

# PORTAGE-DS

## Portable Water Purification System

PORTAGE-DS is a powerful, compact drinking water purification system that utilizes graphene-enhanced Advanced Ultrafiltration membranes paired with industrial Reverse Osmosis technology to produce clean drinking water from various sources including groundwater, seawater, and brackish water.

### Advanced Filtration

Our ultrafiltration membranes feature 0.01-micron pores removing pathogens from freshwater sources — while protecting and extending the life of downstream RO membranes.

### Flexible Configuration

Choose between UF+RO or UF only for sea or freshwater input to maximize product water output and filtering only to the level that you need

### Energy Efficient

Designed to operate with minimal power to produce the optimal product water

### Rapid Deployment

Guided instructions for simple startup and operation with smart controls to manage efficient and safe use in any conditions



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## System Capabilities and Technical Specifications

The PORTAGE-DS offers unparalleled flexibility through its modular two-box design, allowing operators to optimize water production based on input source.

### What Sets Portage Apart?

#### Flexible Configuration

Freshwater source: Box 1 alone delivers over 21,800 L/day of pathogen-free water using ultrafiltration technology.

21,800  
(L/d) Fresh

Seawater source (35k ppm): Box 1 + 2 produces 2,700 L/day of fully desalinated water.

2,700  
(L/d) Sea

#### Easy to Operate

9 Minute Drop to Drink: Guided instructions on easy-to-follow user display with color-coded hose connections and valves

9  
(min) Setup Time

#### Cost-Effective

Total cost of \$0.002/L over 10-year useful life

0.002  
(\$/L) Total Cost

The self-cleaning membranes protect sensitive RO components, extending system life and reducing the cost of maintenance.



### Technical Specifications <sup>1/</sup>

Specification	Box #1	Box #2
Flow Rate Capacity	21,800 L/day (freshwater)	2,700 L/day (35k ppm seawater)
Dimensions	85.6 x 72.5 x 41.6 cm	85.6 x 72.5 x 41.6 cm
Weight	70 kg	50 kg
Power <sup>2/</sup>	225 W	500 W
Energy Efficiency	4,000 L/kWh	225 L/kWh
Filtration Elements	Pre-filter, Ultrafilter (0.01 micron)	SW2521 Reverse Osmosis Membranes

<sup>1/</sup> Preliminary specifications at 21 degrees Celsius.

<sup>2/</sup> The system operates on both standard electrical supply (120V-240V AC) and optional 24V DC NATO connection, making it suitable for diverse deployment scenarios.