



Ballast Water Management

- Independent of challenging water quality
- Lowest cost
- Minimise offhire
- No filter or chemicals

**Healthy Oceans
Start with Smart Choices**

Why Bawat?

To prevent the spread of harmful aquatic organisms from one region to another and damage to the marine environment, Bawat's Ballast Water Management System (BWMS) treats the ballast water and thereby helps to protect the ecological balance of ports and oceans globally.

The Bawat BWMS

The Bawat BWMS is IMO and US Coast Guard approved. It is a simple one-pass treatment system utilizing available onboard waste heat to treat ballast water to D2 standard with no filter requirement. This means, there is no holding time, the ballast water can be treated during voyage and the BWMS can be bypassed during cargo operations.

When installing a Bawat BWMS you get market leading simplicity and complete reliability with an easy-to-operate, sustainable BWMS solution. The system consists

of off-the-shelf, type approved marine components all crew are familiar with maintaining, meaning maintenance is cost effective and simple.

Immune to challenging water quality

The unique way the Bawat BWMS operates means that the system works in brackish, fresh, cold and high turbid water - without reducing treatment flow.

No filter

The system has no filters. Thereby backflushing procedures and filter clogging are avoided meaning risks to cargo operations are eliminated.

Reduce emissions

The system utilizes onboard waste heat to treat ballast water, reducing a vessel's fuel consumption and harmful emissions, improving Carbon Intensity Indicator (CII) of the vessel.

Minimal maintenance with no downtime

The Bawat BWMS consists of two heat exchangers, a pump, some valves, temperature sensors, pressure sensors and a flow meter. Equipment all engineering crew are familiar with maintaining and parts are readily available worldwide at low cost.

Waste heat treatment method

The process Bawat uses to treat the ballast water is pasteurisation, which is a combination of heat and time ensuring efficient elimination of all living organisms. The process was invented by Louis Pasteur in the 1850's and is being widely used in the food & beverage industry.

One pass - no holding time

The heat treating process kills all aquatic invasive species and pathogens from ships' ballast water, consequently no holding time in the ballast tanks is needed.

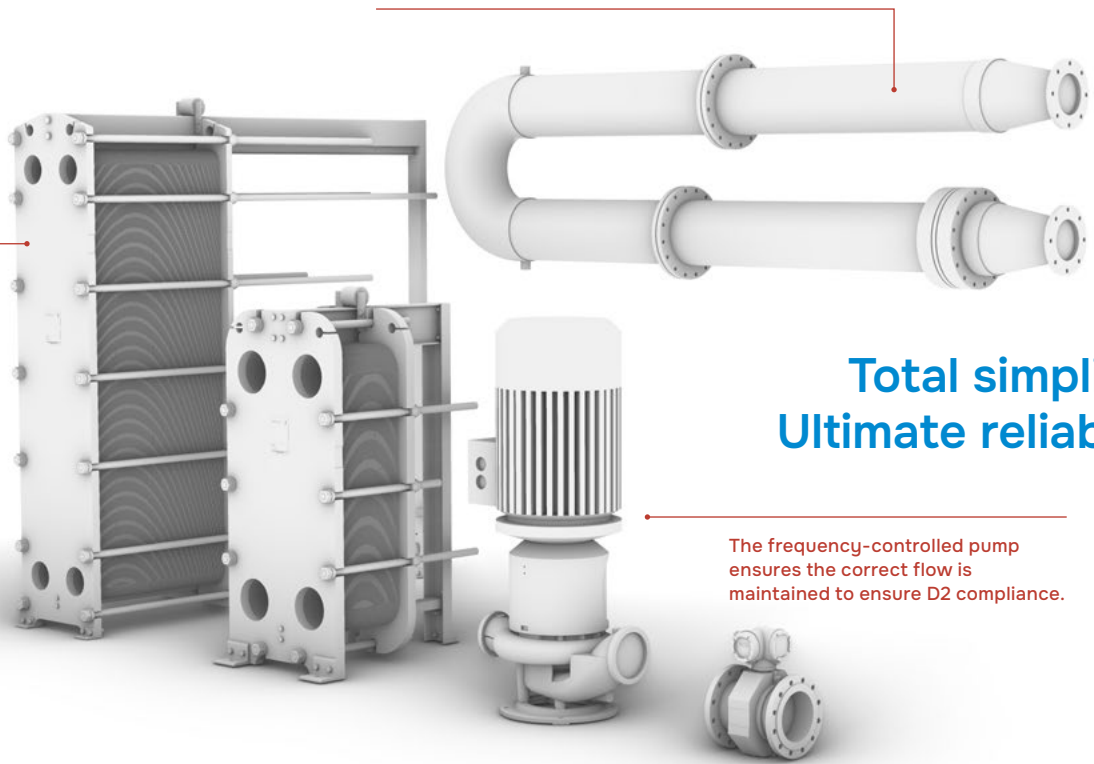




The plate heat exchangers are high efficiency, high quality products designed to work in the toughest environments whilst also being easy to clean and maintain.

The compliance control and monitoring system consists of valves, heat and pressure sensors and a flow meter which are inexpensive and readily available ensuring the highest levels of reliability.

The Retention section is a high-quality piece of GRE or galvanised pipe made of standard components. It is designed to slow the velocity of water down and ensure it stays at 72° Celsius for at least 40 seconds.



**Total simplicity.
Ultimate reliability.**

The frequency-controlled pump ensures the correct flow is maintained to ensure D2 compliance.



Bawat BaaS - Ballast as a Service

Leading the Compliant Future of Ballast Water Management

Bawat - Ballast as a Service (BaaS) is a port-based ballast water treatment service designed to support vessels through both planned operations and unforeseen compliance challenges.

The service is delivered directly at ports, harbours, terminals, and shipyards, providing vessel operators with a reliable alternative whenever onboard ballast water treatment systems are unavailable, under maintenance, or unsuitable for local water conditions.

Bawat BaaS can be deployed as a scheduled service during routine port calls or as a contingency solution requiring immediate mobilisation. Treatment is performed from the dockside, via barge, or through temporary installation onboard the vessel.

In addition to treating ballast water, Bawat can also supply and deliver fully treated ballast water to vessels when required, ensuring operational continuity in situations where uptake of untreated water is restricted or not permitted.

The service is based on a transparent and predictable pricing model, where customers pay per discharged volume of ballast water treated. This eliminates capital expenditure and long-term commitments, allowing vessel operators to access compliant ballast water treatment strictly on a service basis.

Using a chemical-free, filterless, one-pass treatment process, Bawat BaaS ensures fast and efficient ballast water treatment.

TESTIMONY FROM CUSTOMER

Ballast water emergency solved with Bawat BaaS

A vessel arriving at a Northern European port faced an urgent compliance issue when its onboard ballast water treatment system could not treat previously loaded ballast water. With operations at risk, Bawat's Ballast-as-a-Service (BaaS) was mobilised within 24 hours.

Over just two days, the Bawat team treated more than 11,000 m³ of ballast water, enabling the vessel to continue operations with minimal disruption and full compliance.

"The team responded quickly and professionally. It was a complex situation handled smoothly. Communication and execution were excellent."
- Fleet Superintendent

The system performs equally well in all water qualities, including low salinity and turbid port conditions, delivering consistent and compliant results wherever the service is deployed.

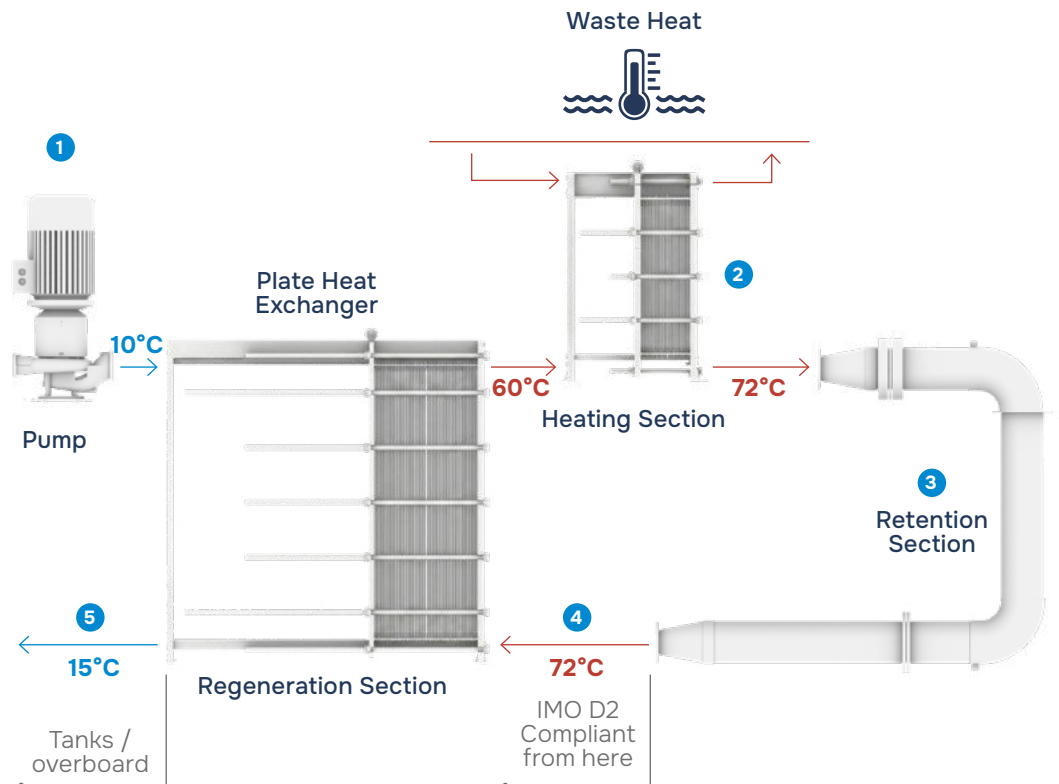
Fully IMO and USCG certified, Bawat BaaS combines global compliance with a strong service focus, rapid deployment, and minimal operational impact—supporting vessels exactly when and where treatment is needed.

A service-driven solution delivering compliance, flexibility, and environmental responsibility—without compromising operational efficiency.

BAWAT BaaS - Leading the Way in Ballast Water Treatment.

How does the Bawat BWMS work?

- 1 Water is pumped through the Regeneration Section which heats the water to 60 degrees Celsius.
- 2 It then passes through the Heating section which brings the ballast water to the critical 72 degrees using waste heat from vessel.
- 3 The Retention section slows down the velocity ensuring that the BW remains at 72 degrees for at least 40 seconds.
- 4 The water is now fully D2 Compliant through the Re-generation Section passing the heat back to the water coming into the system.
- 5 The water leaves the system only 5 degrees warmer than when it entered and is ready to enter the ballast tanks or go overboard.



Bawat Vessel BWMS

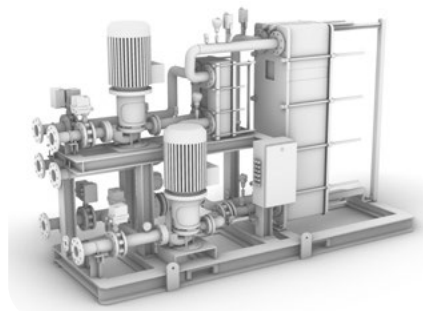
The simple and reliable choice

Bawat's BWMS represents a real innovative breakthrough in ballast water management. The solution utilizes plentifully available on-board waste heat to treat ballast water during voyage. This means the vessel arrives at port with fully compliant ballast tanks ready to discharge, **legally bypassing the BWMS**.

The Bawat BWMS is easy to install and simple to operate. It is built from off-the-shelf (OTS) components that crew members are familiar with maintaining during normal operation of the vessel.

The Bawat BWMS does not use UV or chemicals meaning there is **no need for UV Intensity or TRO sensors** respectively.

At Bawat we downsize the BWMS to the vessel's discharge requirement, not the size of the ballast water pumps. We can do this because ballast water only needs to pass through the system once, unlike other systems that require two treatments meaning they



have to operate the BWMS in port. This significantly **reduces CAPEX for owners, which can be up to 75%**.

When utilizing waste heat to drive the BWMS, OPEX for the ship owners becomes negligible, as no other energy and consumables are required.

Skid module solutions are available.





The Bawat Mobile BWMS

Port and yard solution

The Bawat Mobile BWMS allows treatment in ports, terminals and shipyards if the vessel's BWMS malfunctions or no onboard BWMS is installed.

The unit provides ports, terminals and yards with an ability to offer the vessels a unique contingency or scheduled service, so the vessels are not operationally delayed when the ballast water has to be treated.

Vessel and offshore solution

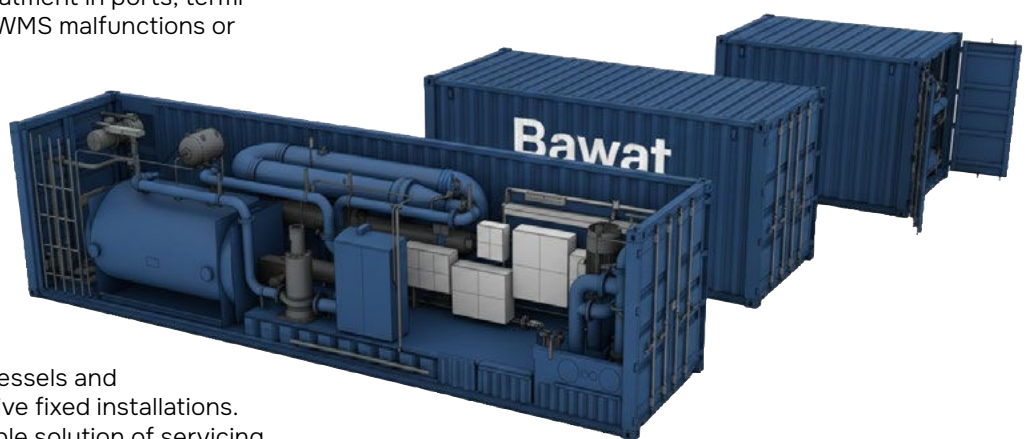
The Bawat Mobile BWMS enables vessels and offshore platforms to avoid expensive fixed installations. Bawat provides owners with a flexible solution of servicing several vessels with only one Bawat unit.

How it works

The unit is easily connected to the ballast water piping.

The pasteurisation process in the mobile solution is identical to the ship solution, however, in addition to the ship solution, a boiler is installed as a heat source.

All components of the BWMS are installed in a standard container.



Model	Capacity
Bawat 35	35 m ³ /hr
Bawat 100	100 m ³ /hr
Bawat 300	300 m ³ /hr

Key benefits of our BWMS



No Chemicals

No more expensive chemicals and no impact from brackish water.



No Filters

No expensive filter maintenance and offhire.



No UV

Challenging water no longer an issue. No more reactor cleaning.



Independent of Water Quality

Works efficiently in all water conditions - no impact from turbidity, salinity, or temperature.



No Holding Time

One pass neutralises all organisms (D-2 Compliant).



No Impact on Cargo Operations

By-pass the BWMS during cargo operations. IMO and US Coast Guard Approved.



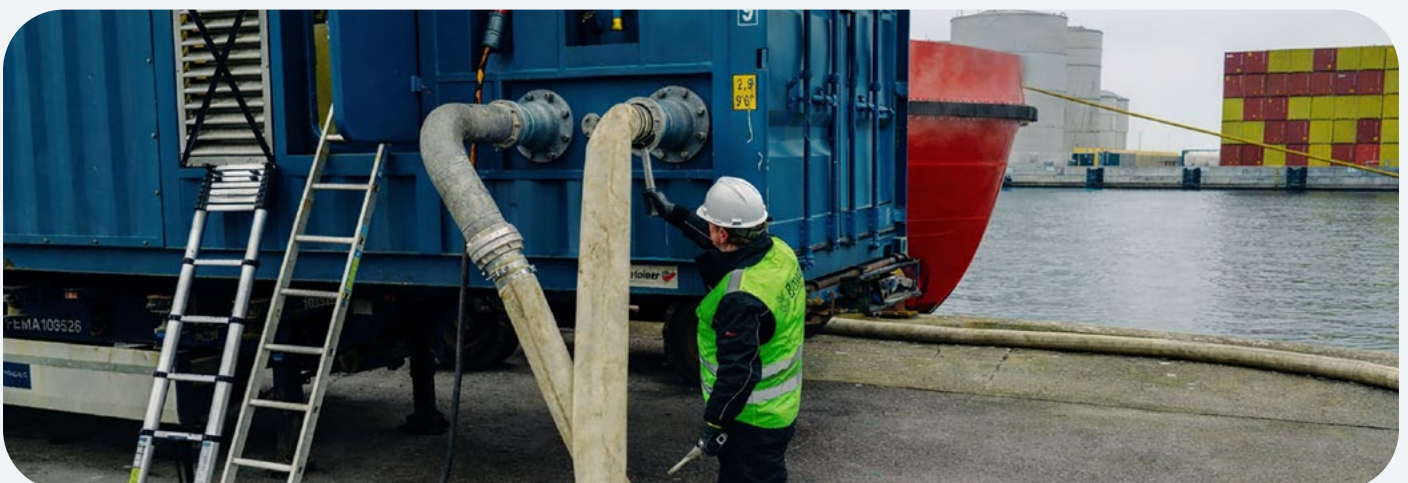
No Expensive Sensors

No TRO Sensors, UV Intensity & Transmittance Sensors or Turbidity Sensors. Our system only uses Temperature and Pressure sensors.



Heat Based

Uses pasteurisation - simply heating the water to remove invasive species and pathogens - a simple and proven solution.



About BAWAT A/S:

Bawat A/S provides compliant ballast water treatment solutions for the maritime industry. Founded in 2011, Bawat is rooted in the strong tradition of Danish maritime innovation. All systems are designed in Denmark, reflecting a focus on quality, reliability, and long-term performance.

Bawat is committed to improving the ecological well-being of the world's oceans through innovative, sustainable technology for the maritime industry.

Bawat has been listed on the Nasdaq First North Market in Stockholm since March 2022.



Contact us:

We are based out of our head office in Copenhagen, Denmark and work closely with local agents and partners covering most of the world to service local needs and expectations.

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