

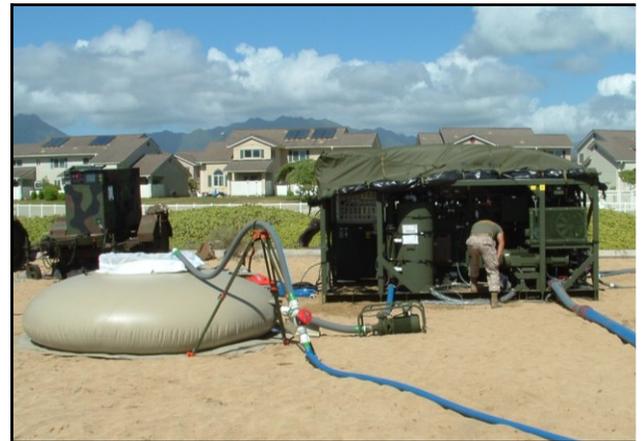
# Tactical Water Purification System (TWPS)

*Increased Capacity/Reduced Footprint Water Purification System  
Designed to Produce Potable Water from a Broad Range of Water Sources*



**Army Version  
LHS/PLS (or similar) Deployment**

**Marine Corps Version  
Covered Skid Deployment**



The Outdoor Venture TWPS provides a rapidly deployable water purification system capable of producing at least 1,500 gallons of potable water from a fresh water source and 1,200 GPH from a seawater source.

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| <ul style="list-style-type: none"><li>• Replaces 600 GPH ROWPU: 1 for 2</li><li>• 3 person, 2 hr set-up / 2 hr pack-up</li><li>• Minimal operator attention</li><li>• -25°F to +120° F operating range</li><li>• 23 hr water production / 1 hr PMCS</li><li>• 600 to 800 hrs of service between chemical cleanings</li></ul> | <ul style="list-style-type: none"><li>• Easily handles source turbidity as high as 500 NTU without loss of performance</li><li>• Micro-filtration excludes bacteria, cryptosporidian, and giardia</li><li>• Reverse osmosis produces potable water from high salinity seawater (up to 60,000 mg/L) in a single pass</li><li>• 20 year life, high reliability</li></ul> |
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**Engineered Solutions LLC**

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## Features: All Models

- Replaces 600 GPH ROWPU: 1 for 2
  - Reduced force structure
  - Reduced logistics demand
  - Reduced footprint
- Micro-filtration
  - Automatic backwash
  - Operator attention not required
  - Handles all water sources
  - Reduces source turbidity as high as 500 NTU to less than 0.2 NTU
  - Excludes bacteria, cryptosporidian, and giardia
  - 600 to 800 hours service between cleanings has been demonstrated
- Reverse osmosis
  - Potable water from high salinity seawater (up to 60,000 mg/L) in a single pass
  - Sustained performance – no fouling
  - Individual element performance analysis
- Water production
  - 1,500 GPH from fresh and brackish waters at all temperatures
  - 1,200 GPH from normal seawater at all temperatures
- Power demand
  - 54 kW max w/out cold weather module
  - 59 kW max with cold weather module
- Operational Environment
  - To -25°F with cold weather module deployed
  - To +120°F without added protection
  - High humidity
  - Blowing rain
  - Blowing sand
  - NBC agent attack survivability with CAC cover deployed
- Deployment
  - 3 person, 2 hr set-up / 2 hr pack-up
  - 100 hr operation from BII except POL
  - 23 hr water production / 1 hr PMCS

## Features: Army Model

- Mounted within LHS/PLS compatible ISO shelter with room for 60kW generator
- 23,000 lb fully packed out for deployment
- Fold-out 4' platform for extended shelter space when deployed
- Five 3k self-supporting product water tanks
- 1 motor-driven distribution pump
- 1 diesel-driven distribution pump
- Up to 250 GPM delivery through 4 nozzles
- Extended capability provided by modules included on-board
  - OISS (Ocean Intake Support Structure) to provide beach well water intake
  - Cold weather module
  - NBC post treatment module to handle agent contaminated sources
  - NBC survivability module
  - Cleaning waste storage

## Features: Marine Corps Model

- Deployed as skid with general purpose cover
- 9,900 lb fully packed out for deployment
- Handled by 10k forklift
- Transported by MTRV truck
- Two 3k self-supporting product water tanks
- 1 motor-driven distribution pump
- Up to 125 GPM delivery through 2 nozzles
- Extended capability provided by modules based on mission requirements
  - OISS (Ocean Intake Support Structure) to provide beach well water intake
  - Cold weather module
  - NBC post treatment module to handle agent contaminated sources
  - NBC survivability module
  - Cleaning waste storage



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