

Crestwing Advances Offshore Wave Energy Delivering ~16% Savings

ON ENGINEERING TIME AND RESOURCES



**\$11.4K IN
ENGINEERING
COSTS AVOIDED**



**120+ HOURS OF
APPLICATION ENGINEERING
SUPPORT PROVIDED**



CUSTOMER CHALLENGE

For more than 20 years, Crestwing has been developing and testing its wave energy technology and powertrain. The previous powertrain was tested offshore for over 10,000 hours, generating valuable experience and operational data.

As Crestwing moved from a 20 kW generator to a 120 kW generator, the powertrain had to be upgraded to handle much higher forces. Where the earlier system saw peak loads of around 20 tons, the new design must withstand forces of up to 50 tons.

This created a new engineering challenge: selecting and sizing components that could reliably handle these higher loads while still protecting the rest of the mechanical system.

OUR SOLUTION

Regal Rexnord invested considerable engineering time and expertise to understand Crestwing's technology and the specific requirements of the upgraded powertrain.

Working closely with Crestwing, the Regal Rexnord team helped identify a suitable gearing solution and collaborated with multiple suppliers to source components capable of meeting the demanding load specifications.

A key part of the solution was introducing a hydraulic clutch with an integrated torque limiter. This protects the powertrain by ensuring that the loads transmitted through the system stay within the defined maximum limit.

Regal Rexnord coordinated the supply of the gearing, hydraulic clutch, and torque-limiting solution and helped ensure all components would operate together seamlessly within Crestwing's broader powertrain design.



The solution included: Falk™ Gearbox, Stromag™ Hydraulic Clutch, Rexnord™ Autogard™ Torque Limiter, Rexnord Thomas™ Coupling, and Tollok™ Shrink Discs

CUSTOMER IMPACT

The upgraded powertrain brings together components and systems from several partners. Within this larger setup, Regal Rexnord took responsibility for a critical part of the drivetrain and contributed engineering expertise to address the challenges associated with the increased loads.

For Crestwing, the value of this partnership extended beyond the breadth of the Regal Rexnord portfolio. It also included the time and engineering resources invested in understanding the application and working closely with the customer to develop a practical, robust solution.

The result is an important step in the continued development and scaling of Crestwing's powertrain, with Regal Rexnord providing key components and engineering support for the upgraded system.



Savings are based on an estimated 120 hours of engineering support valued at \$95/hour. The reported 16% savings reflects approximately \$11.4K in avoided engineering costs relative to a \$70K purchase order. Actual results may vary by application.

You have challenges. We have solutions.

To solve your critical challenges, it is essential to partner with a **global company** with **local resources**, **reputable brands**, and a **proven history** of delivering cost-efficient solutions.



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