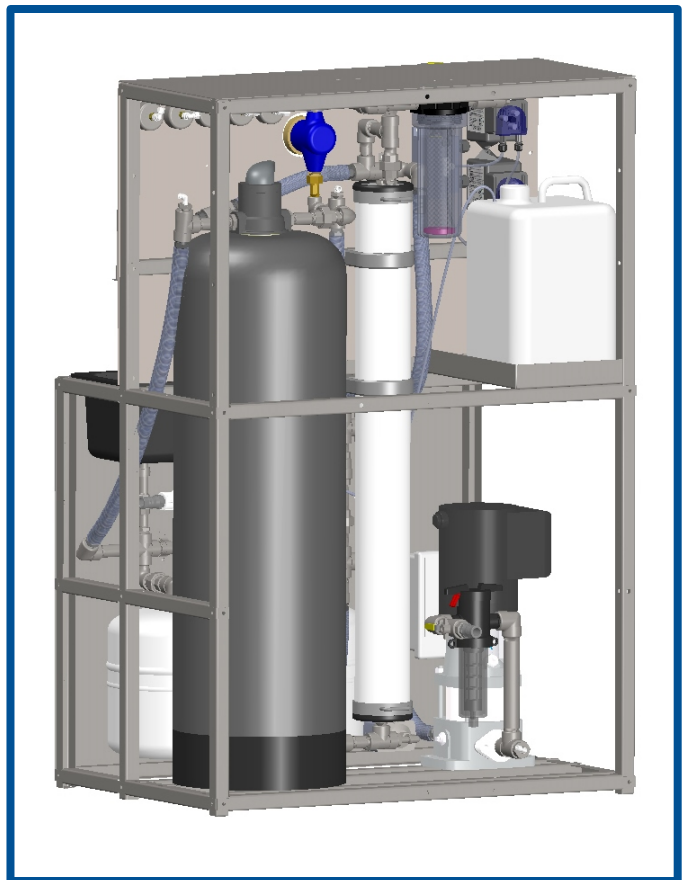
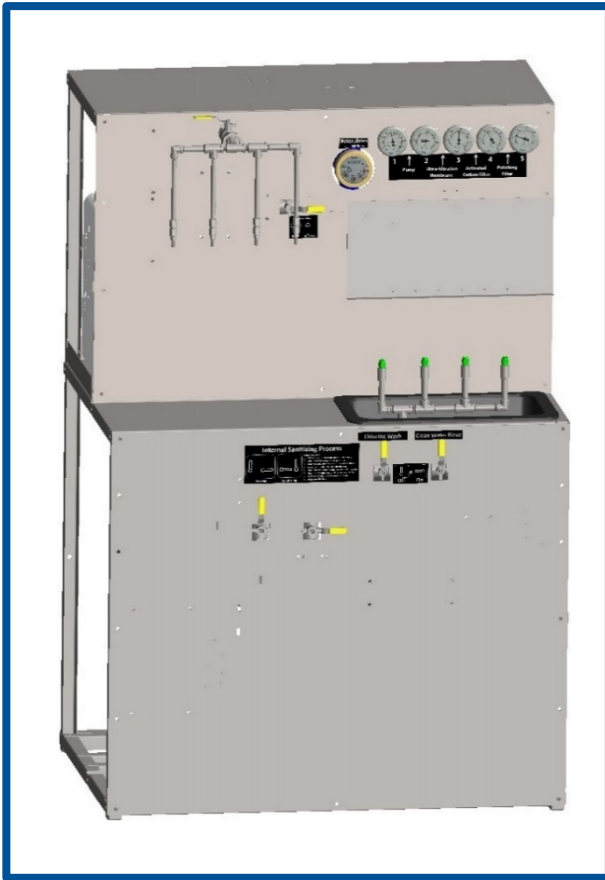




## SolarPure UF

A compact, high-efficiency, affordable water treatment and bottling plant designed for solar power.



### 5-step Treatment Process

- Pre-filtration: 105-micron stainless steel screen.
- Ultrafiltration: 0.02-micron pores for removal of bacteria, viruses, and other waterborne diseases
- Activated Carbon: 24kg of coconut-shell carbon contains 28,000,000 m<sup>2</sup> of surface area. Effective at reducing taste and odor issues.
- Polishing Filter: 0.35-micron cartridge filter.
- Chloramine (at 1.0 ppm) is injected into the final water as a preservative.

### Dimensions:

102cm x 74cm x 153cm, 240 kg

# SolarPure UF Plain-Language Specifications

## Power Supply

Use any 2\* of the following:

- City Power (90-240VAC, 50/60Hz)
- Generator (90-240VAC, 50/60Hz, 1000W)
- Solar Panels (48-300VDC) Recommendation: 500-1000W of panels
- Batteries (48V array) Recommendation: Four 12V 100AH batteries

\*If any power source is reliable and continuously available, an additional power supply may not be needed.

## Wiring: minimum 6 amps

- All electrical components and wires to the equipment should be rated for at least 6 amps.
- Solar power lines should be sized by an electrician according to the maximum amps of the solar panels.

## Water Supply

- Any fresh water supply (not salt water)
- Must be tested for chemical contamination
- Should be stored in a holding tank.

## Production Rate

Initial production rate with brand new filters will be faster than typical production. The following estimates are for typical production rates with well-maintained filters:

- When using city power, typical production is 30 liters per minute, using 400W of power.
- When using batteries, typical production is 20 liters per minute using 200W of power.
- When using solar panels, production depends on solar availability:

Available Power	Production Rate (per minute)
50 W	5 liters
100 W	10 liters
200 W	20 liters
> 200 W*	20 liters

\*The pump is limited to using only 200W of power when running from 48VDC.

## Materials Used

- Frame: Stainless steel
- Hardware: Stainless steel and galvanized steel
- Plumbing: Stainless steel, brass, and plastic
- Filter Housings: Plastic and Structural Poly Glass™
- Valves: Stainless steel with PTFE seats
- Pump internals: Stainless steel

## Additional built-in functionality:

- Internal clean: sanitizing the filters and plumbing with panel-mounted ball valves (sanitizes with 200ppm chlorine, followed by a clean water flush)
- Backwash: cleaning the membrane by simply turning one panel-mounted ball valve (the backwash is designed to be at a higher pressure than forward flow)
- Bottle-wash: sanitizing the inside of bottles with panel-mounted ball valves (sanitizes with 200ppm chlorine, followed by clean water rinse).
- Diagnostics: Simple diagnostics of clogged filters with 5 panel-mounted pressure gauges