

8" Reverse Osmosis Membrane



SEAMAXX iLEC Sea Water

High rejection - High flow rate - Low energy



REVERSE OSMOSIS COMPONENTS

8" REVERSE OSMOSIS MEMBRANE

SEAMAXX ILEC SEA WATER

○ Permeate flow rate	34.2 m ³ /day (9 050 gpd)
○ Salt rejection	99.47 % (Min. 99.25%)
○ Realeas rate on Bore	81.8%
○ Applied pressure	41.0 bar (600 psig)
○ Active area	41 m ² (440 ft ²)

* Permeate flow rate and salt (NaCl) rejection based on the following standard test conditions : 32000 ppm NaCl, 41.0 bar (600 psi), 25°C (77°F), pH 8, 8% recovery.

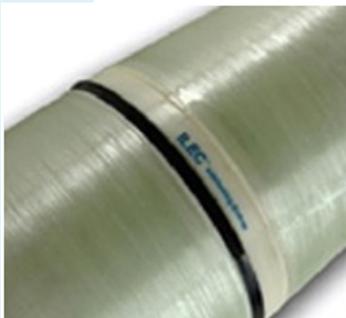
* Permeate flow rates for individual elements may vary but will be no more than +/-15%.

* Sales specifications may vary as design revisions take place.

* Active area guaranteed +/-3%. Active area as stated is not comparable to nominal membrane area often stated by some manufacturers.



ILEC INTERCONNECTION



The Interlocking encap technology achieves a direct, leak-tight connection between adjacent element permeate tubes, reducing the number of sealing surfaces to a single, axially compressed o-ring. This design reduces the potential for seal leakage, enabling sustained higher quality permeate throughout the life of the elements, and reduces energy-consuming flow resistance, resulting in lower operating costs.

APPLICATIONS

The **SEAMAXX iLEC** range elements offer exceptional rejection and flow performance for the industrial water needs, enabling lower energy usage and reduced regeneration costs in downstream polishing units.

With a new industry-leading performance of 99.47% rejection at 41.0 bar (600 psi), the **SEAMAXX iLEC** range elements provide robust performance over a longer element life. At this high level of quality, compared to osmosis membranes standards, the membranes **SEAMAXX iLEC** decreases on salt passage by saving the energy.

SEAMAXX iLEC Reverse osmosis membrane

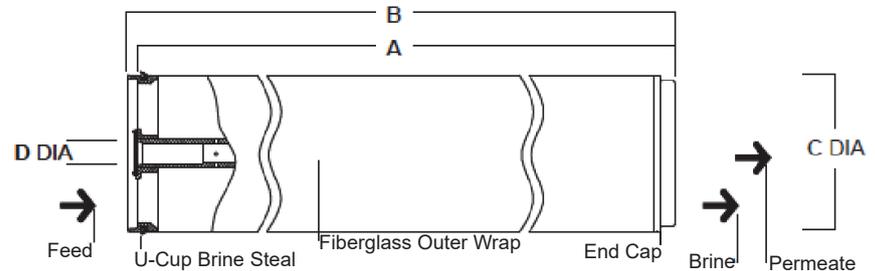
SPECIFICATIONS

Membrane type	Spiral wound polyamide thin-film composite
Feed spacer	28 mil
Maximum operating temperature	45°C - 113°F
Maximum operating pressure	69 bar – 1 000 psig @35°C 62 bar – 900 psig @45°C
Maximum pressure drop	1.0 bar – 15 psig
pH range continuous operation	2 to 11 (if pH > 10 temp.max = 35°C/95°F)
pH range short term cleaning 30 min	1 to 13
Maximum feed Silt Density Index	SDI 5
Free chlorine tolerance*	< 0.1 ppm

* Under certain conditions, the presence of free chlorine and other oxidizing agents will cause premature membrane failure. Since oxidation damage is not covered under warranty, it is recommended to remove residual free chlorine by pretreatment prior to membrane exposure.

DIMENSIONS

	mm	inches
A	1016	40.0
B	1029	40.5
C	201	7.9
D (ID)	29	1.125



* Element to fit nominal 203 mm (8.0 inch) I.D. pressure vessel.

* Individual elements with interlocking endcaps measure 1,029 mm (40.5 inches) in length (B). The net length (A) of the elements when connected is 1,016 mm (40.0 inches).

RECOMMENDATIONS

Proper start-up of reverse osmosis water treatment systems is essential to prepare the membranes for operating service and to prevent membrane damage due to overfeeding or hydraulic shock. Following the proper start-up sequence also helps ensure that system operating parameters conform to design specifications so that system water quality and productivity goals can be achieved. Before initiating system start-up procedures, membrane pre-treatment, loading of the membrane elements, instrument calibration and other system checks should be completed.

Avoid any abrupt pressure or cross-flow variations on the spiral elements during start-up, shutdown, cleaning or other sequences to prevent possible membrane damage. During start-up, a gradual change from a standstill to operating state is recommended as follows: Feed pressure should be increased gradually over a 30-60 second time frame. Cross-flow velocity at set operating point should be achieved gradually over 15-20 seconds. Permeate obtained from first hour of operation should be discarded.

Keep elements moist at all times after initial wetting. If operating limits and guidelines given are not strictly followed, the limited warranty will be null and void. To prevent biological growth during prolonged system shutdowns, it is recommended that membrane elements be immersed in a preservative solution. The customer is fully responsible for the effects of incompatible chemicals and lubricants on elements. Maximum pressure drop across an entire pressure vessel (housing) is 50 psi (3.4 bar). Avoid static permeate-side back pressure at all times.

The use of this product in and of itself does not necessarily guarantee the removal of cysts and pathogens from water. Effective cyst and pathogen reduction is dependent on the complete system design and on the operation and maintenance of the system.



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