pure water's not **magic** it's **logic**

No matter what the water source, from lake, river, stream, stagnant surface water, rain, high TDS, brackish, or sea water, our filtration systems can handle the most challenging contamination levels. Three different filtration options are available. Each one fits into a virtually indestructible case the size of a standard suitcase. Each system can be powered by a variety of sources including: direct AC120v, 240v, solar PV, wind turbine, car battery, or generator. You can produce pure, safe, drinking water at pennies per gallon saving precious resources, transportation costs, and the environmental impacts of bottled water.

HydroLogic™ PURIFICATION SYSTEMS

Built in USA

Earth-friendly Company

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www.hydrologicsystems.com

Applications

- Disaster relief
- Mobile water vending
- Brackish water desalination
- Pre-treatment for high turbidity
- Point-of-use carbon filtration
- Humanitarian assistance

Options and Accessories

Submersible Pump Assembly

24 VDC pump assembly with 5 micron filter sock and inflatable buoy.

Solar Panel Option

A solar power package option may be added where feed pressure is insufficient and/or standard electrical power is unavailable. Rigid solar panel package includes: single fixed solar panel with stand, controller and submersible pump. Solar blanket (shown here) can be ordered alone or with controller and submersible pump. Pricing options for generators or battery power are also available on request.

Turbidity Reduction Box

Used to pretreat incoming feed water with suspended solids above 10 NTU (e.g. sand, silt, algae). Packaged in a rolling case with external ports.

Integrity Test Station

Used to field test individual UF cartridges for membrane strand integrity. May be used to track membrane efficiency over time. Includes foot pump, gauge box and tubing.

Power Box (Solar or AC power)

Includes dual power receptacles for use with either solar panels, AC generators or standard line power. Not for use with car batteries.
AC Input: 110/220v, 50-60Hz, single phase.
Solar DC Input: Up to 50 volts. Includes linear current booster to improve amp performance to submersible DC pump.

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HydroLogic™ PURIFICATION SYSTEMS

Lifespring®

Portable Water Purification Systems

LifeSpring 2500

Portable Ultrafiltration System

Filtration: Produces 2,500 gpd of purified drinking water. Can handle up to 600ppm. Removes 99.9% of contaminants up to 0.01 microns, including bacteria, cysts, viruses, and parasites. .

Portability: All components built into a rolling indestructible case that is light enough to be deployed by one person. Quick and easy setup and minimal operating and maintenance costs. Light weight (75lbs) and compact footprint.

Components: High-capacity, gradient depth, nano-ceramic prefilter, hollow fiber ultrafiltration membrane, granular activated carbon postfilter, and membrane backwash flush tank.

Adaptation: External submersible pump with low water protection flow rate control to draw water from shallow wells, cisterns, tanks, or surface water. No electrical input required, designed for gravity or line pressure feed source. Can support bore hole well depths up to 450ft with reduced output.

Maintenance: Automatic backwash to maintain membrane integrity and external pressure gauges to monitor system performance. Programmable controller to monitor flow, pressure, chemical injection, backwashing and freeze protection. Disinfecting chemical injection with variable feed control (0.2-2ppm chlorine). All components are field serviceable.

SYSTEM SPECIFICATIONS

Model Number	CUF-2500
Production Rate[1]	2,500 gpd (9,464 lpd)
Bacteria, Cyst Removal	99.999%
Membrane	(1) Hollow fiber membrane cartridge
Prefilter	10" Gradient depth
Postfilter	12" Granular activated carbon
Dimensions	32.5""W x 20.5"D x 11.3"H (82.5cm x 52cm x 28.7cm)
Weight (lbs)	85 lbs (38.6 kg)

[1]Based on membrane performance at 77°F (25°C), <5 NTU, 5% membrane crossflow to drain, and 35 psi operating pressure. Membrane performance may vary ±15%.

OPERATING SPECIFICATIONS

Operating Pressure	18-35 psi (0.12 - 0.24 MPa)
Max Operating Pressure	60 psi (0.41 MPa)
Max Backflush Pressure	30 psi (0.21 MPa)
Max Water Temperature	100°F (38°C)
Max Chlorine, Cleaning	250 ppm @ pH 11
pH Range	3-10
pH Range (optimum)	5-8
Turbidity[2]	<10.0NTU
Iron, Hydrogen Sulfide or Manganese	0 ppm

[2]Turbidity maximum may be exceeded for brief periods as long as prefilter is checked frequently and changed out when it becomes loaded with silt or other suspended solids.

LifeSpring 1000

Portable Reverse Osmosis System

Filtration: Produces 1,000 gpd of purified, reverse osmosis water. Can handle up to 5,000 ppm. Removes ALL contaminants of inorganic chemicals and bacterial microorganisms up to 0.001 microns at a 98% rejection rate.

Portability: All components built into rolling indestructible case that is light enough to be deployed by one person. Quick and easy setup and minimal operating and maintenance costs. Light weight (85lbs) and compact footprint.

Components: External, submersible pump is used to draw water from a variety of feed sources. High capacity, gradient depth, washable prefilter, three low energy reverse osmosis membranes, GAC postfilter. Optional turbidity box for pretreatment. Quick disconnect feed inlet and brine discharge fittings along with external pressure gauges to monitor system performance.

Adaptation: Utilizes power from a 24volt solar panel receptacle, DC power from batteries or an AC generator with optional Power Box converter.

Maintenance: Automatic backwash to maintain membrane integrity and external pressure gauges to monitor system performance. Programmable controller to monitor flow, pressure, chemical injection, backwashing and freeze protection. Disinfecting chemical injection with variable feed control (0.2-2ppm chlorine). All components are field serviceable.

SYSTEM SPECIFICATIONS

Model Number	CRO-1000
Capacity (gpd)[1]	1,000
Membrane Type	Low energy, 2.5" x 21"
Number of Membranes	3
Membrane TDS Rejection[2]	98%
Prefilter	10" depth, washable
Postfilter	5 micron GAC
DC Electrical Supply	24 volts, 18.8 amps, 450 watts
Delivery Pump	Shurflo submersible
Recirculation Pump	Shurflo diaphragm
Dimensions	15"H x 20"D x 29"L
Weight (lbs)	85

[1]CRO-1000 production rate based on 24 hour generator power. Solar powered production rate is dependent on weather and solar isolation factors.

[2]Based on membrane performance after 24 hours, 77°F (25°C), 500 ppm TDS, 120 psig and 33% recovery. Membrane performance may vary ±15%.

OPERATING SPECIFICATIONS

Feed Pressure	100-120 psi
Max Operating Pressure	150 psi
Max Temperature	100°F
Max Chlorine (continuous)	<0.1 ppm
Max Total Dissolved Solids	5,000 ppm
Hardness	<15 grains
Silt Density Index	<5 SDI
Turbidity	<1 NTU
pH Range	2-11
Iron, Hydrogen Sulfide or Manganese	0 ppm

LifeSpring 500

Portable Seawater Desalination System

Filtration: Produces 500 gpd of purified, reverse osmosis water. Can handle up to 40,000 ppm. Removes ALL contaminants of inorganic chemicals and bacterial microorganisms up to 0.001 microns at a 98% rejection rate.

Portability: All components built into rolling indestructible case that is light enough to be deployed by two people. Light weight (95lbs) and compact footprint.

Components: This system operates at a pump pressure of 90-120 psi using a stainless steel submersible pump that draws water from seawater or brackish source. A brine energy recovery pump increases the internal membrane pressure to 800 psi using the brine stream to produce a pressure boost. Additional external prefiltration may be added by a separate portable case.

Adaptation: This system includes an external system power receptacle to utilize power from a 24volt solar panel, DC power from batteries or an AC generator with optional Power Box converter.

Maintenance: Flood the membranes with fresh water collected from the system. If the system is not used for more than five days or if membrane performance is reduced, flush with Propylene Glycol mixed at 8 oz/3 gallons of water.

SYSTEM SPECIFICATIONS

Model Number	CSW-500
Production Rate (gpd)[1]	500 gpd (1,893 lpd)
Membrane Type	Thin-film, 2.5"x21"
Number of Membranes	2
Membrane TDS Rejection	99.5%
DC Electrical Supply	48 volts, 9 amps (Max 50 volts)
AC Electrical Supply	110/220v, 50-60Hz (Max 600 watts)
Pump	Lorentz submersible
Dimensions	32.5"W x 20.5"D x 13.5"H 82.6cm x 52.1cm x 34.3cm
Weight (lbs)	95 lbs (43.2 kg)

[1]Based on membrane performance after 24 hours at 77°F(25°C), 35,000ppm NaCl, 120psig and 10% recovery. Membrane performance may vary ±15%. CSW-500 production rate based on 24-hour power. Solar powered rate is dependent on weather and solar isolation factors.

OPERATING SPECIFICATIONS

Operating Pressure	80-100 psi (0.55-0.69 MPa)
Max System Gauge Pressure[2]	100 psi (0.69 MPa)
Max Temperature	100°F (38°C)
Max Chlorine (continuous)	<0.1 ppm
Max Total Dissolved Solids	48,000 ppm
Silt Density Index	<5 SDI
Turbidity[3]	<1 NTU
pH Range	2-11
Iron, Hydrogen Sulfide, Manganese	0 ppm

[2]The internal brine energy recovery pump boosts the system pressure by a factor of ten to the 800-1000 psi required for high TDS desalination.

[3]CSW-500 requires filtration prior to the system to remove particulates. Prefiltration must be maintained properly to ensure productivity. Regular maintenance is required to reduce membrane fouling. Please see the CSW-500 manual for a recommended fresh water flushing and cleaning schedule.