

AG LE H Series

FACT SHEET

High performance, low energy, high rejection brackish water RO elements

The AG LE H Series of thin-film reverse osmosis (RO) elements are designed to perform in brackish water applications where the customer and application seek to balance low energy and high rejection requirements. AG LE H Series elements optimize Veolia chemistry and manufacturing advancements to deliver differentiated performance over the life of the element. In contrast to ultra-low energy AK H Series, the AG LE H Series elements are often used with the need to control flux due to increased risk of fouling such as when a surface water source is used.

All AG LE H Series elements have NSF/ANSI/CAN 61 certification and halal certification.

Table 1: Element Specification

Membrane	Thin-film membrane (TFM), polyamide
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Model	Average permeate flow gpd (m ³ /day) (1,2)	Typical NaCl rejection (1,2)	Minimum NaCl rejection (1,2)
AG-400 LE H	10,000 (37.9)	99.5%	99.0%
AG-440 LE H	11,000 (41.6)	99.5%	99.0%

(1) Average salt rejection after 24 hours of operation. Individual flow rate may vary with a minimum of 8,000 gpd (30.3 m³/day) for the AG-400 LE H and 8,800 gpd (33.3 m³/day) for the AG-440 LE H.

(2) Testing conditions: 2,000 ppm NaCl solution at 150 psi (1,034 kPa) operating pressure, 77°F (25°C), pH 7 and 15% recovery.

Table 2: Element Properties (3)

Model	Active area ft ² (m ²)	Outer wrap	Feed Spacer (mil)	Part number
AG-400 LE H	400 (37.2)	Fiberglass	34	3187569
AG-440 LE H	440 (40.9)	Fiberglass	28	3187650

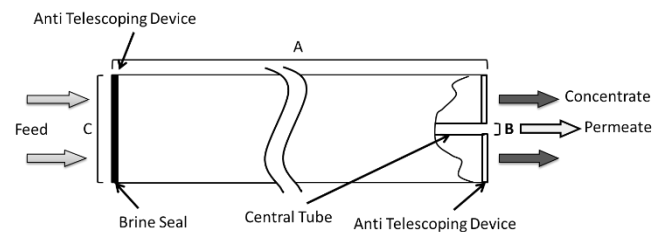


Figure 1: Element Dimensions Diagram – Female

Table 3: Dimensions and Weights (3)

Model	Type	Dimensions, inches (cm)			Boxed weight lbs (kg)
		A	B	C	
AG-400 LE H	Female	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	40 (18)
AG-440 LE H	Female	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	42 (19)

Table 4: Operating and CIP Parameters ⁽³⁾

Typical Operating Pressure	150 psi (1,034 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): 1.0-12.0 ⁽⁴⁾
Maximum Pressure Drop	Over an element: 15 psi (103 kPa) Per housing: 50 psi (345 kPa)
Chlorine Tolerance	1,000+ ppm-hours, dechlorination recommended
Feedwater	NTU < 1 SDI ₁₅ < 5

⁽³⁾ Element properties and parameters are indicative numbers. Specific values by element may vary within normal element manufacturing tolerances.

⁽⁴⁾ Please refer to Cleaning Guidelines Technical Bulletin TB1194.

Additional Information

- As with any product, use of the products mentioned in this publication in a given application must be tested (including field testing, etc.) by the user in advance to determine suitability.
- Treat RO elements with care; do not drop the element.
- Each RO element is wet tested, preserved in a 1% weight sodium bisulfite solution, and vacuum packed in oxygen barrier bags.
- During storage, avoid freezing and direct sunlight. The temperature should be below 35°C (95°F).

After Installation

- Keep the RO elements wet and use a compatible preservative for storage duration longer than 7 days.
- During the initial start-up, discharge the first permeate to drain for 30 minutes.
- Permeate back pressure should not exceed feed pressure at any time.
- The RO elements shall be maintained in a clean condition, unfouled by particulate matter or precipitates or biological growth.
- Consider cleaning, if the pressure drop increases by 20% or water permeability decreases by 10%. Use only chemicals which are compatible with the membrane.