

LENNRO SWM

Compact Sea Water Makers



780 L/h

*Without energy
recovery system*

160 L/h
375 L/h
780 L/h

*With energy
recovery system*

200 L/h
375 L/h
460 L/h
917 L/h



200 L/h

Description

Lenntech SWM Sea Water Makers provide drinking and process water from sea water. Lenntech systems are ready-to-use, skid mounted and easy to operate.

Lenntech systems can offer:

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

This SWM system series includes:

Pre-treatment

- Feed pump (optional)
- Multimedia filter with Siata valve (optional)

RO system

- 5 micron cartridge filtration
- High pressure pump in duplex/super duplex SS;
- Energy recovery device (optional);
- High performance membranes;
- Fiberglass pressure vessels 1000 psi;
- Frame in high quality PEHD polymer

Post-treatment

- Remineralisation filter (optional)

Automated features

- Automatic backwash of sand filter
- Automatic adjustment to changes in feed water temp. and salinity
- Input for start/stop on tank level switch
- Automatic fresh water flush system
- Shut down at high/low membrane pressure, low/high feed water pressure, high product water flow, high salinity product water

Feed water quality specifications

Total dissolved solids	1500-45000 ppm
pH value	7.0-8.5
Total suspended solids	<5 ppm
Silt Density Index SDI ₁₅	< 5
Turbidity	< 2 NTU
Temperature	Min. 0.5°C - max. 45°C

RO permeate specifications

Total dissolved solids	< 600 ppm
pH value	6-7
Total hardness	5-10 ppm CaCO ₃

Meters / monitors

- Custom made controller enables close monitoring
- Colored icons giving continuous overview
- Single button gives access to a lot of data (product water TDS, hour counter, approx. cumulative production, feed/flush water pressure, membrane pressure)
- Overvoltage protection

Technical data

LennRO-SWM	200-ERD	375-ERD	460-ERD	917-ERD	160	375	780
Multimedia filtration							
Number of filters	1	1	1	1	1	1	1
Diameter [mm]	406	406	406	552	334	334	552
Feed flow [m3/h]	1.4	1.4	1.4	2.4	1.0	1.0	2.6
Filtration rate [m/h]	10.6	10.6	10.6	10	11.3	11.3	10.7
Media layers	Anthracite, sand and gravel						
Reverse Osmosis							
Energy Recovery Device	Yes	Yes	Yes	Yes	No	No	No
Permeate flow [L/h]	200	375	460	917	160	375	780
Max production [m3/day]	4.8	9	11	22	3.8	9	18.7
System recovery	14%	27%	33%	38%	16%	38%	30%
Feed flow [L/h]	1400	1400	1400	2400	1000	1000	2600
High pressure pump [bar]	20-69	20-69	20-69	20-69	20-69	20-69	20-69
No. Membranes	3x 3021	3x 3040	4x 3040	8x 3040	3x 3021	3x 3040	6x 3040
Array (# Vessels)	3	3	4	8	3	3	6
Specific energy [kWh/m3] *	3.5	2.4	2.2	2.2	10.8	6.4	6.3
Remineralization							
Number of filters	1	1	1	1	1	1	1
Diameter [mm]	159	184	184	304	159	184	304
Volume of media [L]	12	18	18	50	12	18	50

* 35000 ppm @25°C

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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