AG FR Series

FACT SHEET

Fouling resistant brackish water RO elements for challenging water & wastewater

The AG Series fouling resistant brackish water reverse osmosis elements are characterized by high flux and relatively high sodium chloride rejection.

The AG FR element is designed for challenging water & wastewater applications. The element construction enhances feed flow to minimize fouling and optimize energy performance. In addition, AG FR elements enable more effective cleaning cycles and reduce cleaning frequency as well as the need for harsh chemicals.

Table 1: Element Specification

Membrane	AG Series, thin-film membrane (TFM)

Model	Average Permeate Flow gpd (m^3/day) (1)(3)	Average NaCl Rejection (2)(3)	Minimum NaCl Rejection (2)(3)
AG4040FM FR,34	2,200 (8.8)	99.65%	99.3%
AG8040F-400 FR,34	11,000 (41.6)	99.65%	99.3%

(1) Individual flow rate may vary ±20%.
(2) Stabilized salt rejection after 24 hours of operation.
(3) 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.

Table 2: Element Properties (4)

Model	Membrane Area ft^2 (m^2)	Outer Wrap	Feed Spacer (mil)	Part Number
AG4040FM FR,34	80 (7.4)	Fiberglass	34	3154063
AG8040F-400 FR,34	400 (37.2)	Fiberglass	34	3136931

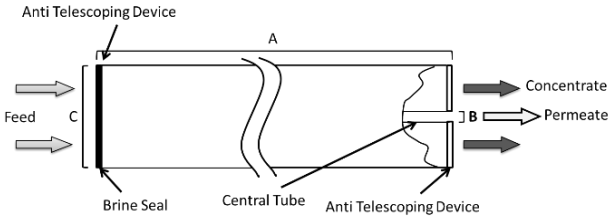

Figure 1: Element Dimensions Diagram – Female

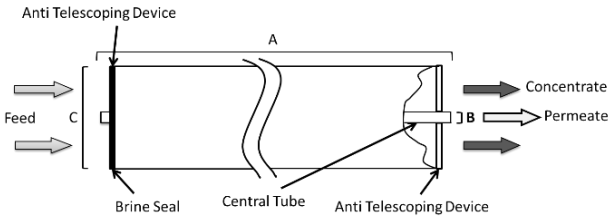

Figure 2: Element Dimensions Diagram – Male

Table 3: Dimensions and Weight (4)

Model	Type	Dimensions, inches (cm)			Boxed
		A	B	C	Weight lbs. (kg)
AG4040FM FR,34	Male	40.0 (101.6)	0.75 (1.90)	3.9 (9.9)	11 (5)
AG8040F-400 FR,34	Female	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	35 (16)

Table 4: Operating and CIP Parameters (4)

Typical Operating Pressure	200 psi (1,379 kPa)
Typical Operating Flux	10-20 GFD (15-35 LMH)
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 (5)
Maximum Pressure Drop	Over an element: 15 psi (103 kPa) Per housing: 50 psi (345 kPa)
Chlorine Tolerance	1,000+ ppm x hours, Dechlorination recommended
Feedwater	NTU < 1 SDI_{15} < 5

(4) Element properties and parameters are indicative numbers. Specific values by element may vary within normal element manufacturing tolerances.
(5) Refer to Cleaning Guidelines Technical Bulletin TB1194.

Veolia Water Technologies
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