

WELLBOATS

UV DISINFECTION • EFFICIENT AND CHEMICAL-FREE WATER TREATMENT



ULTRAQUA
UV DISINFECTION SYSTEMS

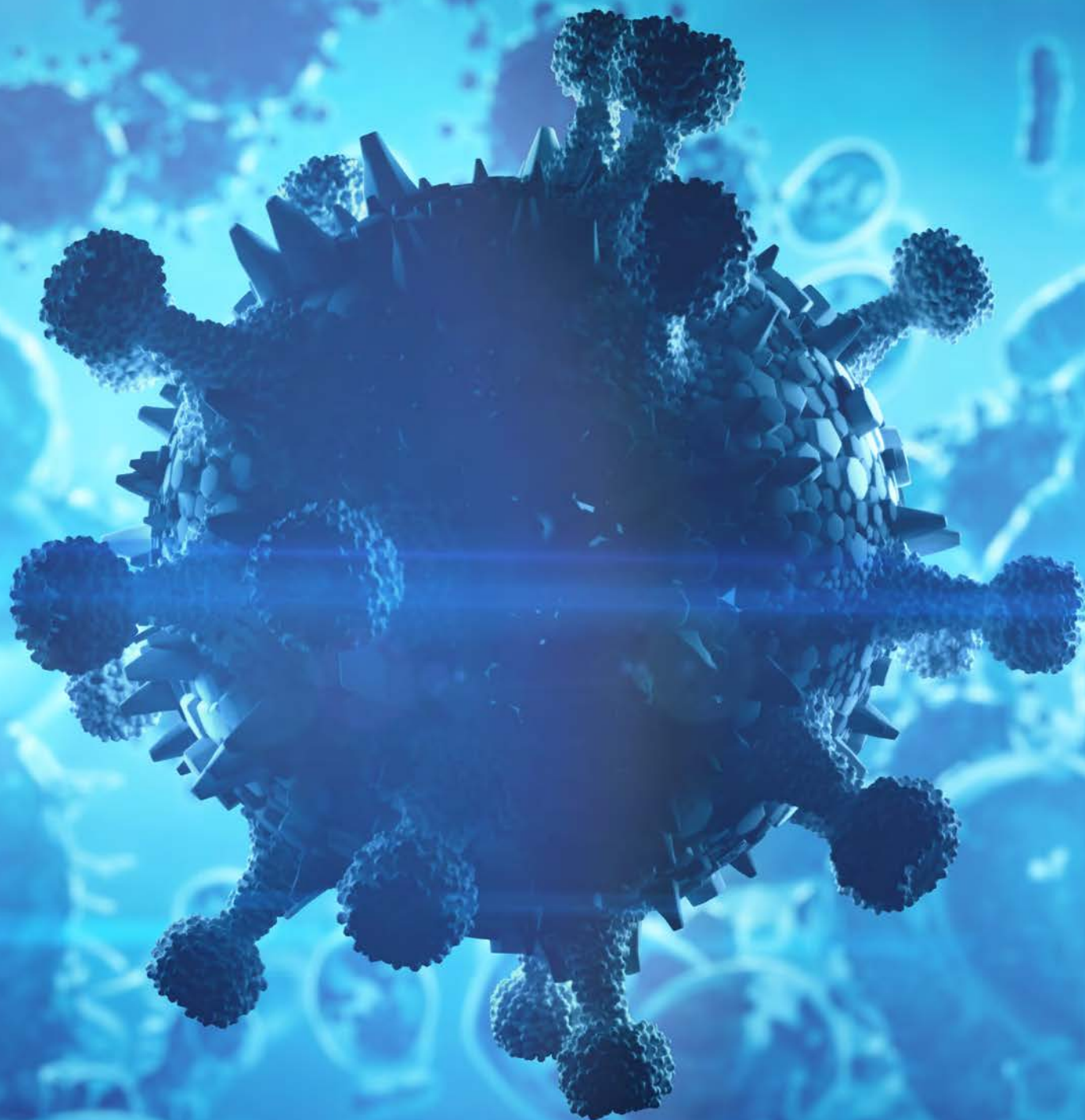
WE PROTECT YOUR MOST VALUABLE RESOURCE

Distributed by **Toshiba Lighting & Technology Corporation**

A microscopic view of various bacteria and viruses, rendered in shades of blue and white. The background is a dense field of these microorganisms, including spherical viruses with spikes, rod-shaped bacteria, and larger, more complex structures. The overall tone is a deep, cool blue.

KEEP YOUR WATER SAFE

ULTRAAQUA
UV DISINFECTION SYSTEMS



CORE BENEFITS OF UV

UV TECHNOLOGY IS A GLOBALLY ACCEPTED SOLUTION FOR WATER DISINFECTION, EFFECTIVELY INACTIVATING BACTERIA, VIRUSES, AND PROTOZOA.

The demand for cost-efficient solutions to provide clean water are at an all-time high and will only increase in the future. UV disinfection solves this complex challenge, being able to meet the strictest requirements regarding bacteria and virus protection.

Due to recent developments, UV disinfection is now an effective alternative in a wide range of water qualities and applications. Improved technological and design configurations have made UV a viable OPEX and CAPEX solution for disinfection processes as well as in more advanced applications such as Advanced Oxidation Processes (AOP).

Choosing UV as the disinfection method ensures optimal CAPEX and OPEX conditions compared to its alternatives, making UV the best solution for a wide range of installations.

ULTRAAQUA UV disinfection systems are easy to install, maintain, and thoroughly cost-optimized. The third-party approvals for performance and quality ensure complete peace of mind, employing the best available solution for complete biosecurity.

ULTRAAQUA
UV DISINFECTION SYSTEMS

UV DISINFECTION FOR WELLBOATS

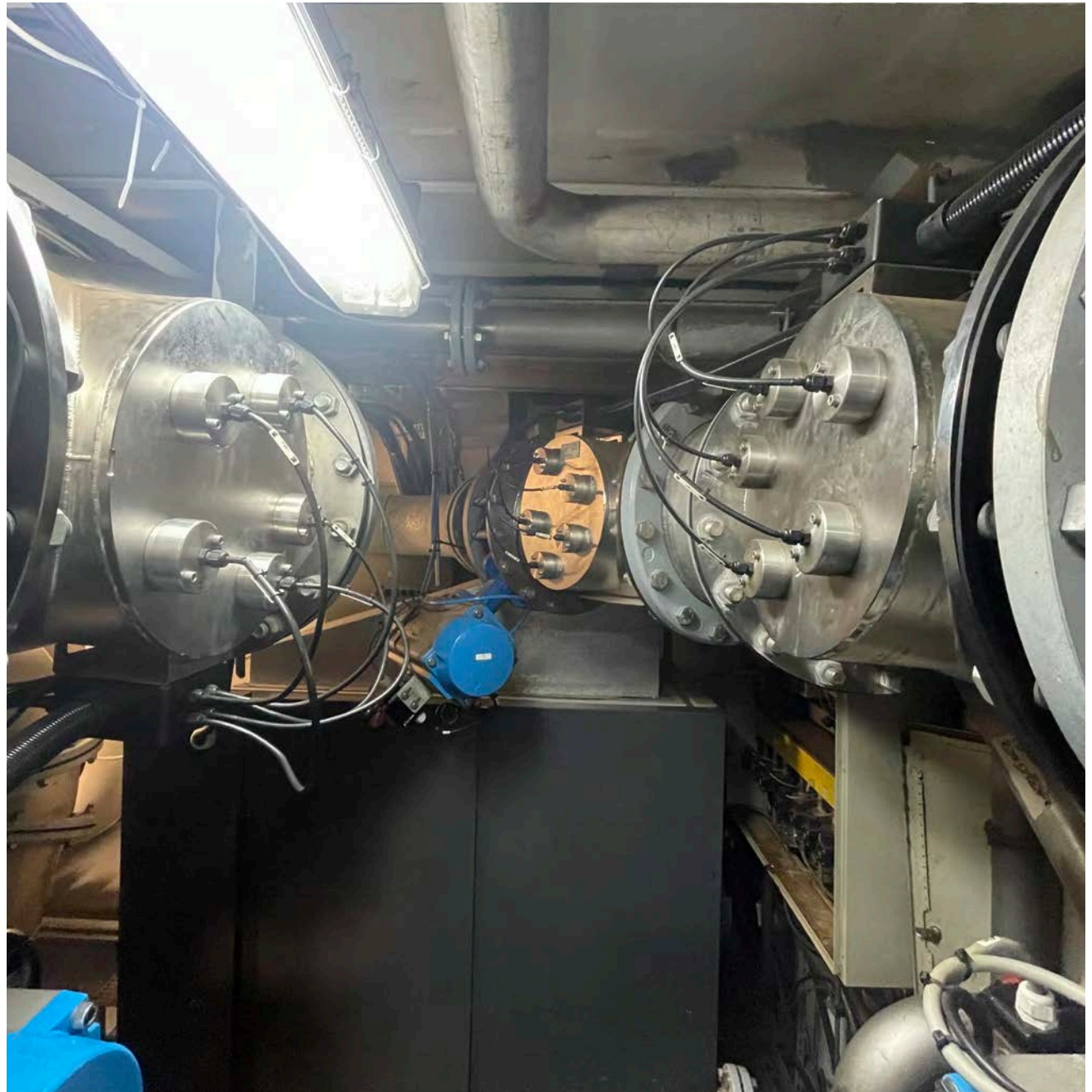
WELLBOATS SERVE A CRITICAL ROLE IN THE AQUACULTURE INDUSTRY BY CONNECTING ON-SHORE AND OFF-SHORE AQUACULTURE FACILITIES.

This role comes with the critical task of avoiding cross-contamination, and to ensure the highest possible standard of the intake and process water passing through the entire system. This sets high requirements for the intake and discharge water processes.

UV disinfection is already widely implemented within the wellboat industry, mainly due to not influencing the key water properties in the aquaculture industry – temperature, pH, and oxygen levels, as well as its proven effectiveness against bacteria and virus. Finally, it offers optimized CAPEX and OPEX compared to its alternatives while having the lowest possible footprint.

UV disinfection systems are easily implemented in the various areas of the wellboat, whether it may be the inlet, outlet or process areas.

The UV disinfection systems from ULTRAAQUA are easy to install, maintain, and thoroughly cost-optimized. The third-party approvals for performance and quality ensures complete peace of mind, employing the best available solution for complete biosecurity, ultimately leading to a more sustainable aquaculture ecosystem.



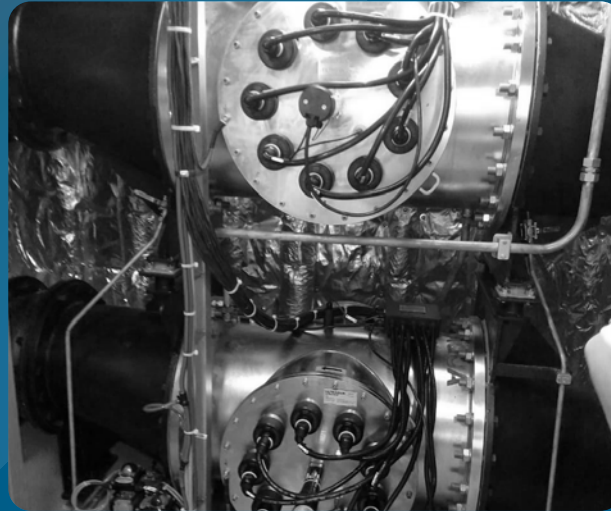
WELLBOAT - GRIP ARCTIC

FISH CARRIER IN SOUTH AMERICA.



WELLBOAT - CHILE

NEW WELLBOAT TO BE PRODUCED BY A SHIPYARD IN CHILE.



WELLBOAT - MOWI STAR

FISH CARRIER IN NORWAY.



See more cases: www.ultraaqua.com/cases

AVOIDING CROSS CONTAMINATION WITH DISINFECTED WATER

WITH THE MAIN ACTIVITY OF WELLBOATS BEING TO TRANSPORT SMOLT TO SEA SITES AND ON-GROWN FISH FOR SLAUGHTER, ENSURING DISINFECTED WATER BECOMES A MAJOR PRIORITY AND NECESSITY.

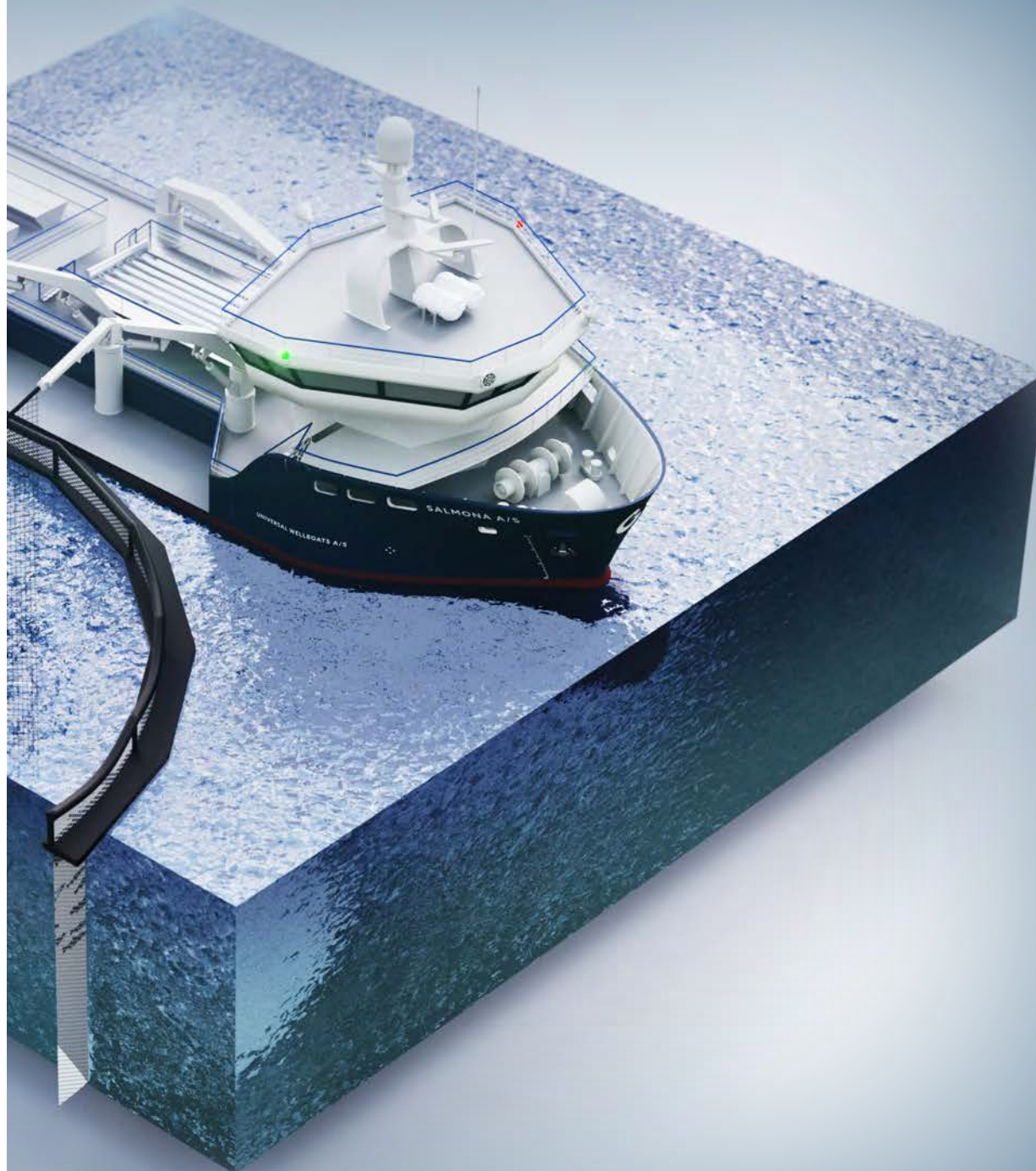
The functions of wellboats come with a biosecurity risk, especially in the slaughtering process, where infected fish can potentially release pathogens.

To increase the biosecurity in this area, new regulations have become effective from 01.01.2021 requiring that "transport water must be disinfected at intake when transporting smolt or brood stock, and at release when transporting fish for slaughter", according to a Norwegian Veterinærinstituttet report.

Choosing the right UV system to be integrated in the disinfection process will make it possible to comply with these regulations, enhancing biosecurity significantly.

This highlights the importance of ensuring high quality disinfection processes of the intake and process water, to ultimately avoid cross-contamination.

The ULTRATRON™ system series from ULTRAAQUA features advanced and efficient UV disinfection technology, ideal for retrofitting on almost any scale.



CUSTOMIZED SOLUTIONS

ULTRAAQUA EMPLOYS AN ENTIRE DEPARTMENT OF ENGINEERS WHO ARE SPECIALIZED IN THE DESIGN AND CONSTRUCTION OF UV SYSTEMS.

Multiple years of experience within relevant applications makes it possible to adjust any standard UV system to accommodate specific requirements.

The customization requirements can vary from adjustments such as reactor shape or flange size, to adding new advanced features. This makes the ULTRAAQUA design department function as a consulting agency, working towards an optimized customized solution. This means that we can ensure on site validation to various standards, fitting your exact requirements.

The following possibilities are available for all customized UV units:

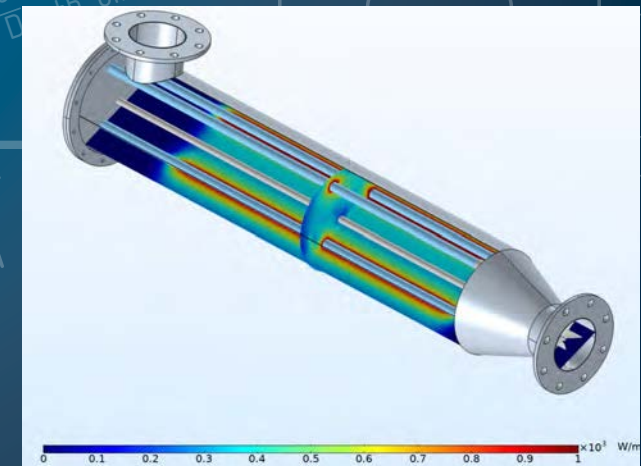
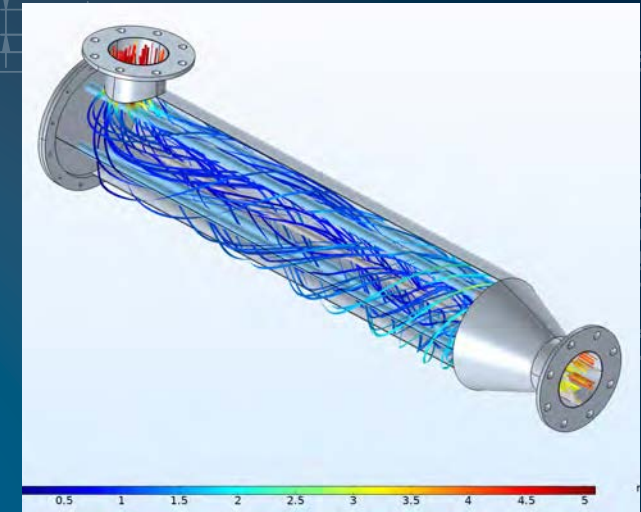
Customized services

- 🔧 Integrated CFD Analysis
- 🔧 Particle tracing modeling analysis
- 🔧 Determining fluence rate
- 🔧 Physical testing
- 🔧 Onsite validation testing
- 🔧 Advanced UV disinfection support

Customized products

- 🔧 Custom UV systems for advanced applications
- 🔧 Packaged plant equipment
 - 🔧 Including mobile treatment container
 - 🔧 Skid packages

Comprehensive technical knowledge makes the engineers able to assist with installation details such as weir design, water level control devices, and many other project-specific matters.



R&D CAPACITIES

SINCE 1996, THE R&D DEPARTMENT HAS BEEN THE BACKBONE OF ULTRAAQUA.

Employing the brightest industry specialists with great diversity for continuous innovation has been vital to the success of the company.

The ULTRAAQUA R&D department conducts, supports, and pioneers some of the latest developmental work within the water industry. These projects are often done in collaboration with specialists from municipalities, universities, top tier consultancies and international companies. The projects are primarily focused on developing unique and advanced chemical free disinfection solution for some of the worlds most complex water quality problems.

The comprehensive in-house testing area facilitates optimal conditions for research, development, and innovation. With the ability to run full scale pilot trials and a 40 ft research container to support local testing combined with cutting edge engineering, makes us confident that ULTRAAQUA is the right partner for your organization.

This ultimately allows ULTRAAQUA to position itself amongst the industry leaders within UV disinfection, supplying customers with the best available solutions.

ULTRAAQUA
UV DISINFECTION SYSTEMS





COMPANY HISTORY

ULTRAAQUA IS AN INTERNATIONAL MANUFACTURER OF ADVANCED UV WATER DISINFECTION SYSTEMS FOR A WIDE RANGE OF WATER TREATMENT APPLICATIONS.

The company was founded in 1996 by two Danish scientists, with the mission of solving the increasing global water safety challenges, by combining extensive research, innovation, and technology. Today, more than 10.000 UV disinfection systems have been supplied worldwide, to help create a more sustainable world.

ULTRAAQUA operates through a carefully selected partner network, with activity in more than 120 countries. The partner network has been key to the success of ULTRAAQUA, making it possible to deliver cutting-edge UV disinfection systems across the globe.

Continuous research and innovation activities have made it possible to maintain the position of delivering cutting-edge solutions to clients with diverse requirements in different applications.

ULTRAAQUA
UV DISINFECTION SYSTEMS

TECHNOLOGY OVERVIEW & VALIDATIONS

THE UV SYSTEMS OF ULTRAAQUA HAS UNDERGONE EXTENSIVE TESTING AND PASSED THE WORLD'S MOST RIGOROUS TESTS FOR VALIDATION AND APPROVAL BY RECOGNIZED LEADING CERTIFICATE PROVIDERS.

This means that reliable and thoroughly tested solutions are guaranteed.

ÖNORM M 5873-1

The SSV Drinking Water Series has been validated by the internationally recognized Austrian standard – **ÖNORM M 5873-1**. This allows the SSV series to offer ultimate security for drinking water disinfection.



The **DVGW certification** assures that critical technical requirements are met regarding hygiene, safety, and general functionality. DVGW is an unbiased technical-scientific association based in Germany, specialized in gas and water industries.

AMS

The **AMS (Analog Mixed Signal) verification** ensures that the electronic components are compliant with the latest industry-standard, allowing smooth and quick signal transmission among the electrical components used in data tracking and storage.



The **ETV-EU verification** is a third-party validation of new innovative environmental technologies, ensuring product credibility for the buyer.



The **NIPH (Norwegian Institute of Public Health) type approval** ensures that all UV disinfection units meets the requirements for UV dosage. The approval means that ULTRAAQUA is able to distribute selected UV systems in Norway and The Faroe Islands.



The **Norwegian Veterinary Institute (NVI)** is the national leading center of expertise in biosecurity for fish and land animals. The ULTRABARRIER™ series has been officially approved by the NVI for intake water disinfection in the Norwegian aquaculture industry.

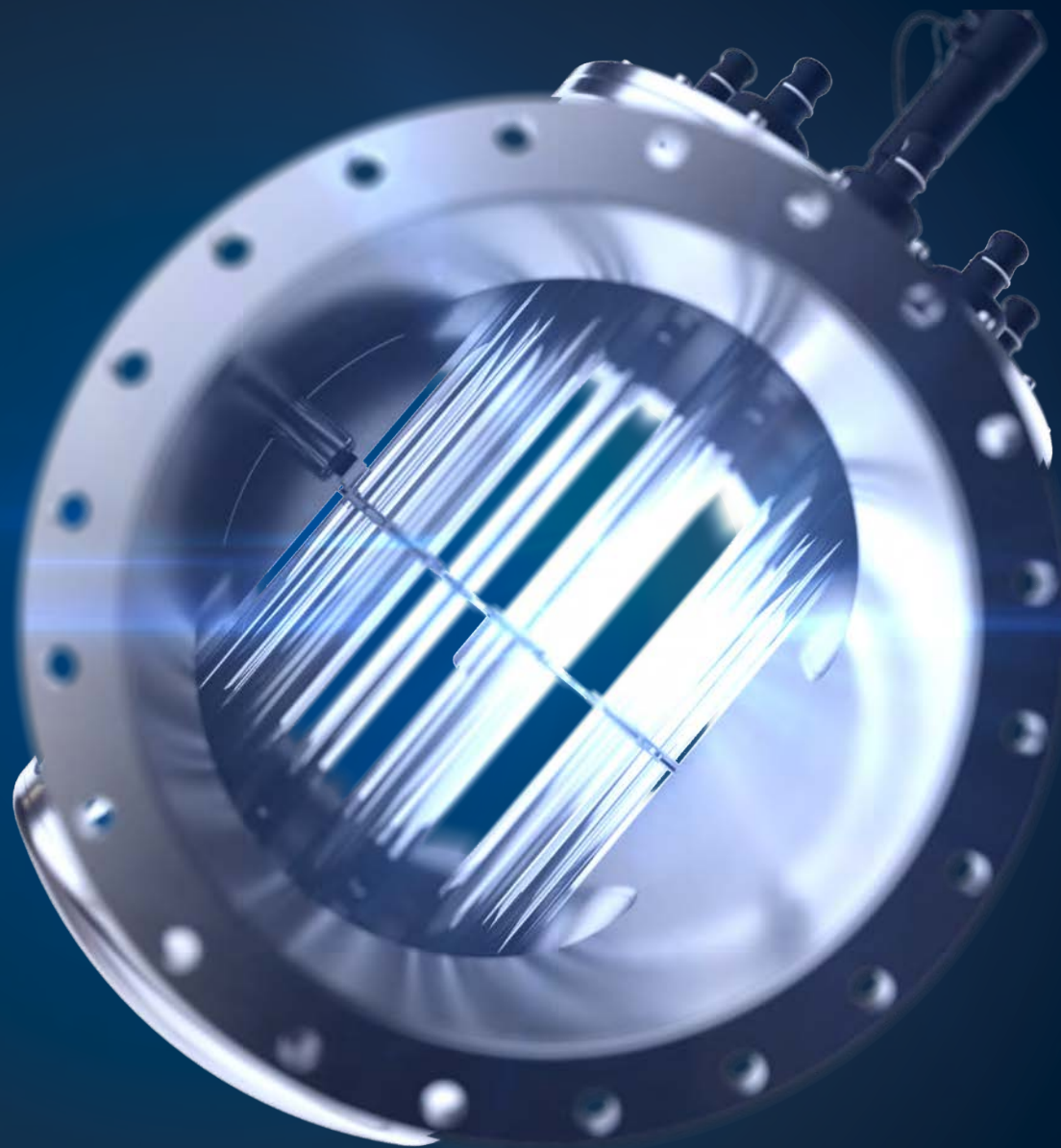
ULTRAAQUA
UV DISINFECTION SYSTEMS

PRODUCT OVERVIEW FOR WELLBOATS

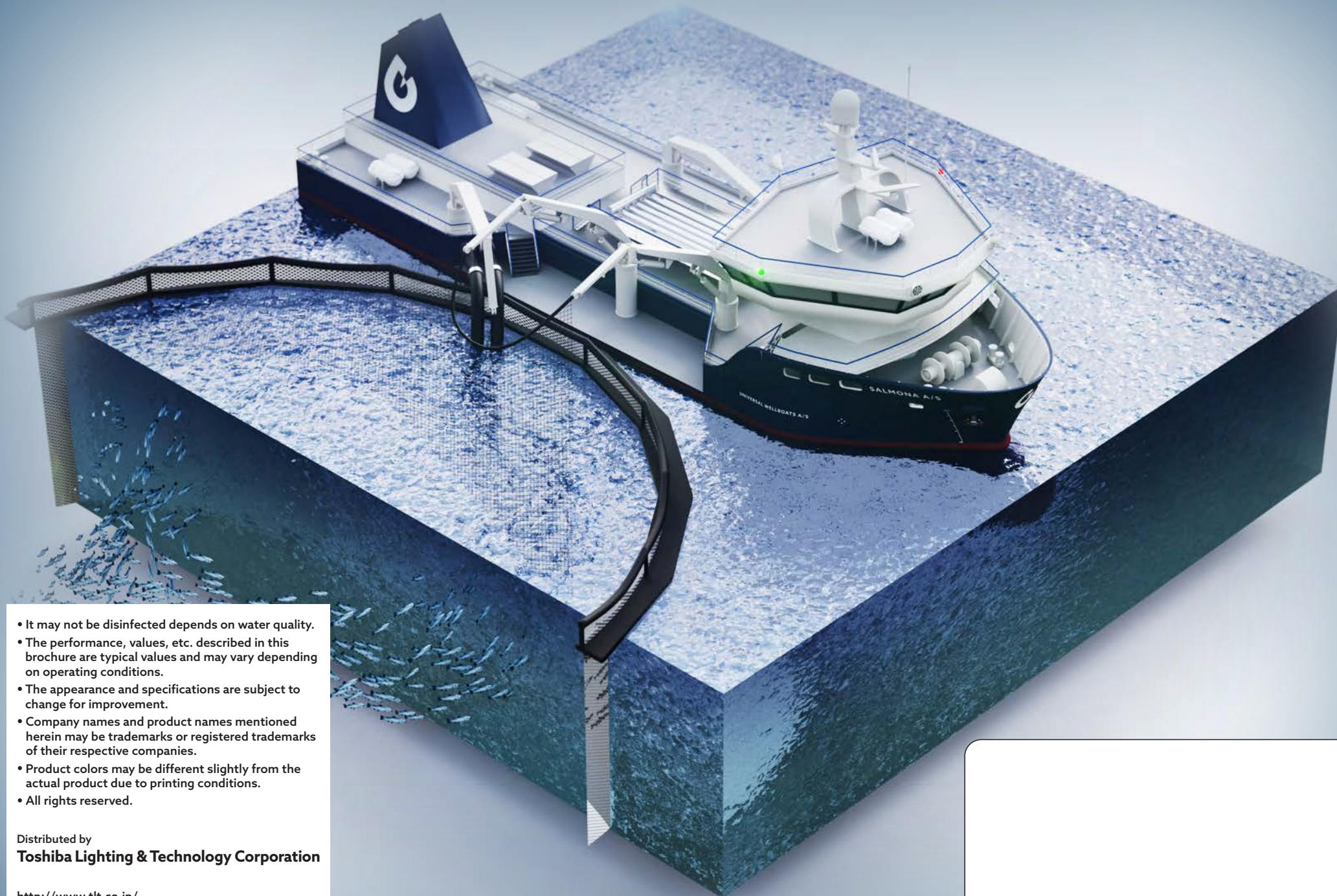
THE ULTRATRON SERIES PRODUCT RANGE FEATURES THE WORLDS MOST ADVANCED AND EFFICIENT UV DISINFECTION TECHNOLOGY, OPTIMIZED FOR HIGH FLOW APPLICATIONS WHERE A SMALL FOOTPRINT IS ESSENTIAL AND HIGH-POWER DENSITIES ARE REQUIRED.

KEY HIGHLIGHTS

- ⚙️ Guaranteed 9,000-hour lamp lifetime. 12,000-hour expected lamp lifetime under normal operation
- ⚙️ Optimized for maximum efficiency
- ⚙️ Easy maintenance and installation, single sided access with no special tools required
- ⚙️ Easily integrated in complex environments, able for installation vertically and horizontally
- ⚙️ Complete control with ULTRATOUCH™ control cabinets
- ⚙️ Automated ULTRAWIPER™ quartz cleaning with tailored brush heads



MARKET LEADING ENERGY EFFICIENCY



- It may not be disinfected depends on water quality.
- The performance, values, etc. described in this brochure are typical values and may vary depending on operating conditions.
- The appearance and specifications are subject to change for improvement.
- Company names and product names mentioned herein may be trademarks or registered trademarks of their respective companies.
- Product colors may be different slightly from the actual product due to printing conditions.
- All rights reserved.

Distributed by
Toshiba Lighting & Technology Corporation

<http://www.tlt.co.jp/>

The information of this catalog is current as of March 2023.

