# RE8040 -FE <sup>n</sup>34

:

Enhanced f ouling resistant RO element for brackish water and wastewater reuse

### SPECIFICATIONS

General Features	Permeate flow rate: 10,500 GPD (39.7 m <sup>3</sup> /day)								
reatures	Nominal salt rejection: 99.7% Effective membrane area: 400 ft² (37.2 m²) Feed spacer thickness : 34 mil								
							1. The stated product performance is based on data taken after 30 minutes of operationat the following test conditions:		
	<ul> <li>2,000 mg/L NaCl solution at 225 psig (1.5 MPa) applied pressure</li> <li>15% recovery</li> <li>77 °F (25 °C)</li> <li>pH 6.5 – 7.0</li> </ul> 2. Minimum salt rejection is 994%.								
	5. All elements are vacuum sealed in a polyethylene bag containing 1.0% S <b>RS</b> odium bisulfite) solution and individuallypackaged in a cardboard box.								
			ckaged in a car	dboard box.					
	Dimensions	Membrane type: Membrane materia Element configurat	Thi I: Pol	dboard box. in-Film Comp lyamide(PA) iral-Wound, FF		g	Part Nu	mbo r	
and	Membrane type: Membrane materia	Thi I: Pol	in-Film Comp lyamide(PA)		g Weight	Part Nu Inter -	mbe r		
and	Membrane type: Membrane materia Element configurat	Thi I: Pol ion: Spi	in-Film Comp lyamide(PA) iral-Wound, FF	RP W rapping			mbe r Brine Seal		
Dimensions and Weight	Membrane type: Membrane materia Element configurat	Thi I: Pol ion: Spi	in-Film Comp lyamide(PA) iral-Wound, FF	RP W rapping		Inter -			

CSM

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В

Permeate
 Concentrate

Each membrane elementsupplied with one brine seal, one interconnector (coupler) and four o-rings.
 All RE8040 elements fit nominal 8.0 inch (201 mm) I.D. pressure vessels.

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### APPLICATION DATA :

Operating Limits					
Operating Limits	Max. Pressure Drop / Element	15 psi (0.1 MPa)			
	Max. Pressure Drop / 240" Vessel	60 psi (0.41 Mpa)			
	Max. O peratingPressure	600 psi (4.14 MPa)			
	<ul> <li>Max. Feed Flow Rate</li> </ul>	75 gpm (17.0 m³/hr)			
	<ul> <li>Min.Concentrate Flow Rate</li> </ul>	16 gpm (3.6 m³/hr)			
	<ul> <li>Max. O peratingTemperature</li> </ul>	113 °F (45 °C)			
	<ul> <li>Operating pH Range</li> </ul>	2.0–11.0			
	· CIP pH Range	1.0–13.0			
	<ul> <li>Max.Turbidity</li> </ul>	1.0 NTU			
	Max.SDI (15 min)	5.0			
	• Max. Chlorine Concentration	< 0.1 mg/L			
Design Guidelines for Various	• Waste water Conventional (SDI < 5)	8–12 gfd			
Water Sources	• Waste water 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 W ater (SDI $<$ 5)	12–16 gfd			
	• SurfaceWater (SDI $<$ 3)	13–17 gfd			
	• Well water (SDI < 3)	13–17 gfd			
	• RO permeate (SDI < 1)	21–30 gfd			
Saturation Limits	• Langlier Saturation Index(LSI)	<+1.5			
(Using Antiscalants) <sup>†</sup>	Stiff and Davis Saturation Index (SDSI)	<+0.5			
	· CaSO <sub>4</sub>	230% saturation			
	· SrSO <sub>4</sub>	800% saturation			
	· BaSO4	6,000% saturation			
	· SiO <sub>2</sub>	100% saturation			
<sup>†</sup> The above saturation limits are typically accepted by proprietary antisca manufacturers. It is the user's responsibility to ensure proper chemical(s) concentration are dosed ahead of the membrane system to prevent scal formation anywhere within the membrane system. Membrane elements or damaged due to scale formation are not covered by the limited warra					

#### GENER AL HANDLING PROCEDURES

Elements contained in the boxes must be kept dry at room temperature  $(7-32^{\circ}C; 40-95^{\circ}F)$  and should not be stored in direct sunlight. If the polyethylene bag is damaged a new preservative solution (sodium bisulfite) must be added andair-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 shdbwns 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 adequae 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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