

Nano:H₂O™



Product Data Sheet

LG BW 440 ESL

Energy-saving brackish water RO membrane with an advanced 28 mil low dP feed spacer technology

Key Features

- High permeate flow rate and salt rejection at low feed pressures
- Optimized membrane surface hydraulics
- Reduced differential pressure
- Good fouling resistance

Main Benefits

- Low energy consumption
- High permeate water quality
- Reduced cleaning frequency, chemical use, and membrane replacements
- Reduced energy consumption and total cost of plant ownership

Ideal Applications

- Industrial process water
- Municipal drinking water
- 2nd pass SWRO

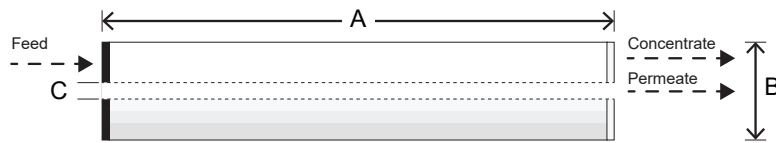
Performance Specifications

Specification	Unit	Test condition A	Test condition B
Permeate Flow Rate	GPD (m ³ /d)	11,550 (43.7)	12,280 (46.5)
Stabilized Salt Rejection	%	99.6	99.66
Minimum Salt Rejection	%	99.5	99.56
Active Membrane Area	ft ² (m ²)	440 (41)	
Feed Spacer Thickness, Type	mil	28, low dP	

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

- **Test Condition A:** 2,000 ppm NaCl, 150 psi (10.3 bar), 25°C (77°F), pH 7, Recovery 15%
- **Test Condition B (referential only):** 1,500 ppm NaCl, 150 psi (10.3 bar), 25°C (77°F), pH 7, Recovery 15%
- Permeate flow rates for individual elements may vary by ±15%

Dimensions and Weight



Dimensions: mm (in)			Wet Weight: kg (lbs)
A	B	C	
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 LG Water Solutions for detailed technical specifications.

Operating 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)



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

The Membrane Elements 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, which consists of LG Chem, Ltd Technical Service Bulletins ("TSB") and Technical Applications Bulletins ("TAB") and may be viewed and downloaded at www.lgwatersolutions.com. The information and data contained herein are deemed to be accurate and reliable and are offered in good faith, but without guarantee of performance. LG Chem assumes no liability for results obtained or damages incurred through the application of the information contained

herein. Customer is responsible for determining whether the products and information presented herein are appropriate for the customer's use and for ensuring that customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Specifications subject to change without notice. NanoH2O is the Trademark of The LG Water Solutions or an affiliated company of LG Chem. All rights reserved. © LG Chem, Ltd.

Please visit our website for regional contact information www.lgwatersolutions.com