1.5 MPa) applied pressure
  - 15% recovery
  - 77 °F (25 °C)
  - pH 6.5-7.0
- 2. Minimum salt rejection is 99.0%.
- 3. Permeate flow rate 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**

	A	В	С	D	E	Part Number	
Model Name						Inter- connector	Brine Seal
RE2540-CE	40.0 inch (1,016 mm)	2.5 inch (64 mm)	0.75 inch (19.1 mm)	1.1 inch (28 mm)	1.1 inch (28 mm)	40000305	40000223



- 1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
- 2. All RE2540 elements fit nominal 2.5 inch (64 mm) I.D. pressure vessels.

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### Woongjin Chemical Co., Ltd.

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### **APPLICATION 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)	
	M. O	400 · (4   4 N4D )	

Max. Operating Pressure
 Max. Feed Flow Rate
 Min. Concentrate Flow Rate
 Max. Operating Temperature
 Operating pH Range
 CIP pH Range
 600 psi (4.14 MPa)
 1 gpm (0.23 m³/hr)
 I gpm (0.23 m³/hr)
 I 13 ∘ F (45 ∘ C)
 2.0-I1.0
 I.0-I3.0

Max.TurbidityMax.SDI (15 min)5.0

· Free Chlorine Tolerance 5,000 ppm hr

# Design Guidelines for Various Water Sources

•	Wastewater Conventional (SDI < 5)	8–12 gfd
	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

# Saturation Limits (Using Antiscalants)<sup>†</sup>

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

CaSO<sub>4</sub>
 SrSO<sub>4</sub>
 BaSO<sub>4</sub>
 SiO<sub>2</sub>
 230% saturation
 800% saturation
 6,000% saturation
 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.