

Rotterdam | Singapore | Dubai | Houston

DESALINATION
DISINFECTION
PRESSURISATION
HEATING
FILTRATION
CONDITIONING
ON SITE TESTING
PLASTIC FREE @SEA
WORLDWIDE SERVICES

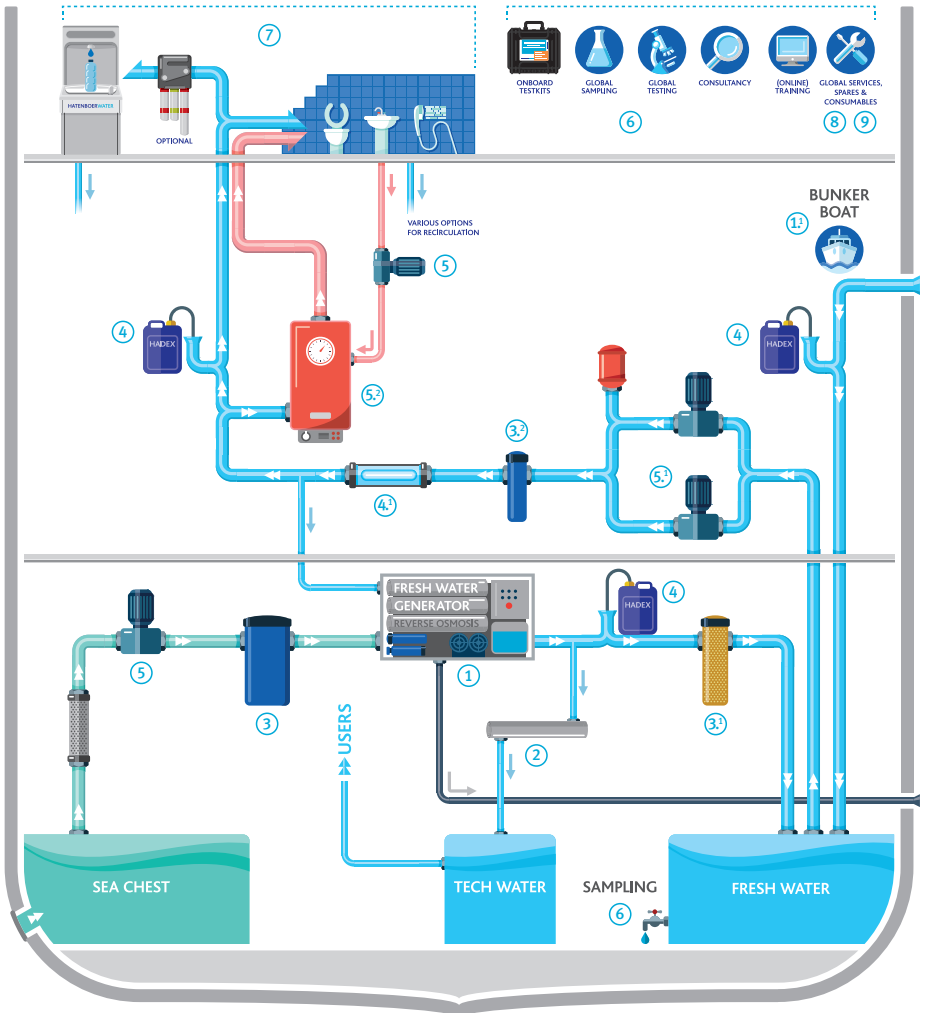
Your water partner

Discover our scope of supply
and rely on our vast experience

HATENBOERWATER
Fresh in water since 1906.

Safe Water on Board

This graphic represents a process flow diagram that is just showing you the basics. Our proposition is to provide Safe Water on Board for any kind of vessel or rig. Please contact us when you have any water related question, we are glad to help you.



- 1 Fresh water at sea can be produced by desalination with an evaporator or Reverse Osmosis (RO) plant. Fresh drinking water can also be bunkered from shore or from HDU barges (1.1)
- 2 Nowadays, a cost effective and reliable alternative for having your technical water is using standard RO systems for producing your own low saline technical water instead of bunkering.
- 3 It is important to filter sand, grit, silt, rust, and other impurities to protect the water system from contamination. It will also prevent damaging or clogging of water using equipment.
Neutralizing filters (3.1) are used for conditioning of the product water from the evaporator or RO system. Water from a fresh water generator hardly contains any natural hardness, is tasteless and of low pH. To prevent pipe corrosion, neutralizing is applied.
Activated carbon filters (3.2) improve the taste and color of the water, removing organic micro pollutants such as traces of hydrocarbons (oil, solvents) and are also used for dechlorination.
- 4 Hadex® drinking water disinfectant can be dosed in water maker product water, bunkering water and/or fresh water to the chlorine based distribution system. It also reduces the number of micro-organisms and avoids bacterial growth in fresh water storage tanks and piping systems.
Ultra Violet (UV) disinfection (4.1) eliminates bacteria in fresh water.
An UV system needs to be installed as last treatment step to the users tap points.
- 5 Pumps and hydrophore (5.1) pressurize the system to the tap points in the required quantity.
Hot water calorifiers (5.2) provide the hot water needed on board for galley, showers, laundry, etc. The heating can be by electricity, steam, hot water or thermal oil, whatever is available on board.
- 6 To help you to comply with regulations and to guarantee safe water on board, we offer global consultancy, sampling and analyzing services, developed dedicated water treatment courses. We also added a range of test equipment and kits to our program.
- 7 Water bottle filling stations and water coolers provide fresh consumption water on the spot. The Plastic Free @Sea concept offers a sustainable, cost-efficient alternative for single-use plastic bottles.
- 8 Our offshore trained team of experienced service engineers are operating globally. Our water professionals can also train and assist your crew on-site so you can optimize your operational and maintenance conditions.
- 9 Our high quality promise includes all equipment needed for providing safe drinking water on board. Please discover our wide scope of supply. Critical spares are always on stock.

Fresh water generators

Production of drinking water from sea water

Produce your own safe drinking water through desalination of sea water; suitable for any kind of environment and application. From compact and energy saving solutions to complex offshore structures.

Our reverse osmosis type water makers contain all components required for self-sufficient operation. Available in an off-the-shelf, standard set-up or assembled according to your specifications.



Custom built water makers

- Topside installations, in compliance with high end specs
- Solutions for any environmental conditions
- ATEX designs, operation in hazardous area
- Integrated energy recovery
- Desalination of seawater, brackish water or river water



Standard series: 3-100 m³ per day

- Plug & play
- Safe drinking water on board
- Remote monitoring possibilities
- User friendly interfaces



2 Technical water makers

High purity low saline water

Choosing one of our reverse osmosis installations rather than bunkering demineralized water, we offer standard RO systems for technical water as well: producing your own low saline technical water.

A cost effective and reliable solution whether you require water for tank cleaning, turbine washing, cooling water for engines, injection water in fuels ... or any other application.

Like all our RO systems, the skid built unit includes all interconnecting hoses & piping, wiring, instruments, controls & safety features required for safe and reliable automatic operation.

- Demineralized water for technical purposes
- Efficient water lay-out
- Pre-engineered and pre-assembled
- Factory tested
- Flexible unit designs, easily switching to production of drinking water
- No dependency on waste heat



3 Post treatment, conditioning & filtration

Protect equipment, improve taste

Conditioning is especially important for closed circuit systems, keeping drinking water fresh and tasty. Not to forget the damage of your equipment. Optimize your desalination process and reduce costs!

Contact us for

- Softening
- Demineralizing
- Neutralizing
- Rehardening
- In line measurement and control

Optimize your water supply:

- Chlorine removal from tap water
- For all kinds of source water
- Chlorine dosing for sewage treatment or for swimming pools
- Membrane related (bio degradable) chemicals: cleaning, anti-scaling
- ...and many more options

Filtration

Dependent on the quality of your source water, filtration options are available for removal of sand, grit, silt, rust and other impurities. Our water filtration options are flexible! From efficient water filter devices to superior cartridges.

Small or large scale applications

- Carbon block filter cartridges for maximizing effectiveness of carbon media
- Melt blown sediment filter cartridges with excellent dirt holding capacity
- Highly efficient water filtration membranes for salt and mineral removal
- Everpure filters to protect equipment and guarantee the quality of drinking water

4

Disinfection solutions

Keep safety at the highest level

Water is prone to fouling and bacterial growth. Prevent this and keep your water supply of safe and constant quality: upgrade your water storage and distribution system with drinking water disinfection technologies such as

- Ultra Violet water disinfection by validated, CFD-optimized Demitec systems,
- Copper/Silver ionization or
- Chlorination by Hadex® drinking water disinfectant.



For larger or more complex installations, combine drinking water filter systems and technologies, complying with health regulations (NIPH/NMA, MLC).

Consult us to determine which disinfection technology suits you best.



5 Pressure & Heating sets

The right flow, pressure and temperature for your water

Different pump types and their parts are available from stock, such as self-priming, normal priming, reciprocating or in bronze, stainless steel, etc. as well as hydrophore vessels and sets for maritime or offshore applications, tailored to your specifications. Discover the possibilities.

Best options for your water needs

- Choice of materials and configurations
- All pump brands in stock, incl. parts
- Robust and reliable products, selected for their durability

Official maritime partner of



Your hot water supply

Our hot water calorifiers have inner tanks with stainless steel (30-1000 L/8-265 gal) or copper (1000-3000 L/265-790 gal) lining. The outside cover is made of epoxy coated steel plates. The hot water modules are skid built in any configuration you could think of.

The sturdy configuration of all elements is offshore proof and guarantees a long lifespan. Horizontal models are available.

Calorifiers are delivered as time saving, ready for start-up units, with required accessories and insulation.



Options for heating sources

Electricity, steam, hot water, thermal oil or indeed whatever is in use and available. Electrically heated models are supplied with heating and safety thermostats.



Water management

Get a grip on your water quality

Keep your water at constant and safe quality levels. Our water quality testing teams consist of sampling technicians and consultants to help you with all water related questions. Next to that, our test kits will help you to comply with regulations and are suitable for specific environments and situations. Good to know: water monitoring is required by health and safety related regulations such as MLC, Ship Sanitation and NIPH/NMA.

Discover our range of test kits

- Legionella pneumophila
- Offshore sites
- Maritime use
- Cooling water
- Boiler water
- Sewage effluent
- Chlorination levels (Hadex®)

Get a grip on your monitoring with our kits and our water management plans.



Dedicated maritime & offshore range of testing equipment. Discover our full range of Water Quality services and equipment at www.hatenboer-water.com!

Worldwide water quality services

Water safety and HSE-compliance; our team of water quality experts help you get there and stay productive! Think of

- Water sampling & analyses
- Water management plans (fleet management)
- Assessments of chemical, microbiological and physical water condition

Contact us for any expert advice.

Over 30 years of experience

Training options are offered for all professionals responsible for water quality. On board, on location, in one of our regular courses and online. +1000 happy participants.

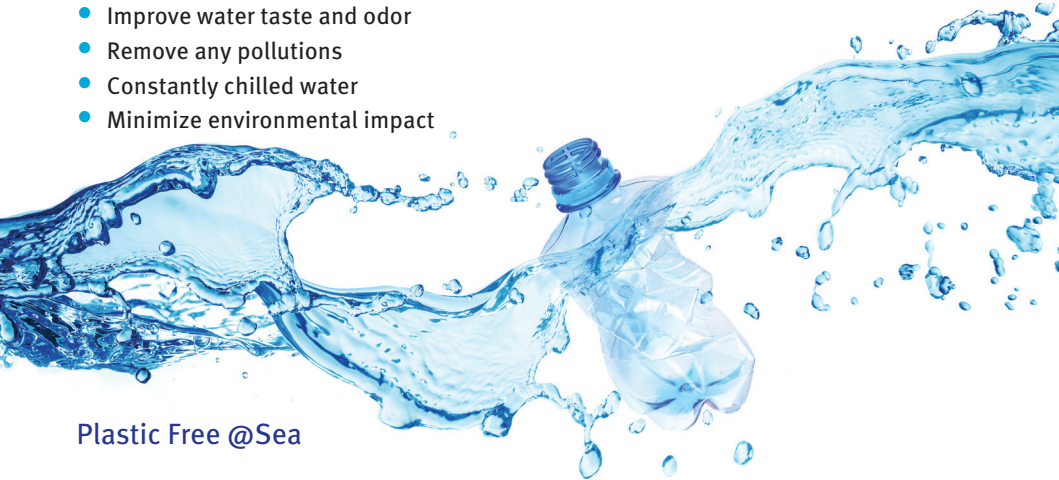


Water consumption points (POU)

How to get rid of single-use plastic bottles

Reduce costs & handling; our water coolers and bottle fillings stations use water bunkered on your tank and connected directly to the mains, which is far less expensive than using disposable water bottles. Make the switch today to a better alternative!

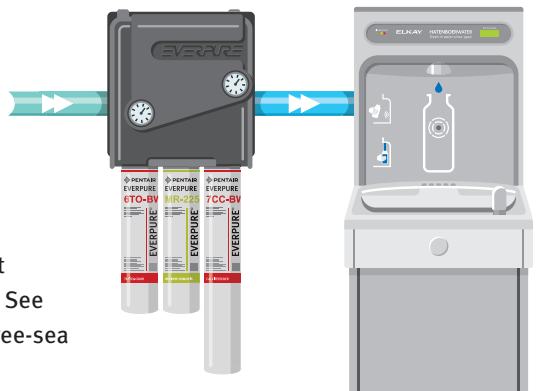
- Improve water taste and odor
- Remove any pollutions
- Constantly chilled water
- Minimize environmental impact



Plastic Free @Sea

Not sure whether you can rely on a safe drinking water system on board? We can help you to realize a secure water circuit by implementing our Plastic Free @Sea concept. We add a wall mounted reverse osmosis unit just before the bottle filling station.

- Save costs, labor and space
- Hands free activation
- Re-use of durable bottles
- Trouble free maintenance
- Short ROI



Use our smart online calculator to get insight on your savings and ROI now. See www.hatenboer-water.com/plastic-free-sea

Your crew reluctant to switch?

We developed a set of media to engage the entire crew.

*Official dealer of
Pentair Everpure and Elkay*

8 Technical services

Worldwide support

When facing technical challenges, rely on our decades of experience in water services. Not just in crisis situations, but also for preventive maintenance advice, commissioning and the ship design phase. Get peace of mind with our complete care package.

Worried about compliance issues, technical assistance or perhaps a training? We'll also take care of that for you.

Our services

- (Pre) commissioning
- Re-commissioning
- Surveys
- Midlife updates
- Conservation services
- Service agreements available

Certified & Offshore trained

Our experienced Service Engineers are an asset to our global services, as our valuable Certified Service Partners are. All engineers have to follow the in-house training program of our Hatzenboer-Water Academy.



Our water professionals can also train and assist your crew on-site so you can optimize your operational and maintenance conditions.

Spares & consumables

Discover our full scope

Our high quality promise includes all equipment needed for providing safe drinking water on board. Come to us for products that suit your needs and budget.



- Quick delivery and response times
- Local stock of key spare parts and consumables
- Limited down time

This publication was composed to assure you, you can find the right products or (spare) parts with us to maintain your water quality on board. Simply give us a call, send us an e-mail or check our website.

Apart from that, you learned about our worldwide services as well as our standard and custom built solutions. That is what Hatenboer-Water is famous for in the maritime and offshore world; on the basis of our longstanding experience we became specialists in drinking water treatment and we gained the roll of full service partner, or ,to speak of components, your one-stop-shop.

Fortunately a wide range of clients acknowledge this and we are proud that our customer base is growing every day as our mission is to provide you sustainably with water of the right quality: good water quality is essential for a safe work environment for your crew!

It is not possible to incorporate our total scope of supply in this publication. However, we invite you to consult us so we can assist you in any way to improve your water quality on board and by that secure your license to operate.

Where to find us

Worldwide presence



● HATENBOER-WATER BV

Rotterdam The Netherlands
info@hatenboer-water.com

● HATENBOER-WATER ASIA PTE LTD

Singapore
info.asia@hatenboer-water.com

● HATENBOER-WATER MIDDLE EAST & NORTH AFRICA

Dubai UAE
info.mena@hatenboer-water.com

● HATENBOER-WATER AMERICAS CORP

Houston USA
info.americas@hatenboer-water.com

● Next to our own locations, we have a global network of distributors, agents and certified service partners.

Check our website for up to date information and all contact details.

Hatenboer-Water, your full service partner in water treatment and services.

With over 115 years of specialist expertise, in-house engineering, design and production in a modern operating environment, Hatেনboer-Water supplies solutions for all your water-related challenges and basic needs. Economically sound and environmentally sustainable with all necessary worldwide after sales service.

Your benefits choosing Hatেনboer-Water

- Safe water on board, meaning a safe water environment for your crew
- Excellent track record
- Strong focus on service, quality, innovations and improvement
- Minimal downtime
- Easy access to spare parts and consumables
- Worldwide services
- Local skilled support



MORE THAN
115 YEARS
KNOWLEDGE

HATENBOERWATER

Fresh in water since 1906.



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I www.hatenboer-water.com