NE8040-90



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Normal grade NF element with

high monovalent ion rejection

SPECIFICATIONS

General Features

Permeate flow rate 1: 7,500 GPD (28.4 m³/day)

Monovalent ion rejection (NaCl) 1: 85.0 - 95.0%Divalent ion rejection (CaCl $_2$)2: 90.0 - 95.0%Effective membrane area: $400 \text{ ft}^2 (37.2 \text{ m}^2)$

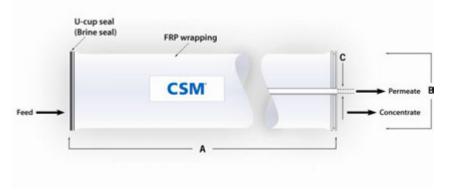
- 1. The stated product performance is based on data taken after 30 minutes of operationat the following monovalenttest conditions:
 - 2,000 mg/L NaCl solution at 75 psig (0.5 MPa) applied pressure
 - 15% recov ery
 - 77 °F (25 °C)
 - pH 6.5 -7.0
- 2. The stated product performance is based on data taken after 30 minutes of operationat the following divalent testconditions:
 - 500 mg/L CaCl ₂ solution at 75 psig (0.5 MPa) applied pressure
 - 15% recovery
 - 77 °F (25 °C)
 - pH 6.5 -7.0
- 3. MgSO₄ rejection is 97.0%.(Test conditions are equivalent with NaCl)
- 4. Permeate flow rate for each element may vary but will be no more than 20%.
- 5. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) ution and individually packaged in a cardboard box.

Membrane type: Thin-Film Composite
Membrane material: Polyamide(PA)

Element configuration: Spiral-Wound, FRP W rapping

Dimensions and Weight

Model Name	A	В	С	Weight	Part Number	
					Inter - connector	Brine Seal
N E 8040 -90	40.0 inch (1,016 mm)	8.0 inch (201 mm)	1.12 inch (28 mm)	15 kg	40000308	40000309



- 1. Each membrane elemensupplied with one brine seal, one interconnector (coupler) and four o-rings.
- 2. All NE8040 elements fit nominal 8.0 inch (201 mm) I.D. pressure vessels.

The information provided in this document is solely for informative purposedt is the user's responsibility to ensure the appropriate usage of this productWoongjin Chemical assumes no obligation, liability or damages incurrefor the misuse of the product or for the information provided in this documentThis document does not express or implies any warranty as to the merchantability or fitness of the product.

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APPLICATION DATA

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	 Max. Pressure Drop / 240" Vessel 	60 psi (0.41 Mpa)

· Max. Operating Pressure 600 psi (4.14 MPa) · Max. Feed Flow Rate 75 gpm (17.0 m³/hr) Min.Concentrate Flow Rate 16 gpm (3.6 m³/hr) Max. O perating 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

Design Guidelines for Various Wastewater Conventional (SDI < 5) **Water Sources**

 Wastewater Pretreated by UF/MF (SDI < 3) 10-14 gfd 7-10 gfd Seawater, Open Intake (SDI < 5) Seawater, Beach Well (SDI < 3) 8-12 gfd SurfaceW ater (SDI < 5) 12-16 qfd Surface Water (SDI < 3) 13-17 gfd 13-17 gfd Well water (SDI < 3) 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

· CaSO₄ 230% saturation · SrSO₄ 800% saturation · BaSO₄ 6,000% saturation · SiO₂ 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 concentration are 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°C; 40 -95°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 bisulfite 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.

8-12 gfd

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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