LG Chem

LG Water Solutions

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

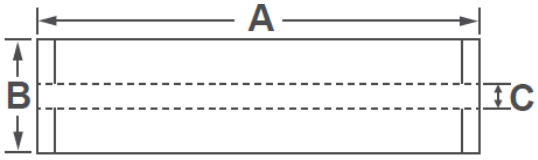
LG Chem's NanoH2O™ brackish water RO membranes serve various municipal, industrial and commercial applications. Incorporating LG Chem's proprietary Thin Film Nanocomposite (TFN) technology, all LG BWRO membranes deliver reliable and superior performance with intrinsic anti-fouling properties.

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, ft² (m²)	Permeate Flow Rate, GPD (m³/d)	Stabilized Salt Rejection, %	Minimum Salt Rejection, %	Feed Spacer, mil
400 (37)	11,500 (43.5)	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 flow rates for individual elements may vary but will be no more than 20% below the value shown.
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

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 m^3/h)
Max. Pressure drop (ΔP) for each element	15 psi (1.0 bar)

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Referential Performance at 500 ppm NaCl

Type	Pressure	Projected Performance*
LG BW 400 UES	100 psi (6.89 bar)	11,650 GPD, 99.3%
	110 psi (7.58 bar)	12,850 GPD, 99.4%

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.

NanoH$_2$O™