



## Fast Facts

---

### Customer

US Navy – Supporting  
Ex-USA Navy Vessels

---

### Application

Custom-engineered  
Reverse Osmosis sea water  
desalination system

---

### Capacity

24,000 gallons per day  
Twin 12,000 GPD system

## 24,000 GPD Reverse Osmosis Ship System

### Background

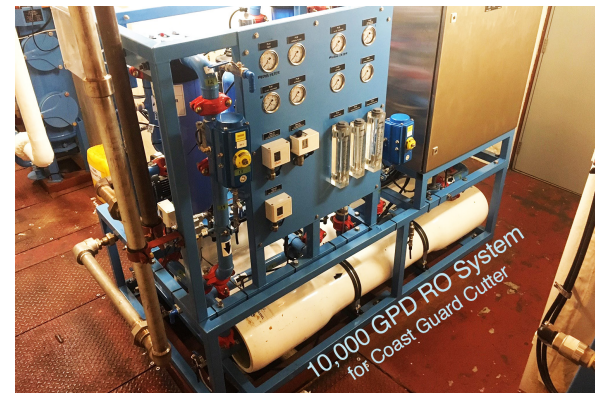
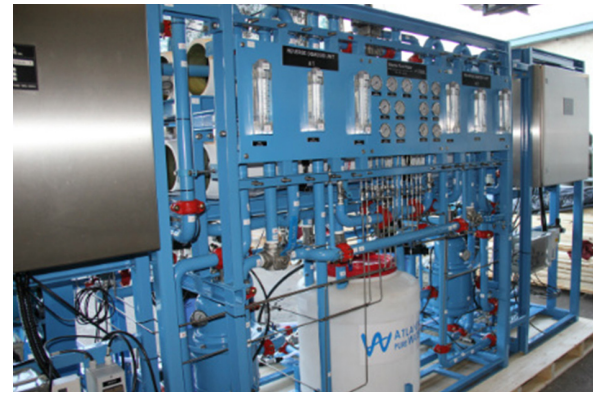
Ships manufactured in the past often have aging water systems that are outdated as well as expensive and time-intensive to maintain. Many navies around the world are currently maintaining ex- USA Navy and Coast Guard ships and are working to update these aging water systems. Using the most updated water technologies, there are many advantages now and later for updating these systems using the Atlanta Pure Water reverse osmosis desalination systems. Additionally, Atlanta Pure Water offers options for improving water quality by adding minerals back into the drinking water as well as chlorine generation systems that allow the ship to manufacture its own chlorine disinfection using only table salt.

## Problem

An Oliver Hazard Perry-class Frigate style ship requested to upgrade the existing 12,000 GPD RO system to one that produced twice as much water yet still took up the space of the original RO unit - 120" long, 40" wide, and 75" high. This posed many challenges as the system also had to be rigged through a hatch smaller than 48" X 30" with chamfered corners down 2 stories to the assembly site. The system had to perform in various qualities of water and required easy functionality and maintenance with reliable performance.

## Solution

Atlanta Pure Water custom designed a desalination plant with a rugged stainless-steel frame which would fit the space requirements of the vessel. The system was engineered with no piece that was too large to fit through the small hatch on the ship so it could be reassembled in the chosen space. The system was designed to be redundant with two 12,000 GPD systems which can run independently or together. The performance of the system met and exceeded the customer's expectations and Atlanta Pure Water has been referred to many similar projects of this type of ship and other Navy/Coast Guard vessel types throughout the world.



# Atlanta Pure Water

## Case Study: 24,000 GPD Reverse Osmosis Ship System