

Special NF element to remove sulfate ions in seawater

- High Sulfate Rejection
- Moderate Rejection of Hardness



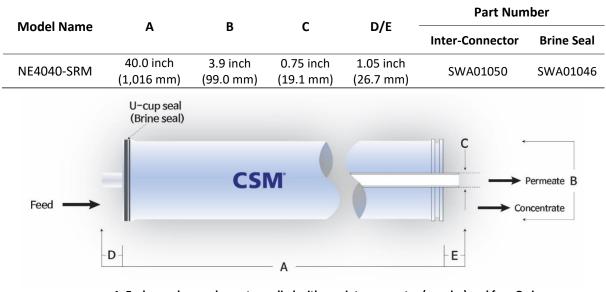
CSM®

### SPECIFICATIONS -

General Features	
Permeate Flow Rate	1,800 GPD (6.8 m <sup>3</sup> /day)
MgSO <sub>4</sub> Rejection	99.5% (Minimum 99.0%)
Effective Membrane Area	85 ft <sup>2</sup> (7.9 m <sup>2</sup> )
Membrane Type	Thin-Film Composite
Membrane Material	Polyamide (PA)
Element Configuration	Spiral-Wound, FRP Wrapping

**Test Conditions:** 2,000 mg/L MgSO<sub>4</sub> solution at 75 psig (0.52 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**



1. Each membrane element supplied with one interconnector (coupler) and four O-rings. 2. All NE4040 elements fit nominal 4.0 inch (101.6 mm) I.D. pressure vessels.

Toray Advanced Materials Korea Inc.

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# **NE4040-SRM**



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## 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 m³/hr)
Min. Concentrate Flow Rate	4 gpm (0.91 m³/hr)
Max. Operating Temperature	113°F (45°C)
Operating pH Range	3.0 - 10.0
CIP pH Range	2.0 - 11.0
Max. Turbidity	1.0 NTU
Max. SDI (15 min)	5.0
Max. Chlorine Concentration	< 0.1 mg/L

## 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.
- Permeate from the first hour of operation should be discarded.
- Keep elements moist at all times after initial wetting.
- Salt rejection would be stabilized within 48 hours of continuous operation depending on feedwater and operating conditions, but may take over a week for dry elements.

- 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.

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