

Z2 Series - Fouling Resistant RO Membrane Element

Product Features

- **Z2 Series** membranes utilize an enhanced anti-fouling membrane chemistry, incorporating advanced manufacturing technology to reduce surface roughness and minimize foulant attachment.
- The hydrophilic modified polyamide surface effectively reduces adhesion of organic matter and biological contaminants, providing strong resistance to colloids, oils, microorganisms, and high-SDI feedwater.
- A near-neutral surface charge helps mitigate inorganic scaling tendencies, improving membrane stability under challenging water conditions.
- The optimized membrane structure extends cleaning intervals and improves chemical cleaning tolerance, significantly enhancing membrane durability and operational reliability.

RO Element Specification & Performance

Model	Stable Rejection (%)	Min Rejection (%)	Average Permeate Flow GPD (m³/d)	Effective Membrane Area ft² (m²)	Spacer Thickness (mil)	Compatible With
MB-Z2-8040	99.7	99.5	10,500 (39.7)	400 (37.2)	34	DuPont BW30FR-400/34
MB-Z2-4040	99.7	99.5	2,400 (9.1)	85 (7.9)	34	--

Standard Test Conditions

Test Pressure 225 psi (1.55 MPa)	Test Solution Temperature 25°C	Test Solution Concentration 2,000 ppm NaCl
pH Value 7-8	Recovery Rate (per element) 15%	Permeate Flow Tolerance ±15%

Operating Conditions & Limits

Maximum Operating Pressure	600 psi (4.14 MPa)
Maximum Temperature	45°C
Maximum Feedwater SDI ₁₅	6
Maximum Free Chlorine Concentration	<0.1 ppm
Allowable pH Range (Continuous Operation)	3-10
Allowable pH Range (Chemical Cleaning)	2-11
Maximum Pressure Drop per Element	15 psi (0.1 MPa)