



ERMA FIRST



ERMA FIRST FIT BWTS

THE INDUSTRY LEADING BALLAST WATER TREATMENT SYSTEM



www.ermafirst.com



TANKERS

CONTAINERS

BULK CARRIERS

RoRo / PASSENGER

LNG CARRIERS

YACHTS

OPERATION

ERMA FIRST FIT BWTS is a full flow electrolytic system that operates only during ballasting.

BALLASTING

FULL FLOW ELECTROLYSIS

During ballasting the water passes through a filter to remove organisms and sediment larger than 40 microns.

The filtered water enters the Electrolytic Cell. From the chlorides of the water, free chlorine is produced through the electrolysis process at a very low concentration (around 4-6 mg/L). The treated water then enters the ballast tanks.

DE-BALLASTING

CONSIDERABLE GAINS

During de-ballasting, the system will only monitor the residual oxidants and will only intervene if necessary. The main stages of the system (filtration and disinfection) are bypassed.

A Total Residual Oxidants (TRO) sensor tests the residual chlorine at the discharge line. If it is greater than 0.1 mg/L, a dosing pump will deliver the correct dosage of neutralizing agent (Sodium Bisulfite). Successful neutralization of free chlorine is confirmed by a second TRO sensor installed at the end of the ballast discharge line.

SYSTEM

ERMA FIRST FIT BWTS is an autonomous and reliable solution for all types and sizes of vessels.

ERMA FIRST FIT BWTS is an advanced modular system that was developed to exceed all the special installation requirements for either newbuild vessels or any retrofit projects. The major components of the system include a high-end backwash filter and an electrolytic cell with outstanding performance. Covering an extensive capacity range of 50-3740 m³/hr and certified for operation in the most challenging conditions by the IMO, USCG and classification societies, ERMA FIRST FIT BWTS is an ideal solution for all types and sizes of ships.



SEPARATION

40 microns self-cleaning automatic screen filter (three options available)



DISINFECTION

Advanced quality Electrolysis Cells

HANDS-ON TRAINING ON ERMA FIRST BALLAST WATER TREATMENT SYSTEM

High-end training programs tailor-made to cover all needs.

The ERMA FIRST training centers are located in Perama, Greece and Manila, Philippines.



FULLY CERTIFIED

IMO & USCG type approved, suitable for all water types



EFFECTIVE DISINFECTION

Continuous R&D on electrochemistry for innovative applications



SMALL FOOTPRINT

Developed to exceed all special installation requirements



SMART SAVINGS

Competitive CapEx & low OpEx costs

TECHNOLOGY

The success of ERMA FIRST FIT BWTS lies in its simplicity and proven technology followed.

ERMA FIRST FIT BWTS incorporates the most reliable and efficient filtration followed by a state of the art disinfection stage. Mechanical separation refers to a 40 microns automatic backwashing filter. The disinfection stage takes place in the special for ballast water treatment electrodes, providing the appropriate amount of disinfectant agent whilst using minimal power. A special coating is applied on the electrodes, which are designed to minimize the production of harmful byproducts and have an extend service life by at least 5,000-6,000 hours*.

*Normal operation at 30 PSU Salinity.



ERMA FIRST FIT BWTS BENEFITS

Simple and flexible

Suitable for all spaces and pump capacities

Zero holding time

Ballasting fresh water @0 PSU

Expanded operational flexibility

METIS remote data monitoring (optional)



ERMA FIRST ADVANTAGE

45+ years of experience

3,500+ vessels served

Wide experience of enroute installations

24/7 technical support

Worldwide service network

Best-in-class turnkey solutions



CERTIFICATIONS



IMO
Type Approval



USCG
Type Approval



China
Type Approval



Korean
Type Approval



LR Class
Type Approval



Certification
ISO 9001



Certification
ISO 14001

AWARDS



Technical Achievement
Award 2013



Technical Achievement
Award 2023



Technology Award
2016



Sustainability Award
2023

NETWORK

ERMA FIRST serves ships internationally through an expanding sales agents, service and spare parts network. For further information or enquiries please do not hesitate to contact us at sales@ermafirst.com.

SALES NETWORK

- Belgium
- Brazil
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- Denmark
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- France
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- Greece
- Hong Kong
- India
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- Latvia
- Lithuania
- Netherlands
- Norway
- Poland
- Portugal
- Romania
- Singapore
- Spain
- Sweden
- Taiwan
- Turkey
- United Arab Emirates
- United Kingdom
- United States of America

SERVICE STATIONS

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- Latvia
- Cyprus
- Poland
- Romania
- Ukraine
- France
- Germany
- Portugal
- ARA Region
- MIDDLE EAST**
- All Middle East Ports
- India

ASIA

- China (all ports)
- Korea
- Japan
- Singapore

AMERICAS

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OCEANIA

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