AG HR LF Series

High Rejection Low Fouling Brackish Water RO Elements

The A-Series family of proprietary thin-film reverse osmosis membrane are characterized by high flux and high sodium chloride rejection. AG HR LF Brackish Water Elements are selected for the treatment of impaired water when high rejection is desired. The AG HR LF membrane features a more neutral charge and therefore reduces interactions with potential foulants present in surface water or tertiary effluent.

Table 1: Element Specification

Membrane	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 LF	2200 (8.3)	99.8%	99.3%
AG-400 LF	10500 (39.7)	99.8%	99.3%
AG-400 LF, 34	10500 (39.7)	99.8%	99.3%
AG-440 LF	11500 (43.5)	99.8%	99.3%

[1] Average salt rejection after 24 hours operation. Individual flow rate may vary +25%/-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 LF	90 (8.4)	Fiberglass	3056674
AG-400 LF	400 (37.2)	Fiberglass	3042540
AG-400 LF, 34	400 (37.2)	Fiberglass	3056675
AG-440 LF	440 (40.9)	Fiberglass	3056676

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 4.0-11.0, Clean-In-Place (CIP): 2.0-11.5
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[3]	NTU < 1 SDI < 5

[3] 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 Filters with Membranes representative.

Figure 1a: Element Dimensions Diagram – Male

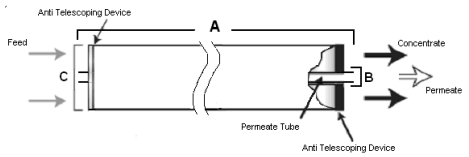


Figure 1b: Element Dimensions Diagram – Female

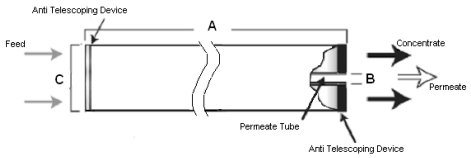


Table 3: Dimensions and Weights

Model[1]	Type	Dimensions, inches (cm)			Boxed Weight lbs (kg)
		A	B[2]	C	
AG-90 LF	Male	40.0 (101.6)	0.75 (1.90)	3.9 (9.9)	9 (4)
AG-400 LF	Female	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	35 (16)
AG-400 LF, 34	Female	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	35 (16)
AG-440 LF	Female	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	35 (16)

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