

Low pressure grade RO element for brackish water

- Low-Energy Consumption



Semiconductor

Municipal

SPECIFICATIONS

General Features

Permeate Flow Rate	1,200 GPD (4.5 m ³ /day)
Nominal Salt Rejection	99.2% (Minimum 99.0%)
Effective Membrane Area	35ft ² (3.3 m ²)
Membrane Type	Thin-Film Composite
Membrane Material	Polyamide (PA)
Element Configuration	Spiral-Wound, FRP Wrapping

Test Conditions: 1,500 mg/L NaCl solution at 150 psig (1.03 MPa) applied pressure; 15% recovery; 77°F(25°C); pH 6.5–7.0; Permeate flow rate for each element may vary +25 / -25%.

Dimensions and Weight

Model Name	A	B	C	D/E	Part Number	
					Inter-Connector	Brine Seal
RE4021-BLN	21.0 inch (533.4 mm)	3.9 inch (99 mm)	0.75 inch (19.1 mm)	1.1 inch (28.0 mm)	SWA01050	SWA01046



1. Each membrane element supplied with one interconnector (coupler) and four O-rings.
2. All RE4021 elements fit nominal 4.0 inch (101.6 mm) I.D. pressure vessels.

Low pressure grade RO element for low TDS water

APPLICATION DATA

Operating Limits

Max. Pressure Drop / Element	15 psi (0.10 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 m ³ /hr)
Min. Concentrate Flow Rate	4 gpm (0.91 m ³ /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
Max. Chlorine Concentration	< 0.1 mg/L

- 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.
- For WET-TYPE, the preservative solution (1% sodium metabisulfite solution) is added to prohibit the growth of micro-organisms.
- Permeate from the first hour of operation should be discarded.
- Stabilized salt rejection is generally achieved within 1~48 hours of continuous use.
- 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.
- The element shell is FRP(Fiber Reinforced Plastic). Be aware of glass fiber strands and use safety equipment.