NANOH2O

The World's Only RO Membrane with Breakthrough TFN Technology

Product Data Sheet



SW 440 ES

Energy-saving seawater RO membrane with proven, long-lasting reliability

Key Features

- High permeate flow rate
- Best-in-class salt rejection for Energysaving SWRO membranes

Main Benefits

- Improved system productivity
- Reduced feed pressure and energy consumption
- Well-proven and long-lasting reliability

Ideal Applications

- Multi-pass desalination plant design

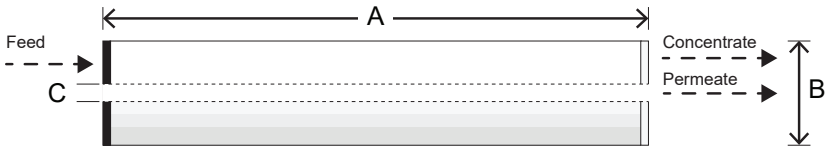
Performance Specifications

Item	Unit	Test condition A	Test condition B
Permeate Flow Rate	GPD (m^3/d)	7,480 (28.3)	15,070 (57.0)
Stabilized Salt Rejection	%	99.6	99.8
Minimum Salt Rejection	%	99.3	99.6
Stabilized Boron Rejection	%	81	89
Active Membrane Area	ft^2 (m^2)	440 (41)	
Feed Spacer Thickness	mil	28	

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

- **Test Condition A**: 32,000 ppm NaCl, 5 ppm Boron, 600 psi (41.3 bar), 25°C (77°F), pH 8, Recovery 8%, Permeate flow rates for individual elements may vary by ±20%
- **Test Condition B (referential only)**: 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: kg (lbs)
A	B	C	16 (35)
Element Length	Element O.D.	Core Tube I.D.	
1,016 (40)	200 (7.9)	28.6 (1.125)	

All dimensional information is indicative and for reference only. Please contact NanoH2O for detailed technical specifications.

Operating Specifications

Specification	Unit	Value
Maximum Applied Pressure	psi (bar)	1,200 (82.7)
Maximum Chlorine Concentration	ppm	< 0.1
Maximum Operating Temperature	°C (°F)	45 (113)
pH Range, Continuous Operation		2–11
pH Range, Cleaning		1–13
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)

These operating specifications are for general use. For specific applications, operation at more conservative values may ensure better performance and extended membrane life. See NanoH2O Technical Bulletins for more details.

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This product is certified to NSF/ANSI/CAN Standard 61 for drinking water systems

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The product performance is expressly conditioned on Buyer's storing, installing, operating, and maintaining Product in accordance with industry-accepted good practices and Seller's written instructions provided in the Seller's Technical Manual may be viewed and downloaded at www.nanoh2owater.com
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