AG HR series

high rejection 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 high sodium chloride rejection. AG HR brackish water elements are selected when high rejection and operating pressures as low as 200 psi (1,379 kPa) are desired. These elements are recommended for brackish water with salt concentration (TDS) levels between 1,000 and 10,000mg/l or when very high salt rejection of monovalent ions is required.

AG HR series is certified to NSF/ANSI 61.

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)
AG-90	2400 (9.1)	99.8%	99.3%
AG-365	10,000 (37.9)	99.8%	99.3%
AG-400	11,000 (41.6)	99.8%	99.3%
AG-400, 34	11,000 (41.6)	99.8%	99.3%
AG-440	12,000 (45.4)	99.8%	99.3%

(1) Average salt rejection after 24 hours operation. Individual flow rate may vary ±20%.

(2) Testing conditions: 2,000ppm NaCl solution at 225psi (1,550kPa) operating pressure, 77°F (25°C), pH7 and 15% recovery.

Model	Active area ft^2 (m^2)	Outer wrap	Part number
AG-90	90 (8.4)	Fiberglass	3056665
AG-365	365 (33.9)	Fiberglass	3056666
AG-400	400 (37.2)	Fiberglass	3056667
AG-400, 34	400 (37.2)	Fiberglass	3056668
AG-440	440 (40.9)	Fiberglass	3056669

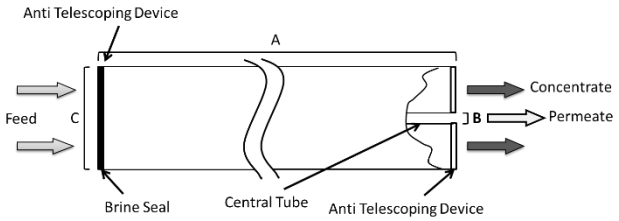


Figure 1a: Element Dimensions Diagram – Female

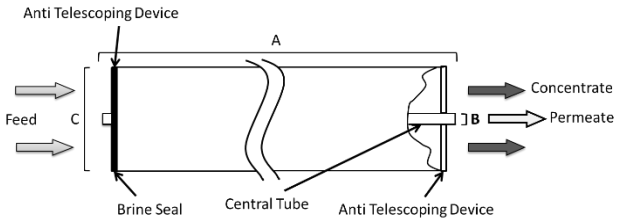


Figure 1b: Element Dimensions Diagram – Male

Table 2: Operating and CIP parameters

Typical Operating Pressure	200 psi (1,380 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-hours, dechlorination recommended
Feedwater	NTU < 1 SDI_{15} < 5

(1) Refer to Cleaning Guidelines Technical Bulletin TB1194

Table 3: Dimensions and Weights

Model	Type	Dimensions, inches (cm)			Boxed
		A	B	C	Weight lbs (kg)
AG-90	Male	40.0 (101.6)	0.75 (1.90)	3.9 (9.9)	9 (4)
AG-365	Female	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	35 (16)
AG-400	Female	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	35 (16)
AG-400, 34	Female	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	35 (16)
AG-440	Female	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	35 (16)