

# Data Sheet



**Brackish Water  
Reverse Osmosis (RO) Membranes**

## LG BW 400 UES

Ultra low energy membrane equipped with fouling tolerant low dP spacer technology.

### Overview

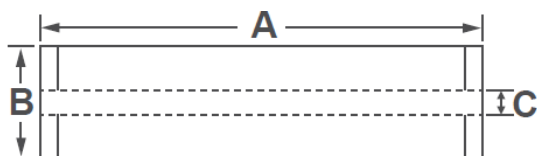
LG Chem's NanoH<sub>2</sub>O™ brackish water RO membranes serve various municipal, industrial and commercial applications. Incorporating LG Chem's proprietary Thin Film Nanocomposite (TFN) technology, all LG BWRO membranes deliver reliable and superior performance with intrinsic anti-fouling properties.

LG BW 400 UES membrane elements deliver high permeability at very low feed pressures for ultra-low energy savings. The RO element also incorporates a unique proprietary feed spacer technology for reducing differential pressure. The results are excellent anti-fouling properties and lower cleaning frequency, chemical use, energy consumption, and total cost of plant ownership. Ideal applications include brackish feed water with low salinity.

### 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
400 (37)	10,500 (39.7)	99.0	98.0	34, low dP

Test Conditions : 2,000 ppm NaCl at 25°C (77°F), 125 psi (8.6 bar), pH 7, Recovery 15%. Permeate flows for individual elements may vary +/-20%. LG Chem recommends operating LG BW 400 UES membrane elements within one year from its original delivery date. The seller, at its discretion, may refuse to guarantee the performance in the event the membrane elements are not operated for more than one year from the original delivery date.



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](http://www.lgwatersolutions.com)

<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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### **Referential Performance at 500 ppm NaCl**

Type	Pressure	Projected Performance*
LG BW 400 UES	100 psi (6.89 bar)	10,800 GPD, 99.2%
	110 psi (7.58 bar)	11,900 GPD, 99.3%

Test Conditions : 100/110 psi, 500 ppm NaCl at 25°C (77°F), pH 7, Recovery 15%. The above performance data is calculated through LG Chem's Q+ Projection Software.



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