

AD Series

Seawater Desalination RO Elements



The A-Series, family of proprietary thin-film reverse osmosis membrane elements are characterized by a good sodium chloride rejection.

AD Seawater Elements feature high-pressure construction, a fiberglass outer wrap and standard feed spacers.

Table 1: Element Specification

Membrane	A-Series, Thin-Film Membrane (TFM*)		
Model	Flow average gpd (m3/day)	Salt rejection average (NaCl) ^{1,2}	Salt rejection minimum (NaCl) ^{1,2}
AD2540FM	380 (1.4)	99.6 %	99.2 %
AD4040FM	1,250 (4.7)	99.6 %	99.2 %
AD4040FM 30D	1,250 (4.7)	99.6 %	99.2 %
AD8040F	5,000 (18.9)	99.6 %	99.2 %
AD8040F 30D	5,000 (18.9)	99.6 %	99.2 %

¹ Average salt rejection after 24 hours operation. Individual flow rate may vary +25%/-15%.

² Testing conditions: 32,000 ppm NaCl solution at 800 psig (5,516 kPa) operating pressure, 77 °F, pH 7.5 and 7 % recovery.

Model	Active Area ft ² (m ²)	Outer wrap	Part Number
AD2540FM	26 (2.4)	Fiberglass	1223377
AD4040FM	86 (8.0)	Fiberglass	1223378
AD4040FM 30D	86 (8.0)	Fiberglass	3022328
AD8040F	370 (34.4)	Fiberglass	1223381
AD8040F 30D	370 (34.4)	Fiberglass	3001151

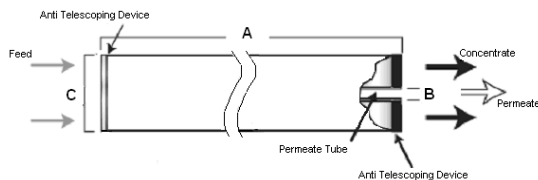


Figure 1: Element Dimensions Diagram – Female

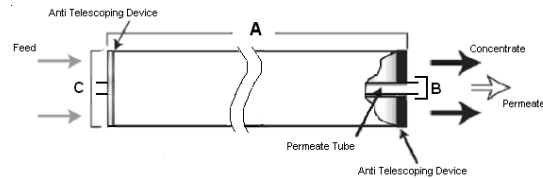


Figure 2: Element Dimensions Diagram – Male

Table 2: Dimensions and Weight

Model ¹	Dimensions, inches (cm)			Boxed Weight lbs (kg)
	A	B ²	C	
AD2540FM	40.0 (101.6)	0.75 (1.90) OD	2.4 (6.1)	6.6 (3.0)
AD4040FM	40.0 (101.6)	0.75 (1.90) OD	3.9 (9.9)	9 (4)
AD4040FM 30D	40.0 (101.6)	0.75 (1.90) OD	3.9 (9.9)	9 (4)
AD8040F	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	35 (16)
AD8040F 30D	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	35 (16)

¹These elements are shipped wet.

²Internal diameter unless specified OD (outside diameter).

Table 3: Operating and CIP parameters

Typical Operating Pressure	800 psig (5,516 kPa)
Typical Operating Flux	7-11GFD (12-19LMH)
Maximum Pressure	1,200 psig (8,268 kPa)
Maximum Temperature	Operating: 122°F (50°C) Cleaning: 122°F (50°C)
Recommended pH	Optimum rejection pH: 7.0 – 7.5 Operating Range pH: 4.0 - 11.0 Cleaning Range pH: 2.0 - 11.5
Recommended Pressure Drop	Over an element: 12 psig (83 kPa) Per housing: 50 psig (345 kPa)
Chlorine Tolerance	1,000+ ppm-hours Dechlorination recommended
Feedwater	NTU < 1 SDI < 5



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