NE8040-ARM50

Acid Resistant NF Membrane

CSM®

SPECIFICATIONS:

General Features

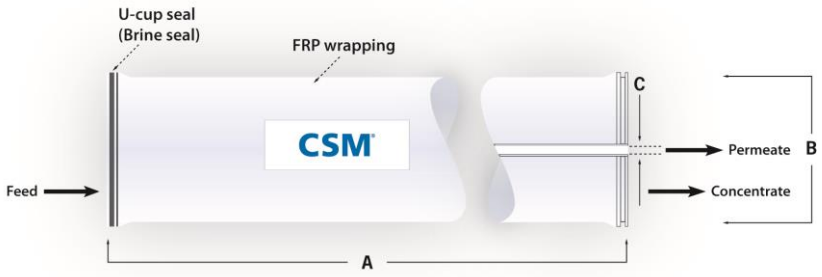
Permeate flow rate[1] :	7,000 GPD (26.5 m^3/day)
$MgSO_4$ rejection [1] :	99.0%
$CaCl_2$ rejection [2] :	85 - 95%
Effective membrane area:	400 ft^2 (37.2 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **2,000 mg/L $MgSO_4$ solution at 75 psig (0.52 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 test conditions:
   - **500 mg/L $CaCl_2$ solution at 75 psig (0.52 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
3. Minimum $MgSO_4$ rejection is 98%.
4. Permeate flow rate for each element may vary +30 / -15%.
5. Elements are supplied as dry-type. Dry elements are sealed in a poly bag and individually boxed.

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	
					Inter-connector	Brine Seal
NE8040-ARM50	40.0 inch (1,016 mm)	7.9 inch (200 mm)	1.12 inch (28.5 mm)	15 kg	SWA01049	SWA01043



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 (203.2 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 °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	< 0.05 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)	<+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 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.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Used 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.