# **RE2521-BLF**



Ultra-low pressure grade RO element for low TDS water

#### **SPECIFICATIONS:**

**General Features** 

Permeate flow rate: 400 GPD (1.5 m<sup>3</sup>/day)

Nominal salt rejection: 99.0%

Effective membrane area: 12 ft2 (1.1 m2)

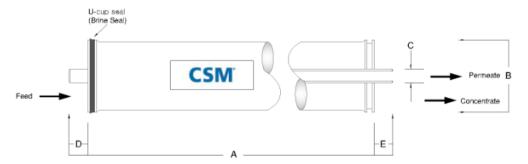
- 1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
  - 500 mg/L NaCl solution at 100 psig (0.69 MPa) applied pressure
  - 8% recovery
  - 77 °F (25 °C)
  - pH 6.5-7.0
- 2. Minimum salt rejection is 99.0%.
- 3. Permeate flow rate for each element may vary +25 / -25%.
- 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 Polyamide (PA) Membrane material:

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

#### **Dimensions**

	A	В	С	D/E	Part Number	
Model Name					Inter- connector	Brine Seal
RE2521-BLF	21.0 inch (533.4 mm)	2.4 inch (60.8 mm)	0.75 inch (19.1 mm)	1.1 inch (28.0 mm)	SWA01050	SWA01047



- 1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
- 2. All RE2521 elements fit nominal 2.5 inch (63.5 mm) I.D. pressure vessels.

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For more information on our products, company and regional contacts, please visit our website at www.csmfilter.com. Product Specification Sheet / Model RE2521-BLF Rev.3.1 December 2017

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#### **APPLICATION DATA:**

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa) 60 psi (0.41 Mpa) 600 psi (4.14 MPa) 6 gpm (1.36 m³/hr) 1 gpm (0.23 m³/hr) 113 °F (45 °C)	
	Max. Pressure Drop / 240" Vessel		
	Max. Operating Pressure		
	Max. Feed Flow Rate		
	· Min. Concentrate Flow Rate		
	· Max. Operating Temperature		
	· Operating pH Range	2.0-11.0	
	· CIP pH Range	1.0-13.0	
	· Max.Turbidity	I.0 NTU	
	Max. SDI (15 min)	5.0	
	· Max. Chlorine Concentration	< 0.05 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)

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

•	Langlier Saturation Index (LSI)	<+1.5
	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.

21-30 gfd

 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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