

Vitrek Demonstrates MTI Vibration Signal Generator for Validating Predictive Maintenance Systems at MRO America



Lockport, IL—April 1, 2025 — As predictive maintenance transforms industrial operations, engineers face a critical challenge: verifying that vibration monitoring systems detect faults accurately before real failures occur. At MRO America Booth 3456, MTI Instruments, a Vitrek company, will demonstrate how its 1510A Vibration Signal Generator enables safe, controlled validation of monitoring and protection systems.

Predictive maintenance depends on vibration analysis to identify issues such as imbalance, misalignment, and bearing wear. However, confirming system accuracy without inducing real faults or risking equipment damage can be difficult.

The MTI 1510A addresses this by simulating vibration sensor outputs, allowing engineers to inject realistic signals directly into monitoring systems. This enables verification of system performance, alarm responses, and data pathways without operating machinery.

“Predictive maintenance systems are only as reliable as the monitoring infrastructure behind them,” said Ken Ameika, VP Global Sales at Vitrek. “Signal generators allow engineers to confirm that monitoring systems detect faults correctly before those faults occur in the field.”

Live Demonstration: Predictive Maintenance and System Validation

Visitors at MRO America will see how the MTI 1510A Vibration Signal Generator streamlines critical validation tasks, including predictive maintenance validation through simulated fault signatures, factory acceptance testing, machine protection testing, and hands-on training and diagnostics. The MTI 1510A features a wide frequency range (0.1 Hz–100 kHz), dual synchronized outputs, $\pm 0.05\%$ accuracy, and portable, battery-powered operation.

By enabling fast, safe fault simulation, the 1510A helps accelerate commissioning, improve training, and reduce unexpected failures. MRO America visitors can see the MTI 1510A vibration signal generator in action at Booth 3456.

About MTI Instruments



MTI Instruments, a Vitrek company, provides precision measurement solutions for vibration analysis, rotating machinery diagnostics, and predictive maintenance applications. MTI products are used worldwide in aerospace, energy, manufacturing, and industrial reliability programs to improve equipment performance and reduce downtime.