GE Power Water & Process Technologies

AG HR Series High Rejection Brackish Water RO Elements

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.

Table 1: Element Specification

Membrane	Thin-film membrane (TFM*)			
Model	Average permeate flow gpd (m3/day) ^{1,2}	Average NaCl re- jection ^{1,2}	Minimum NaCl re- jection ^{1,2}	
AG-90	2300 (8.7)	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%	

 $^1\mathrm{Average}$ 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 ft² (m²)	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

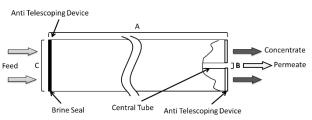


Figure 1a: Element Dimensions Diagram – Male

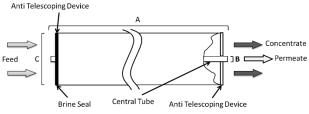


Figure 1b: Element Dimensions Diagram – Female

Table 2: Operating and CIP parameters

Typical Operating Pressure	- 200 psi (1,380 kPa)		
Typical Operating Flux	10-20GFD (15-35LMH)		
Maximum Operating Pres- sure	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 4.0-11.0, Clean-In-Place (CIP): 1.0-13.01		
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 ²	NTU < 1 SDI < 5		

¹ Please refer to Cleaning Guidelines Technical Bulletin TB1194

² SDI is measured on a non-linear scale using a 0.45 micron filter paper. Additionally, finer colloids, particulates and microorganisms that pass through the filter paper and not measured in the SDI test, will potentially foul the RO element. For performance consistency and project warranty, please use Winflows projection software and consult your GE representative.

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Table 3: Dimensions and Weights

		Dimensions, inches (cm)			Boxed
Model	Туре	Α	В	С	Weight Ibs (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)