RE8040 - B R

High Rejection RO element with thick feed spacer for brackish water

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SPECIFICATIONS

| Nominal salt reject | ion: 99 | .75% | | | | |
|---|---|---|--|---|---|--|
| 1. The stated product test conditions: | t performance | eis based on d | ata taken aft | ter 30 minut | es of operation | at the following |
| • 2,000 mg/L NaCl • 15% recovery • 77 ∘F (25 ∘C) • pH 6.5 –7.0 | solution at | 225 psig (1 | .5 MPa) app | lied pressur | e | |
| Permeate flow rate All elements are value | e for each elen Icuum sealed | in a polyethyl | | | | bisulfite) solution |
| | l: Po | lyamide(PA) | | g | | |
| Model Name | A | В | C | Weight | Part Nu Inter - | ımber Brine Seal |
| RE 8040 - BR | 40.0 inch (1,016 mm) | 8.0 inch (201 mm) | 1.12 inch (28 mm) | 15 kg | connector 40000308 | 40000309 |
| | | FRP wrappin | g | | | → Permeate B Concentrate |
| | Nominal salt reject Effective membrane 1. The stated product test conditions: 2,000 mg/L NaCl 15% recovery 77 °F (25 °C) pH 6.5 -7.0 2. Minimum salt reject 3. Permeate flow rate 4. All elements are var and individuallypac Membrane type: Membrane materia Element configurat Model Name RE 8040 - B R | Nominal salt rejection: 99 Effective membrane area: 38 1. The stated product performance test conditions: 9 • 2,000 mg/L NaCl solution at 15% recovery 9 • 77 °F (25 °C) • pH 6.5 –7.0 2. Minimum salt rejection is 994%. 3. Permeate flow rate for each elem 4. All elements are vacuum sealed and individuallypackaged in a ca Membrane type: Th Membrane material: Po Element configuration: Sp Model Name A 40.0 inch 40.0 inch | Nominal salt rejection: 99.75% Effective membrane area: 380 ft² (35.3 m²) 1. The stated product performance is based on d test conditions: 2,000 mg/L NaCl solution at 225 psig (1 + 15% recovery • 2,000 mg/L NaCl solution at 225 psig (1 + 15% recovery • 77 °F (25 °C) • pH 6.5 - 7.0 2. Minimum salt rejection is 994%. 3. Permeate flow rate for each element may vary 4. All elements are vacuum sealed in a polyethyla and individuallypackaged in a cardboard box. Membrane type: Thin-Film Comp Membrane material: Polyamide(PA) Element configuration: Spiral-Wound, Ff Model Name A B RE 8040 - B R 40.0 inch (1,016 mm) 8.0 inch (201 mm) | Nominal salt rejection: 99.75% Effective membrane area: 380 ft² (35.3 m²) 1. The stated product performance is based on data taken aftest conditions: 2,000 mg/L NaCl solution at 225 psig (1.5 MPa) app 15% recovery • 2,000 mg/L NaCl solution at 225 psig (1.5 MPa) app 15% recovery • 77 °F (25 °C) • pH 6.5 -7.0 2. Minimum salt rejection is 994%. 3. Permeate flow rate for each element may vary but will be 4. All elements are vacuum sealed in a polyethylene bag cor and individuallypackaged in a cardboard box. Membrane type: Thin-Film Composite Membrane material: Polyamide(PA) Element configuration: Spiral-Wound, FRP W rappin Model Name A B C RE 8040 - B R 40.0 inch (201 mm) 1.12 inch (28 mm) | Nominal salt rejection: 99.75% Effective membrane area: 380 ft² (35.3 m²) 1. The stated product performance is based on data taken after 30 minut test conditions: 2,000 mg/L NaCl solution at 225 psig (1.5 MPa) applied pressur • 2,000 mg/L NaCl solution at 15% recovery 225 psig (1.5 MPa) applied pressur • 15% recovery 77 of (25 of) • pH 6.5 - 7.0 2 2. Minimum salt rejection is 994%. 3. Permeate flow rate for each element may vary but will be no more that 4. All elements are vacuum sealed in a polyethylene bag containing 1.09 and individuallypackaged in a cardboard box. Membrane type: Thin-Film Composite Membrane material: Polyamide(PA) Element configuration: Spiral-Wound, FRP W rapping Model Name A B C Weight RE 8040 - B R 40.0 inch (201 mm) (28 mm) 15 kg U-cup seal (Brine seal) FRP wrapping | Nominal salt rejection: 99.75% Effective membrane area: 380 ft² (35.3 m²) 1. The stated product performance is based on data taken after 30 minutes of operation 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 994%. 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 land individuallypackaged in a cardboard box. Membrane type: Thin-Film Composite Membrane material: Polyamide(PA) Element configuration: Spiral-Wound, FRP W rapping Model Name A B C Weight Inter-connector RE 8040 - B R 40.0 inch (201 mm) (201 mm) 15 kg 40000308 C |

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High Rejection RO element with thick feed spacer for brackish water

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APPLICATION DATA

| a | | | | |
|--|--|---|--|--|
| Operating Limits | Max. Pressure Drop / Element | 15 psi (0.1 MPa) | | |
| | Max. Pressure Drop / 240" Vessel | 60 psi (0.41 Mpa) 600 psi (4.14 MPa) | | |
| | Max. O peratingPressure | | | |
| | Max. Feed Flow Rate | 75 gpm (17.0 m³/hr) | | |
| | Min.Concentrate Flow Rate | 16 gpm (3.6 m³/hr) | | |
| | Max. O peratingTemperature | 113 °F (45 °C) | | |
| | Operating pH Range | 2.0–11.0 | | |
| | · CIP pH Range | 1.0–13.0 1.0 NTU | | |
| | Max.Turbidity | | | |
| | Max.SDI (15 min) | 5.0 | | |
| | Max. Chlorine Concentration | < 0.1 mg/L | | |
| 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 gfd | | |
| | • SurfaceWater (SDI $<$ 3) | 13–17 gfd | | |
| | • Well water (SDI < 3) | 13–17 gfd | | |
| | RO permeate (SDI < 1) | 21–30 gfd | | |
| Saturation Limits (Using Antiscalants) [†] | Langlier Saturation Index(LSI) | <+1.5 | | |
| | • Stiff and Davis Saturation Index(SDSI) | <+0.5 | | |
| | • CaSO 4 | 230% saturation | | |
| | • SrSO ₄ | 800% saturation | | |
| | · BaSO4 | 6,000% saturation | | |
| | · SiO ₂ | 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 concentrationare 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 $(7-32^{\circ}C; 40-95^{\circ}F)$ and should not be stored in direct sunlight. If the polyethylene bag is damaged a new preservative solution (sodium bisulfite) must be added 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 weight sodium bisfite 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 **b** permeate back pressure voids the element limited warranty.

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