



JOCHEN DEERBERG
BUSINESS CONSULTANCY

DEERBERG-SYSTEMS

DEERBERG-TRADING

**SERVICE &
REFIT DIVISION**



DEERBERG MAIN OFFICE
Moltkestrasse 6a
D-26122 Oldenburg
Germany
Tel.: +49-(0)441-973 57-0
Fax: +49-(0)441-777 337
Mail: info@deerberg-systems.de

established 1979
Company Planning, Marketing
Organisation, Sales
Discussion partner for Executives

established 1982
Technical Analysis, Design, Supply of partial or complete
Concepts and Equipment for Waste Handling on board Ships

established 1985
Cabin Safes, Minibars, Door Locking Systems

Contact: Capt. Frank Heitkötter
Manager Service & Refit Division
Moltkestrasse 6a
D-26122 Oldenburg
Germany
Tel: +49-(0)441-973 57-0
Fax: +49-(0)441-973 57-33
frank.heitkoetter@deerberg-systems.de



**DEERBERG
SYSTEMS**

Waste Management

Integrated Solutions for Navy Vessels

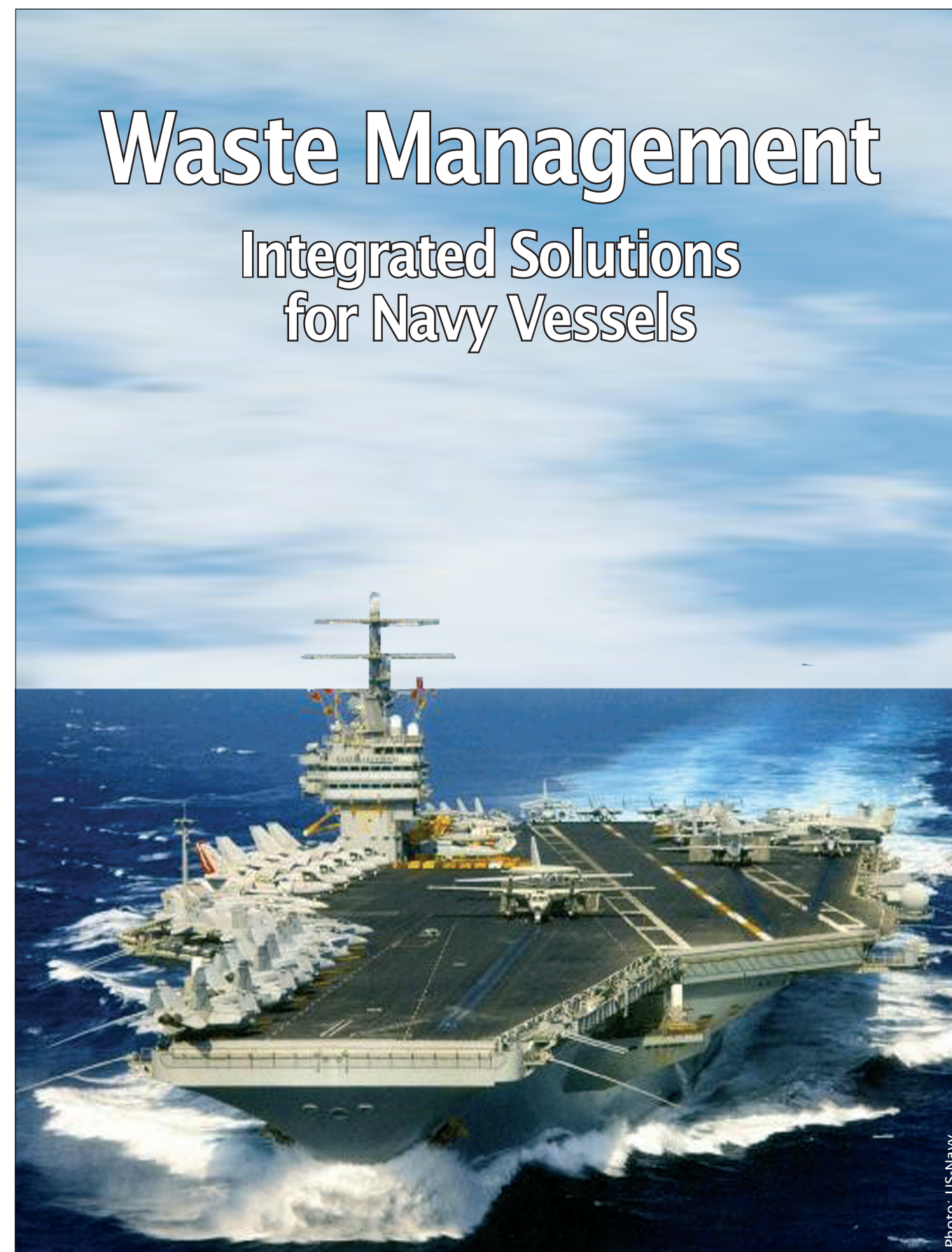


Photo: US-Navy

International Offices



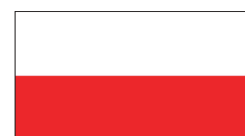
DEERBERG FINLAND
TAMMISAARI OFFICE
established 1993
Wiola Talvi
Tel: +358-19-208-773
Fax: +358-19-208-774



DEERBERG USA
MIAMI OFFICE
SERVICE & REFIT AMERICA
established 1992
Hugo Cabrera
Collins Ave. 16100, #108
Sunny Isles Beach
Florida 33160, USA
Tel: +1-305-949-6391
Fax: +1-305-949-0314
Cell: +1-305-778-8351



DEERBERG UK
LONDON OFFICE
established 1992
Tel: +44-207-266-2607
Fax: +44-207-289-4260



DEERBERG POLAND
GDANSK OFFICE
established 1992
Jurek Tylkowski
Uliza Kollataja 4F
83-200 Starogard
Poland
Tel: +48-58-562-0790
Fax: +48-58-562-0790
Cell: +48-60-444-5087



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**Deenberg supplies Quality
in Tradition for 250 years**

Waste Management - Integrated Solutions for Navy Vessels



Solutions for Solid Waste



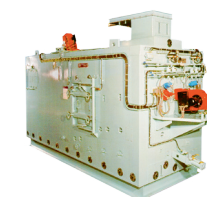
The Deerberg Glass Crusher GC 40 – a flexible solution for medium-sized ships



The Deerberg Bale Compactor 75 VL offers great performance in volume reduction



The Deerberg Densifier D 20P is a field-tested solution for compacting tins



Deerberg Incinerator DI 1500 delivers unrivaled performance with Movable Grate technology

For more than 25 years Deerberg-Systems has gathered valuable experience in Maritime Waste Handling – especially in the area of recycling and incineration of solid waste.

Based on this knowledge, we have selected a range of products that are especially suitable for use on Navy vessels.

Our Solid Waste Treatment System is fully integrated and includes equipment for any type of garbage. There are solutions to simply collect, compact and sterilize waste for later disposal in port, as well as integrated solutions that make use of Deerberg's most advanced technology either incineration, or the new plasma technology. Obviously, the thermal treatment on board will significantly reduce the amount of waste that needs to be disposed of, while the ship is in port. In addition, a ship that uses an incinerator gains extra operational flexibility – a crucial factor for naval concerns.

Plasma Waste Destruction

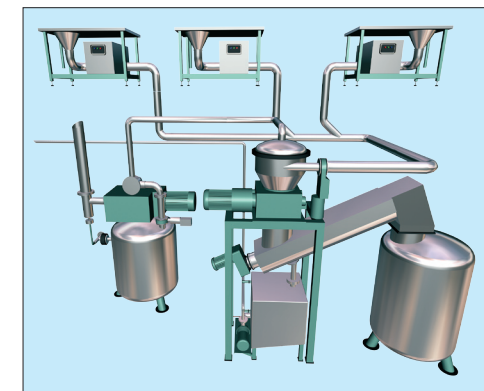
PLASMA KING is the latest in a row of Waste Management Innovations brought on the market by Deerberg-Systems within the past 25 years. Compared to conventional Incineration Systems, the Plasma Waste Destruction Technology offers multiple advantages. The drastically reduced weight as well as the size of the Plasma System make it very attractive for retrofits as well as for new builds. A normal sized system can be installed in a 1-deck arrangement – compared to 3-5 deck arrangements – providing additional space for other operational aspects.

Compared to traditional incineration systems, the plasma technology provides the following advantages:

- **Less installation weight**
- **Less installation volume**
- **Better flue gas emissions**
- **Shut-down in 10 minutes**

Solutions for Food Waste

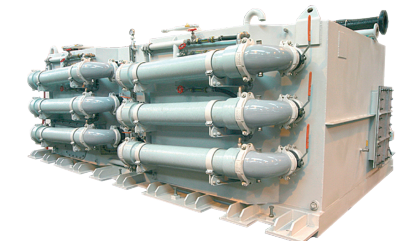
Deerberg's food waste vacuum transport and processing system Devatec® prevents malodours as it is based on a vacuum pump principle, creating the necessary vacuum to transport the waste from the feeding station to the processing unit. Compared to food waste grinders or pulper systems, vacuum systems save precious water and is less maintenance intensive. The waste will be shredded, the surface water separated, residuals are stored in a holding tank. Deerberg provides solutions for any type of naval vessel.



Typical Devatec® System with feeding station, vacuum unit, processing unit and holding tanks

Solutions for Liquid Waste

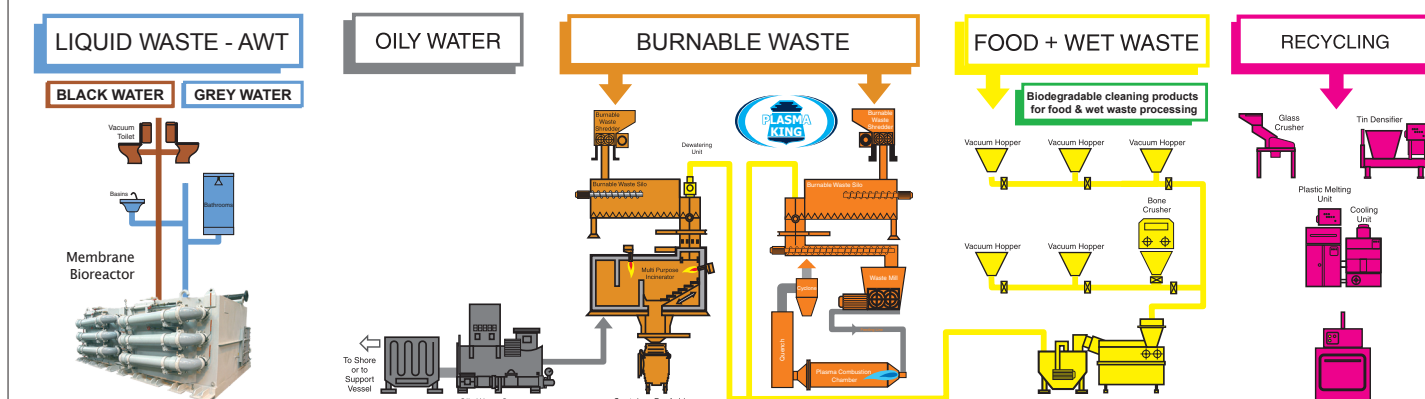
The Deerberg-Hamworthy AWWT-System (Advanced Waste Water Treatment) for Grey and Black Water uses membrane bioreactor technology. The AWWT-Systems are available in different sizes and offer the following advantages:



The Deerberg - Hamworthy Membrane Bioreactor has a small footprint and can even be used on Frigate-class vessels

- Quality of treated water meets (or exceeds) strictest regulations
- System allows treatment of all different types of waste water
- Treated water is hygienically safe, no dosing chemicals needed
- System ensures robust and reliable operation under all conditions
- Small footprint, modular, flexible
- Can be integrated with other waste management components
- Safe treatment of effluent from Oily Bilge Water Separator

Deerberg Waste Treatment Systems and Components have been installed on 64 Navy vessels, 131 large passenger ships and more than 600 other ships



The Deerberg Complete Green Ship Philosophy 21® for Naval Applications
Solid, Wet & Liquid Waste Treatment Solutions

Photos: Hamworthy, Deerberg-Systems

