Combining **expertise**

A long-term collaborative partnership can enhance marine electrification projects

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Oswald produces electric motors and generators used in the propulsion drivetrains of vessels including the Sendo Liner (above) and the NZK Pont 100 (below)

For around 10 years, the partnership between Miltenberg-based Oswald Elektromotoren and Rotterdam's Hybrid Ship Propulsion has been a cornerstone of the advancing field of marine electrification. This enduring collaboration combines Oswald's deep-rooted expertise in developing and manufacturing high-performance electric motors and generators with Hybrid Ship Propulsion's innovative system integration capabilities for hybrid and electric drive solutions in the maritime sector. The result is a synergy that has consistently delivered cutting-edge, efficient and sustainable propulsion systems for more than 100 projects.

Oswald, a company with a long and distinguished history in electrical machine engineering, brings to the table a deep understanding of motor design, manufacturing precision and robust construction vital for the demanding marine environment. The company's custom-engineered electric machines are known for their reliability, high power density and optimized efficiency across various operating conditions. For marine applications, these characteristics are paramount, ensuring not only performance but also longevity and reduced operational costs. Oswald's commitment to quality and its ability to tailor solutions to specific project requirements have been instrumental in this successful partnership.

Hybrid Ship Propulsion excels in conceptualizing, designing and integrating complete hybrid and electric propulsion systems, together with partners in the market for inland, coastal and offshore vessels. Operating from the heart of Europe's maritime industry in Rotterdam, the company possesses expert knowledge of vessel operations, regulatory requirements and the practical challenges of transitioning to greener propulsion. Hybrid Ship Propulsion's role involves selecting the optimal components, including the electric machines, power electronics, energy storage systems and control software, to create a cohesive and highly efficient solution. This holistic approach ensures that the Oswald motors are seamlessly integrated into a larger, intelligent system, maximizing their potential.

The collaboration typically unfolds with Hybrid Ship Propulsion identifying a client's specific needs and developing a preliminary system architecture. The team then works closely with Oswald to specify and refine the electric motor and generator requirements. This iterative process often involves Oswald developing bespoke motor designs that precisely match the power, torque and speed specifications of the propulsion driveline. From ferries and inland waterways ships up to offshore support vessels and yachts, the partnership has successfully delivered solutions that significantly reduce fuel consumption, emissions and noise levels.

A key aspect of this successful collaboration lies in the open communication and mutual trust between the two companies. Technicians and engineers from both sides frequently exchange knowledge, troubleshoot challenges and collectively push the boundaries of what is possible in marine electric propulsion. This integrated approach ensures that the final product is not merely a sum of its parts, but a truly optimized and high-performing system.

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The commitment to innovation, coupled with a shared vision for a more sustainable maritime industry, has solidified this alliance over the years. As the demand for cleaner shipping solutions continues to grow, the combined strength of Oswald Elektromotoren and Hybrid Ship Propulsion stands as a testament to the power of specialized expertise working in concert for a greener future on the world's oceans and waterways.

Oswald
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