

# Clariphex

## MARIS XHR series – Extra High Rejection Sea Water RO Membranes

### Product description:

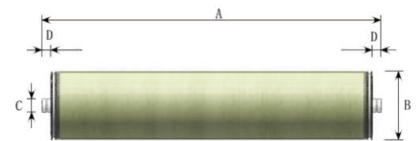
Building on the proven performance of the MARIS HR product platform, the MARIS XHR membrane incorporates further enhancements to the density of the selective layer. This advanced membrane sheet enables the resulting membrane elements to achieve ultra-high rejection rates while maintaining exceptional stability during prolonged operation—even in the most demanding seawater desalination environments.

### Product Highlights:

- \* Enhanced selective layer density delivers a significant boost in rejection efficiency for both monovalent and divalent ions
- \* Superior boron removal capability ensures reliable compliance with the most stringent potable water standards
- \* A non-oxidative post-treatment process effectively preserves membrane structural integrity and long-term chemical stability
- \* The shortened membrane leaves guarantees uniform feed flow distribution while mitigating concentration polarization effects

### Product Dimensions:

Membrane Code	Dim. A		Dim. B		Dim. C		Dim. D	
	mm	inch	mm	inch	mm	inch	mm	inch
MARIS-XHR-8x40-400	1016	40	201	7.9	29	1.125		
MARIS-XHR-8x40-440	1016	40	201	7.9	29	1.125		



### Product Specifications:

Membrane Code	Effective Area		Permeate flowrate		Min Rejection (%)	Stable Rejection (%)	Boron rejection (%)	Material
	(m <sup>2</sup> )	(ft <sup>2</sup> )	(m <sup>3</sup> /d)	(gpd)				
MARIS-XHR-8x40-400	37.2	400	23	6100	99.70	99.82	92.00	
MARIS-XHR-8x40-440	41	440	25	6600	99.70	99.82	92.00	

Note: Flux and rejection rate is based on the following standard test conditions: 5.5 MPa (800 psi) pressure, 25°C (77°F), 32000 ppm NaCl solution and pH 8 for feedwater, and 8% recovery.

### Operation & Cleaning Limits:

- \* Maximum Operating Pressure: 83 bar (1200 psi)
- \* Maximum Operating Temperature: 45°C (113°F)
- \* Maximum Element Pressure Drop: 1.0 bar (15psi)
- \* pH Range Continuous Operation: 2-11
- \* pH Range Short-Term (Cleaning): 1-13
- \* Maximum Feed SDI (SDI<sub>15</sub>): 5.0
- \* Free Chlorine Tolerance: < 0.1 ppm

### Notes:

- \* Permeate flow for individual elements may vary ±15 percent from the value specified.
- \* Active membrane area guaranteed ±4%.
- \* Stabilized salt rejection is generally achieved within 24-48 hours of continuous use; depending upon feedwater characteristics and operating conditions.