



HATENBOERWATER

Fresh in water since 1906.



Demitec® UV disinfection systems

Validated, CFD-optimised,
chemical-free water treatment.

Hatenboer-Water

Fresh in water since 1906.



Water treatment & services

With specialist expertise, in house engineering, design and production in a modern operating environment, Hatেনboer-Water supplies sustainable solutions for all your water-related challenges and basic needs. From the supply of a standard product such as a pump or filter, right up to fully integrated custom-made water treatment systems that consist of proven technologies to innovative developments. With all necessary worldwide after sales service, consultancy and quality assurance. Hatেনboer-Water; your partner in water treatment & services.

Demitec[®] UV disinfection systems

Sources for naturally clean water are becoming increasingly rare, making it one of the world's most valuable resources. More and more communities and companies have to reuse water. Without proper disinfection, reused water is likely to contain dangerous pathogens, including Cryptosporidium and Giardia. Disinfection using ultraviolet (UV) light is a proven, chemical-free, environmentally friendly and sustainable method for killing pathogens and water infecting microorganisms. Hatেনboer-Water specialises in providing the optimal solutions for the toughest water disinfection challenges.



Always the right solution for your application

Hatenboer-Water carefully considers the practical situation, target organisms, and site-specific properties of your application to provide the right solution.





The challenge is designing the most effective UV disinfection system for a specific application. At Hatlenboer-Water, that is what we do best.

Demitec® unique UV solutions

UV solutions may include:

- Compact L-shape UV system with the highest UV density low-pressure (LP) lamps
- Compact-sized with the strongest medium-pressure (MP) UV lamps and connections ‘in-one-line’
- Unique compact UV system with ‘state-of-the-art’ LP lamps in a perpendicular position

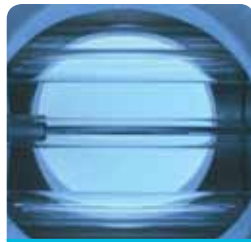
Compact footprint

- Most compact UV systems in the market
- Compact footprint minimises the installation costs
- ‘In-one-line’ design is ideal for retrofits in tight spaces
- UV lamps and quartz sleeves are easy to service
- Low headloss, energy saving ‘in-one-line’ design eliminates the need for extra pump capacity

Two Demitec® UV flows



Longitudinal flow



Perpendicular flow

Experts in low- and medium-pressure UV lamps

- Compact LP lamps with highest UV density available
- Compact MP lamps with widest power range in the market
- Demitec® UV lamps are selected on UV output, efficiency, lamplife, low aging and stability



Compact L-shape UV system (LP)



Compact-sized UV system (MP)



Unique Compact UV system (LP)



Why is Demitec® UV best for you?

Features



Site-specific design

Whether it is a new or existing site, Hatlenboer-Water will custom design a system ideal for your installation.

Computational fluid dynamics design

All Demitec® UV systems are designed using computational fluid dynamics (CFD) and validated with biosimetric tests, so you know your system works and your water is safe.

Demitec® lamp technology

Hatlenboer-Water can design your system to include low-pressure or medium-pressure UV lamps.

Reliable components

All Demitec® UV components - UV lamps, quartz sleeves, ballasts, UV sensors, cleaning devices, PLC's, and controllers - have been thoroughly tested and used in thousands of installations.

Warranty

Demitec® UV systems are covered by mechanical and electrical warranty. The lamp warranty assures 100% predicted lamp life.

Irradiation chamber

A robust chamber contains the UV lamps and UV sensor. Materials include: stainless steel, stainless steel electropolished, coated stainless steel and UV-resistant materials.

Wiper construction

UV-resistant materials clean without scratching the quartz sleeves.

Cleaning device

Automatic or manual cleaning device cleans quartz sleeves online without interruption.

Integrated UV sensor

An integrated, absolute calibrated UV sensor provides continuous control of the lamps.

Demitec® UV system control center

The PLC-based Lambda controller monitors and controls the UV system.

UV lamps and quartz sleeves

The UV lamps are protected by high-grade quartz sleeves, transmitting the highest amount of UV light into the passing water.

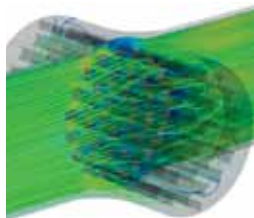
Temperature control

A sensor continuously measures and displays the water temperature. It is integrated with back-up control and NIPH approved. Change over cabinet to be assured of a constant and safe water supply.





Most compact / Minimises installation costs / Low headloss



CFD visualisation

Ultra Violet light

Photobiology and photochemistry

The energy (photons) of UV light must be absorbed by the target molecules to result in a change of the molecules. In for example microorganisms the genetic molecule DNA is 'damaged' after exposure to UV light. As long as the damages (such as thymine-dimers) remain present in the DNA, a microorganism cannot reproduce and is 'killed'. Chemical bonds of other harmful (in)organic molecules are broken down, after exposure to UV light, which leads to photodissociation of the molecule into harmless reaction products.

Targets

Demitec® UV water treatment systems target:

- microorganisms (bacteria, viruses, moulds, yeasts, protozoa, spores, alga)
- disinfectants (chlorine, ozone)
- oxidants (hydrogenperoxide)
- disinfection by-products (chloramines, trichloramine)
- (in)organic matter (NDMA, TOC)



Prevent Legionella and E-Coli

Demitec® UV - Bioassay validated systems

- Validation according to the protocols of the Austrian Institute of Technology (AIT), Önorm M 5873-1:2001
- Type approval according to Norwegian Institute for Public Health (NIPH), List B

*Validated, CFD-optimised,
chemical-free water treatment.*





Hatenboer-Water's experts select system material not only based on water characteristics, but also on the conditions you are working in, such as high temperatures and humidity.



UV-sensor



O-Rings



Electronic Ballast



UV-lamp

In the maritime industry Demitec® UV has dedicated solutions for the disinfection of:

- Bunker water
- Produced drinking water after drinking water tank
- Waste water
- Pool water on board
- Sea water
- Injection water

Spares and consumables on stock

For continuous operation of your UV system, it is advised to keep recommended spares such as lamps, quartz sleeves and O-Rings on site. Replacement is required based on operational hours (e.g. lamp life is approximately 8000 hours).

Demitec® UV spare parts and spare part sets by other brands are kept on stock in our Dutch and Singapore warehouse, which makes next day delivery possible. For more details please contact your nearest Hatenoer-Water office or agent. Hatenoer-Water agents are located in China, South Korea, India, Malaysia, United Arab Emirates, Australia and Turkey.

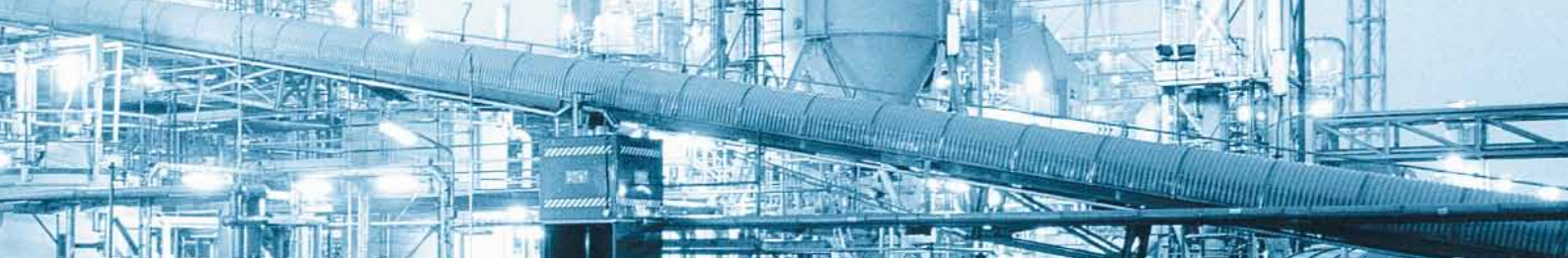


HDPE sea water disinfection



Bunkerline water disinfection





Systems and markets

UV line	Drinking water, small	Drinking water, large	Drinking water certified	Ballast water	Bunker water	Pools	Maritime & Offshore	Wastewater
Alfaline		•			•	•		
Betaline	•	•			•		•	•
Betaline-E	•	•	•		•		•	•
Gammaline	•					•	•	
Deltaline				•				•
Kappaline		•	•				•	•
Philine	•	•	•				•	
Signaline						•		

Hatenboer-Water offers a wide range of systems to address a variety of water quantities and water qualities.



Compact UV system (MP) with automatic cleaning



Compact-sized pool UV system (MP)



Gammaline for smaller applications



Hatenboer-Water

Your partner in
water treatment & services.

Your benefits

By choosing Hatেনboer-Water as the supplier of all your water related equipment and services you benefit from:

- Good water from production to consumption.
- Minimal downtime.
- Easy access to spare parts and consumables.
- Worldwide service.
- Local, skilled, support.

Hatenboer-Water in a nutshell

- More than 80 experienced professionals.
- Strong focus on service, quality, innovations and improvement.
- All disciplines and facilities under one roof.
- Fully stocked warehouse for short delivery times.
- In-house engineering, 3D CAD design.
- In-house R&D department.
- Fully equipped workshop.

GREEN THINKING

Solutions by Hatেনboer-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
1000 Demitec® UV systems installed,
Hatenboer-Water 'takes care of your needs'.*



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

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