# NE4040-90 NF element with high monovalent ion rejection



- High Removal of TOC, nitrate
- Low Energy Consumption
- Wide pH Tolerance Range of 1-12







### **SPECIFICATIONS** •-

#### **General Features**

Permeate Flow Rate 1,700 GPD (6.4 m<sup>3</sup>/day)

NaCl Rejection 90 – 97%

Effective Membrane Area 85 ft<sup>2</sup> (7.9 m<sup>2</sup>)

Membrane Type Thin-Film Composite

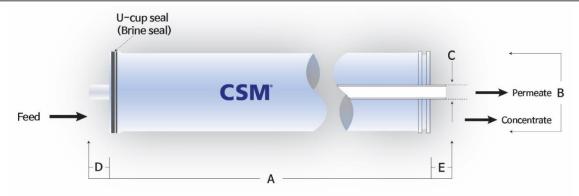
Membrane Material Polyamide (PA)

**Element Configuration** Spiral-Wound, FRP Wrapping

**Test Conditions:** 2,000 mg/L NaCl solution at 75 psig (0.52 MPa) applied pressure; 15% recovery;  $77^{\circ}F(25^{\circ}C)$ ; pH 6.5–7.0; Permeate flow rate for each element may vary +25 / -25%.

### **Dimensions and Weight**

NA o del Novo		В	С	D/E	Part Number	
Model Name	ie A				Inter-Connector	Brine Seal
NE4040-90	40.0 inch (1,016 mm)	3.9 inch (99.0 mm)	0.75 inch (19.1 mm)	1.05 inch (26.7 mm)	SWA01050	SWA01046



- 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.

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### **APPLICATION DATA** •

### **Operating Limits**

Max. Pressure Drop / Element15 psi (0.10 MPa)Max. Pressure Drop / 240" Vessel60 psi (0.41 MPa)Max. Operating Pressure600 psi (4.14 MPa)Max. Feed Flow Rate18 gpm (4.09 m³/hr)Min. Concentrate Flow Rate4 gpm (0.91 m³/hr)Max. Operating Temperature113°F (45°C)Operating pH Range3.0 – 10.0CIP pH Range1.0 – 12.0Max. Turbidity1.0 NTUMax. SDI (15 min)5.0Max. Chlorine Concentration< 0.1 mg/L		
Max. Operating Pressure $600 \text{ psi } (4.14 \text{ MPa})$ Max. Feed Flow Rate $18 \text{ gpm } (4.09 \text{ m}^3/\text{hr})$ Min. Concentrate Flow Rate $4 \text{ gpm } (0.91 \text{ m}^3/\text{hr})$ Max. Operating Temperature $113^{\circ}\text{F } (45^{\circ}\text{C})$ Operating pH Range $3.0 - 10.0$ CIP pH Range $1.0 - 12.0$ Max. Turbidity $1.0 \text{ NTU}$ Max. SDI (15 min) $5.0$	Max. Pressure Drop / Element	15 psi (0.10 MPa)
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Operating pH Range       3.0 – 10.0         CIP pH Range       1.0 – 12.0         Max. Turbidity       1.0 NTU         Max. SDI (15 min)       5.0	Min. Concentrate Flow Rate	4 gpm (0.91 m³/hr)
CIP pH Range       1.0 – 12.0         Max. Turbidity       1.0 NTU         Max. SDI (15 min)       5.0	Max. Operating Temperature	113°F (45°C)
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Max. SDI (15 min) 5.0	CIP pH Range	1.0 – 12.0
	Max. Turbidity	1.0 NTU
Max. Chlorine Concentration < 0.1 mg/L	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.

