



# MOBILE DRINKING WATER UNITS



## BLUE SEA SYSTEM



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This system offers a modular solution for the production of drinking water from sea water sources.

The mobility of the trailer mounted units also make them ideal for emergency interventions (external power source required).

The units are supplied "ready to start" and a wide range of accessories ideal for use in the field is available.

### HOW IT WORKS

As described below the modules employ mixed media filtration and reverse osmosis technology in this case IdroGroup couples the following two products to create the BLUE SEA SYSTEM:

#### BLUE FILTER + BLUE SEA ISLAND

Each unit, or combination of units, includes a disinfection system employing an onsite chlorine generator which relies on common salt plus water to make the required chlorine. This means that non dangerous goods have to be shipped with the water treatment plants.

#### **BLUE FILTER - basic filtration unit:**

When coupled to an RO unit the BLUE FILTER is used as a pretreatment module for saline water and/or water with high turbidity.

In the BLUE FILTER water undergoes rapid sedimentation then flows through sand and active carbon filters for complete removal of turbidity and organic compounds.

The water then passes into the RO unit making up the other half of the BLUE SEA SYSTEM to remove salts from brackish water.



#### **BLUE SEA ISLAND - reverse osmosis unit:**

The BLUE SEA ISLAND is capable of treating sea water that has been rendered limpid in the preceding filtration unit.

Filtered water enters the BLUE SEA ISLAND passing through a microfilter before arriving at the heart of the plant: reverse osmosis (RO) system complete with pressure pumps and RO membranes specifically designed for sea water. Following this the water undergoes remineralization and disinfection. The unit is complete with its own Clean-In-Place (CIP) system.



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#### TECHNICAL DATA

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Raw (feed) water	Sea water (TDS < 38,000 ppm)
Drinking water flow rate (depending on raw water quality)	2.5 m <sup>3</sup> / hr MAX
Ambient working temperature	5 °C ~ 50 °C
Installed power	1.2 Kw + 23 Kw 380 V 50 Hz
Dimensions (without trailer)	2x (1140 x 2850 x 1400h mm)
Approx. total weight (including trailer)	2300 kg + 1500 kg

#### SPARE PARTS & ACCESSORIES

✓ Available

DESCRIPTION	BLUE SEA SYSTEM
Spare parts and consumables kits (1, 2 or 3+ year's supply)	✓
Chemicals, cleaning and conservation products (kits)	✓
Trailer (2) with innovative twist lock connections	✓
Trailer (2) with NATO hitch and height-adjustable tow bar	✓
Floation device for raw water intake pump	✓
Raw and treated water storage tanks (various types)	✓
Photovoltaic system	✓
Training on-site or in IdroGroup facilities	✓
User and O&M manuals in languages other than English/Italian	✓

*IdroGroup produces a wide range of water treatment plants which can be tailored to your needs.*