AG FR series

standard brackish water RO elements

Water Technologies & Solutions
fact sheet

The A-Series family of proprietary thin-film reverse osmosis membrane is characterized by high flux and relatively high sodium chloride rejection. AG FR brackish water elements are selected when durability and cleaning effectiveness are important.

The AG FR membrane element is specifically designed with a larger feed spacer to enhance feed flow channels, maximizing the element energy & cleaning efficiencies at the same time. This feature improves the membrane element durability over the time, by promoting effective CIPs, reducing cleaning intervals and need for harsher chemicals.

Table 1: Element Specification

Membrane	A-Series, thin-film membrane (TFM*)

Model	Average permeate flow gpd (m^3/day)(1)(2)	Average NaCl rejection (1)(2)	Minimum NaCl rejection (1)(2)
AG4040FM FR,34	2,200 (8.8)	99.5%	99.0%
AG8040F 400 FR,34	11,000 (41.6)	99.5%	99.0%

(1) Average salt rejection after 24 hours of operation. Individual flow rate may vary ±20%.
(2) Testing conditions: 2,000 ppm NaCl solution at 225 psi (1,551 kPa) operating pressure, 77°F (25°C), pH 7.5 and 15% recovery.

Model	Membrane area ft^2 (m^2)	Outer wrap	Part Number
AG4040FM FR,34	80 (7.4)	Fiberglass	3114336
AG8040F 400 FR,34	400 (37.2)	Fiberglass	3136931

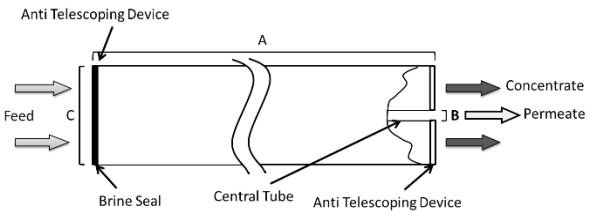


Figure 1 : Element Dimensions Diagram – Female

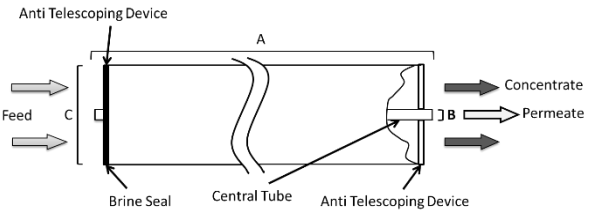


Figure 2: Element Dimensions Diagram – Male

Table 2: Dimensions and Weight

Model	Type	Dimensions, inches (cm)			Boxed
		A	B	C	Weight lbs. (kg)
AG4040FM	Male	40.0 (101.6)	0.75 (1.90)	3.9 (9.9)	11 (5)
AG8040F	Female	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	35 (16)

Table 3: Operating and CIP parameters

Typical Operating Pressure	200 psi (1,379 kPa)
Typical Operating Flux	10-20GFD (15-35LMH)
Maximum Operating Pressure	600 psi (4,137 kPa)
Maximum Temperature	Continuous operation: 122°F (50°C) Clean-In-Place (CIP): 122°F (50°C)
pH Range	Optimum rejection: 7.0-7.5, Continuous operation: 2.0-11.0, Clean-In-Place (CIP): 1.0-13.0(1)
Maximum Pressure Drop	Over an element: 12 psi (83 kPa) Per housing: 50 psi (345 kPa)
Chlorine Tolerance	1,000+ ppm x hours, Dechlorination recommended
Feedwater	NTU < 1 SDI_{15} < 5

(1) Refer to Cleaning Guidelines Technical Bulletin TB1194.