

LENNRO *SW-S SYSTEMS*

*Small sea water
desalination plants*

*150 L/h | 300 L/h | 500 L/h
1000 L/h | 1500 L/h | 2000 L/h*



Description

Lenntech SW reverse osmosis systems provide drinking and process water from sea water. Lenntech systems are ready-to-use, skid mounted and easy to operate.

Lenntech designs its systems for:

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

This SWRO system series includes:

Pre-treatment

- Pre-filtration to protect the feed pump
- Feed system
- Multimedia filtration with manual backwash

RO system

- 5 micron cartridge filtration
- High pressure pump;
- High performance membranes;
- Fiberglass pressure vessels 1000 psi;
- Permeate conductivity in the front panel display;
- Permeate flow meter;
- Pressure indicators / switches;

Post-treatment

- Remineralisation filter
- Automatic fresh water rinse at shutdown
- Control cabinet

Feed water quality specifications

Total dissolved solids	35.000-37.000 ppm
pH value	7.5-8.5
Total suspended solids	<5 ppm
Silt Density Index SDI ₁₅	< 5
Turbidity	< 2 NTU
Temperature	Min. 20°C - max. 30°C

RO permeate specifications

Total dissolved solids	100-500 ppm
pH value	6-7
Total hardness	5-10 ppm CaCO ₃

Options

Lenntech can customize your desalination systems according to your water quality requirements and local conditions. Following some of many options we can provide to customize your system:

- pH adjustment;
- Post-disinfection
- Data monitoring and control with advanced PLC

Technical data

LennRO_SW-S	150	300	500	1000	1500	2000
Pre-treatment - MMF						
Number of filters	1	1	1	1	1	1
Diameter [mm]	338	385	485	626	780	938
Feed flow [m3/h]	1.15	1.5	2	4	5	6.7
Filtration rate [m/h]	12.9	12.9	10.8	13	10.5	9.6
Media layers	anthracite 0.8-1.6 mm, sand 0.4-0.8 mm, gravel 2-4 mm					
Reverse Osmosis						
Permeate flow [m3/h]	0.15	0.3	0.5	1	1.5	2
Recovery	13%	20%	25%	25%	30%	30%
Feed flow [m³/h]	1.15	1.5	2	4	5	6.7
High pressure pump [bar]	58	59	56	55	57	59
No. Membranes	1	2	4	8	3	3
Membrane flux [lmh]	19	19	16	16	15	17
Array (# Vessels)	1	2	4	4	1	1

These data are given for information purpose only. They are subject to modifications depending on the source of sea water and water quality.

Lenntech provides all kinds of pre and post treatment required before and after your RO, according to your water analysis and process requirements.
 Lenntech sea water systems include all treatments needed to provide potable water to the customer.
 Please contact us for further information.

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