

8" Reverse Osmosis Membrane



XLE-440 Brackish Water
Extra Low energy



REVERSE OSMOSIS COMPONENTS

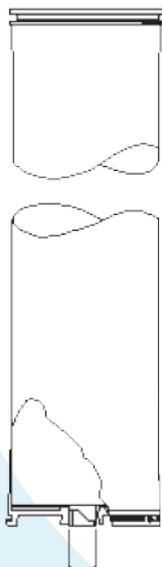
8" REVERSE OSMOSIS MEMBRANE

XLE-440 BRACKISH WATER

○ Permeate flow rate	53 m ³ /day	(14 000 gpd)
○ Stabilized salt rejection	99.0 %	(Min. 98.0%)
○ Applied pressure	8.6 bar	(125 psig)
○ Active area	41 m ²	(440 ft ²)

*Permeate flow rate and salt rejection based on the following test conditions :
2000 ppm NaCl, 8.6 bar (125 psig), 25°C (77°F), Ph 8 and 15% recovery.

*Permeate flow rates for individual elements may vary +/-15%.



APPLICATIONS

The XLE-440 is an extra low energy, high productivity brackish water reverse osmosis element designed to deliver high quality water at low operating costs for municipal and industrial water applications. Its high active area design coupled with the highly productive XLE membrane is the lowest pressure RO element – resulting in lower energy costs.

- XLE-440 will operate in many systems at less than half the feed pressure of a standard high rejection RO element and at up to 30% less pressure than other low energy membranes, resulting in lifetime energy savings greater than 100% of the initial membrane investment.
- With 440 square feet (41 square meters) of active membrane area, the XLE-440 element gives system designers the option of designing a system with fewer membrane elements, requiring lower capital expenditures for membranes and components.
- Automated, precision fabrication allows for the industry's highest active membrane area without compromising the thickness of the feed spacer, resulting in less fouling, less cleaning downtime and lower operating costs than competitive products using thinner spacers.
- XLE-440 is perfectly suited for cold water feeds as the element's high productivity will deliver lower energy costs and/or higher permeate flow.

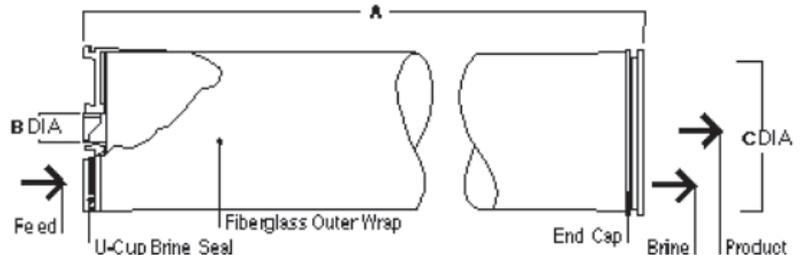
XLE-440 Reverse osmosis membrane

PRODUCT SPECIFICATIONS

Membrane type	Spiral wound polyamide thin-film composite
Maximum operating temperature	45°C - 113°F
Maximum operating pressure	41 bar – 600 psig
Maximum pressure drop	1.0 bar – 15 psig
pH range continuous operation	2 to 11 (if > pH10 max.temp = 35°C-95°F)
pH range short term cleaning 30 mn	1 to 13
Maximum feed Silt Density Index	SDI 5
Free chlorine tolerance	< 0.1 ppm

DIMENSIONS

	mm	inches
A	1016	40.0
B	38	1.50
C	201	7.9



Coupler including EPR O-rings is supplied with each element.
Element to fit nominal 203 mm (8.0 inch) I.D. pressure vessel.

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.



ADH2OC INDUSTRIAL
Headquarters
3, Rue Kercoz
22 220 TRÉGUIER - FRANCE
Tel +33 (0)2 96 40 02 50
Fax +33 (0)2 22 44 98 48
www.adh2oc-industrial.com

Workshop
Lieu dit «La Vallée Drouard»
28500 CHÉRISY - FRANCE
Tel +33 (0)2 37 50 20 79
Fax +33 (0)2 22 44 98 48
e-mail : infos@adh2oc-industrial.com