# RE 4040-BE

**CSM** 

LENNTECH

info@lenntech.com Tel. +31-152-610-900 www.lenntech.com Fax. +31-152-616-289

High productivity RO element with extended area for brackish water

### SPECIFICATIONS

General Features

Permeate flow rate: 2,400 GPD (9.1 m<sup>3</sup>/day)

Nominal salt rejection: 99.7%

Effective membrane area: 85 ft<sup>2</sup> (7.9 m<sup>2</sup>)

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

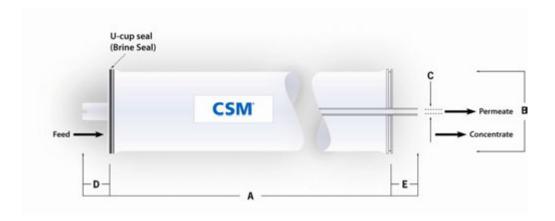
- 15% recovery
- 77 ∘F (25 ∘Ć)
- pH 6.5 -7.0
- 2. Minimum salt rejection is 99.4%.
- 3. Permeate flow rate for each element may vary but will be no more than 15%.
- 4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

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

Element configuration: Spiral-Wound, FRP W rapping

### Dimensions

Model						Part Number	
Name	А	В	С	D	Е	Inter -	Brine Seal
						connector	Sime Scui
RE40 40-BE	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 elementupplied 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.

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.

## RE 4040-BE



Mpa)

High productivity RO element with extended area for brackish water

### APPLICATION DATA

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240" Vessel	60 psi (0.41 Mpa)

· Max.SDI (15 min)

· Max. Operating Pressure 600 psi (4.14 MPa) · Max. Feed Flow Rate 18 gpm (4.09 m<sup>3</sup>/hr) Min.Concentrate Flow Rate 4 gpm (0.91 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. 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)</li> · 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)</li> 21-30 gfd

**Saturation Limits** (Using Antiscalants) · Langlier Saturation Index(LSI) <+1.5 · Stiff and Davis Saturation Index(SDSI) <+0.5

· CaSO<sub>4</sub> 230% saturation · SrSO<sub>4</sub> 800% saturation · BaSO<sub>4</sub> 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 airtight 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 weightodium 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.

5.0

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.

LENNTECH

info@lenntech.com Tel. +31-152-610-900 www.lenntech.com Fax. +31-152-616-289