

# SEAWATER REVERSE OSMOSIS (RO) MEMBRANES



## LG SW 440 ES



### OVERVIEW

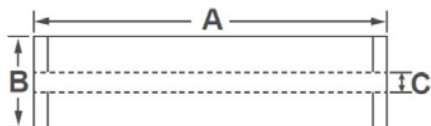
LG Chem's NanoH<sub>2</sub>O™ seawater RO membranes, incorporated with innovative Thin Film Nanocomposite (TFN) technology, reduce the cost of desalination while delivering superior water quality. Our seawater RO membranes provide industry leading salt rejection and produce 20% more flow than membranes manufactured with conventional technologies. We continue to leverage the technological advantages of our seawater RO membranes to expand our market share, accruing more than 3,000 Million Liter per Day (MLD) projects for both new and replacement market since the establishment.

LG SW ES (Energy Saving) membranes offer significant energy savings while producing good water quality; suitable for low to medium salinity seawater 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, % | Boron Rejection, % | Feed Spacer, mil |
|---------------------------------------------------------|---------------------------------------------|------------------------------|---------------------------|--------------------|------------------|
| 440 (41)                                                | 15,070 (57.0)                               | 99.8                         | 99.6                      | 89                 | 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 <sup>3</sup> /h) |
| Min. Ratio of concentrate to permeate flow for any element | 5 : 1                         |
| Max. Pressure drop (ΔP) for each element                   | 115 psi (1.0 bar)             |

The information and data contained herein are deemed to be accurate and reliable and are offered in good faith, but without guarantee of performance. Please contact Aqua-chem for expert advise and technical support.



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