

SPECIFICATIONS:

General Features

Permeate flow rate: 2,500 GPD (9.5 m³/day)

Divalent ion rejection (MgSO₄): 99.0%

Effective membrane area: 85 ft² (7.9 m²)

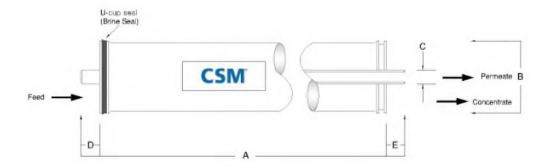
- 1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
 - 2,000 mg/L MgSO₄ solution at 75 psig (0.5 MPa) applied pressure
 - I 5% recovery
 - 77 ∘F (25 ∘C)
 - pH 6.5-7.0
- 2. Minimum MgSO₄ rejection is 98.0%
- 3. NaCl rejection is 20-40% (Test conditions are equivalent with MgSO₄)
- 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, FRPWrapping

Dimensions

					Part N	umber
Model Name	A	В	С	D/E	Inter- connector	Brine Seal
NE4040-40	40.0 inch (1,016 mm)	3.9 inch (99 mm)	0.75 inch (19 mm)	1.05 inch (26.7 mm)	SWA01050	SWA01046



Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
 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 / 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	18 gpm (4.09 m³/hr)		
	· Min. Concentrate Flow Rate	4 gpm (0.91 m³/hr)		
	· Max. Operating Temperature	113 ∘F (45 ∘C)		
	· Operating pH Range	3.0-10.0		
	· CIP pH Range	2.0-11.0		
	· Max.Turbidity	I.0 NTU		
	· Max. SDI (15 min)	5.0		
	Max. Chlorine Concentration	< 0.1 mg/L		
Design Guidelines for Various	· Wastewater Conventional (SDI < 5)	8–12 gfd		
Water Sources	· 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	· Langlier Saturation Index (LSI)	<+1.5		
(Using Antiscalants)	· 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.

Rev.1.0 March 2020



Normal grade NF element with high monovalent ion rejection

SPECIFICATIONS:

General Features

Permeate flow rate!: 1,500 GPD (5.7 m³/day)

Monovalent ion rejection (NaCl)¹: 40.0 - 70.0%Divalent ion rejection (CaCl₂)²: 45.0 - 70.0%Effective membrane area: $85 \text{ ft}^2 (7.9 \text{ m}^2)$

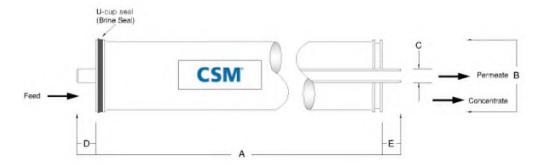
- 1. The stated product performance is based on data taken after 30 minutes of operation at the following monovalent test conditions:
 - 2,000 mg/L NaCl solution at 75 psig (0.5 MPa) applied pressure
 - 15% recovery
 - 77 °F (25 °C)
 - pH 6.5-7.0
- 2. The stated product performance is based on data taken after 30 minutes of operation at the following divalent test conditions:
 - 500 mg/L CaCl₂ solution at 75 psig (0.5 MPa) applied pressure
 - I5% recovery
 - 77 ∘F (25 ∘C)
 - pH 6.5-7.0
- 3. Minimum MgSO₄ rejection is 98.0%. (Test conditions are equivalent with NaCl)
- 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, FRPWrapping

Dimensions

					Part N	umber
Model Name	A	В	С	D/E	Inter- connector	Brine Seal
NE4040-70	40.0 inch (1,016 mm)	3.9 inch (99 mm)	0.75 inch (19 mm)	1.05 inch (26.7 mm)	SWA01050	SWA01046



1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings. All NE4040 elements fit nominal 4.0 inch (101.6 mm) I.D. pressure vessels.

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Product Specification Sheet / Model NE4040-70

Page 1 of 2

Rev.1.0 March 2020



Normal grade NF element with medium 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	18 gpm (4.09 m ³ /hr)		
	· Min. Concentrate Flow Rate	4 gpm (0.91 m ³ /hr)		
	· Max. Operating Temperature	I I 3 ∘F (45 ∘C)		
	· Operating pH Range	3.0-10.0		
	· CIP pH Range	2.0-11.0		
	· Max.Turbidity	I.0 NTU		
	· Max. SDI (15 min)	5.0		
	· Max. Chlorine Concentration	< 0.1 mg/L		
Design Guidelines for Various	· Wastewater Conventional (SDI < 5)	8–12 gfd		
Water Sources	· 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	· Langlier Saturation Index (LSI)	<+1.5		
(Using Antiscalants) [†]	· 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.



Normal grade NF element with high monovalent ion rejection

SPECIFICATIONS:

General Features

Permeate flow rate¹: 1,700 GPD (6.4 m³/day)

Monovalent ion rejection (NaCl): 85.0 - 97.0%90.0 - 97.0%Divalent ion rejection (CaCl₂)²: Effective membrane area: 85 ft2 (7.9 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
- I5% 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
 - I5% recovery
 - 77 ∘F (25 ∘C)
 - pH 6.5-7.0
- 3. Minimum MgSO₄ rejection is 98.0%. (Test conditions are equivalent with NaCl)
- 4. Permeate flow rate for each element may vary +30 / -15%.
- 5. Elements can be supplied as dry or wet-type. Wet-tested elements are soaked in a preservative solution (1.0% food grade SBS) and vacuum sealed in a poly bag. All elements are individually boxed.

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

Element configuration: Spiral-Wound, FRPWrapping

Dimensions

					Part N	umber
Model Name	Α	В	С	D/E	Inter-	Brine Seal
					connector	Di ine Gear
NE4040-90	40.0 inch (1,016 mm)	3.9 inch (99 mm)	0.75 inch (19 mm)	1.05 inch (26.7 mm)	SWA01050	SWA01046



- 1. Each membrane element supplied with one brine seal, 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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Page 1 of 2 Rev.1.0 March 2020



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	18 gpm (4.09 m ³ /hr)		
	· Min. Concentrate Flow Rate	4 gpm (0.91 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	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	· Langlier Saturation Index (LSI)	<+1.5		
$(Using Antiscalants)^{T}$	· 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.

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SPECIFICATIONS:

General Features

Permeate flow rate: 12,000 GPD (45.4 m³/day)

Divalent ion rejection (MgSO₄): 99.0%

Effective membrane area: 400 ft2 (37.2 m2)

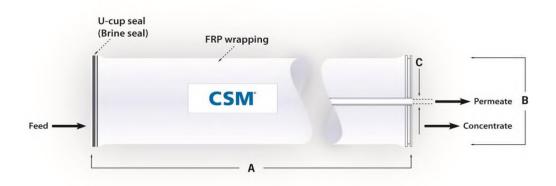
- 1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
 - 2,000 mg/L MgSO₄ solution at 75 psig (0.5 MPa) applied pressure
 - 15% recovery
 - 77 °F (25 °C)
 - pH 6.5-7.0
- 2. Minimum MgSO₄ rejection is 98.0%
- 3. NaCl rejection is 20-40% (Test conditions are equivalent with MgSO₄)
- 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 Polyamide (PA) Membrane material:

Element configuration: Spiral-Wound, FRP Wrapping

Dimensions and Weight

					Part N	umber
Model Name	A	В	С	Weight	Inter- connector	Brine Seal
NE8040-40	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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Page 1 of 2





APPLICATION DATA:

Operating Limits	 Max. Pressure Drop / Element Max. Pressure Drop / 240" Vessel Max. Operating Pressure Max. Feed Flow Rate Min. Concentrate Flow Rate Max. Operating Temperature Operating pH Range CIP pH Range Max. Turbidity Max. SDI (15 min) Max. Chlorine Concentration 	15 psi (0.1 MPa) 60 psi (0.41 Mpa) 600 psi (4.14 MPa) 75 gpm (17.0 m³/hr) 16 gpm (3.6 m³/hr) 113 °F (45 °C) 3.0–10.0 2.0–11.0 1.0 NTU 5.0 < 0.1 mg/L
Design Guidelines for Various Water Sources	 Wastewater Conventional (SDI < 5) Wastewater Pretreated by UF/MF (SDI < 3) Seawater, Open Intake (SDI < 5) Seawater, Beach Well (SDI < 3) Surface Water (SDI < 5) Surface Water (SDI < 3) Well water (SDI < 3) RO permeate (SDI < I) 	8–12 gfd 10–14 gfd 7–10 gfd 8–12 gfd 12–16 gfd 13–17 gfd 13–17 gfd 21–30 gfd
Saturation Limits (Using Antiscalants) [†]	 Langlier Saturation Index (LSI) Stiff and Davis Saturation Index (SDSI) CaSO4 SrSO4 BaSO4 SiO2 [†]The above saturation limits are typically accepted by manufacturers. It is the user's responsibility to ensure concentration are dosed ahead of the membrane syst formation anywhere within the membrane system. Mor damaged due to scale formation are not covered. 	e proper chemical(s) and tem to prevent scale lembrane 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.
- 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.



Normal grade NF element with high monovalent ion rejection

SPECIFICATIONS:

General Features

Permeate flow rate²: 7,000 GPD (26.5 m³/day)

Monovalent ion rejection (NaCl)¹: 40.0 – 70.0% Divalent ion rejection (MgSO₄)²: 99.0%

Effective membrane area: 400 ft² (37.2 m²)

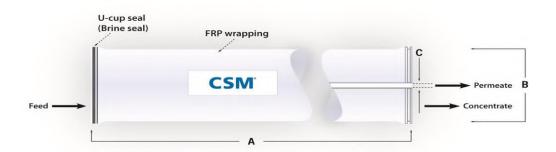
- 1. The stated product performance is based on data taken after 30 minutes of operation at the following monovalent test conditions:
 - 2,000 mg/L NaCl solution at 75 psig (0.5 MPa) applied pressure
 - 15% recovery
 - 77 ∘F (25 ∘C)
 - pH 6.5-7.0
- 2. The stated product performance is based on data taken after 30 minutes of operation at the following divalent test conditions:
 - 2,000 mg/L MgSO₄ solution at 75 psig (0.5 MPa) applied pressure
 - I5% recovery
 - 77 ∘F (25 ∘C)
 - pH 6.5-7.0
- 3. Minimum MgSO₄ rejection is 98.0%.
- 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, FRPWrapping

Dimensions and Weight

					Part N	umber
Model Name	A	В	С	Weight	Inter- connector	Brine Seal
NE8040-70	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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Page 1 of 2 Rev.1.0 March 2020



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	3.0-10.0		
	· CIP pH Range	2.0-11.0		
	· 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	· Langlier Saturation Index (LSI)	<+1.5		
$(Using Antiscalants)^T$	· 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.

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Normal grade NF element with high monovalent ion rejection

SPECIFICATIONS:

General Features

Permeate flow rate!: 8,000 GPD (30.3 m3/day)

Monovalent ion rejection (NaCl): 85.0 - 97.0%90.0 - 97.0%Divalent ion rejection (CaCl₂)²: 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 (0.52 MPa) applied pressure
- I5% 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 (0.52 MPa) applied pressure
 - I5% recovery
 - 77 ∘F (25 ∘C)
 - pH 6.5-7.0
- 3. Minimum MgSO₄ rejection is 98.0%. (Test conditions are equivalent with NaCl)
- 4. Permeate flow rate for each element may vary +30% / -15%.
- 5. Elements can be supplied as dry or wet-type. Wet-tested elements are soaked in a preservative solution (1.0% food grade SBS) and vacuum sealed in a poly bag. All elements are individually boxed.

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

Spiral-Wound, FRP Wrapping **Element configuration:**

Dimensions and Weight

					Part N	umber
Model Name	A B	С	Weight	Inter- connector	Brine Seal	
NE8040-90	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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Rev.1.0 March 2020



Normal grade NF element with high monovalent ion rejection

APPLICATION DATA:

On another Limite		15 (01145)		
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	3.0-10.0		
	· CIP pH Range	2.0-11.0		
	· 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	· Langlier Saturation Index (LSI)	<+1.5		
(Using Antiscalants) T	· Stiff and Davis Saturation Index (SDSI)	<+0.5		
	· CaSO4	230% saturation		
	· SrSO4	800% saturation		
	· BaSO4	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.