Demitec® RO systems
Reverse Osmosis water maker series for Maritime & Offshore market.
Hatenboer-Water
Fresh in water since 1906.

Water treatment & services
With specialist expertise, in-house engineering, design and production in a modern operating environment, Hatenboer-Water supplies solutions for all your water-related challenges and basic needs. Economically sound and environmentally sustainable with all necessary worldwide after sales service. Hatenboer-Water, your partner in maritime water treatment and services.

Maritime expertise
Good and safe water on board is essential for the operation of any vessel or rig. Our vast maritime experience gives us a thorough understanding of your business. Water from every source is treated till on every tap point it is of the proper quality. Safe and healthy. The track record of more than a thousand maritime water treatment units worldwide is proof of our high standards. Integrated in our total scope of supply; from a standard product such as a pump or filter, right up to fully integrated custom-made water treatment systems.

Your partner in maritime water treatment and services.
Advantages reverse osmosis
For the production of your water on board, reverse osmosis (RO) has, over the last decade, proven to be the best technology available. A reverse osmosis water maker produces good quality water which requires limited post treatment. The energy consumption is relatively low and the required maintenance is limited and can be performed by the crew on board after training by one of our experienced engineers. All these advantages result in a low Total Cost of Ownership for your water production.

Demitec® RO desalination systems

Custom built
For your reliable potable water production on board our Demitec® RO seawater desalination systems are available in a wide range of capacities. Your maritime or offshore demands and conditions are met in a proven heavy duty design. Your system is designed to our high Hatenboer-Water standards, based on our more than hundred years of experience in your market.

Standard series
Besides the successful custom built Demitec® RO range Hatenboer-Water has developed a standard reverse osmosis series for the Maritime and Offshore market. These standard water maker systems are part of the proven Demitec® RO family and will provide safe and reliable water for the ships crews against the best value for money.

Demitec® RO water makers
- Oceanus series: Maritime market
- Proteus series: Offshore market
Demitec® RO Oceanus series

The Oceanus series covers a range of 8-24 m³/day fresh water production and is intended for vessels with limited space for installation, such as tugs, support vessels, dredgers, etc.

The Oceanus offers easy installation, compact design, automatic and reliable operation.

Durable design
- Ridged steel coated base frame for easy installation.
- High pressure stainless steel plunger pump for extended trouble free operation.
- Automatic fresh flush and chemical cleaning unit for long membrane life time.

Ensured water quality
- Product water monitoring and indication for water quality control.
- Product water dump at off spec quality.

Optional features
- Cyclone separator for improved pretreatment in coastal areas.
- Post treatment equipment, to improve and preserve water quality.
- Pre and post treatment skid, saves installation time and costs.

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity*</th>
<th>Dimensions</th>
<th>Power</th>
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<tr>
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<td>750</td>
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<tr>
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<td>Oceanus DOS 40-6</td>
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* Capacity based on a seawater temperature of 5 - 25°C at 35,000 ppm TDS
Demitec® RO Proteus series

The Proteus series covers a range of 32-250 m³/day fresh water production and is intended for jack-up drilling rigs, semi subs, drill ships, pipe lay vessels, accommodations, cattle ships, etc.

The Proteus series offers a heavy duty design, large production capacity, continuous and reliable operation all over the world.

**Heavy duty offshore design**
- Box type ridged steel base frames for safe transport and easy installation
- Sea water intake pressure control system for a reliable process
- Duplex stainless steel high pressure manifolds for long life time
- Slow running high pressure pump for long life time and minimal down time

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity* m³/day</th>
<th>Dimensions</th>
<th>Power kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proteus</td>
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<td>L (mm)</td>
<td>W (mm)</td>
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<tr>
<td>DPS 80-2</td>
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<tr>
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<td>DPS 80-15</td>
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<td>6000</td>
<td>2500</td>
</tr>
</tbody>
</table>

*Capacity based on seawater temperature of 5 – 35°C @ 35,000 ppm TDS

Please contact Hatenboer-Water with your specific demands for our tailor made solutions.
**Enhanced membrane life time**  
Our Demitec Proteus series are standard provided with:  
- Large pre filtration surface and multimedia filtration for increased performance  
- Conservative membrane design with low loads to minimise fouling  
- Automatic fresh flush system to prevent fouling at standby modus  
- Chemical cleaning unit for cleaning fouled membranes  
- Chemical conservation to preserve membranes in offline modus

**Ensured water quality**  
- Product water monitoring and indication for water quality control  
- Product water dump at off spec quality

**Optional features**  
- Post treatment equipment, to improve and preserve water quality

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**Tailored to the conditions**  
Next to the standard included heavy duty features of our systems, it is possible to include several design options tailoring to the more extreme demands rising from the vessel or rigs operating conditions:

- Arctic design: allowing you to operate under harsh conditions of temperatures below 0°C.  
- Estuary design: extensive additional pre-treatment allowing you to operate near coast lines or estuaries.  
- Explosion proof design: for placement of the system outside the safe areas of your rig (Zone 1 or 2).  
- Shock proof design: continuous water production even up to 20 G-force movements meeting navy requirements.  
- Eco design: your water maker equipped with an energy recovery unit.  
- A design that stands for an environmentally friendly and cost effective operation.
High quality service department

Operational time and return on your investment will be maximised when installation, commissioning and maintenance of your drinking water systems are done properly. Adequate and efficient maintenance is cost effective; it prevents down time caused by technical and operational problems. The service department of Hatenboer-Water can take care of the maintenance that implies your crew can working on more important jobs.

Worldwide qualified assistance

You enjoy the benefit of worldwide services by highly skilled engineers of Hatenboer-Water. Our service engineers, based in The Netherlands and Singapore, are constantly trained and are equipped with the necessary (offshore) papers, so we can support you anytime, anywhere. You can count on our elaborate network of qualified and trained service partners. Partners that understand that it is crucial that down time is minimised. You can rely on adequate local first-line support. 24/7.

Our services include:

- Commissioning
- Training of your crew
- Technical support
- Checking your logsheets
- Online monitoring
- Preventive / corrective maintenance
- System optimisation
- System survey
- Midlife updates
- Retrofits
- Sampling
- 2-day Potable Water Course

Service level agreement

Many of our relations encounter the benefits of a customised ‘Hatenboer-Water Service Agreement’. Please feel free to contact us for an informal proposition on basis of your needs.
Hatenboer-Water
Your partner in maritime water treatment & services.

Your benefits
By choosing Hatenboer-Water as the supplier of all your water related equipment and services you benefit from:
• Good water from production to consumption
• Strong focus on service, quality, innovations and improvement
• Minimal downtime
• Easy access to spare parts and consumables
• Worldwide service
• Local, skilled, support

Hatenboer-Water in a nutshell
• More than 100 experienced professionals
• Based in the Netherlands and Singapore
• All disciplines and facilities under one roof
• Fully stocked warehouses for short delivery times
• In-house engineering, 3D CAD design
• In-house R&D department
• Fully equipped workshop

Solutions by Hatenboer-Water are designed with sustainability and environment in mind. Please contact us for more details on energy saving, low life cycle costs and high sustainability of our solutions.

With proven track record of more than
a thousand maritime water treatment units
Hatenboer-Water ‘takes care of your needs’.

Demitec® is a registered trademark of Hatenboer-Water BV.

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