LG Chem

LG Water Solutions

Data Sheet

Brackish Water Reverse Osmosis (RO) Membranes

LG BW 440 ES L

Energy Saving membrane equipped with fouling tolerant low dP feed spacer technology

Overview

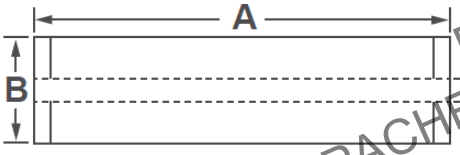
LG Water Solutions manufactures the full line of NanoH$_2$O™ seawater and brackish water RO membranes based on the breakthrough Thin-Film Nanocomposite (TFN) technology.

LG BW 440 ES L is an energy-saving brackish water RO membrane element with high productivity. The RO element incorporates a proprietary feed spacer technology for reducing differential pressure, resulting in excellent anti-fouling properties for reduced cleaning frequency, chemical use, energy use, and total cost of plant ownership. Ideal applications include wastewater reuse, second-pass RO for seawater desalination, ultrapure water production, high-purity water, and feed water sources with low to medium salinity brackish water.

Product Specifications

Active Membrane Area, ft² (m²)	Permeate Flow Rate, GPD (m³/d)	Stabilized Salt Rejection, %	Minimum Salt Rejection, %	Feed Spacer, mil
440 (41)	11,550 (43.7)	99.6	99.5	28, low dP

Test Conditions : 2,000 ppm NaCl at 25°C (77°F), 150 psi (10.3 bar), pH 7, Recovery 15%.
Permeate flows for individual elements may vary +/-15%.



A, mm (in.)	B, mm (in.)	C, mm (in.)	Weight, kg (lbs.)
1,016 (40)	200 (7.9)	28.6 (1.125)	16 (35)

All dimensional information is indicative and for reference purpose only. Please contact LG Chem for detailed technical specification.

Operating Specifications

For more information and operating guidelines, visit www.lgwatersolutions.com

Max. Applied pressure	600 psi (41 bar)
Max. Chlorine concentration	< 0.1 ppm
Max. Operating temperature	45°C (113°F)
pH Range, Continuous (Cleaning)	2-11 (2-12)
Max. Feedwater turbidity	1.0 NTU
Max. Feedwater SDI (15 mins)	5.0
Max. Feed flow	75 gpm (17 m³/h)
Max. Pressure drop (ΔP) for each element	15 psi (1.0 bar)

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.

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NanoH$_2$O™