

Data Sheet



Seawater Reverse Osmosis (RO) Membranes

LG SW 440 R G2

Overview

The next generation LG SW G2 membranes have achieved record-breaking salt rejection, improving the product quality up to 45% compared with the conventional technology. With enhanced Thin Film Nanocomposite (TFN) technology, LG SW G2 membranes can significantly reduce the cost of desalination.

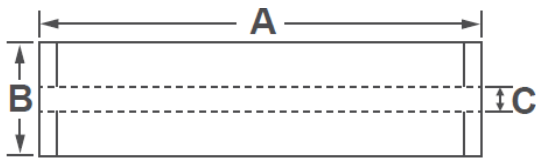
LG SW R (High Rejection) membranes offer a combination of high rejection and low energy requirements to reduce the total cost of desalination; suitable for medium to high salinity seawater applications.

- LG SW G2 Benefits**
- ▶ **Improved permeate quality** without increasing operating pressure
 - ▶ **Reduced energy cost** without sacrificing the permeate quality
 - ▶ **Reduced capital and operation costs** for multi-pass SWRO systems

Product Specifications

Active Membrane Area, ft ² (m ²)	Permeate Flow Rate, GPD (m ³ /d)	Stabilized Salt Rejection, %	Minimum Salt Rejection, %	Boron Rejection, %	Feed Spacer, mil
440 (41)	9,900 (37.5)	99.88	99.75	93	28

Test Conditions : 32,000 ppm NaCl, 5 ppm boron at 25°C (77°F), 800 psi (55 bar), pH 8, Recovery 8%.
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

Max. Applied pressure	1,200 psi (82.7 bar)
Max. Chlorine concentration	< 0.1 ppm
Max. Operating temperature	45°C (113°F)
pH Range, Continuous (Cleaning)	2-11 (2-13)
Max. Feedwater turbidity	1.0 NTU
Max. Feedwater SDI (15 mins)	5.0
Max. Feed flow	75 gpm (17 m ³ /h)
Min. Ratio of concentrate to permeate flow for any element	5 : 1
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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