



The **WaterQuip SOLAR-1** is a solar powered water purification system that cleans water using proven ultraviolet (UV) disinfection technology and fine sediment and taste/odor filters. UV is a chemical free process which deactivates bacteria, virus, and protozoa by up to 99.99%, thus providing clean and safe drinking water which meets the World Health Organization's and local health departments' standards for potable water.



The SOLAR-1 includes a high-efficiency water purification unit and a quality solar power system, mounted in a lightweight, powder coated aluminum cabinet for ultimate robustness and durability.

Through its built-in 12 volt DC outlet and 5 volt USB outlets, the system also provides clean and reliable electrical power for all needs, e. g. electrical light and charging of mobile phones, laptops, radios, and others.

The SOLAR-1 is easy to use and virtually no installation is required. Simply mount the cabinet on a wall and the solar panels on the ground or on a roof, connect the inlet and outlet water hoses, and start enjoying safe drinking water from rivers, lakes, shallow wells, ponds, rainwater harvesting tanks, etc.

The primary power source of the SOLAR-1 is a deep-discharge, long-life AGM battery bank that ensures continuous operation of the water purification unit for extended periods of time. The batteries are charged by a high-quality crystalline solar panel array.

The system has a built-in safety interlock that, in the unlikely event of a system malfunction, will sound an alarm, automatically shut down the pump, and close the water outlet to prevent further use of the system.

Like all WaterQuip products, the SOLAR-1 is a reliable, high-quality product with an expected service life of at least ten years under normal operating conditions. It has been specifically designed for use in remote rural areas with poor or lacking infrastructure. Its rugged aluminum cabinet and all internal components effectively withstands dusty and wet climatic conditions.

Technical Specification

Water cleaning capacity	10 liters per minute, 600 liters per hour *
Solar panel array capacity	500 W
Battery capacity	12 V / 180 Ah (AGM deep cycle)
Electrical output	12 V / 10 A, 5 V / 2 A (USB)
Power consumption	Nominal 75 W (peak 100 W)
Max. vertical distance between water surface level and the location of the unit	3 m
Max. inlet water pressure	1 bar
Security and safety	Auto shut-off in case of malfunction
Shipping weight (incl. batteries and solar panels)	210 kg

* Depending on actual operating condition such as type of filters, condition of filters, lift head etc.

Maintenance

UV lamp (S463RL)	Replace once a year
Quartz sleeve (QS-463)	Clean or replace as needed
Sediment filter 1 (washable)	Replace or clean as needed
Sediment filter 2 (AWP110)	Replace as needed
Carbon filter (C-01)	Replace as needed
Batteries	Maintenance free, replace as needed
Solar panels	Dust as needed

WaterQuip – quality water purification systems