

NE4040-ARM

Acid Resistant NF Membrane



- Enhanced Durability under Acid Conditions



Industrial



Water Reuse

SPECIFICATIONS

General Features

Permeate Flow Rate	1,100 GPD (4.2 m ³ /day)
MgSO₄ Rejection	99.0% (Minimum 98.0%)
Effective Membrane Area	75 ft ² (7.0 m ²)
Membrane Type	Thin-Film Composite
Membrane Material	Polyamide (PA)
Element Configuration	Spiral-Wound, FRP Wrapping

Test Conditions: 2,000 mg/L MgSO₄ solution at 75 psig (0.52 MPa) applied pressure; 15% recovery; 77°F (25°C); pH 6.5–7.0; Permeate flow rate for each element may vary +25 / -25%.

Dimensions and Weight

Model Name	A	B	C	D/E	Part Number	
					Inter-Connector	Brine Seal
NE4040-ARM	40.0 inch (1,016 mm)	3.9 inch (99.0 mm)	0.75 inch (19.1 mm)	1.05 inch (26.7 mm)	SWA01050	SWA01046



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

Toray Advanced Materials Korea Inc.

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Product Specification Sheet / Model NE4040-ARM

V.2.4 (23)

APPLICATION DATA

Operating Limits

Max. Pressure Drop / Element	15 psi (0.10 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	2.0 – 10.0
CIP pH Range	1.0 – 11.5
Max. Turbidity	1.0 NTU
Max. SDI (15 min)	5.0
Max. Chlorine Concentration	< 0.1 mg/L

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.
- Keep elements moist at all times after initial wetting.
- Salt rejection would be stabilized within 48 hours of continuous operation depending on feedwater and operating conditions, but may take over a week for dry elements.
- 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.
- The element shell is FRP(Fiber Reinforced Plastic). Be aware of glass fiber strands and use safety equipment.

NE4040-SRM



Special NF element to remove sulfate ions in seawater

- High Sulfate Rejection
- Moderate Rejection of Hardness



Food



Oil Industry



Water Reuse

SPECIFICATIONS

General Features

Permeate Flow Rate	1,800 GPD (6.8 m ³ /day)
MgSO₄ Rejection	99.5% (Minimum 99.0%)
Effective Membrane Area	85 ft ² (7.9 m ²)
Membrane Type	Thin-Film Composite
Membrane Material	Polyamide (PA)
Element Configuration	Spiral-Wound, FRP Wrapping

Test Conditions: 2,000 mg/L MgSO₄ solution at 75 psig (0.52 MPa) applied pressure; 15% recovery; 77°F (25°C); pH 6.5–7.0; Permeate flow rate for each element may vary +25 / -25%.

Dimensions and Weight

Model Name	A	B	C	D/E	Part Number	
					Inter-Connector	Brine Seal
NE4040-SRM	40.0 inch (1,016 mm)	3.9 inch (99.0 mm)	0.75 inch (19.1 mm)	1.05 inch (26.7 mm)	SWA01050	SWA01046



1. Each membrane element supplied with 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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Product Specification Sheet / Model NE4040-SRM

V.2.4 (23)

NE4040-SRM



Special NF element to remove sulfate ions in seawater

APPLICATION DATA

Operating Limits

Max. Pressure Drop / Element	15 psi (0.10 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	1.0 NTU
Max. SDI (15 min)	5.0
Max. Chlorine Concentration	< 0.1 mg/L

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.
- Keep elements moist at all times after initial wetting.
- Salt rejection would be stabilized within 48 hours of continuous operation depending on feedwater and operating conditions, but may take over a week for dry elements.
- 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.
- The element shell is FRP(Fiber Reinforced Plastic). Be aware of glass fiber strands and use safety equipment.

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Product Specification Sheet / Model NE4040-SRM

V.2.4 (23)

NE8040-40

High productivity NF element with low monovalent ion rejection

CSM[®]

- High Mono/Multivalent Ion Selectivity
- High Hardness Rejection
- Low Energy Consumption



Food



Municipal



Water Reuse

SPECIFICATIONS

General Features

Permeate Flow Rate	12,000 GPD (45.4 m ³ /day)
MgSO₄ Rejection	99.0% (Minimum 98.0%)
NaCl Rejection	20 – 40%
Effective Membrane Area	400 ft ² (37.2 m ²)
Membrane Type	Thin-Film Composite
Membrane Material	Polyamide (PA)
Element Configuration	Spiral-Wound, FRP Wrapping

Test Conditions: 2,000 mg/L MgSO₄ or NaCl solution at 75 psig (0.52 MPa) applied pressure; 15% recovery; 77°F(25°C); pH 6.5–7.0; Permeate flow rate for each element may vary +25 / -25%.

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Inter-Connector	Brine Seal
NE8040-40	40.0 inch (1,016 mm)	7.9 inch (200 mm)	1.125 inch (28.6 mm)	15kg	SWA01049	SWA01043



1. Each membrane element supplied with 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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Product Specification Sheet / Model NE8040-40

V.2.4 (23)

NE8040-40



High productivity NF element with low monovalent ion rejection

APPLICATION DATA

Operating Limits

Max. Pressure Drop / Element	15 psi (0.10 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	< 0.1 mg/L

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.
- Keep elements moist at all times after initial wetting.
- Salt rejection would be stabilized within 48 hours of continuous operation depending on feedwater and operating conditions, but may take over a week for dry elements.
- 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.
- The element shell is FRP(Fiber Reinforced Plastic). Be aware of glass fiber strands and use safety equipment.



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Product Specification Sheet / Model NE8040-40

V.2.4 (23)

NE8040-70

NF element with medium monovalent ion rejection



- High COD Rejection
- Moderate Rejection of Monovalent Ion



Food



Municipal



Water Reuse

SPECIFICATIONS

General Features

Permeate Flow Rate	9,000 GPD (34.1 m ³ /day)
MgSO₄ Rejection	99.0% (Minimum 98.0%)
NaCl Rejection	30 – 70%
Effective Membrane Area	400 ft ² (37.2 m ²)
Membrane Type	Thin-Film Composite
Membrane Material	Polyamide (PA)
Element Configuration	Spiral-Wound, FRP Wrapping

Test Conditions: 2,000 mg/L MgSO₄ or NaCl solution at 75 psig (0.52 MPa) applied pressure; 15% recovery; 77°F (25°C); pH 6.5–7.0; Permeate flow rate for each element may vary +25 / -25%.

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Inter-Connector	Brine Seal
NE8040-70	40.0 inch (1,016 mm)	7.9 inch (200 mm)	1.125 inch (28.6 mm)	15kg	SWA01049	SWA01043



1. Each membrane element supplied with 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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Product Specification Sheet / Model NE8040-70

V.2.4 (23)

NE8040-70

NF element with medium monovalent ion rejection

CSM[®]

APPLICATION DATA

Operating Limits

Max. Pressure Drop / Element	15 psi (0.10 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	< 0.1 mg/L

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.
- Keep elements moist at all times after initial wetting.
- Salt rejection would be stabilized within 48 hours of continuous operation depending on feedwater and operating conditions, but may take over a week for dry elements.
- 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.
- The element shell is FRP(Fiber Reinforced Plastic). Be aware of glass fiber strands and use safety equipment.



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Product Specification Sheet / Model NE8040-70

V.2.4 (23)

NE8040-90

NF element with high monovalent ion rejection



- High Removal of TOC, nitrate
- Low Energy Consumption
- Wide pH Tolerance Range of 1-12



Food



Municipal



Industrial

SPECIFICATIONS

General Features

Permeate Flow Rate	8,000 GPD (30.3 m ³ /day)
NaCl Rejection	90 - 97%
Effective Membrane Area	400 ft ² (37.2 m ²)
Membrane Type	Thin-Film Composite
Membrane Material	Polyamide (PA)
Element Configuration	Spiral-Wound, FRP Wrapping

Test Conditions: 2,000 mg/L NaCl solution at 75 psig (0.52 MPa) applied pressure; 15% recovery; 77°F(25°C); pH 6.5–7.0; Permeate flow rate for each element may vary +25 / -25%.

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Inter-Connector	Brine Seal
NE8040-90	40.0 inch (1,016 mm)	7.9 inch (200 mm)	1.125 inch (28.6 mm)	15kg	SWA01049	SWA01043



1. Each membrane element supplied with 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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Product Specification Sheet / Model NE8040-90

V.2.4 (23)

NE8040-90

NF element with high monovalent ion rejection

CSM[®]

APPLICATION DATA

Operating Limits

Max. Pressure Drop / Element	15 psi (0.10 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	1.0 – 12.0
Max. Turbidity	1.0 NTU
Max. SDI (15 min)	5.0
Max. Chlorine Concentration	< 0.1 mg/L

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.
- For WET-TYPE, the preservative solution (1% sodium metabisulfite solution) is added to prohibit the growth of micro-organisms.
- Permeate from the first hour of operation should be discarded.
- Salt rejection would be stabilized within 48 hours of continuous operation depending on feedwater and operating conditions, but may take over a week for dry elements.
- 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.
- The element shell is FRP(Fiber Reinforced Plastic). Be aware of glass fiber strands and use safety equipment.



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V.2.4 (23)

NE8040-ARM

Acid Resistant NF Membrane



- Enhanced Durability under Acid Conditions



Industrial



Water Reuse

SPECIFICATIONS

General Features

Permeate Flow Rate	5,400 GPD (20.4 m ³ /day)
MgSO₄ Rejection	99.0% (Minimum 98.0%)
Effective Membrane Area	370 ft ² (34.4 m ²)
Membrane Type	Thin-Film Composite
Membrane Material	Polyamide (PA)
Element Configuration	Spiral-Wound, FRP Wrapping

Test Conditions: 2,000 mg/L MgSO₄ solution at 75 psig (0.52 MPa) applied pressure; 15% recovery; 77°F (25°C); pH 6.5–7.0; Permeate flow rate for each element may vary +25 / -25%.

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Inter-Connector	Brine Seal
NE8040-ARM	40.0 inch (1,016 mm)	7.9 inch (200 mm)	1.125 inch (28.6 mm)	15kg	SWA01049	SWA01043



1. Each membrane element supplied with 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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Product Specification Sheet / Model NE8040-ARM

V.2.4 (23)

APPLICATION DATA

Operating Limits

Max. Pressure Drop / Element	15 psi (0.10 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	2.0 – 10.0
CIP pH Range	1.0 – 11.5
Max. Turbidity	1.0 NTU
Max. SDI (15 min)	5.0
Max. Chlorine Concentration	< 0.1 mg/L

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.
- Keep elements moist at all times after initial wetting.
- Salt rejection would be stabilized within 48 hours of continuous operation depending on feedwater and operating conditions, but may take over a week for dry elements.
- 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.
- The element shell is FRP(Fiber Reinforced Plastic). Be aware of glass fiber strands and use safety equipment.

NE8040-SRM



Special NF element to remove sulfate ions in seawater

- High Sulfate Rejection
- Moderate Rejection of Hardness



Municipal



Oil Industry



Water Reuse

SPECIFICATIONS

General Features

Permeate Flow Rate	8,500 GPD (32.2 m ³ /day)
MgSO₄ Rejection	99.5% (Minimum 99.0%)
Effective Membrane Area	400 ft ² (37.2 m ²)
Membrane Type	Thin-Film Composite
Membrane Material	Polyamide (PA)
Element Configuration	Spiral-Wound, FRP Wrapping

Test Conditions: 2,000 mg/L MgSO₄ solution at 75 psig (0.52 MPa) applied pressure; 15% recovery; 77°F (25°C); pH 6.5–7.0; Permeate flow rate for each element may vary +25 / -25%.

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Inter-Connector	Brine Seal
NE8040-SRM	40.0 inch (1,016 mm)	7.9 inch (200 mm)	1.125 inch (28.6 mm)	15kg	SWA01049	SWA01043



1. Each membrane element supplied with 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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Product Specification Sheet / Model NE8040-SRM

V.2.4 (23)

NE8040-SRM



Special NF element to remove sulfate ions in seawater

APPLICATION DATA

Operating Limits

Max. Pressure Drop / Element	15 psi (0.10 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	< 0.1 mg/L

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.
- Keep elements moist at all times after initial wetting.
- Salt rejection would be stabilized within 48 hours of continuous operation depending on feedwater and operating conditions, but may take over a week for dry elements.
- 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.
- The element shell is FRP(Fiber Reinforced Plastic). Be aware of glass fiber strands and use safety equipment.

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Product Specification Sheet / Model NE8040-SRM

V.2.4 (23)

NE4040-40

High productivity NF element with low monovalent ion rejection

CSM[®]

- High Mono/Multivalent Ion Selectivity
- High Hardness Rejection
- Low Energy Consumption



Food



Municipal



Water Reuse

SPECIFICATIONS

General Features

Permeate Flow Rate	2,500 GPD (9.5 m ³ /day)
MgSO₄ Rejection	99.0% (Minimum 98.0%)
NaCl Rejection	20 – 40%
Effective Membrane Area	85 ft ² (7.9 m ²)
Membrane Type	Thin-Film Composite
Membrane Material	Polyamide (PA)
Element Configuration	Spiral-Wound, FRP Wrapping

Test Conditions: 2,000 mg/L MgSO₄ or NaCl solution at 75 psig (0.52 MPa) applied pressure; 15% recovery; 77°F (25°C); pH 6.5–7.0; Permeate flow rate for each element may vary +25 / -25%.

Dimensions and Weight

Model Name	A	B	C	D/E	Part Number	
					Inter-Connector	Brine Seal
NE4040-40	40.0 inch (1,016 mm)	3.9 inch (99.0 mm)	0.75 inch (19.1 mm)	1.05 inch (26.7 mm)	SWA01050	SWA01046



1. Each membrane element supplied with 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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Product Specification Sheet / Model NE4040-40

V.2.4 (23)

NE4040-40



High productivity NF element with low monovalent ion rejection

APPLICATION DATA

Operating Limits

Max. Pressure Drop / Element	15 psi (0.10 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	1.0 NTU
Max. SDI (15 min)	5.0
Max. Chlorine Concentration	< 0.1 mg/L

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.
- Keep elements moist at all times after initial wetting.
- Salt rejection would be stabilized within 48 hours of continuous operation depending on feedwater and operating conditions, but may take over a week for dry elements.
- 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.
- The element shell is FRP(Fiber Reinforced Plastic). Be aware of glass fiber strands and use safety equipment.



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V.2.4 (23)

NE4040-70

NF element with medium monovalent ion rejection

CSM[®]

- High COD Rejection
- Moderate Rejection of Monovalent Ion



Food



Municipal



Water Reuse

SPECIFICATIONS

General Features

Permeate Flow Rate	1,900 GPD (7.2 m ³ /day)
MgSO₄ Rejection	99.0% (Minimum 98.0%)
NaCl Rejection	30 – 70%
Effective Membrane Area	85 ft ² (7.9 m ²)
Membrane Type	Thin-Film Composite
Membrane Material	Polyamide (PA)
Element Configuration	Spiral-Wound, FRP Wrapping

Test Conditions: 2,000 mg/L MgSO₄ or NaCl solution at 75 psig (0.52 MPa) applied pressure; 15% recovery; 77°F (25°C); pH 6.5–7.0; Permeate flow rate for each element may vary +25 / -25%.

Dimensions and Weight

Model Name	A	B	C	D/E	Part Number	
					Inter-Connector	Brine Seal
NE4040-70	40.0 inch (1,016 mm)	3.9 inch (99.0 mm)	0.75 inch (19.1 mm)	1.05 inch (26.7 mm)	SWA01050	SWA01046



1. Each membrane element supplied with 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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V.2.4 (23)

NE4040-70

NF element with medium monovalent ion rejection

CSM[®]

APPLICATION DATA

Operating Limits

Max. Pressure Drop / Element	15 psi (0.10 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	1.0 NTU
Max. SDI (15 min)	5.0
Max. Chlorine Concentration	< 0.1 mg/L

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.
- Keep elements moist at all times after initial wetting.
- Salt rejection would be stabilized within 48 hours of continuous operation depending on feedwater and operating conditions, but may take over a week for dry elements.
- 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.
- The element shell is FRP(Fiber Reinforced Plastic). Be aware of glass fiber strands and use safety equipment.



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Product Specification Sheet / Model NE4040-70

V.2.4 (23)

NE4040-90

NF element with high monovalent ion rejection



- High Removal of TOC, nitrate
- Low Energy Consumption
- Wide pH Tolerance Range of 1-12



Food



Municipal



Industrial

SPECIFICATIONS

General Features

Permeate Flow Rate	1,700 GPD (6.4 m ³ /day)
NaCl Rejection	90 – 97%
Effective Membrane Area	85 ft ² (7.9 m ²)
Membrane Type	Thin-Film Composite
Membrane Material	Polyamide (PA)
Element Configuration	Spiral-Wound, FRP Wrapping

Test Conditions: 2,000 mg/L NaCl solution at 75 psig (0.52 MPa) applied pressure; 15% recovery; 77°F(25°C); pH 6.5–7.0; Permeate flow rate for each element may vary +25 / -25%.

Dimensions and Weight

Model Name	A	B	C	D/E	Part Number	
					Inter-Connector	Brine Seal
NE4040-90	40.0 inch (1,016 mm)	3.9 inch (99.0 mm)	0.75 inch (19.1 mm)	1.05 inch (26.7 mm)	SWA01050	SWA01046



1. Each membrane element supplied with 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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APPLICATION DATA

Operating Limits

Max. Pressure Drop / Element	15 psi (0.10 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	1.0 – 12.0
Max. Turbidity	1.0 NTU
Max. SDI (15 min)	5.0
Max. Chlorine Concentration	< 0.1 mg/L

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.
- Keep elements moist at all times after initial wetting.
- Salt rejection would be stabilized within 48 hours of continuous operation depending on feedwater and operating conditions, but may take over a week for dry elements.
- 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.
- The element shell is FRP(Fiber Reinforced Plastic). Be aware of glass fiber strands and use safety equipment.



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