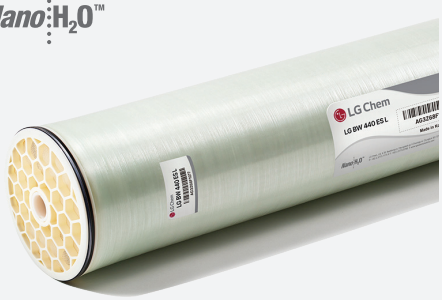
Nano H_2O™



Product Data Sheet

LG BW 440 ES L

Energy-saving brackish water RO membrane with an advanced 28 mil low dP feed spacer technology

Key Features

- High permeate flow rate and salt rejection at low feed pressures
- Optimized membrane surface hydraulics
- Reduced differential pressure
- Good fouling resistance

Main Benefits

- Low energy consumption
- High permeate water quality
- Reduced cleaning frequency, chemical use, and membrane replacements
- Reduced energy consumption and total cost of plant ownership

Ideal Applications

- Industrial process water
- Municipal drinking water
- 2nd pass SWRO

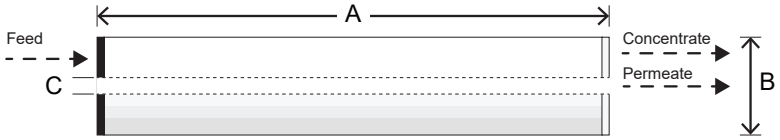
Performance Specifications

Specification	Unit	Test condition A	Test condition B
Permeate Flow Rate	GPD (m^3/d)	11,550 (43.7)	12,280 (46.5)
Stabilized Salt Rejection	%	99.6	99.66
Minimum Salt Rejection	%	99.5	99.56
Active Membrane Area	ft^2 (m^2)	440 (41)	
Feed Spacer Thickness, Type	mil	28, low dP	

The specifications outlined above are normalized performances based on the following test conditions:

- **Test Condition A:** 2,000 ppm NaCl, 150 psi (10.3 bar), 25°C (77°F), pH 7, Recovery 15%
- **Test Condition B (referential only):** 1,500 ppm NaCl, 150 psi (10.3 bar), 25°C (77°F), pH 7, Recovery 15%
- Permeate flow rates for individual elements may vary by ±15%

Dimensions and Weight



Dimensions: mm (in)			Wet Weight: kg (lbs)
A	B	C	
Element Length	Element O.D.	Core Tube I.D.	16 (35)
1,016 (40)	200 (7.9)	28.6 (1.125)	

Operating Specifications

Item	Unit	Value
Maximum Applied Pressure	psi (bar)	600 (41.3)
Maximum Chlorine Concentration	ppm	< 0.1
Maximum Operating Temperature	°C (°F)	45 (113)
pH Range, Continuous Operation		2–11
pH Range, Cleaning		2–12
Maximum Feed Water Turbidity	NTU	1.0
Maximum Feed Water SDI_{15}		5.0
Maximum Feed Flow	gpm (m^3/h)	75 (17)
Maximum Pressure Drop (ΔP) for Each Element	psi (bar)	15 (1.0)

NSF

This product is certified to NSF/ANSI/CAN Standard 61 for drinking water systems

Please visit our website for regional contact information
www.lgwatersolutions.com