RO MEMBRANE

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2026

EDITION FOR
REDAWATER GROUP

www.redawatergroup.com

Nanofiltration Membrane Elements

TF8040-NF/TF4040-NF nanofiltration membrane element. It shows excellent removal of pesticides, viruses and bacteria in use, high removal of natural organic matter and divalent ions, and moderate removal of monovalent ions. Through innovative technology, the product has a stronger membrane surface and stronger anti-oxidation performance, which can significantly improve the operating economy of the system.

Features:

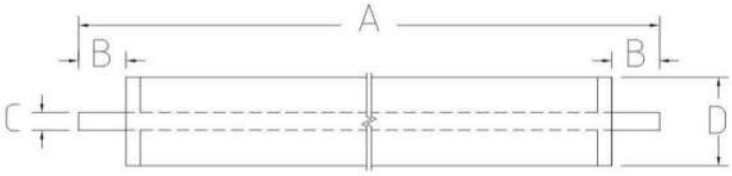
- Suitable for removal of TOC and THM precursors.
- Systems for salt removal with low operating energy consumption.
- Separation of salts for monovalent and multivalent ions.

Product Specifications

Model	Active Membrane Area ft^2 (m^2)	Stabilized Salt Rejection %	Permeate Flow Rate gpd (m^3/d)
TF8040-NF	430(40)	40~60% (NaCl) ≥98% (MgSO4)	7500(28.4) (NaCl)/ 9500(36.0) (MgSO4)
TF4040-NF	108(10)	40~60% (NaCl) ≥98% (MgSO4)	1400(5.3) (NaCl)/ 1850(7.0) (MgSO4)

Test Condition: Feed Water Pressure 0.48MPa (70psi); Feed Water Temperature: 25 °C (77 °F); Feed Water Concentration 2,000 ppm NaCl, 2,000 ppm MgSO4 ; Feed Water pH: 7; Permeate Recovery 15%.

Dimensions



Model	A inch（mm）	B inch（mm）	C inch（mm）	D inch（mm）
TF8040-NF	40(1,016)	0	1.125(29)	7.95(201.9)
TF4040-NF	40(1,016)	1.05(26.7)	0.75(19)	3.9(99)

Maximum Operating Pressure	41 bar(600 psi)
Maximum Operating Temperature	45℃（113℉）
Maximum Pressure Drop per Element	1.0 bar (15 psi)
pH Range, Continuous Operation	2-11
pH Range, Chemical Cleaning	1-13
Maximum Feed Silt Density Index (SDI15)	5.0
Free Chlorine Tolerance	< 0.1 ppm

1. Permeate flow rates for individual elements may vary ±15%.
2. Membrane active areas may vary ±4%.
3. Stabilized salt rejection is generally achieved after continuous using for 24-48 hours, which depending on feed water qualities and operating conditions.

Nanofiltration Soft Membrane Elements

TF8040-NF/TF4040-NF nanofiltration membrane element. It shows excellent removal of pesticides, viruses and bacteria in use, high removal of natural organic matter, and moderate removal of total hardness. Through innovative technology, the product has a stronger membrane surface and stronger anti-oxidation performance, which can significantly improve the operating economy of the system.

Features:

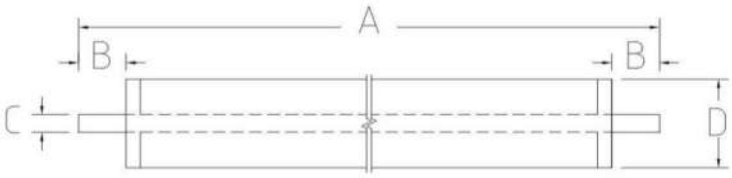
- Suitable for removal of TOC and THM precursors.
- Suitable for systems that remove salts at ultra-low pressure and operate with low energy consumption.

Product Specifications

Model	Active Membrane Area ft^2 (m^2)	Stabilized Salt Rejection %	Permeate Flow Rate gpd (m^3/d)
TF8040-SOFT	430(40)	85~95% (NaCl) ≥98% (MgSO4)	7500(28.4) (NaCl)/ 9500(36.0) (MgSO4)
TF4040-SOFT	108(10)	85~95% (NaCl) ≥98% (MgSO4)	1400(5.3) (NaCl)/ 1850(7.0) (MgSO4)

Test Condition: Feed Water Pressure 0.48MPa (70psi); Feed Water Temperature: 25 °C (77 °F); Feed Water Concentration 2,000 ppm NaCl, 2,000 ppm MgSO4 ; Feed Water pH: 8; Permeate Recovery 15%.

Dimensions



Model	A inch（mm）	B inch（mm）	C inch（mm）	D inch（mm）
TF8040-SOFT	40(1,016)	0	1.125(29)	7.95(201)
TF4040-SOFT	40(1,016)	1.05(26.7)	0.75(19)	3.9(99)

Maximum Operating Pressure	41 bar(600 psi)
Maximum Operating Temperature	45℃（113℉）
Maximum Pressure Drop per Element	1.0 bar (15 psi)
pH Range, Continuous Operation	2-11
pH Range, Chemical Cleaning	1-13
Maximum Feed Silt Density Index (SDI15)	5.0
Free Chlorine Tolerance	< 0.1 ppm

1. Permeate flow rates for individual elements may vary ±15%.
2. Membrane active areas may vary ±4%.
3. Stabilized salt rejection is generally achieved after continuous using for 24-48 hours, which depending on feed water qualities and operating conditions.

Diesel Exhaust Fluid Purification Special Membrane Elements

The TF804O-UR/TF4040-UR Diesel exhaust fluid purification special membrane element is a newly developed industry-leading special separation membrane element with high water yield and high anti-pollution. It adopts a 34mil wide water inlet flow channel. On the premise of ensuring low pressure difference The purity of the permeate urea can meet the standard requirements.

Features:

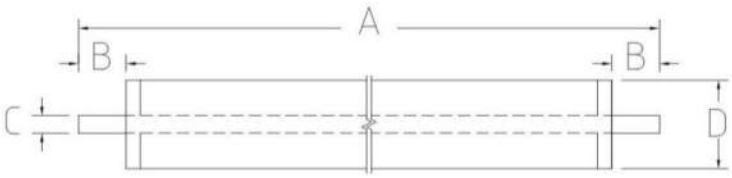
- The 34mil inlet water channel is adopted, with low pressure difference and balanced inlet water.
- Strong anti-pollution ability and good cleaning effect.
- Very high water yield and good effluent quality.

Product Specifications

Model	Active Membrane Area ft² (m²)	Stabilized Salt Rejection %	Permeate Flow Rate gpd (m³/d)
TF8040-UR	430(40)	40~60% (NaCl)	11,500(44)
TF4040-UR	108(10)	40~60% (NaCl)	2250(8.7)

Test Condition: Feed Water Pressure 0.48MPa (70psi); Feed Water Temperature: 25 °C (77 °F); Feed Water Concentration 2,000 ppm NaCl; Feed Water pH: 7; Permeate Recovery 15%.

Dimensions



Model	A inch (mm)	B inch (mm)	C inch (mm)	D inch (mm)
TF8040-UR	40(1,016)	0	1.125(29)	7.9(201)
TF4040-UR	40(1,016)	1.05(26.7)	0.75(19)	3.9(99)

Maximum Operating Pressure	41 bar(600 psi)
Maximum Operating Temperature	45℃ (113℉)
Maximum Pressure Drop per Element	1.0 bar (15 psi)
pH Range, Continuous Operation	2-11
pH Range, Chemical Cleaning	1-13
Maximum Feed Silt Density Index (SDI15)	5.0
Free Chlorine Tolerance	< 0.1 ppm

1. Permeate flow rates for individual elements may vary ±15%.
2. Membrane active areas may vary ±4%.
3. Stabilized salt rejection is generally achieved after continuous using for 24-48 hours, which depending on feed water qualities and operating conditions.

Extremely Low Pressure Membrane RO Elements

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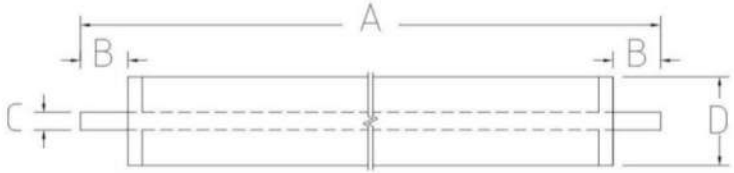
XLP series (extremely low pressure) aromatic polyamide RO element is developed for treatment of surface water and underground water.Its operation pressure is about 1/2 of low pressure membrane, and the rejection rate can reach 98%, Thus it can reduce the investment cost of related pumps,pipelines,containers and other equipments and the operation cost of reverse osmosis system,improve economic benefits.
It is mainly applied in bottle water, drinking water, boiler replenishment water,food processing and pharmaceutical manufacturing industries and other fields.

Product Specifications

Model	Active Membrane Area ft^2 (m^2)	Stabilized Salt Rejection %	Minimum Salt Rejection %	Permeate Flow Rate gpd (m^3/d)
XLP-8040	430(40)	98.5	98.0	10,500(40)
XLP-4040	108(10)	98.5	98.0	2500(9.8)
XLP-4021	45(4.2)	98.5	98.0	1000(3.8)

Test Condition: Feed Water Pressure 0.69MPa (100 psi); Feed Water Temperature: 25 °C (77 °F); Feed Water Concentration 500 ppm NaCl; Feed Water pH: 8; Permeate Recovery 15%.

Dimensions



Model	A inch（mm）	B inch（mm）	C inch（mm）	D inch（mm）
XLP-8040	40(1,016)	0	1.125(29)	7.95(201.9)
XLP-4040	40(1,016)	1.05(26.7)	0.75(19)	3.9(99)
XLP-4021	21(533.4)	1.05(26.7)	0.75(19)	3.9(99)

Maximum Operating Pressure	41 bar(600 psi)
Maximum Operating Temperature	45℃（113℉）
Maximum Pressure Drop per Element	1.0 bar (15 psi)
pH Range, Continuous Operation	2-11
pH Range, Chemical Cleaning	1-13
Maximum Feed Silt Density Index (SDI15)	5.0
Free Chlorine Tolerance	< 0.1 ppm

1. Permeate flow rates for individual elements may vary ±15%.
2. Membrane active areas may vary ±4%.
3. Stabilized salt rejection is generally achieved after continuous using for 24-48 hours, which depending on feed water qualities and operating conditions.

Ultra Low Pressure Membrane RO Elements

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ULP series is a low-pressure aromatic polyamide composite membrane element.

It has the characteristics of large flux and high desalination rate. The operating pressure is about 2/3 of normal membranes.

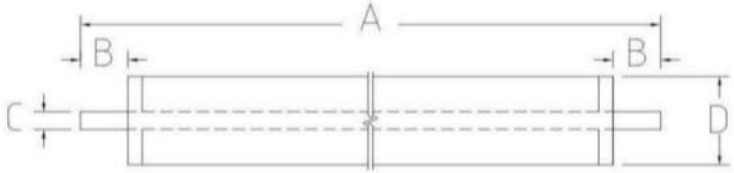
It is suitable for desalination of RO water, groundwater, municipal water and other water sources. It is mainly used in pure water, boiler feed water, food and pharmaceutical manufacturing industries and other fields.

Product Specifications

Model	Active Membrane Area ft² (m²)	Stabilized Salt Rejection %	Minimum Salt Rejection %	Permeate Flow Rate gpd (m³/d)
ULP-8040	430(40)	99.3	99.0	11,500(44)
ULP-4040	108(10)	99.3	99.0	2500(9.8)
ULP-4021	45(4.2)	99.3	99.0	1000(3.8)

Test Condition: Feed Water Pressure 1.03MPa (150 psi); Feed Water Temperature: 25 °C (77 °F); Feed Water Concentration 1,500 ppm NaCl; Feed Water pH: 8; Permeate Recovery 15%.

Dimensions



Model	A inch (mm)	B inch (mm)	C inch (mm)	D inch (mm)
ULP-8040	40(1,016)	0	1.125(28.6)	7.95(201)
ULP-4040	40(1,016)	1.05(26.7)	0.75(19.1)	3.9(99.7)
ULP-4021	21(533.4)	1.05(26.7)	0.75(19.1)	3.9(99.7)

Maximum Operating Pressure	41 bar(600 psi)
Maximum Operating Temperature	45℃ (113℉)
Maximum Pressure Drop per Element	1.0 bar (15 psi)
pH Range, Continuous Operation	2-11
pH Range, Chemical Cleaning	1-13
Maximum Feed Silt Density Index (SDI15)	5.0
Free Chlorine Tolerance	< 0.1 ppm

1. Permeate flow rates for individual elements may vary ±15%.
2. Membrane active areas may vary ±4%.
3. Stabilized salt rejection is generally achieved after continuous using for 24-48 hours, which depending on feed water qualities and operating conditions.

Brackish Water Membrane RO Elements

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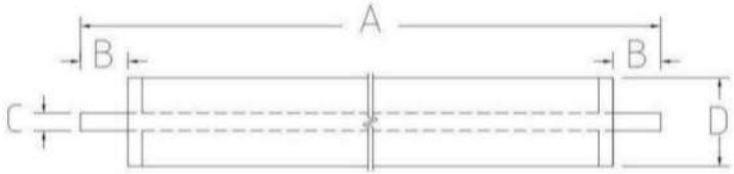
BW series is an aromatic polyamide composite membrane element.
It has the characteristics of low operating pressure, high water production and high desalination rate. It has a high removal rate for dissolved salts, TOC, SI02 and other substances, and is especially suitable for the preparation of high-purity water in the electronics and power industries.
It is suitable for desalination treatment of surface water, municipal water and other water sources, mainly used in industrial pure water, boiler feed water or brackish water applications such as high-concentration brine.

Product Specifications

Model	Active Membrane Area ft²(m²)	Stabilized Salt Rejection %	Minimum Salt Rejection %	Permeate Flow Rate gpd(m³/d)
BW-8040	430(40)	99.5	99.3	10500(40)
BW-4040	108(10)	99.5	99.3	2500(9.5)
BW-4021	45(4.2)	99.5	99.3	950(3.6)

Test Condition: Feed Water Pressure: 1.55MPa (225 psi); Feed Water Temperature: 25 °C (77 °F); Feed Water Concentration: 2,000 ppm NaCl; Feed Water PH: 8;

Dimensions



Model	A inch（mm）	B inch（mm）	C inch（mm）	D inch（mm）
BW-8040	40(1,016)	0	1.125(29)	7.95(201)
BW-4040	40(1,016)	1.05(26.7)	0.75（19）	3.9（99）
BW-4021	21(533.4)	1.05(26.7)	0.75（19）	3.9（99）

Maximum Operating Pressure	41 bar(600 psi)
Maximum Operating Temperature	45℃（113℉）
Maximum Pressure Drop per Element	1.0 bar (15 psi)
pH Range, Continuous Operation	2-11
pH Range, Chemical Cleaning	1-13
Maximum Feed Silt Density Index (SDI15)	5.0
Free Chlorine Tolerance	< 0.1 ppm

1. Permeate flow rates for individual elements may vary ±15%.
2. Membrane active areas may vary ±4%.
3. Stabilized salt rejection is generally achieved after continuous using for 24-48 hours, which depending on feed water qualities and operating conditions.

Fouling Resistant RO Membrane Elements

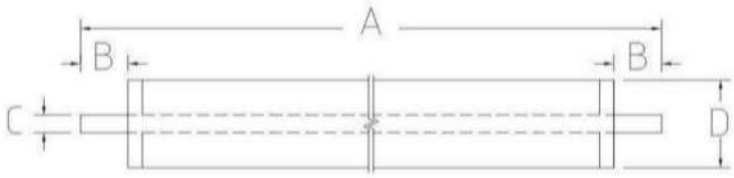
TF22-8040FR/TF22-4040FR anti-fouling brackish water desalination reverse osmosis membrane element, with the characteristics of high water production and high desalination rate. Suitable for large-scale industrial and municipal water treatment systems or systems with poor influent water quality.

Product Specifications

Model	Active Membrane Area ft^2 (m^2)	Stabilized Salt Rejection %	Minimum Salt Rejection %	Permeate Flow Rate gpd (m^3/d)
TF22-8040FR	430(40)	99.5	99.3	10,500(40)
TF22-4040FR	108(10)	99.5	99.3	2500(9.5)

Test Condition: Feed Water Pressure 1.55MPa (225 psi); Feed Water Temperature: 25 °C (77 °F); Feed Water Concentration 2,000 ppm NaCl; Feed Water pH: 8; Permeate Recovery 15%.

Dimensions



Model	A inch（mm）	B inch（mm）	C inch（mm）	D inch（mm）
TF22-8040FR	40(1,016)	0	1.125(29)	7.95(201)
TF22-4040FR	40(1,016)	1.05(26.7)	0.75(19)	3.9(99)

Maximum Operating Pressure	41 bar(600 psi)
Maximum Operating Temperature	45℃（113℉）
Maximum Pressure Drop per Element	1.0 bar (15 psi)
pH Range, Continuous Operation	2-11
pH Range, Chemical Cleaning	1-13
Maximum Feed Silt Density Index (SDI15)	5.0
Free Chlorine Tolerance	< 0.1 ppm

1. Permeate flow rates for individual elements may vary ±15%.
2. Membrane active areas may vary ±4%.
3. Stabilized salt rejection is generally achieved after continuous using for 24-48 hours, which depending on feed water qualities and operating conditions.

Seawater Desalination RO Membrane Elements

TF8040-SW/TF4040-SW seawater desalination reverse osmosis membrane element, the water production is increased by 20% under the same operating pressure. Suitable for large-scale desalination systems.

Features:

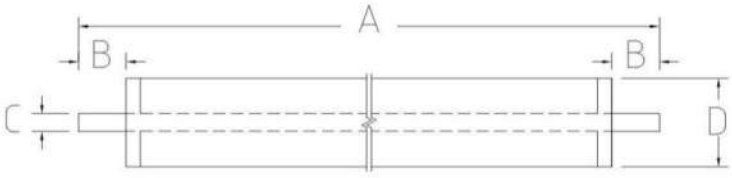
- Ultra-high boron rejection.
- Adopt short diaphragm structure to increase the number of film pages and improve the film efficiency.
- Applicable to a wider range of PH cleaning, better cleaning effect.

Product Specifications

Model	Active Membrane Area ft^2 (m^2)	Stabilized Salt Rejection %	Minimum Salt Rejection %	Permeate Flow Rate gpd (m^3/d)	Stabilized Boron Rejection %
TF8040-SW	400(37)	99.75	99.6	7500(28)	93
TF4040-SW	78(7.2)	99.75	99.6	1600(6.1)	93
TF2540-SW	28(2.6)	99.75	99.5	600(2.3)	93

Test Condition: Feed Water Pressure 5.5MPa (800 psi); Feed Water Temperature: 25 °C (77 °F); Feed Water Concentration 32,000 ppm NaCl; Feed Water pH: 8; Permeate Recovery 8%.

Dimensions



Model	A inch（mm）	B inch（mm）	C inch（mm）	D inch（mm）
TF8040-SW	40(1,016)	0	1.125(29)	7.95(201)
TF4040-SW	40(1,016)	1.05(26.7)	0.75(19)	3.9(99)
TF2540-SW	40(1,016)	1.19(30.2)	0.75(19)	2.4(61)

Maximum Operating Pressure	83 bar(1200 psi)
Maximum Operating Temperature	45℃（113℉）
Maximum Pressure Drop per Element	1.0 bar (15 psi)
pH Range, Continuous Operation	2-11
pH Range, Chemical Cleaning	1-13
Maximum Feed Silt Density Index (SDI15)	5.0
Free Chlorine Tolerance	< 0.1 ppm

1. Permeate flow rates for individual elements may vary ±15%.
2. Membrane active areas may vary ±4%.
3. Stabilized salt rejection is generally achieved after continuous using for 24-48 hours, which depending on feed water qualities and operating conditions.