NE8040-90

Normal grade NF element with high monovalent ion rejection

SPECIFICATIONS:

General Features

Permeate flow rate[1]:	7,500 GPD (28.4 m^3/day)
Monovalent ion rejection (NaCl)[1]:	85.0 – 95.0%
Divalent ion rejection ($CaCl_2$)[2]:	90.0 – 95.0%
Effective membrane area:	400 ft^2 (37.2 m^2)
Feed spacer thickness:	32mil

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 $CaCl_2$ solution at 75 psig (0.5 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**

3. $MgSO_4$ 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) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Interconnector	Brine Seal
NE8040-90	40.0 inch (1,016 mm)	8.0inch (201 mm)	1.12 inch (28 mm)	15 kg	40000308	40000309

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 (201 mm) I.D. pressure vessels.

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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 m^3/hr)
	· Min. Concentrate Flow Rate	16 gpm (3.6 m^3/hr)
	· Max. Operating Temperature	113 ^oF (45 ^oC)
	· 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 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 < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	
	· Stiff and Davis Saturation Index (SDSI)	<+1.5 <+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 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.