RE4040-SH

Normal grade RO element for seawater and high salinity well water

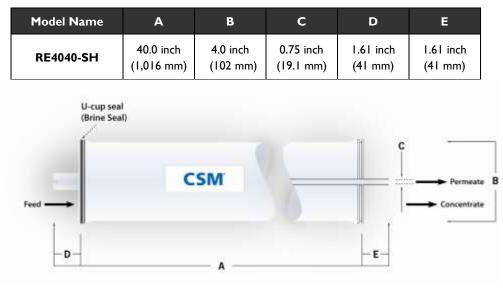
SPECIFICATIONS:

General Features	Permeate flow rate:	1,000 GPD (3.8 m³/day)
	Nominal salt rejection:	99.75%
	Effective membrane area:	74 ft ² (6.9 m ²)

- 1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
 - 32,000 mg/L NaCl solution at 800 psig (5.5 MPa) applied pressure
 - 8% recovery
 - 77 °F (25 °Č)
 - pH 6.5–7.0
- 2. Minimum salt rejection is 99.5%.
- 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 Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions



A = 40.0 inch (1,016 mm) **B** = 4.0 inch (102 mm) **C** = 0.75 inch (19.1 mm)

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings. 2. All RE4040 elements fit nominal 4.0 inch (102 mm) I.D. pressure vessels.

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APPLICATION DATA:

Operating Limits	 Max. Pressure Drop / Element Max. Pressure Drop / 240" Vessel 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 	15 psi (0.1 MPa) 60 psi (0.41 Mpa) 1,200 psi (8.27 MPa) 18 gpm (4.09 m³/hr) 4 gpm (0.91 m³/hr) 113 °F (45 °C) 3.0–10.0 2.0–11.0 1.0 NTU 5.0 < 0.1 mg/L
Design Guidelines for Various Water Sources	 Wastewater Conventional (SDI < 5) Wastewater Pretreated by UF/MF (SDI < 3) Seawater, Open Intake (SDI < 5) Seawater, Beach Well (SDI < 3) Surface Water (SDI < 5) Surface Water (SDI < 3) Well water (SDI < 3) RO permeate (SDI < 1) 	8–12 gfd 10–14 gfd 7–10 gfd 8–12 gfd 12–16 gfd 13–17 gfd 13–17 gfd 21–30 gfd
Saturation Limits (Using Antiscalants) [†]	 Langlier Saturation Index (LSI) Stiff and Davis Saturation Index (SDSI) CaSO4 SrSO4 BaSO4 SiO2 ¹The above saturation limits are typically accepted by manufacturers. It is the user's responsibility to ensurconcentration are dosed ahead of the membrane system. M or damaged due to scale formation are not covered 	e proper chemical(s) and stem to prevent scale lembrane elements fouled

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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