AALBORG INDUSTRIES

Green Technology

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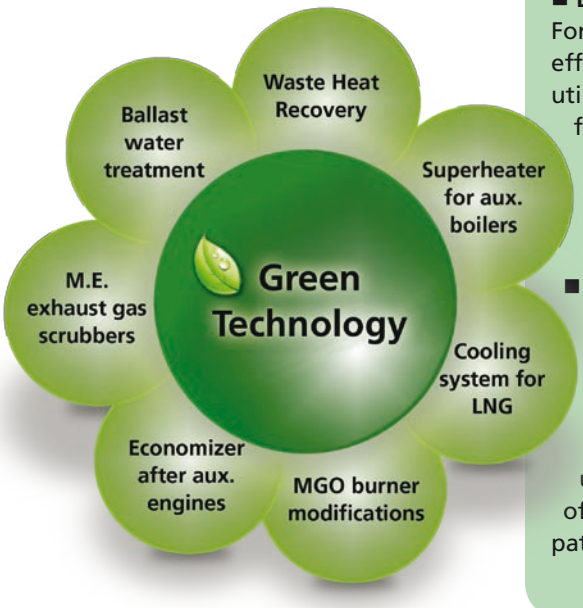
Overview of green and cost-saving technology from Aalborg Industries

As market leading manufacturer of highly efficient and environmentally friendly equipment for the maritime market such as marine boilers and heat exchangers, thermal fluid systems and inert gas systems, the Aalborg Industries Group develops new green solutions to support our customers in building and operating their commercial fleet to the highest standard for low environmental impact.

During 2009, Aalborg Industries will release more detailed news about our green technology products.

Green Technology teams

Aalborg Industries has established engineering teams to concentrate on new product and retrofit solutions that meet and exceed the requirements for more environmentally friendly sea transportation today and in the future. This can be achieved while upholding our usual motto of designing safe and user-friendly systems that have a long service life and a good operating economy.



Shortlist of Aalborg Industries' green solutions 2008 onwards

■ **WASTE HEAT RECOVERY *)**
New and more efficient exhaust gas Waste Heat Recovery systems utilizing the heat in the exhaust after diesel engines or gas turbines to further improve the total efficiency of the propulsion plant.

■ **M.E. EXHAUST GAS SCRUBBERS *)**
Exhaust gas scrubber system after diesel Main Engines significantly reducing the sulphur oxide (SO_X) emission as well as emission of particles.

■ **ECONOMIZER after aux. engines**
For new installations or retrofit, an efficient exhaust gas economizer utilizing the heat in the exhaust gas from the auxiliary engines during port stays will significantly reduce the oil consumption for the oil-fired boiler.

■ **BALLAST WATER TREATMENT**
In a joint venture with Aquaworx, Germany, Aalborg Industries will develop ballast water treatment equipment meeting IMO regulations to prevent, minimize and ultimately eliminate the transfer of harmful aquatic organisms and pathogens.

■ **SUPERHEATER for aux. boilers**
Installing a superheater on an auxiliary boiler will increase the efficiency of the cargo pump turbine substantially and reduce the fuel consumption and emissions during discharge operation on crude oil carriers.

■ **MGO BURNER MODIFICATION**
Aalborg Industries is developing a solution to facilitate safe and easy switching between fuels from HFO to MGO or MDO and back as required in ports in Europe and USA. Firing with MGO in ports is required to limit emissions of sulphur oxides (SO_X) as per IMO, US and EU regulations.

■ **COOLING SYSTEM for LNG**
Aalborg Industries Inert Gas Systems has developed a new cooling system for LNG carriers using a mere 10% of the usual quantity of Freon while also using the new, environmentally friendly Freon type.

) These products are part of the Danish **Green Ship of the Future project - in cooperation with among others MAN Diesel, A.P. Møller-Maersk, Odense Steel Shipyard, Force Technology, DTU, APV and Desmi.*

Green Technology is published by Aalborg Industries and deals with environmentally friendly solutions.
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