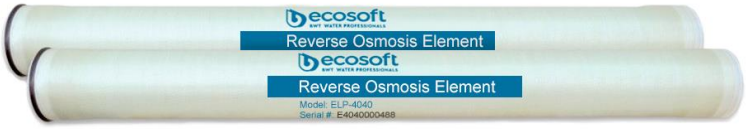
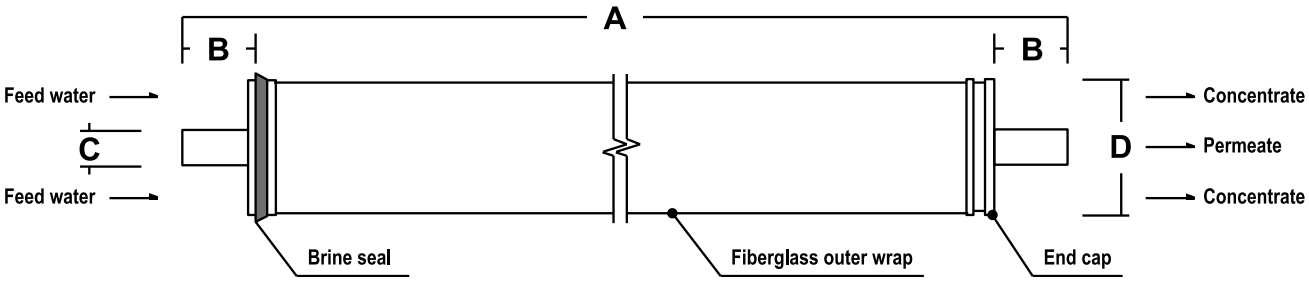
Ecosoft ELP-4040

Brackish water reverse osmosis membrane elements



ELP-4040 membranes are spiral wound membrane elements for reverse osmosis systems. ELP-4040 are intended for purification of brackish water in low pressure systems. Large active surface area together with high rejection rates allows to use these membranes in variable pressure and flow conditions without deterioration of permeate quality.



Product name	ELP-4040
Permeate flow rate[1]	9.0 m^3/day (2500 GPD)
Typical stabilized salt rejection	99.2%
Feed spacer thickness	0.7 mm (28 mil)
Standard test conditions	2000 mg/l NaCl
	pH 7.5
	10.3 bar
	15% recovery
Element dimensions (see drawing above)	
A	1016 mm (40.0″)
B	26.7 mm (1.05″)
C	19 mm (0.75″)
D	99 mm (3.9″)
Maximum operating temperature	45 °C
Maximum operating pressure	41 bar
Maximum element pressure drop	1 bar
Continuous operation pH range	2…11
Short term (cleaning) pH range	2…12
Maximum chlorine concentration	0.1 mg/l
Maximum Silt Density Index	5

[1] Flow rates for individual elements may vary but within ±15%

IMPORTANT OPERATION NOTES

Proper start-up of reverse osmosis water treatment systems is essential to prepare the membranes for operating service and to prevent membrane damage due to overfeeding or hydraulic shock. Following the proper start-up sequence also helps ensure that system operating parameters conform to design specifications so that system water quality and productivity goals can be achieved. Before initiating system start-up procedures, membrane pretreatment, loading of the membrane elements, instrument calibration and other system checks should be completed. Please refer to the product manual for more information.

- It is critical to follow approved start-up procedure to prevent membrane damage due to overfeeding or hydraulic shock. Before initiating system, loading of the RO elements, instrument calibration, membrane pretreatment and other system checks should be conducted.
- Minimize any pressure shock or cross-flow fluctuation on the spiral elements at all times. During start-up, a gradual, incremental change from a standstill to operating state is recommended.
- Maximum pressure drop across an entire pressure vessel (housing) is 50 psi (3.4 bar).
- No static pressure should ever be built up on permeate side.
- Keep elements moist at all times after initial wetting.
- If operating limits and guidelines are not followed, the Limited Warranty will be void.
- In case of prolonged system shutdowns, it is recommended that membrane elements be immersed in a preservative solution to prevent bacteria growth.
- Permeate collected from first hour of operation should be discarded.
- It is customer's responsibility to make sure that the chemicals and lubricants do not have detrimental effects on RO elements.

Notice: The use of this product in and of itself does not necessarily guarantee the removal of cysts and pathogens from water. Effective cyst and pathogen reduction is dependent on the complete system design and on the operation and maintenance of the system.

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