

**CONTROLLING THE FUTURE
QUANTUM'S LATEST**

5000S **CONTROL**

IT HAS TO BE
Quantum
MARINE STABILIZERS



5000S / E6 HMI – Compatible with the Electric Stabilizer - e-FIN

Quantum's control systems constitute the "intelligence center" leveraging proprietary algorithms to detect and interpret real-time fluctuations in vessel dynamics.

Controlling the Path Forward

Since 1985, Quantum Marine Stabilizers has prioritized innovation as a cornerstone of their strategic vision, leading to five patents, and two currently pending. The latest products are razor focused on sustainability, energy recovery and efficiency.

In recent decades, advancements in control system technology has profoundly transformed marine stabilization capabilities. Controls are the "brains" that direct all stabilizer functionality, including power and pressure requirements, fin movement and ultimately optimizing system performance.

Key Features of the 5000S

Latest Control Technology

- Easy and seamless transition between Underway to Zero Speed™.
- Controller automatically transitions without the need for a manual input.
- Adaptive Zero Speed™ control algorithm improves performance during short wave periods.
- The 5000S can automatically detect the roll period, and seamlessly adjust the settings to combat the roll, for an ultra-smooth ride.

Operational Advantages

- HMI is designed for more intuitive UI experience and simplified operation.
- The fin "centered" position can be customized for Zero Speed™ and Underway mode.
- The closed loop algorithm is now integrated into the main controller, improving system response time.
- Zero Speed™ Eco-mode ensures less fin action in calm conditions, saving power and operational costs.
- Stabilizer data can be seamlessly exchanged with a Glass Bridge Interface.

Modular system architecture allows for easy integration between existing and new stabilizer systems.

- Fins and rotors can be individually activated and directed, from the main controller, minimizing the roll and ensuring safety, when deploying tenders, jet skis or submarines.
- Auto mode gains are numerically displayed for reference. Those gain values can then be applied to manual mode, so performance will remain consistent.

Improved Reliability

- Integrated VPN and Viewer– enables secured remote access for software updates, troubleshooting and data recording, without a time delay and/or the expense of a site visit.
- Certified industrial grade controller allows for easy replacement of faulty components versus earlier controls with Printed Circuit Boards (PCB) that required complete replacement.
- The main controller can record inputs, before and after an alarm event, for later diagnosis.
- If signals are lost, affecting other equipment, the feed can be easily redirected from one source to another, through the Captain's Settings Page.
- Alarms and system warnings have a notification option with detailed descriptions.

Easy and seamless transition between Underway to Zero Speed™.

The main controller can record inputs, before and after an alarm event, for later diagnosis.



5000S Standard HMI – Compatible with XT™, MAGLift™ & Dyna-Foil™

Maximum Compatibility

- Modular system architecture allows for easy integration between existing and new stabilizer systems.
- Modern PLC design improves maintainability, replaces outdated PCB components, and enables flexible I/O configuration with modular components.

KEY COMPARISONS BETWEEN THE ARC3000, SMC4000 AND 5000S, CONTROLS

FEATURE	CATEGORY	ARC3000	SMC4000	5000S
Classic look and feel	UX	✓		
HMI	UX		✓	✓
Detailed HPU info on HMI	UX			✓
DynaGain	Performance		✓	✓
Remote Login	UX		Limited	✓
Enhanced auto mode	Performance			✓
Configuration in browser	UX			✓
VNC viewer for HMI	UX			✓
Adaptive ZS mode	Performance			✓
Improved actuator control	Performance			✓
Hourly tracking by mode*	UX		Limited	✓

*Able to track hours separately for underway, zero speed™ and centered position.

