

# 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

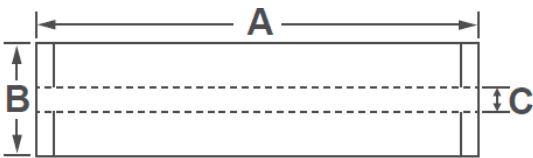
LG Water Solutions manufactures the full line of NanoH<sub>2</sub>O™ seawater and brackish water RO membranes based on the breakthrough Thin-Film Nanocomposite (TFN) technology.

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, ft <sup>2</sup> (m <sup>2</sup> )	Permeate Flow Rate, GPD (m <sup>3</sup> /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)

### Operating Specifications

<b>Max. Applied pressure</b>	600 psi (41 bar)
<b>Max. Chlorine concentration</b>	< 0.1 ppm
<b>Max. Operating temperature</b>	45°C (113°F)
<b>pH Range, Continuous (Cleaning)</b>	2-11 (2-12)
<b>Max. Feedwater turbidity</b>	1.0 NTU
<b>Max. Feedwater SDI (15 mins)</b>	5.0
<b>Max. Feed flow</b>	75 gpm (17 m <sup>3</sup> /h)
<b>Max. Pressure drop (ΔP) for each element</b>	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](http://www.lgwatersolutions.com).

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