

# Data Sheet



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

**LG BW 440 UES**  
Ultra Low Energy

## Overview

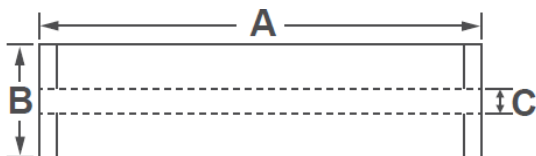
LG Chem's NanoH<sub>2</sub>O™ brackish water RO membranes serve various municipal and industrial applications and have been operating in the major utilities around the world. Incorporating innovative Thin Film Nanocomposite (TFN) technology, all LG BWRO membranes provide superior performance along with intrinsic anti-fouling property and are suitable for applications where consistent and reliable performance is a must.

LG BW UES membranes offer high permeability at ultra-low feed pressure, significantly reducing operating costs: suitable for low salinity brackish water applications.

## 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)  | 12,650 (47.9)                               | 99.0                         | 98.0                      | 28               |

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%.



| 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)              |

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## Referential Performance at 500 ppm NaCl

| Type          | Pressure           | Projected performance* |
|---------------|--------------------|------------------------|
| LG BW 440 UES | 100 psi (6.89 bar) | 12,430 GPD, 99.3%      |
|               | 110 psi (7.58 bar) | 13,750 GPD, 99.4%      |

Test Conditions : 100/110 psi, 500 ppm NaCl at 25°C (77°F), pH 7, Recovery 15%. All calculated data is obtained from Q+ software.