

Siemens Answers for Army Watercraft

2 June 2014

As a leading solutions provider to the maritime industry, Siemens offers Commercial Off The Shelf (COTS) power management, drives, motors, fire alarms, security systems, gearboxes, condition based monitoring, and integrated solutions for work boats, ferries, fishing vessels, platform supply vessels, dredges, and research vessels that can also be used to modernize Army watercraft.

The Siemens [Blue Drive](#) power management systems reduces fuel consumption, greenhouse gases and NOx emissions by allowing gensets to operate at their most efficient loading and turn off unnecessary diesel generators. By combining the switchboard, transformers, and converters into one box, the system saves up to 30% space required on a platform supply vessel sized boat. Improved redundancy and efficiency is achieved by dual feed thrusters which are further protected by bus tie breakers that operate 20K times faster than traditional breakers. As opposed to fixed diesel engines which operate most efficiently at very high loadings, the [Blue Drive](#) system achieves optimal fuel consumption at all loadings by varying the genset configuration. Increased flexibility is achieved because the system enables different engine types and numbers to be integrated into the design with the option to also install batteries. Battery integration into the [Blue Drive](#) System reduces power consumption, provides power peak shaving, and enables generator bridging. The result of this configuration flexibility is decreased fuel consumption, reduced greenhouse and NOx gas emissions, operational flexibility, and reduced maintenance costs.

Siemens also has technologies outside the propulsion system that increase performance. Other propulsion [Drive systems](#) for dredge pumps and cranes reduce fuel consumption and increase up time.

Additionally, Siemens offers USCG approved [Fire Alarms](#) for shipboard applications and other [security](#), [electrical](#) and [energy savings](#) platforms. The current MXL and Desigo [Fire Alarms](#) use advanced detectors that are networked and support the full spectrum of early warning detectors, sensors and emergency communications protocols. Our next generation of fire alarm and security products will be backward and forward compatible with existing systems that are deployed. In addition, Siemens [Demand Flow™](#) is a comprehensive chiller and related mechanical optimization technology proven for drastic energy savings and rapid payback on investment. Our [Electrical Services](#) and [Retro Commissioning](#) helps restore new conditions to various control and electrical equipment. We have also implemented shipboard [automation systems](#) to reduce required manning.

For applications requiring high operational availability, [the Siemens condition based maintenance system](#) allows operators to move from reactive and preventative maintenance to condition based maintenance. This is achieved by installing sensors on all rotating shafts, temperature, pressure, and fluid level indicators to monitor frequencies of the rotating equipment to ensure that they stay within operating limits. As vibrations, temperatures, pressures, and fluid levels approach operating limits, the operator is notified to plan for future maintenance.

The most important aspect of the Siemens value proposition is the [consultative approach](#) of our Marine engineers. By identifying the operational and fiscal requirements up front, our engineers are able to deliver the best products from across the depth and breadth of Siemens and also non-Siemens products into a customized solution. With a service organization in 190 countries, Siemens can support customer service needs around the globe. With over 185 references of low voltage propulsion solutions for the offshore vessels, ferries, tugs, dredges, passenger vessels, fishing boats, and product tankers; Siemens offers affordable COTS solutions that meet or exceed modernization requirements for Army watercraft.

For additional information, please contact:

Frederick Latrash
VP, Strategy
Siemens Government Technologies
Frederick.Latrash@siemensgovt.com
Office 202-680-0182