Safe Water on Board
Providing your water from production to consumption.
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. From the production of drinking water till the treatment of ballast water. 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 skid built water treatment systems.

Your partner in maritime water treatment and services.
Advantages reverse osmosis
For the production of your water on board, reverse osmosis 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 an experienced engineer. All these advantages result in a low Total Cost of Ownership for your water production.

Demitec® water makers
Desalination by reverse osmosis (RO) has proven to be a reliable and economical means of drinking water production. Under the name of Demitec® RO, Hatenboer-Water offers a wide range of high quality water makers. Your maritime or offshore demands and conditions are met in our proven and heavy duty design. Demitec® RO’s are easy to install, easy to operate and continuously provide a perfect quality of drinking water on board.

Heavy duty offshore design
Hatenboer-Water has, based on more than 100 years of maritime experience and extensive knowledge, designed systems that guarantee a continuous and good water supply on board. Even in the harshest conditions, where the crew can only rely on itself. In the Demitec® systems only the best materials are being used, ensuring a long lifespan and low maintenance. Next to a dedicated standard series, Hatenboer-Water also provides skids that are fully made to measure in order to meet owner demands.

Worldwide, hundreds of Demitec® RO seawater desalination systems in operation on ships and offshore installations.
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 environmentally friendly and cost effective operation.

**Unique features of Demitec® RO**

**Extensive pre-treatment**

All Demitec® RO systems are equipped with a high capacity pre-treatment system being an efficient multimedia filtration and dual range high load cartridge filter unit for the removal of particles, such as sand and mud. This results in limited fouling of the membranes, providing optimal water production and low operational costs.

**Energy saving membranes**

To guarantee long-lasting and trouble-free desalination of seawater into fresh water, the Demitec® RO systems are designed with a large energy saving membrane surface.

**Cleaning in Place unit.** By regular cleaning of the membranes it is possible to extend their lifespan significantly. For this purpose Demitec® RO’s are equipped with an integrated CIP system to be operated by your own crew.
Hot and cold water modules

Hatenboer-Water can provide your complete cold drinking water and hot water supply on board. From production to tap point. Plug and play hot and cold water modules including interconnecting piping, wiring, pumps, disinfection, hydrophore, cartridge filters and hot water calorifiers. Naturally all equipment can also be supplied as separate items (not skid built).

You know how much crew you have on board and how many cabins are located on the decks, we know how many water and what pressure you need to supply drinking water and hot water on all tap points. Water that is suitable for consumption. If requested we can even integrate the required disinfection technology into the skid. As you can see, there is a reason why Hatenboer-Water is regarded as a full service partner!

Calorifiers

For the provision of hot water on board, your module can be equipped with a calorifier. The capacity of the calorifier is based on the size of your crew and type of heating is based on the available source on your vessel or rig (steam, hot water, thermal oil or electricity). You can order vessels with volumes of any size, in stainless steel or copper lined steel execution. The calorifier can be certified by all major classification authorities.

Pumps

Hatenboer-Water supplies a wide range of high quality maritime pumps for all applications on board, such as:

- Hot water circulation
- Sea water intake
- Ballast water
- Cooling water
- Waste water
- High pressure water makers
- Fire fighting
- Hydrophore systems

As maritime partner for the complete range of high quality Grundfos pumps, we can supply almost all on board pumps you might require. We welcome you to contact us for any application.

Plug and play

The required equipment for your application is fully skid built. The units are engineered into detail including 3D CAD drawings, preassembled, tested and ready to use. As a consequence, you are assured to save costs and time during installation on board. Every unit meets the high Hatenboer-Water standards and international classification requirements.
Hydrophore units
Our hydrophore units provide your water on all decks with the required pressure. The choices you have:
- normal or self priming hydrophore pumps
- pumps in cast iron, bronze or stainless steel
- pressure vessels, standard or diaphragm, in galvanized steel or stainless steel

Frequency controlled pumps
Next to the hydrophore units comprising pumps and a pressure vessel, you can also contact Hatenboer-Water for the latest frequency controlled pumps: pump sets that immediately react according to the demand. They serve as an energy efficient alternative to the hydrophore system: saving costs and ensuring continuous supply of water under the right pressure on board.

Filters
For the removal of small particles such as rust or organic material, Hatenboer-Water supplies a wide range of filters, such as cartridge filters and active carbon filters. These filters can be included on the hot and cold water modules, filtering out any contamination coming from your drinking water tank and resulting in odourless and clear water.
Disinfection
You can find a wide range of disinfection technologies at Hatenboer-Water. Each technology has its own specifications. Please ask one of our advisors to determine what disinfection technology suit your application best. Due to our long experience with water quality on board we are the perfect partner for assessing the risks on board and determining the appropriate equipment. All equipment can be integrated on the cold and or hot water modules as described previously in this brochure.

Hadex®
Hadex® is a safe, effective and easily applied product, especially intended for disinfecting drinking water in tanks and piping. Drinking water treated with Hadex® remains fit for consumption. Hadex® can be dosed manually and automatically by use of the specially designed Hadex® Dosing Unit. Next to continuous dosing, Hadex® can also be used for shock treatment, cleaning all drinking water piping on board. Ask for the detailed Hadex® brochure to learn more about this food grade drinking water disinfectant. Hadex® is also approved by NIPH.

Three of our most effective and suitable disinfectants are:
- Hadex®
- Ultraviolet (UV) disinfection
- Copper/silver-ionisation

Safe to use
All three disinfectants are perfectly safe to use and suitable to be applied in drinking water. Both Hadex® and copper/silver-ionisation are approved to be used in food grade application by the Dutch Authorities (Ctgb). Hadex® has also been tested and approved by a number of (maritime) authorities in the Netherlands and abroad.
Ultraviolet (UV) disinfection
UV light kills bacteria and viruses without adding anything to the drinking water, making it a very clean disinfection method. The Demitec® UV systems are specially designed for maritime application, based on almost three decennia of experience. The UV units can be mounted horizontally and vertically and are available for all capacities.

The Demitec® UV range also comprises an UV system approved by the strict Norwegian regulations of NIPH. The UV chamber can be equipped with:
- a manual or automatic wiping mechanism
- an UV monitoring system
- an automatic shut-off valve
- temperature control
- maximum flow control

Copper/silver-ionisation
Whereas Hadex® disinfects instantly the water and is suitable to use as a shock treatment after maintenance or a refit, copper/silver-ionisation is providing a slow, long lasting disinfection. For this reason it forms a unique combination with Hadex® for large or very old piping systems. Flow controlled dosing of copper and silver ions create a unique disinfection that can penetrate the biofilm without causing any discomfort regarding smell or taste of the drinking water.

Copper/silver-ionisation has proven to be an effective technology for Legionella control in hospitals and industrial applications. Now it has found its way into the complex and often highly contaminated piping systems of offshore locations and is allowed by NIPH.
Your system designed according to the high Hatenboer-Water standards, based on more than hundred years of maritime experience.

Combining technologies creates additional security. In larger systems or difficult conditions, one disinfectant technology often is not enough. By combining technologies additional security can be created. Hatenboer-Water can help you in selecting the best available technologies for your vessel or rig, keeping in mind the regulations of the flag state or country you are operating in. Contact us for more information and advice.

Our scope in one view
Ballast water treatment

Supported by our extensive expertise in disinfection and filtration of seawater, Hatenboer-Water introduced the ‘GloEn-Patrol™ Ballast Water Treatment System’.

Proven technologies

The basic approach of the GloEn-Patrol™ system is the use of proven and environment-friendly water treatment technologies: filtration and UV light for the removal of particulates and to destroy (micro)organisms.

The installation is made up of individual components. If required, we can design, build and test a complete skid-mounted unit in our own workshop to meet your specific requirements. The complete system is simple to install, either as retrofit or in new built ships. Hatenboer-Water supplies a range of installations that can treat up to 6,000 m³ of ballast water per hour.

Service

High quality service department

You enjoy the benefit of the worldwide service of our highly skilled engineers. Our service engineers supervise the installation of the equipment, do commissioning, start up, overhaul, emergency visits and training of your engineers. Our engineers possess the necessary offshore papers, so we can support you anytime, anywhere.

Worldwide agents

Local representation ensures quick delivery and response times, which can be crucial for your process. Down time is limited to a minimum with the support of a good agent, providing first line service and local stock of key spare parts and consumables. Hatenboer-Water agents are located in China, South Korea, India, Malaysia, Australia and Brazil.

Hatenboer-Water Asia Pte. Ltd.

Since many new builds and retrofits take place in Asia, and because of our wish to provide expert guidance in these projects for both the shipyards and the end-users, we have an operational base in Singapore.
Water Quality (HSE) Consultancy
Our Water Quality department acts as a consultancy and services department. The consultants deliver solutions so you can comply to international laws and to assure that your crew is working in safe conditions. With more than 30 years of experience our Water Quality department comes forward with solutions and services that are always practical and always dedicated.

Water management plan
Water systems can be upgraded to a safe system by implementing our Risk Assessment and Management Plan. It is our goal to increase the safety of your crew and the quality of your potable water system. Every Management Plan is tailor-made after a visit on board by one of our qualified drinking water experts and forms an essential part of any HSE procedure.

Worldwide water tests
Hatenboer-Water provides worldwide sampling, analysis, quality reports and on board audits to assess the chemical, microbiological and physical condition of your water and therefore the health of your crew.

Potable Water Course
Improve the knowledge of your crew and office staff about water, water treatment and water management with our professional 2-day Potable Water Course. These trainings are held at our office in Schiedam, or at your location. Topics like water maker technology, disinfection, sampling and analyses and water management plan are discussed.

The Hatenboer-Water Potable Water Course is recognised by NIPH and following the course provides the knowledge on the water system to be allowed to operate in the Norwegian waters.
With proven track record of more than
a thousand maritime water treatment units
Hatenboer-Water ‘takes care of your needs’.