NE8040-90



Normal grade NF element with high monovalent ion rejection

SPECIFICATIONS:

General **Features**

Permeate flow ratel. 7,500 GPD (28.4 m3/day)

Monovalent ion rejection (NaCl)!: 85.0 - 95.0% Divalent ion rejection (CaCl₂)²: 90.0 - 95.0% 400 ft² (37.2 m²) Effective membrane area:

- 1. The stated product performance is based on data taken after 30 minutes of operation at the following monovalent test conditions:
 - 2,000 mg/L NaCl solution at 75 psig (0.5 MPa) applied pressure
 - 15% recovery
 - 77 °F (25 °C)
 - pH 6.5-7.0
- 2. The stated product performance is based on data taken after 30 minutes of operation at the following divalent test conditions:
 - 500 mg/L CaCl2 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 15%.
- 5. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:

Thin-Film Composite

Membrane material:

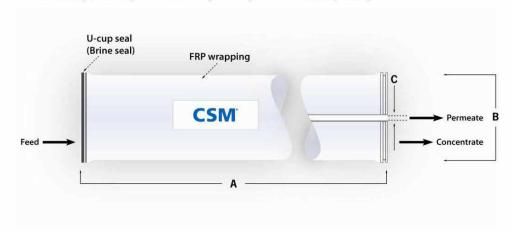
Polyamide (PA)

Element configuration:

Spiral-Wound, FRP Wrapping

Dimensions

A = 40.0 inch (1,016 mm) B = 8.0 inch (203 mm) C = 1.12 inch (28 mm)



- 1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
- 2. All NE8040 elements fit nominal 8.0 inch (203 mm) I.D. pressure vessels.

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NE8040-90



Normal grade NF element with high monovalent ion rejection

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. Operating Temperature	113 °F (45 °C)
	Operating pH Range	2.0-11.0
	· CIP pH Range	1.0-13.0
	Max.Turbidity	I.0 NTU
	· 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
	· Surface Water (SDI < 5)	12–16 gfd
	Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < I)	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
	· BaSO ₄	6,000% saturation
	· SiO ₂	100% saturation
	[†] The above saturation limits are typically accepted by manufacturers. It is the user's responsibility to ensure concentration are dosed ahead of the membrane sys formation anywhere within the membrane system. M or damaged due to scale formation are not covered	e proper chemical(s) and tem to prevent scale embrane elements fouled

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 air-tight 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.
- 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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NE8040-70



Normal grade NF element with medium monovalent ion rejection

SPECIFICATIONS:

General **Features**

Permeate flow rate!: 7,000 GPD (26.5 m³/day)

Monovalent ion rejection (NaCl)!: 40.0 - 70.0% Divalent ion rejection (CaCl2)2: 45.0 - 70.0%Effective membrane area: 400 ft² (37.2 m²)

- 1. The stated product performance is based on data taken after 30 minutes of operation at the following monovalent test conditions:
 - 2,000 mg/L NaCl solution at 75 psig (0.5 MPa) applied pressure
 - 15% recovery
 - 77 °F (25 °C)
 - pH 6.5-7.0
- 2. The stated product performance is based on data taken after 30 minutes of operation at the following divalent test conditions:
 - 500 mg/L CaCl2 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 15%.
- 5. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:

Thin-Film Composite

Membrane material:

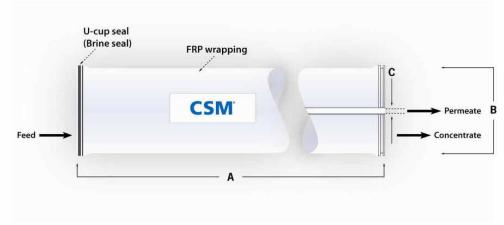
Polyamide (PA)

Element configuration:

Spiral-Wound, FRP Wrapping

Dimensions

A = 40.0 inch (1,016 mm) B = 8.0 inch (203 mm) C = 1.12 inch (28 mm)



- 1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
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