



The New Wave of 'Green Marine' Technologies

The IMO's 2030 targets of reducing carbon footprint by 40% for the global maritime sector is within reach! You can significantly lower your vessel's emissions with the Ecochlor Technology Group bundled approach to green marine technologies.

Our tailored solutions comprising a mix of energy efficient technologies can already achieve more than 40% reduction of your ship's CO₂ emissions – allowing you to reach your climate action goals easily and quickly, whilst at the same time lowering operating costs and maintaining high standards of performance and reliability!



EcoOne® Ballast Water Management Systems

Say good-bye to energy-draining, outdated BWMSs with the EcoOne® filterless system or with hybrid options. The EcoOne® is a simple yet reliable BWMS that is unparalleled in power efficiency within this industry as the system uses an incredible 10kW power to treat ballast water flow rates of 3500 m³/h, whilst electrochlorination BWMS can use up to 500 kW. Treatment flow rates are approved for up to 16,200 m³/hour and features low pumping rates, making it energy-efficient throughout the entire ballasting operating. The EcoOne® does not require secondary treatment or neutralization prior to discharge. The potential for gravity ballasting and de-ballasting further reduces energy usage for ballast pumps.



Scrubber and/or Carbon Capture & Storage

Sinotech's flexible scrubber and/or CCS option offers a cutting-edge solution to reduce carbon emissions in the most efficient and economical manner. Its technology is proven, with more than 50 land-based systems currently in operation. Sinotech stands out as a leader in the field of CCS, with its ability to capture 25% to 35% of total CO₂ from fuel whilst requiring just 8% of energy for operation. Besides the innovative energy recovery design, the amine recovery at a 25% lower temperature compared to the industry standard, that saves even more ship power. Sinotech's exceptional performance can improve a ship's CII ratings by as much as two grades and its versatility makes it suitable for any vessel type and size.



Passive Air Lubrication System

Armada has taken compressors out of the loop in their new second-generation "passive air lubrication system" (PALS). Instead, this system utilizes the forward motion of the ship to draw air from the deck and to create a specific air:water mixture. This means that the required equipment is limited to blowers plus some small capacity water pumps when operating in sub-optimal conditions. As a result, Armada's PALS requires much less power to achieve an optimal operation whilst offering far greater control over a wider range of operating conditions. PALS compressor-less air lubrication system, incorporates significant improvements and enhancements over current, first-generation systems.



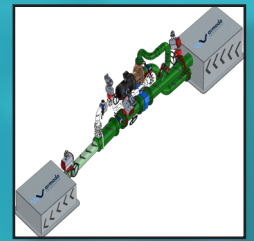
Gas-freeing Fuel Tank Technology

Traditional de-gassing methods require expensive tank cleaning and disposal processes that significantly contribute to pollution and pose serious risks to the crew's safety. Using a NanoVapor unit suppresses volatile organic compound (VOC) formation very quickly. After a single venting, the fuel tank is safe to enter and remains that way for a lengthy period of time. Afterwards, the tank can be directly refilled. However, de-gassing *without a NanoVapor unit* is a very different story. Everything has to be fully drained, including bottom sediments and then properly disposed of in an eco-friendly way. Additionally, prior to entry, venting is required with VOCs polluting the environment.

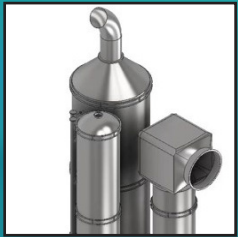
In today's world, where sustainability and environmental responsibility are top priorities, keeping things the "old" way simply isn't an option. Through our green initiatives you can reduce carbon emissions to ensure your fleet remains in regulatory compliance and competitive in a highly dynamic industry.



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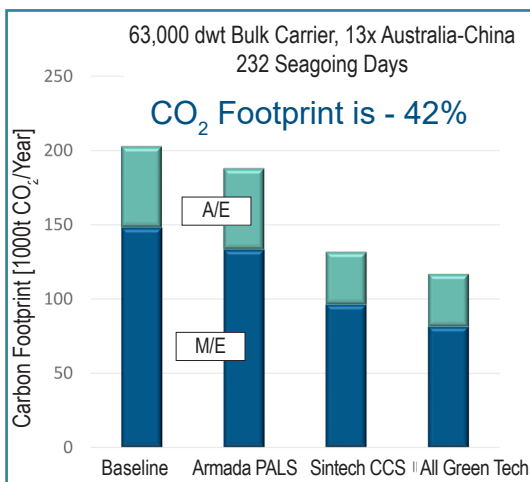


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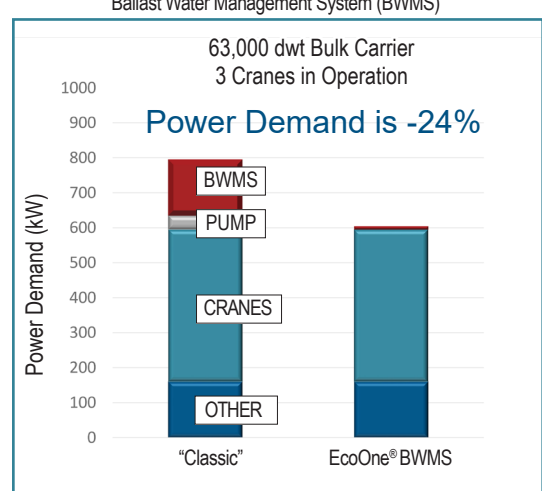


Don't wait any longer to take action, contact us now!
By implementing our EEXI technologies and other options, you can significantly lower your carbon emissions by as much as 42% and enjoy more energy-efficient and cost-effective shipping operations.

Total CO₂ Footprint



Cargo Operations - Ship to Shore Power



Incorporating our energy-efficient products into your shipping operations will result in decreased environmental impact and energy consumption. This is not only great for the environment, but will also improve the public perception of your company's responsibility and sustainability initiatives. Contact us to learn more!



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