BEV RO LE series

beverage and bottled water production

Water Technologies & Solutions
fact sheet

The BEV RO LE membrane element is engineered to provide beverage plants production water with a very high degree of total dissolved solids (TDS) removal, which is often required when producing purified water, teas, very low and sodium free products, and carbonated soft drinks. The BEV RO LE will produce treated water with lower levels of hardness, alkalinity, sodium and chloride, and is also the element of choice on high TDS feed-water streams.

The BEV RO LE membrane element is tested and certified by NSF International against NSF/ANSI Standard 61 for material requirements only.

Features include a Full-Fit* design that eliminates the stagnant zone associated with industrial FRP elements and their brine seals, which can act as a site for bacterial growth. The BEV RO LE element forms a flush-fit with the inner diameter of the membrane element housing, creating a self-cleaning effect. This design also offers less pressure resistance than an industrial FRP element, resulting in lower brake horsepower and substantial energy savings.

The BEV RO LE membrane element is a low energy element following a 100% Wet Test Quality Assurance.

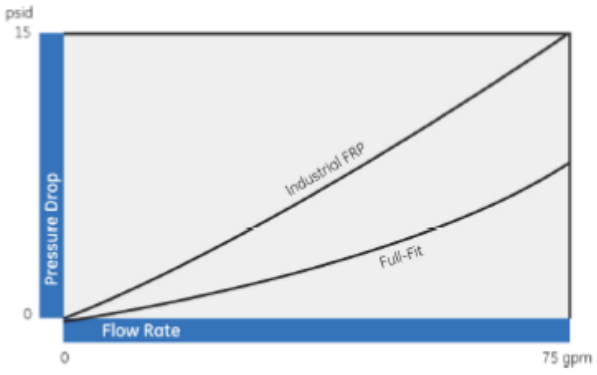


Figure 1: High Flow Rate at Low Pressure Drop

Table 1: Element Specification

Membrane	Thin-Film Membrane (TFM*)

Model	Average permeate flow gpd (m3/day) [1,2]	Average NaCl rejection [1,2]	Minimum NaCl rejection [1,2]
BEV-RO-LE-WT-FF	10,000 (37.9)	98.5 %	98.0 %
BEV-RO-LE-400-FF	11,000 (41.6)	98.5 %	98.0 %
BEV-RO-LE-440-FF	12,000 (45.4)	98.5 %	98.0 %

[1] Average salt rejection after 24 hours of operation. Individual flow rate may vary ±20%.
[2] Testing conditions: 500 ppm NaCl solution at 115psi (793kPa) operating pressure, 77 °F (25°C), pH 7.5 and 15% recovery.

Model	Active area ft² (m²)	Outer wrap	Part number
BEV-RO-LE-WT-FF	365 (33.9)	Full-Fit*	3027042
BEV-RO-LE-400-FF	400 (37.2)	Full-Fit*	3158150
BEV-RO-LE-440-FF	440 (40.9)	Full-Fit*	3158151

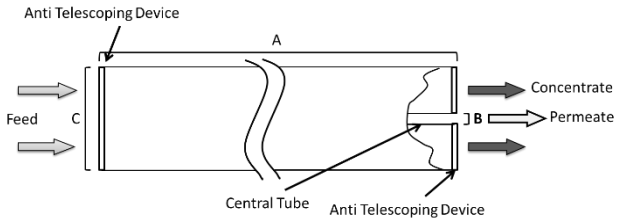


Figure 1: Element Dimensions Diagram - Female

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Table 2: Dimensions and Weight

Model	Type	Dimensions, inches (cm)			Boxed
		A	B	C	Weight lbs (kg)
BEV-RO-LE-***-FF	Female	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	35 (16)

Table 3: Operating and CIP parameters

Typical Operating Pressure	OSMO BEV RO LE: 110 psi (758kPa)
Typical Operating Flux	10-20GFD (15-35 LMH)
Maximum Operating Pressure	OSMO BEV RO LE: 400 psi (2,758 kPa)
Maximum Temperature	Continuous operation: 122°F (50°C) Clean-In-Place (CIP): 122°F (50°C)
Minimum Crossflow	30gpm (6.8 m3/hr)
pH Range	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[4]	NTU < 1 SDI_{15} < 5

[1] Please refer to Cleaning Guidelines Technical Bulletin TB1194.

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