

Clariphex

FORTEX ZLD-XR series – Special Membranes for High-ratio Concentration

Product description:

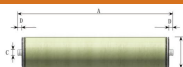
FORTEX ZLD-XR series special membranes are specifically engineered for high-demand scenarios including zero liquid discharge (ZLD) and brine concentration. A standout feature of these membrane are their ability to deliver exceptional permeate flux even when processing high-concentration brines; this high-flux performance directly translates to reduced operational energy consumption. Additionally, it boasts inherent anti-fouling capabilities, which enhance its stability in challenging feedwater conditions. Ideal for ZLD and similar intensive water treatment applications, these membranes delivers superior economic benefits by balancing efficiency, reliability, and lower energy costs.

Product Highlights:

- * Concentration of brine up to 130,000 ppm, for high-salinity enrichment requirements for intensive treatment scenarios (e.g. ZLD)
- * Features a durable, fouling-resistant membrane sheet that ensures consistent, reliable long-term performance—minimizing unplanned downtime and extending service life
- * Boasts an expansive pH tolerance range (1–13), allowing for thorough, effective chemical cleaning even under heavy fouling conditions, without compromising membrane integrity
- * Delivers energy-efficient performance that directly lowers operational costs, striking a balance between high treatment efficiency and economical operation

Product Dimensions:

Membrane Code	Dim. A		Dim. B		Dim. C		Dim. D	
	mm	inch	mm	inch	mm	inch	mm	inch
FORTEX-ZLD-XR-60	1016	40	201	7.9	29	1.125		
FORTEX-ZLD-XR-70	1016	40	201	7.9	29	1.125		
FORTEX-ZLD-XR-80	1016	40	201	7.9	29	1.125		
FORTEX-ZLD-XR-100	1016	40	201	7.9	29	1.125		
FORTEX-ZLD-XR-120	1016	40	201	7.9	29	1.125		



Product Specifications:

Membrane Code	Effective Area		Permeate flow rate		Min Rejection (%)	Stable Rejection (%)	Concentrate TDS (ppm)	Material
	(m ²)	(ft ²)	(m ³ /d)	(gpd)				
FORTEX-ZLD-XR-60	37	400					60000	
FORTEX-ZLD-XR-70	37	400	35.5	8800	99.60	99.75	70000	
FORTEX-ZLD-XR-80	37	400	34.2	9050	99.20	99.50	80000	
FORTEX-ZLD-XR-100	37	400					100000	
FORTEX-ZLD-XR-120	37	400					130000	

Note: Flux and rejection rate is based on the following standard test conditions: 4.1MPa (600 psi) pressure, 25°C (77°F), 32,000 ppm NaCl solution, pH 8 for feedwater, and 15% recovery.

Operation & Cleaning Limits:

- * Maximum Operating Pressure: 83 bar (1200 psi)
- * Maximum Feed SDI (SDI₁₅): 5.0
- * Maximum Operating Temperature: 45°C (113°F)
- * Free Chlorine Tolerance: < 0.1 ppm
- * Maximum Element Pressure Drop: 1.0 bar (15psi)
- * pH Range Continuous Operation: 3-10
- * pH Range Short-Term (Cleaning): 2-12

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.