

The Lewabrane® spiral wound reverse osmosis (RO) element RO B400 ULP ASD has a highly permeable composite polyamide (PA) membrane. It is designed for low salinity water to operate at ultra low pressure (ULP). The high permeability results in up to 40% lower energy consumption compared to standard elements like the RO B400 HR. The ASD (Alternating Strand Design) feed spacer offers a lower fouling tendency to improve the RO lifetime cost performance. The elements are characterized by

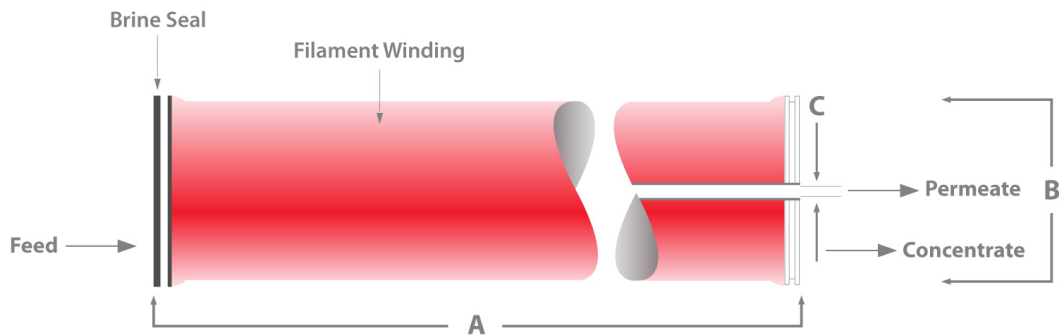
- High rejection of organic compounds
- Low energy demand
- Low fouling tendency due to ASD feed spacer

General Information

	Metric units	US units
Permeate flow, ave.	38.6 m ³ /d	10200 gpd
Salt rejection, ave.	99.5 %	99.5 %
Membrane area	37.2 m ²	400 ft ²
Feed spacer thickness	0.86 mm (ASD spacer)	34 mil (ASD spacer)

Minimum element performance: 31.1 m³/d (8200 gpd) permeate flow and 99.0% salt rejection.
Element test conditions: applied pressure 7.6 bar (110 psi), NaCl concentration 500 mg/l, temperature 25 °C (77 °F), pH 7 and recovery rate 15%.

Element Dimension



	A (Length)	B (Diameter)	C (ID)
Dimension inches (mm)	40 (1016)	7.9 (201)	1.125 (29)

Application Data

	Metric units	US units
Operating pressure, max.	41 bar	600 psi
Operating temperature, max.	45 °C	113 °F
Feed water SDI, max.	5	5
pH range during operating	2 - 11	2 - 11
pH range during cleaning	1 - 12	1 - 12
Pressure drop per element, max.	1.0 bar	15 psi
Pressure drop per vessel, max.	3.5 bar	50 psi
Chlorine concentration, max.	0.1 ppm	0.1 ppm

Additional Information

- 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 min.
- 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.
- For additional information consult the Lewabrane® technical information available at www.lpt.lanxess.com.

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This document contains important information and must be read in its entirety.

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