Open Ocean - Quencher Electric 240 Volt AC Modular – Data Sheet

The major components are assembled in **modular** form to best utilize available space. These components are universal in nature and many of them are available worldwide, an important feature for a vessel operating internationally. Open Ocean keeps circuit boards, fancy controls and flashing lights off their products to provide the most **reliable** water maker possible.

This reverse osmosis desalination plant will utilize a commercial grade, high pressure pump, close coupled (no belts) to a 2.2hp, 240 Volt AC, electric motor. This supplies high pressure, pre-filtered sea water to a membrane array that produces a nominal 80 - 240 litres of potable water per hour from sea water at 25 degrees C and a salinity of 35,000 ppm, at an operating pressure of 800 – 850 psi.

Dimensions:

High pressure pump with electric motor 285mm wide X 560mm long X 255mm high
Membrane vessel 90mm wide x 1190mm long
Control Panel 200mm wide X 165mm high
Sample/Tank Valve Panel 130mm wide X 75mm high
Boost pump 240 V 290mm high X 390mm long X 195mm wide
Sea Water Filters 400mm high X 320mm wide X 130mm deep
Charcoal Flush Filter 400mm high X 370mm wide X 130mm deep

Options

Autoflush – automatically flushes fresh water through the system every 7 days, preserving the membranes. Especially good for boaters who don't get back to their boats as often as they mean to.

20 Micron Pre-filter

for systems that will operate in water with high levels of organics. Filters out plankton and silt before it gets to the 5 micron pre-filter extending its service life.

Stand-offs

Our Quencher control panels were designed for discreet flush mounting with electrical and wiring access from behind. This makes for a very tidy installation in the cabin. For some installations, the best panel location does not lend itself to access from behind. For those installations we have stainless steel stand-off brackets for both the Control Panel and the Sample/Tank Valve. These stand-offs allow for easy surface mounting with hoses coming and going from below.

Specifications:

- 240Volt AC electric motor
- 80-240 liters per hour @ approx 13 amps (one, two, or three membranes)
- Commercial quality reverse osmosis Stainless Steel high pressure pump
- Reverse osmosis membranes and 2000 psi carbon fibre pressure vessel modules
- 240 Volt centrifugal sea water rated low pressure boost pump
- 5 micron polyester pleated **washable** pre-filter for cost effective long life filtration
- Fresh water flush facility: Charcoal filter connects to your onboard pressure water system to flush the water maker with fresh water
- Pressure relief valve – protects components from accidental over pressure situations
- Test, rejection and regulation valves
- High pressure hose / nylon non-corrosive tubing – can be cut and fit aboard
- All you need to provide is a sea strainer, access to the ship's water tanks, low pressure hoses, and any mounting benches or Surfaces required to position the Open Ocean components

Quencher AC System Layout

Control Panel

Pressure Control Valve

Fresh Sample Product Water

12.5mm Hose

Sample/Tank Valve

Fresh Product Water to Tank

12.5mm Hose

Salt Water Discharge 12.5mm Hose [plumbed overboard]

High Pressure Supply to Panel

Salt Discharge Water

Fresh Product Water 12.5mm hose

Membranes

12.5mm hose

High Pressure Hose

High Pressure Pump

Pressure Relief Valve

Supply to high pressure pump

19mm hose

From Bucket for membrane pickling

Pickling Source Valve [Normally in Flow-through position]

Solenoid controlled Fresh Water Flush Valve

Fresh Water from Tank Using the pressure water system

12.5mm hose

Charcoal Filter

12.5mm hose

Salt Water Pre-filter

5 micron

Raw Water Supply 19mm hose

Through-hull

Boost Pump

[Mounted below water-line]