

Clariphex

MARIS HRFR series – High Rejection & Fouling Resistance Sea Water RO Membranes

Product description:

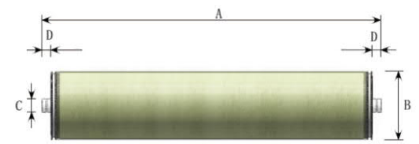
Developed specifically for challenging seawater sources characterized by high organic content and elevated hardness, the MARIS HRFR membrane integrates specialized surface treatments and advanced membrane chemistry to minimize foulant adhesion. This innovative design not only significantly reduces cleaning frequency but also extends operational cycles—even in complex water matrices.

Product Highlights:

- * Proprietary anti-fouling membrane architecture minimizes the potential for organic and inorganic scaling
- * Advanced surface coating technology enhances cleanability and flux recovery efficiency following chemical cleaning
- * Non-oxidative post-treatment preserves consistent membrane performance across extended service intervals
- * Shortened membrane leaves optimize flow distribution, reduce concentration polarization and mitigate localized fouling

Product Dimensions:

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



Product Specifications:

Membrane Code	Effective Area		Permeate flowrate		Min Rejection (%)	Stable Rejection (%)	Boron rejection (%)	Material
	(m ²)	(ft ²)	(m ³ /d)	(gpd)				
MARIS-HRFR-8x40-400	37.2	400	28	7400	99.65	99.80	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 (SDI₁₅): 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.