

416-HR(PA)

Brackish Water Desalination Full-Fit™ Membrane Element Reverse Osmosis, High Rejection

ELEMENT SPECIFICATIONS

Model	Flow		Active Area		Rejection		Part Number
	GPD	(m3/d)	ft2	m2	Average	Minimum	
416-HR(PA)	2,200	8.3	80	7.4	99.0%	98.0%	1158140

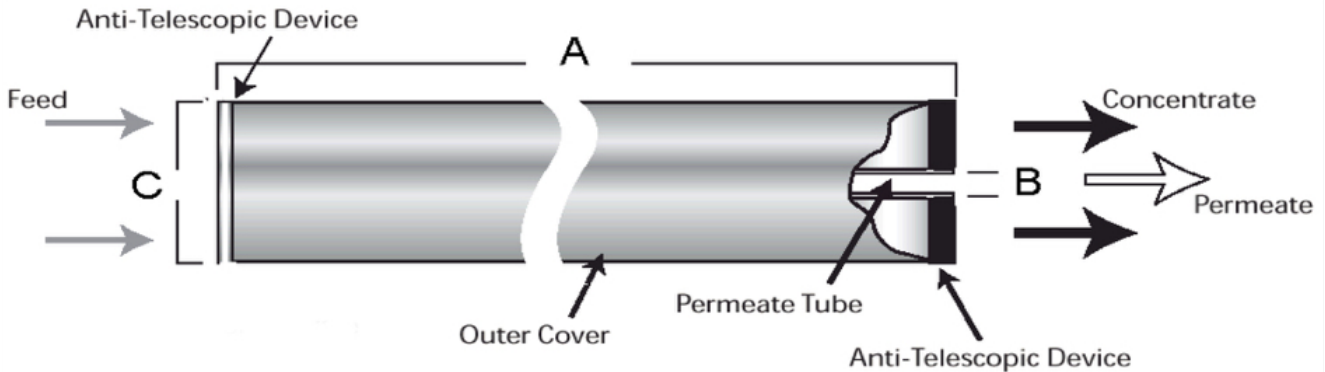
Specifications are based on a 2000 mg/L NaCl solution at 225 psig operating pressure (1551kPa), 77deg.F./25deg.C, 10% recovery, pH 7.5. Individual flux may vary +25%/ -15%. Average salt rejection after a minimum of 24 hours in continuous operation.

OPERATING AND DESIGN PARAMETERS

Membrane: Thin-Film Membrane (TFM®)
 Typical Operating Pressure: 200psig (1396.8 kPa)
 Maximum Pressure: 600psig (4190 kPa)
 Maximum Pressure Drop: 10 psig (69 kPa) per element
 50 psig (345 kPa) per vessel
 Chlorine Tolerance: 1,000 ppm-hrs, Dechlorination recommended
 Typical Operating Flux: 10 - 20 GFD (15-35 L.H-1.M-2)

Optimum rejection pH: 7.0 - 7.5
 Operating pH range: 4.0 - 11.0
 Cleaning pH range: 2.0 - 11.5
 Maximum Temperature: 122°F (50°C)
 Feed NTU: <1
 Feed SDI: <3

ELEMENT DIMENSIONS AND WEIGHT



Model	A inches (mm)	B inches (mm)	C* inches (mm)	Weight lbs (kg)
416-HR(PA)	40.125 (1019)	0.775 (20)	3.94 (100)	11 (5)

* The element diameter (dimension C) is designed for optimum performance in Osmonics pressure vessels. Other pressure vessel dimension and tolerance may result in excessive bypass

Notes:
 The Langelier Saturation Index (LSI) of the concentrate must be negative to minimize the possibility of calcium scale formation on the membrane surface.
 At start-up the first two hours of permeate should be discarded because of element preservative.
Storage conditions should be at a minimum of: <100F, dry, in original carton and not in direct sunlight.

