OSMO HR(CA) Series

FACT SHEET

Brackish water desalination RO elements

The OSMO HR(CA) membranes are used for brackish water desalination in applications where chlorine tolerance of the membrane is required. The cellulose acetate membranes can be sanitized using chlorine.

Table 1: Element Specification

Membrane	Cellulose Acetate

Model	Average permeate flow gpd (m^3/day) [1,2]	Average NaCl rejection [1,2]	Minimum NaCl rejection [1,2]
OSMO 411-HR(CA)	1,700 (6.4)	97.5%	95.0%

[1]Average salt rejection after 24 hours of operation. Individual flow rate may vary ±20%.
[2]Testing conditions: 2,000 ppm NaCl solution at 425 psi (2,930 kPa) operating pressure, 77°F (25°C), pH 7.5 and 15% recovery.

Model	Membrane area ft^2 (m^2)	Outer wrap	Part Number
OSMO 411-HR(CA)	75 (7.0)	Fiberglass	1117404

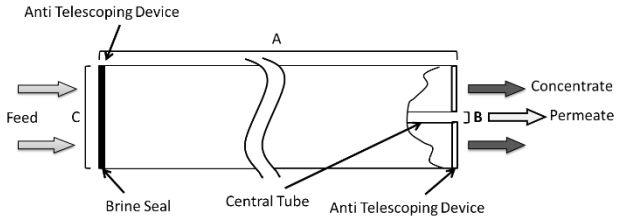

Figure 1: Element Dimensions Diagram – Female. 416, 813, & 817 do not include brine seals.

Table 2: Dimensions and Weight

Model	Type	Dimensions, inches (cm)			Boxed
		A	B	C	Weight lbs. (kg)
OSMO 411-HR(CA)	Female	40.0 (101.6)	0.775 (2.0)	3.94 (10.0)	11 (5)

Table 3: Operating and CIP Parameters

Typical Operating Pressure	140-400 psi (965-2,760 kPa)
Typical Operating Flux	10-20GFD (15-35LMH)
Maximum Operating Pressure	450 psi (3,103 kPa)
Maximum Temperature	86°F (30°C)
pH Range	Optimum rejection: 5.0-6.5, Continuous operation: 5.0-6.5, Clean-In-Place (CIP): 3.0-8.0[1]
Maximum Pressure Drop	Over an element: 10 psi (69 kPa) Per housing: 50 psi (345 kPa)
Chlorine Tolerance	1ppm maximum, continuous 30ppm for 30min during sanitization
Feedwater [2]	NTU < 1 SDI < 3

[1]Please refer to Cleaning Guidelines Technical Bulletin TB1194
[2]SDI is measured on a non-linear scale using a 0.45-micron filter paper. Additionally, finer colloids, particulates and microorganisms that pass through the filter paper and not measured in the SDI test, will potentially foul the RO element. For performance consistency and project warranty, please use Winflows projection software and consult your Veolia representative.

Veolia Water Technologies
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