

## Oceanus

### RO type fresh water generators

### Seawater desalination systems

Hatenboer-Water designs and develops durable reverse osmosis units for any type of vessel or offshore structure. Easy to install, operate and maintain, these solutions can be delivered in a customized or standard set-up.

#### Standard

The standard series offer a plug & play, economical and quickly supplied alternative to traditional solutions. Units can be rented out to your facilities for a short or long-term period.

#### Application

The Oceanus series covers a range of 16-24 m<sup>3</sup>/day fresh water production on any sea.

Oceanus offers the perfect water treatment solution for ships and offshore installations such as jack-up rigs, offshore platforms, cruise ships, accommodations, fishing trawlers, ferries, AHTS as well as many others.



#### Standard features

- Control panel with a Hatেনboer-Water X7 touch screen micro-controller
- Membrane configuration accommodating varying levels of seawater salinities and temperatures
- Three years free of charge 'log sheet data support'
- Continuous monitoring of permeate quality and automatic dump

#### Key specifications

Seawater TDS design	35000 ppm
Design seawater temperature	15°C
Produced water quality	< 500 ppm @ 25°C

Features	DOS 40-4	DOS 40-6
<b>Capacity</b>	<b>16 m<sup>3</sup> per day</b>	<b>24 m<sup>3</sup> per day</b>
Installed power HP pump	5.5 kW	5.5 kW
Seawater feed flow	2,4 m <sup>3</sup> /h	2,4 m <sup>3</sup> /h
Dimensions (LxWxH)	1000 x 800 x 1900 mm	1000 x 800 x 1900 mm
Weight (dry /operating)	337/515 kg	365/565 kg

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#### Low maintenance

The Oceanus RO series is equipped with:

- Automatically operated multimedia filtration for increased performance
- Conservative membrane design with low loads to minimise fouling
- Automatic fresh flush system to prevent fouling in standby modus
- Chemical cleaning unit for cleaning fouled membranes
- Chemical conservation for membrane preservation in long-term offline modus

#### Heavy duty design

- Box type rigid steel base frames for safe transport and easy installation
- Duplex stainless steel high pressure manifolds for long life time
- Slow running high pressure pump for long life time and minimal down time

#### Optional features

The following components are available for the Oceanus series:

- Seawater feed pre-heater (for sea water < 5°C)
- Hadex® disinfectant dosing unit for chlorination of RO permeate
- Neutralising filter for post-treatment of RO permeate
- Pre filtration by cyclone separator, for operation in shallow waters

#### Standards and guidelines

##### Electrical

- IEC 61892-1 - 61892-7
- IEC 60092-350
- IEC 60092-351
- IEC 60092-353
- IEC 60092-350
- IEC 60228, class 2 & 5

##### Directives and guidelines

- MLC, 2006
- WHO
- EC directives
- Machinery safety (2006/42/EC)
- EMC directive (2014/30/EC)
- Low voltage directive (21014/35/EU)
- MODU CODE

