

## LENNRO SERIES

Brackish water  
Reverse Osmosis  
systems



250 L/h  
500 L/h  
1000 L/h  
1500 L/h  
2000 L/h

### Description

Lenntech small reverse osmosis systems provide low conductivity water from Brackish water. Lenntech units are ready-to-use, skid mounted, easy to operate.

- Compact design, low energy demand and high recovery;
- Fully automatic system, microprocessor controlled.

### This system includes

- 5-micron cartridge filter;
- High pressure pump;
- Permeate conductivity indicated in the front panel display;
- High performance membranes;
- Fiberglass pressure vessels;
- Permeate and concentrate flow meters (incl. flow switch in the concentrate);
- Pressure indicators after each pump;
- Low pressure switch before the HPP;
- Control cabinet fully automatic;
- High pressure piping in PVC;
- Needle valves and high pressure throttle valve in stainless steel.

### Options

- Antiscalant dosing system;
- Softener;
- CIP station.

### Feed water quality specifications

Dissolved iron	Max 0.05 ppm
Dissolved manganese	Max 0.05 ppm
Chlorine (continuously)	0 ppm
Oil and grease	0 ppm
Silt Density Index SDI <sub>15</sub>	< 3
Turbidity	< 1 NTU
Temperature	Min. 15°C - max. 20°C
Pre-pressure	Min. 2 bar - max. 4 bar

### Water composition <sup>(1)</sup>

Total dissolved solids	3000 ppm
pH value	7.4
Potassium	50 ppm
Sodium	658 ppm
Magnesium	30 ppm
Calcium	290 ppm
Bicarbonates	200 ppm
Chloride	890 ppm
Sulfates	880 ppm

<sup>(1)</sup> Typical high brackish water composition.

**Water analysis will be necessary to confirm the design.**

### Technical data

LennRO_BW	250	500	1000	1500	2000
Permeate flow m <sup>3</sup> /h	0.25	0.5	1.00	1.5	2.0
Feed flow m <sup>3</sup> /h	0.33	0.67	1.33	2.00	2.67
Recirculation flow m <sup>3</sup> /h	0.16	0.52	0.35	0.90	0.6
Recovery	75%	75%	75%	75%	75%
Permeate TDS ppm	< 150	< 150	< 150	< 150	<150
Membrane type	XLE 2540	XLE 4040	XLE 4040	XLE 4040	XLE 4040
# of membranes	4	3	5	8	9
Array (# Vessels)	1 / 1 / 1 / 1	1 / 1 / 1	1 / 1	2 / 2	2 / 1 / 1
Pump power	0.75 kW	1.1 k W	1.5 kW	2.2 kW	3.0 kW

*These data are given for information purpose only. They are subject to modifications depending on the water quality.*

**Water analysis is mandatory to confirm the design.**

Reverse Osmosis units often required pre-treatment for the following parameters:

- Suspended solids
- TOC, COD/BOD, oil and grease
- Iron and manganese
- Hardness

Lenntech provides all kinds of pre and post treatment required before and after your RO, according to your water analysis and process requirements.

Please contact us for further information.

LennRO series for brackish water treatment are also available in:

- Low brackish water – up to 1000 ppm TDS
- High brackish water – up to 6000 ppm TDS

Please make your request according to the type of water.

*Document vers 01\_2018*