

Series 80 Duplex Desalinators

Capacities: 2 x 30 to 2 x 50 m³/day

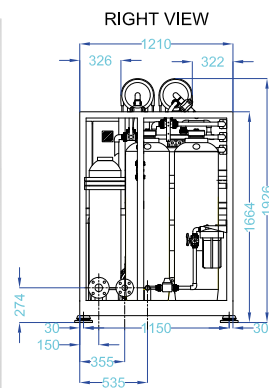
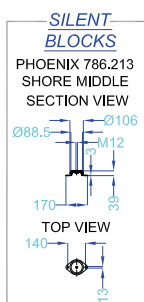
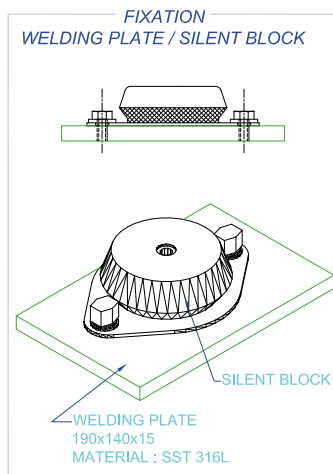
With standard capacities of 2 x 30 to 2 x 50 m³/day from seawater, the HEM Series 80 is suitable for very large yachts, commercial ships and cruise vessels in frame/skid mounted versions.

Where the system is used for land based water supply, it is often installed in a refurbished 20 or 40ft container which enables the unit to be safely transported and housed on site.

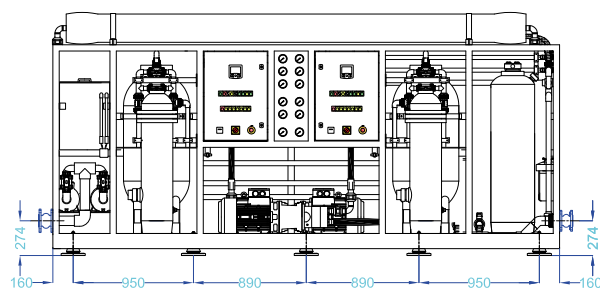
Several variations of design are available depending on the working conditions and intended purpose for the product water. Any standard system can be adapted to your exact requirements.



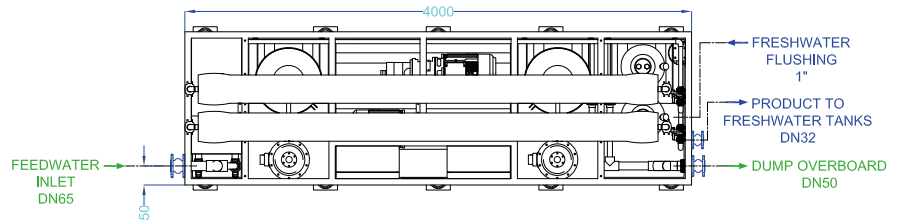
Dimensions



FRONT VIEW



TOP VIEW



WEIGHT DRY WITHOUT MEMBRANES : 1915 Kg
WEIGHT WET : ~ 2464 Kg

SPACE REQUIREMENTS AROUND THE SYSTEM :
TOP : 100mm
LEFT : 800mm
RIGHT : 800mm
BACK : 150mm
FRONT : 800mm

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Standard Equipment

FEED WATER PUMP

Bronze centrifugal pump mounted in the frame, or remote, if system is mounted above the waterline.

HIGH PRESSURE ASSEMBLY

Compact, low vibration, super duplex stainless steel HP pump directly (without belts) coupled, with a 15 kW, 1500 rpm, TEFC IP 55 aluminium main drive motor.

PREFILTRATION

A back-washable sand filter with 3 manual PVC ball valve is fitted to improve the feed water quality and to reduce filter cartridge consumption.

A multi filter type PA 7x20 follows the sand filter. It contains 7x cartridges 20" 5μ.

POST FILTRATION

Permeate neutralization is achieved by slow flow over a limestone filter, included in the frame.

PIPES AND FITTINGS

LP pipes in PE, and PVC.

LP fittings in PP and PVC.

HP pipes and fittings in UB6/904L/1.4539 SST with victaulic fittings.

Flexible HP rated hoses with 904L endfittings.

MEMBRANE PRESSURE VESSEL ASSEMBLY

8" TFC spiral wound membranes enclosed in FRP pressure vessels with all stainless steel endplug locking devices.

FRAMES AND MOUNTING HARDWARE

Frames and supports are fabricated from stainless steel tubes and profiles.

Surface treatment includes sand blasting followed by Powder Epoxy coating oven-baked.

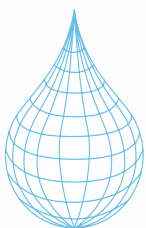
Standard colour is white, RAL 9016. Other colours on request.

INSTRUMENTATION AND CONTROLS

- 1x Digital conductivity/salinity meter with 4-20 mA output.
- 1x Digital feed flow meter with 4-20 mA output.
- 1x Digital product flow meter with 4-20 mA output.
- 1x low pressure security switch in the LP line to ensure sufficient pressure to the HP pump.
- 1x High security pressure switch to protect against operating at pressures that may damage the Hp pump, the piping and/or the Ro membranes.
- 6x SST glycerine filled pressure gauges, monitoring all prefiltration stages, Hp in/out of membranes, product pressure etc... .
- 1x Plant running hour meter.

ELECTRICAL CONTROL BOX

- System Start/Stop.
- Automatic product water diversion system.
- Automatic pressure build up and slow pressure drop during start and stop sequence via Variable Frequency Drive.
- Connections for automatic start/stop from remote location or from level switches in storage tank.
- Indication lights on control panel for system status, on/off for pumps, and fault indication, alarms etc.
- Automatic system over-pressure shut-down and alarm.
- Fine control of HP pumpspeed to cater for small variations in sea water temperature and/or salinity via Variable Frequency Drive.
- Automatic pressure reduction in case of high product flow and shut-down if upper limit reached.
- Semi-automatic fresh water flushing system.



HEM