AC Series

FACT SHEET

Very high rejection seawater RO elements

The AC Series, family of proprietary thin film reverse osmosis membrane elements, is characterized by an excellent sodium chloride rejection. AC Series is selected when high quality permeate is demanded from seawater that is relatively high in TDS.

AC Series new membrane chemistry provides excellent rejection characteristics when operated at seawater operating conditions (pressures exceeding 800psi (5,516kPa) and elevated temperatures).

Table 1: Element Specification

Membrane	A-series, thin-film membrane (TFM*)

Model	Average Permeate Flow Gpd (m^3/day) (1)(2)	Ave. NaCl Rejection (1)(2)	Min. NaCl Rejection (2)	Min. Boron Rejection (2)
AC-400, 34	5800 (21.9)	99.85%	99.5%	96.0%
AC-440	6400 (24.2)	99.85%	99.5%	96.0%

(1) Average salt rejection after 24 hours of operation. Individual flow rate may vary ±20%.

(2) Testing conditions: 32,000mg/l NaCl & 5mg/l Boron solution at 800psi (5,516kPa) operating pressure, 77°F (25°C), pH 8.0 and 7% recovery.

Model	Active Area ft^2 (m^2)	Outer Wrap	Part Number
AC-400, 34	400 (37.2)	Fiberglass	3154588
AC-440	440 (40.9)	Fiberglass	3157144

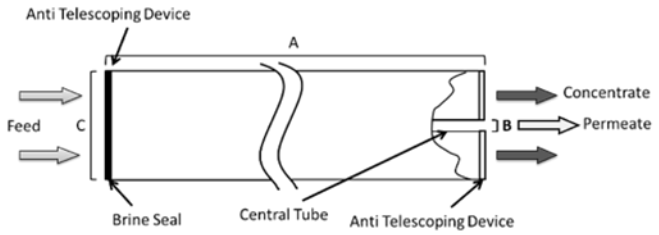

Figure 1: Element Dimensions Diagram – Female

Table 2: Operating and CIP Parameters

Typical Operating Pressure	800psi (5,516kPa)
Typical Operating Flux	7-11GFD (12-19LMH)
Maximum Operating Pressure	1,200psi (8,274kPa)
Maximum Temperature	Continuous operation: 122°F (50°C) Clean-In-Place (CIP): 122°F (50°C)
pH range	Optimum rejection pH: 7.0-7.5, Continuous operation: 2.0-11.0, Clean-In-Place (CIP): 1.0 – 12.0 (1)
Maximum Pressure Drop	Over an element: 15 psi (103 kPa) Per housing: 50 psi (345 kPa)
Chlorine Tolerance	1,000+ ppm-hours, dechlorination recommended
Feedwater	NTU < 1 SDI_{15} < 5

(1) Refer to Cleaning Guidelines Technical Bulletin TB1194.

Table 3: Dimensions and Weights

Model	Type	Dimensions, inches (cm)			Boxed
		A	B	C	Weight lbs (kg)
AC-400, 34	Female	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	35 (16)
AC-440	Female	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	35 (16)

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