

# Futureproofing Propulsion Performance: OSV Relume Drive & Control System Upgrade



**MJR Power & Automation retrofitted OSV Relume with modern Siemens drives, PLCs and HMIs, improving reliability, diagnostics and futureproofing propulsion performance; delivering a turnkey upgrade that reduced obsolescence risk whilst integrating seamlessly with existing vessel systems and controls.**

**The Offshore Support Vessel (OSV) Relume required a major propulsion upgrade for its existing liquid-cooled propulsion drives. Both port and starboard propulsion systems were at risk of reliability issues, and spare parts availability had become increasingly limited.**

**To ensure continued operational performance and compliance with Class requirements, MJR Power & Automation delivered a turnkey engineering solution, retrofitting the vessel with a modern power & propulsion system.**

**MJR Power & Automation**

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## Scope of Work

- Replacement of outdated propulsion drives with Siemens Sinamics S120 liquid-cooled units. This work included the retention of braking choppers, cooling cabinets, pipework, and protection devices where feasible.
- Replacement of existing PLCs with Siemens S7-1500 PLCs. In addition, this involved the implementation of PLC-drive communication via PROFINET while retaining hardwired safety signals.
- Enhancement of diagnostic capabilities and operator interfaces, with operator control retained at Bridge, ECR, and local Drive Control Panels.
- PLC and drive technology fully integrated with Thruster, DP, and Joystick Control systems via analogue and digital signalling.
- New HMIs for drive cabinets, allowing local operation and diagnostics, plus a 15" graphical touchscreen consoles in the ECR providing status, diagnostics, and alarm history.



The upgrade delivered enhanced reliability, diagnostics, and ease of maintenance through the integration of modern drives, PLC, and HMI systems. This was achieved with seamless integration with existing ship systems, avoiding major rewiring or infrastructure changes.

MJR Power & Automation's power and propulsion upgrade combined technical expertise, lifecycle assurance, and operational reliability, ensuring the Relume remains at the forefront of offshore vessel capability whilst futureproofing its operations.

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