

8" Reverse Osmosis Membrane



XFRLE-400/34 Brackish Water - Fouling resistant
Low energy - High productivity



REVERSE OSMOSIS COMPONENTS

8" REVERSE OSMOSIS MEMBRANE

XFRLE-400/34 BRACKISH WATER

Permeate flow rate	44 m ³ /day	(11 500 gpd)
Stabilized salt rejection	99.4 %	(Min. 99.2%)
Applied pressure	10.3 bar	(150 psig)
Active area	37 m ²	(400 ft ²)

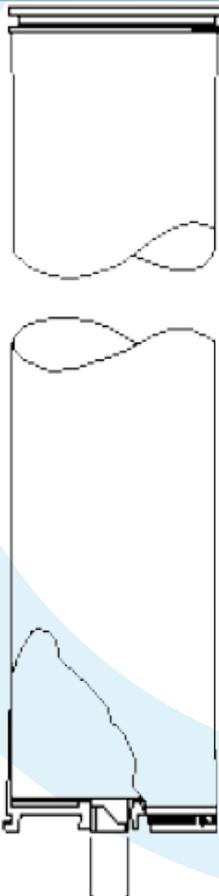
* Permeate flow rate and salt rejection based on the following test conditions : 2000 ppm NaCl, 10.3 bar (150 psig), 25°C (77°F), pH 8 and 15% recovery.

* Typical solute rejections : Silica 99.7% - Nitrate 96.4% - Ammonium 97% - Isopropyl alcohol 92% based on the following test conditions : 2000 ppm NaCl, 10.3 bar (150 psig), 25°C (77°F), Ph 7 and 15% recovery 50 ppm SiO₂ or 100 ppm NO₃⁻ or 100 ppm NH₄⁺ or 100 ppm IPA.

* For comparison, the XFRLE-400/34 will have a permeate flow of 46.6 m³/d (12,300 gpd) and stabilized rejection of 99.4% when normalized to a feed solution of 1,500 ppm NaCl as used by some manufacturers.

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

* Active area guaranteed +/- 3%.



APPLICATIONS

The XFRLE-400/34 element integrates the latest innovations in the treatment of challenging waters with high biological and organic fouling tendencies such as municipal or industrial wastewater or challenging surface water.

Large 34-mil spacer optimized for pressure drop minimization reducing the impact of fouling and enhancing the cleaning efficiency.

Wide chemical tolerance allowing effective and efficient cleaning of biofilms, organic compounds and scale at cleaning pH from 1 to 13.

High rejection of special solutes such as Nitrate, Ammonium or Silica.

High integrity achieved with the interlocking end-caps technology, minimizing the risk of o-ring leaks that can contribute to poor water quality.

Long term stable performance at lowest total life cycle cost. The high solute rejection make treated water suitable for reuse in a large number of applications.

XFRLE-400/34 Reverse osmosis membrane

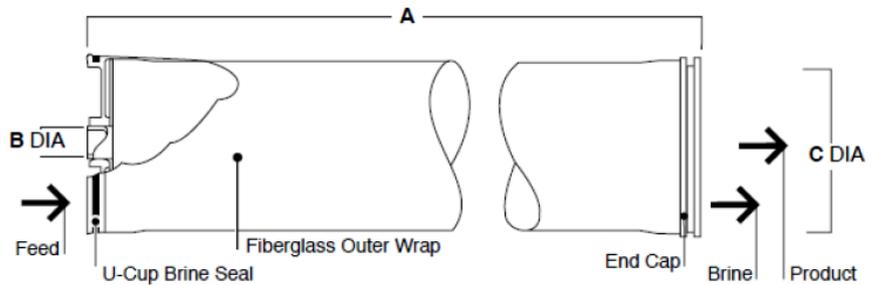
PRODUCT SPECIFICATIONS

Membrane type	Spiral wound polyamide thin-film composite
Feed spacer	34 mil
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 pH > 10 maximum temperature 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	29 ID	1.125 ID
C	201	7.9

"Coupling" delivered with each element (ref 313198) :



* Element to fit nominal 8-inch (203 mm) 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
 Lieudit «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