



Solar Powered UV Drinking Water Purification System

Off-Grid Water Treatment for Use Anywhere, Mounted on Cart
Pump, Dual Filter Set, UV Disinfection
12 Volt Power Pack, 80 Watts Solar Panel





SYS250-SPQD4E

Water Treatment System

Description

The Solar Powered UV-250 System combines high quality pre-filtration with our proven ultraviolet purification technology to produce a complete water quality system for use in “off-grid” applications, where no power outlet is available. It is designed to treat water from drilled or dug wells, ponds, and lakes, streams, or collected rainwater. The filter system comprises a sediment filter that removes particulate matter such as silt, dirt, rust and other suspended solids down to 5 microns, and a carbon block filter that removes/reduces dissolved solids such as minerals, pollutants and VOC’s and also neutralizes taste and odours that may be present in the source water. The filter set can easily be customized for the removal of other contaminants.

The integrated UV-250 ultraviolet sterilizer kills pathogens (harmful microorganisms such as viruses, bacteria, fungi and protozoa) with a powerful UV disinfection dose at a kill rate of >: 99.9% (*Giardia*, *E. coli*, *Cryptosporidium parvum*, *M. tuberculosis*, *Vibria cholerae*, Hepatitis virus, *Legionella*, *Pseudomonas*, *Paramecium*, *Salmonella*, *Shigella*, Polio virus, *Streptococcus* and many others).

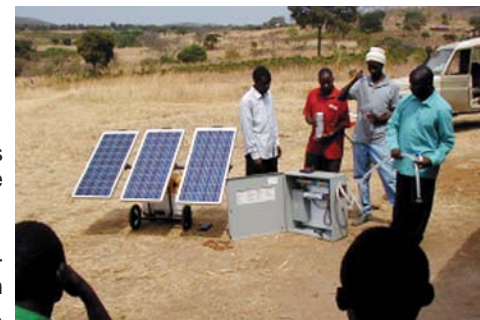
This portable water filtration system collects sunlight to charge the on-board battery pack. It then uses the generated power to pump and process local source water to produce high-quality and safe drinking water for human consumption. It requires no gasoline or other fuels, and is ideal for areas with little or no power sources and poor water quality, especially in remote areas or disaster zones.



Similar to image.

Features

- ▶ **Chemical-Free Water Treatment**
- ▶ **Robust Construction, Pre-Assembled**
- ▶ **Sturdy, Maintenance-Free 80 w Solar Module, Expandable to 240 w Array**
- ▶ **Deep Cycle, 105 amp-hour Sealed Battery**
- ▶ **Charge Controller with LCD Display**
- ▶ **Can be Configured for Less Common Pathogens and Contaminants**



The system is designed for remote areas and ships complete with all necessary components and installation hardware.

Benefits

- ▶ **100% Pollution Free**
- ▶ **Easy Transportation and Setup**
- ▶ **Minimal Maintenance Required**
- ▶ **Safe and Good Tasting Drinking Water, Anywhere**
- ▶ **Low Operating Cost**



UV Water Sterilizer
WE KILL HARMFUL BACTERIA

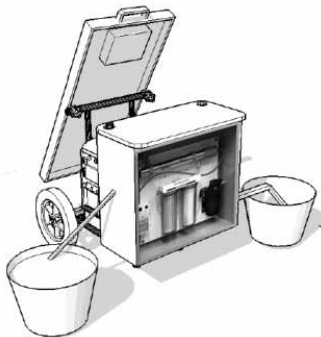
Specifications

Part # SYS250-SPQD4E

Rated Flow:	Up to 12 litres per minute (3 GPM) Daily water production depending on number of panels, hours of sunshine and location latitude (typically 1-3 h runtime per day, 180-360 GPD / 700 - 1400 Lpd)
Initial UV Dose at Rated Flow:	46 mJ/cm ² (46,000 µsec/cm ²) @ 95% UVT 32 mJ/cm ² (32,000 µsec/cm ²) @ 70% UVT
Electrical:	12 VDC Sealed "Non-Spillable" Battery Power Pack 80 W Solar Panel 17 V, 4.7 A Pump 12 V, 3 chamber diaphragm, up to 9 ft priming
Power Consumption:	5.7 VA @12 VDC
Ballast:	Electronic Ballast (Part # 4-BL28W-12V) w/ Lamp Out Alarm, Power LED
Replacement Lamp:	Low-Pressure UV Lamp, Part # RL-23/436T5
Filtration:	10" SlimLine (L 9-7/8", OD 2-1/2"), w/ Pressure Relief
Stage 1, Sediment Filter:	Melt-Blown Polypropylene ("Spun Poly"), 5 Micron
Stage 2, Carbon Filter:	Coconut Shell Carbon ("Extruded Carbon Block")
Max. Operating Temperature:	40 °C (98.6 °F)
Plumbing:	Standard Garden Hose Connections
Shipping Size and Weight:	1 skid 54 x 49 x 23, 280 lbs

Water Treatment Box

The filter cartridges in this system have a great surface area for long life and reduced filtration costs. The pump is self-priming and can lift up to 9 ft. Tubing for inlet is supplied and comes with a strainer.



Additional Features (Optional):

- Expandable Array up to 3 Solar Panels
- Choice of Inverters Available (for 110V 60 Hz or 230V 50 Hz)
- Additional Filtration Stages for Less Common Contaminants
- Flow Meter for Display of Overall Production, Pressure Gauges, Hour Meter for Lamp Runtime Display

Solar Panel Sample Run Times

Performance of this system varies greatly depending on the number of solar panels in the array (up to 3 can be installed) and the location of operation. Daily average sunlight hours, depending on the season, in combination with the distance to the equator, have significant influence on the overall production time. For example, in Manila, Phillipines, the average peak sunshine hours in July are approx. 4.3 per day, this will provide 1.4 h of runtime with one panel, 2.9 h with 2 and 4.3 h with 3 panels, for a production of 1000 litres per day with 1 panel, 2100 litres with 2 panels and 3100 litres with 3 panels. In April, the average peak sunshine hours are approx. 8.6 hours, so the daily runtime would be 2.9 h with 1 panel (2100 litres production per day), 5.8 hours with 2 panels (4200 litres per day) and 8.7 h with 3 panels (6300 litres per day).