

SPS SW 600-1500-RO

(Member of the LIFE IN A BOX Family)



The SPS Salt Water system is a portable and robust desalinization unit for remote locations, disaster relief needs, and humanitarian assistance missions. It filters salt water, brackish and fresh water through the reverse osmosis process and will produce upwards to 1,500 gallons of fresh drinking water per day from a variety of salt water or fresh water sources. Premium filtration of all particulate. Baseline unit is 600 Gallons per day (GPD). Can be solar powered, generator powered or grid tied. Designed to be rugged and deployable. 20 minute set up. Simple operations with annual consumables.

SPECIFICATIONS

Performance	Rated Performance / Product Water Produced: $\pm 15\%$ at 800 PSI / 56 bar, 77°F / 25°C & 35,000 PPM TDS typical sea water
Salt Rejection (Chloride Ion)	Minimum 98%, Average 99%
Product Water Temperature	Ambient to feed water temperature
Pressure Adjustment	Energy Recovery Device
Pressure Monitoring	Feed: SS 0-100 psi pressure gauges for Prefilter in and Prefilter out, Vessel: SS 0-1000 psi pressure gauges for Vessel in and Vessel out
Flow Monitoring	Brine/Reject: 0-5 gal/min rotometer, Product: 0-2 gal/min rotometer
System Control	Microprocessor control
Salinity Monitoring	Automatic electronic monitoring and porting of product water when below set thresholds
Salinity Range	Up to 58,000 PPM TDS (NaCl) (typical Pacific seawater salinity is 35,000 ppm)
Temperature Range	Max. 113°F / 45°C, Min. 33°F / 0.5°C
System Feed Water	Flow: 4 gpm / 15 lpm
Reverse Osmosis Membrane	High Rejection/Low Energy, thin film composite, spiral wound, single pass, reverse osmosis membrane element.
Automatic Flush/Manual Flush	Auto fresh water flush of system. Manual of Media System.
Chlorine Tolerance	< 0.1 PPM
pH Range	3-11 (typical seawater pH is 8)
System Feed Water Pressure	Minimum 25 psi / 1.8 bar, Maximum 80 psi / 5.6 bar
System Operating Pressure (sea water)	Nominal 800 psi / 56 bar

Additional Specifications

Weight	200 lbs w/o storage box Two man portable
Feed Inlet	1" Flat Hose Quick Connect aided with Boost Pump near water source
Brine Discharge	1" Flat hose Quick Connect
Product	1" Flat hose Quick Connect

Electrical Requirements

- ☑ Main System 24 VDC at 30 Amps continuous load
- ☑ Startup amperage does not exceed continuous load requirements due to DC soft start circuitry.
- ☑ 650 Watts consumption on Solar. 950 Watts on AC power
- ☑ Low Pressure Boost Pump Motor: 24VDC at 5 Amps continuous