

# BEV RO series

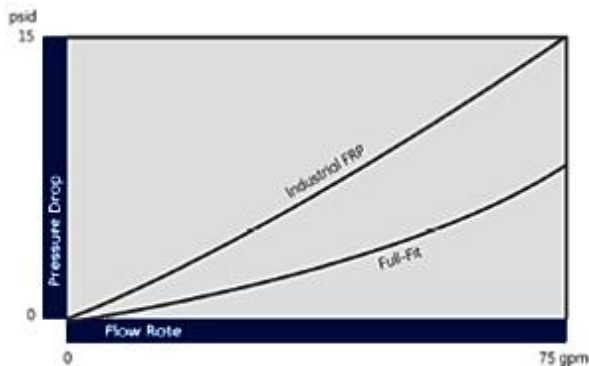
## beverage and bottled water production

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

Features include a Full-Fit\* or a Cage design that eliminates the stagnant zone associated with industrial FRP elements and their brine seals, which can act as a site for bacterial growth. This design also offers less pressure resistance than an industrial FRP element, resulting in lower brake horsepower and substantial energy savings.

The BEV RO membrane element is a high rejection element following a 100% Wet Test Quality Assurance.



**Figure 1: High Flow Rate at Low Pressure Drop**

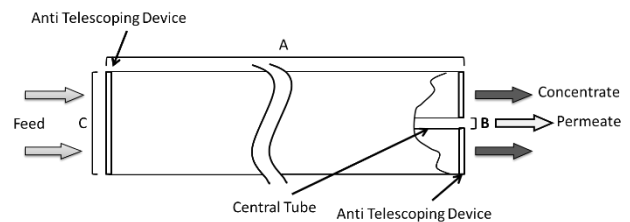
**Table 1: Element Specification**

Membrane	Thin-Film Membrane (TFM*)		
Model	Average permeate flow GPD (m <sup>3</sup> /day) (1,2)	Average NaCl rejection (1,2)	Minimum NaCl rejection (1,2)
BEV-RO-CG	10,000 (37.9)	99.0 %	98.5 %
BEV-RO-FF	10,000 (37.9)	99.0 %	98.5 %
BEV-RO-400-CG	11,000 (41.6)	99.0 %	98.5 %
BEV-RO-400-FF	11,000 (41.6)	99.0 %	98.5 %
BEV-RO-440-CG	12,000 (45.4)	99.0 %	98.5 %
BEV-RO-440-FF	12,000 (45.4)	99.0 %	98.5 %

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

(2) Testing conditions: 2,000ppm NaCl solution at 225psi (1,551kPa) operating pressure, 77 °F (25°C), pH 7.5 and 15% recovery.

Model	Active area ft <sup>2</sup> (m <sup>2</sup> )	Outer wrap	Part number
BEV-RO-CG	365 (33.9)	Cage	1266767
BEV-RO-FF	365 (33.9)	Full-Fit*	1233032
BEV-RO-400-CG	400 (37.2)	Cage	3158143
BEV-RO-400-FF	400 (37.2)	Full-Fit*	3158136
BEV-RO-440-CG	440 (40.9)	Cage	3158152
BEV-RO-440-FF	440 (40.9)	Full-Fit*	3158138



**Figure 1 : Element Dimensions Diagram - Female**

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**Table 2: Dimensions and Weight**

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

**Table 3: Operating and CIP parameters**

<b>Typical Operating Pressure</b>	200 psi (1,379 kPa)
<b>Typical Operating Flux</b>	10-20GFD (15-35 LMH)
<b>Maximum Operating Pressure</b>	600 psi (4,137 kPa)
<b>Maximum Temperature</b>	Continuous operation: 122°F (50°C) Clean-In-Place (CIP): 122°F (50°C)
<b>Minimum Crossflow</b>	30gpm (6.8 m <sup>3</sup> /hr)
<b>pH Range</b>	Continuous operation: 2.0-11.0, Clean-In-Place (CIP): 1.0-13.0 (1)
<b>Maximum Pressure Drop</b>	Over an element: 12 psi (83 kPa) Per housing: 50 psi (345 kPa)
<b>Chlorine Tolerance</b>	1,000+ ppm-hours, dechlorination recommended
<b>Feedwater</b>	NTU < 1 SDI <sub>15</sub> < 5

(1) Please refer to Cleaning Guidelines Technical Bulletin TB1194EN