

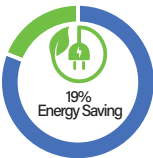
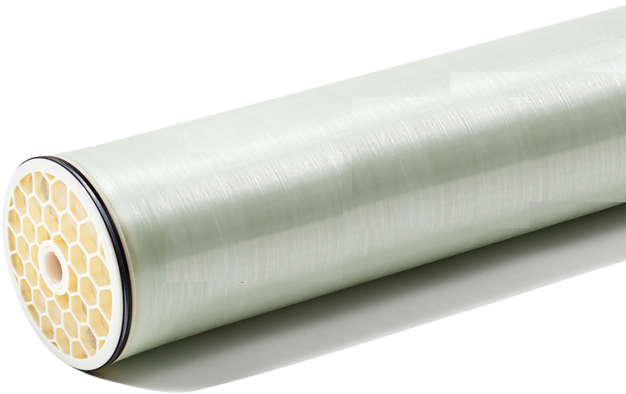


CoreSil™ RO Membranes

Powered by NASA-Engineered Nanotechnology

Cactus Nano has introduced the next generation of RO membranes with CoreSil™, engineered using advanced antimicrobial nanotechnology originally developed with NASA and now proudly certified by the U.S. EPA (Reg. No. 93413-1).

CoreSil™ membranes deliver exceptional resistance to biofouling and scaling, ensuring long-lasting high performance with minimal downtime and lowering operating costs - delivering cleaner water with greater reliability and efficiency



Reduces energy consumption (up to 19%) with water productivity



Increases membrane flux (>31%) by mitigating biofilm formation



Reduces cleaning frequency (up to > 60%)



Improves membrane lifespan (up to 2x)

Contact us to learn more about our solutions or to try our products in your facility.

CS BW ZWZY-8040

High rejection brackish water RO membrane with proven long-lasting reliability



Key Features

- Superior salt rejection
- Excellent fouling resistance
- High durability

Ideal Applications

- Industrial water treatment and reuse
- Municipal drinking water treatment
- Harsh Feed Water Condition

Main Benefits

- Delivers excellent permeate water quality
- Ensures dependable, long-lasting performance

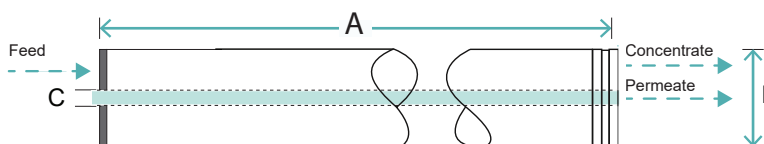
Performance Specifications

Specification	Unit	Test Condition A	Test Condition B
Permeate Flow Rate	GPD (m ³ /d)	10,500 (39.7)	11,000 (41.6)
Stabilized Salt Rejection	%	99.6	99.65
Minimum Salt Rejection	%	99.5	99.56
Active Membrane Area	ft ² (m ²)	400 (37)	
Feed Spacer Thickness	mil	34	

The specifications outlined above are normalized performances based on the following test conditions:

- Test Condition A: 2,000 ppm NaCl, 225 psi (15.5 bar), 25°C (77°F), pH 7, Recovery 15%
- Test Condition B (referential only): 1,500 ppm NaCl, 225 psi (15.5 bar), 25°C (77°F), pH 7, Recovery 15%
- Permeate flow rates for individual elements may vary by +25/-10%

Dimensions and Weight



Dimensions: mm (in)			Wet Weight
A	B	C	kg (lbs)
Element Length Element O.D. Core Tube I.D.			16 (35)
1,016 (40)	200 (7.9)	28.6 (1.125)	

All dimensional information is indicative and for reference only. Please contact Cactus Nano for detailed technical specifications.

Specification	Unit	Value
Maximum Applied Pressure	psi (bar)	600 (41.3)
Maximum Chlorine Concentration	ppm	< 0.1
Maximum Operating Temperature	°C (°F)	45 (113)
pH Range, Continuous Operation		2-11
pH Range, Cleaning		2-12
Maximum Feed Water Turbidity	NTU	1.0
Maximum Feed Water SDI ₁₅		5.0
Maximum Feed Flow	gpm (m ³ /h)	75 (17)
Maximum Pressure Drop (ΔP) for Each Element	psi (bar)	15 (1.0)

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www.cactusnano.com



CS SW ZWZY-4040

High Rejection Seawater RO membrane with proven long-lasting reliability



Key Features

- Excellent fouling resistance
- Desalination with consistent water purity

Ideal Applications

- Designed for commercial use
- Small to mid-scale seawater reverse osmosis (SWRO) plants

Main Benefits

- Proven durability and consistent performance
- Superior water quality with high energy efficiency

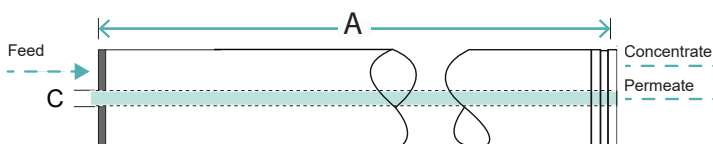
Performance Specifications

Specification	Unit	Test Condition Result
Permeate Flow Rate	GPD (m ³ /d)	1,950 (7.4)
Stabilized Salt Rejection	%	99.7
Minimum Salt Rejection	%	99.5
Active Membrane Area	ft ² (m ²)	80 (7.4)
Feed Spacer Thickness	mil	28

The specifications outlined above are normalized performances based on the following test conditions:

- Test Condition 32,000 ppm NaCl, 800 psi (55 bar), 25°C (77°F), pH 8, Recovery 8%
- Permeate flow rates for individual elements may vary by $\pm 20\%$

Dimensions and Weight



Dimensions: mm (in)			Wet Weight
A	B	C	kg (lbs)
Element Length Element O.D. Core Tube I.D.			4.2 (9.3)
1,016 (40)	100 (3.9)	19.0(0.75)	

All dimensional information is indicative and for reference only. Please contact Cactus Nano detailed technical specifications.

Specification	Unit	Value
Maximum Applied Pressure	psi (bar)	12,000 (82.7)
Maximum Chlorine Concentration	ppm	< 0.1
Maximum Operating Temperature	°C (°F)	45 (113)
pH Range, Continuous Operation		2–11
pH Range, Cleaning		2–13
Maximum Feed Water Turbidity	NTU	1.0
Maximum Feed Water SDI ₁₅		5.0
Maximum Feed Flow	gpm (m ³ /h)	15 (3.4)
Maximum Pressure Drop (ΔP) for Each Element	psi (bar)	15 (1.0)

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CS SW ZWZY-8040

High Rejection Seawater RO membrane with proven long-lasting reliability



Key Features

- Balanced salt rejection and productivity
- Superior boron removal capability
- Enhanced resistance to fouling with a thicker feed spacer

Main Benefits

- Proven durability and long-term dependability
- Provides high-quality permeate water with energy efficiency

Ideal Applications

- Suitable for both single-pass and multi-pass desalination plant setups

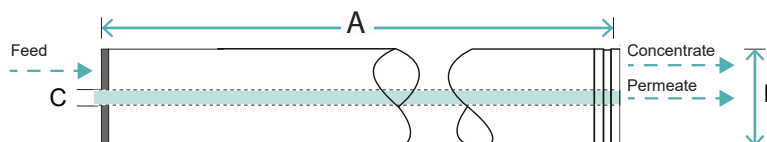
Performance Specifications

Specification	Unit	Test Condition Result
Permeate Flow Rate	GPD (m ³ /d)	9,000(34.1)
Stabilized Salt Rejection	%	99.85
Minimum Salt Rejection	%	99.7
Stabilized Boron Rejection	%	93.0
Active Membrane Area	ft ² (m ²)	400 (37)
Feed Spacer Thickness	mil	34

The specifications outlined above are normalized performances based on the following test conditions:

- Test Condition 32,000 ppm NaCl, 5 ppm Boron, 800 psi (55.1 bar), 25°C (77°F), pH 8, Recovery 8%
- Permeate flow rates for individual elements may vary by ±15%

Dimensions and Weight



Dimensions: mm (in)			Wet Weight
A	B	C	kg (lbs)
Element Length	Element O.D.	Core Tube I.D.	16 (35)
1,016 (40)	200 (7.9)	28.6 (1.125)	

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Specification	Unit	Value
Maximum Applied Pressure	psi (bar)	12,000 (82.7)
Maximum Chlorine Concentration	ppm	< 0.1
Maximum Operating Temperature	°C (°F)	45 (113)
pH Range, Continuous Operation		2–11
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Maximum Feed Water Turbidity	NTU	1.0
Maximum Feed Water SDI ₁₅		5.0
Maximum Feed Flow	gpm (m ³ /h)	75 (17)
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CS BW ZWZY-4040

High rejection brackish water RO membrane with proven long-lasting reliability



Key Features	Ideal Applications	Main Benefits
- Superior salt rejection - Excellent fouling resistance - High durability	- Light Industrial water treatment - Municipal drinking water treatment	- Delivers excellent permeate water quality - Ensures dependable, long-lasting performance

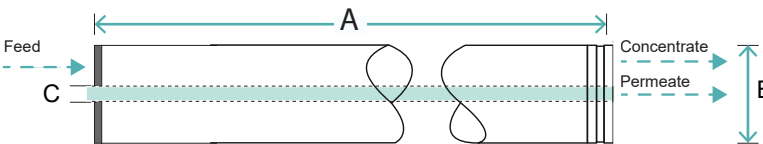
Performance Specifications

Specification	Unit	Test Condition
Permeate Flow Rate	GPD (m³/d)	2,500 (9.5)
Stabilized Salt Rejection	%	99.6
Minimum Salt Rejection	%	99.3
Active Membrane Area	ft² (m²)	85 (7.9)
Feed Spacer Thickness	mil	28

The specifications outlined above are normalized performances based on the following test conditions:

- Test Condition A: 2,000 ppm NaCl, 225 psi (15.5 bar), 25°C (77°F), pH 7, Recovery 15%
- Permeate flow rates for individual elements may vary by ±20%

Dimensions and Weight



Dimensions: mm (in)			Wet Weight
A	B	C	kg (lbs)
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1,016 (40)	100 (3.9)	19.0(0.75)	

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Specification	Unit	Value
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Maximum Chlorine Concentration	ppm	< 0.1
Maximum Operating Temperature	°C (°F)	45 (113)
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pH Range, Cleaning		2–12
Maximum Feed Water Turbidity	NTU	1.0
Maximum Feed Water SDI ₁₅		5.0
Maximum Feed Flow	gpm (m³/h)	16 (3.6)
Maximum Pressure Drop (ΔP) for Each Element	psi (bar)	15 (1.0)

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