RE 4040-CE





Innovative c hlorine resistant RO element for prolonged membrane lifetime

SPECIFICATIONS

General Features Permeate flow rate: 1,900 GPD (7.2 m³/day)

Nominal salt rejection: 99.5% Effective membrane area: 85ft² (7.9m²)

1. The stated product performance is based on data taken after 30 minutes of operationat 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%.

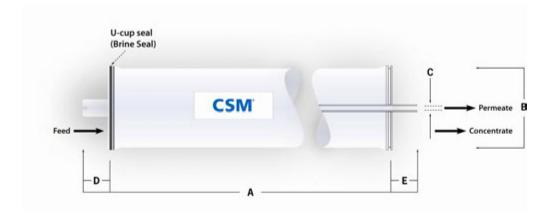
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individuallypackaged in a cardboard box

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

Element configuration: Spiral-Wound, FRP W rapping

Dimensions

						Part Number	
Model Name	A	В	С	D	E	Inter - connector	Brine Seal
RE40 40-CE	40.0 inch (1,016 mm)	4.0 inch (102 mm)	0.75 inch (19.1 mm)	1.05 inch (26.7 mm)	1.05 inch (26.7 mm)	40000305	40000306



- 1. Each membrane elementsupplied with one brine seal, one interconnector (coupler) and four o-rings.
- 2. All RE4040 elementsfit nominal4.0 inch (102 mm) I.D. pressure vessels.

The information provided in this document issolely 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.

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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) Max. Operating Pressure 600 psi (4.14 MPa) · Max. Feed Flow Rate 18 gpm (4.09 m³/hr) · Min.Concentrate Flow Rate 4 gpm (0.91 m³/hr) · Max. Operating 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

• Free ChlorineTolerance 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 SurfaceWater (SDI < 5) 12-16 qfd SurfaceWater (SDI < 3) 13-17 gfd 13-17 gfd Well water (SDI < 3) 21-30 gfd · RO permeate (SDI < 1)

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 membrane system to preventcale 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 pressue. Damage caused by permeate back pressure voids the element limited warranty.



info@ilser.com Tel: +90 232 441 1 441 www.ilsersuaritma.com Fax: +90 232 441 09 19