

WIRELESS VIBRATION ANALYZER FOR SHAKERS

ShakerWatch by Motionics is an advanced iPad-based vibration measurement and analysis tool for vibratory screens and shale shakers.

ShakerWatch features a tri-axial accelerometer with magnetic base that can be attached to any test point on a shaker to measure and analyze vibration motion in three directions.

Wireless Bluetooth connectivity enables safer and more efficient motion and vibration tests for shakers. Innovative wireless technology eliminates wiring and connectors to increase safety, ease of use, and durability.

The ShakerWatch iPad app performs X-Y orbit tests with auto-calculated RPM, G-force, stroke and angle. Bump test, side displacement and support structure vibration tests can be also be performed within the app.

These tests provide invaluable insights into the performance and condition of vibratory equipment, empowering users to make informed decisions swiftly without the need for a deep knowledge of vibration.



BLUETOOTH
LOW ENERGY



WATER & DUST
RESISTANT



BUMP
TESTS



SMART
ORBIT TESTS



TRI-AXIAL
ACCELEROMETER



AUTO TEST
REPORT GENERATION





BLUETOOTH CONNECTIVITY

The Bluetooth Low Energy radio module enables fast pairing and data transmission between the accelerometer attached to the shaker machine and your iPad up to 98ft (30m) away.

TRI-AXIAL ACCELEROMETER

ShakerWatch features an onboard tri-axial accelerometer that measures vibration and motion in three directions simultaneously, streamlining data collection and enhancing testing efficiency.

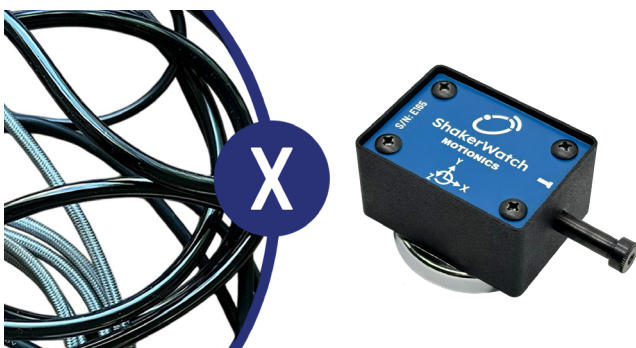


HEAVY-DUTY MAGNETIC BASE

ShakerWatch features a high-strength magnetic base that reliably attaches the accelerometer to any test point on a shaker. The built-in handle grip on the side of the accelerometer enables for easy removal when the test is complete.


ADVANCED DUST & WATER RESISTANCE

ShakerWatch's IP66 rated wireless enclosure offers industrial-grade protection against dust and liquid ingress, enhancing its performance and reliability in a range of challenging environments.



COMPLETELY WIRELESS DESIGN

ShakerWatch's compact and durable design eliminates wires, connectors and other complications making this a safer, more efficient solution for vibration analysis tests. The kit also includes a protective carrying case for secure storage and transportation.

COMPATIBILITY	FEATURES OVERVIEW
 iPadOS	<ul style="list-style-type: none"> • Wireless Tri-axial Vibration Signal Transmission • Orbit Test with Auto RPM, G-Force, Stroke and Angle Calculations • Color-Coded Side Displacement Tests • Attach Test Photos and Notes • Local Database and Test Record Manager • Automatic Sensor Tilt Angle Compensation • Interactive Vibration Waveform, FFT Spectrum, and X-Y Orbit Plot (G-Motion) • Bump Test with Auto Major Frequency Detection • Auto PDF Test Report Generation • Export Test Data in Excel File and PDF Test Report



WIRELESS DATA ACQUISITION & IPAD BASED ANALYZER

With ShakerWatch, vibration data is wirelessly transmitted from the accelerometer via Bluetooth and instantly analyzed on-site using an iPad.

SMART ORBIT TEST

ShakerWatch simplifies orbit tests with intelligent features:

Automatic Sensor Angle Compensation:

- The system detects and compensates for sensor tilt angles automatically, streamlining setup and ensuring accurate measurements.

Smart Data Analysis:

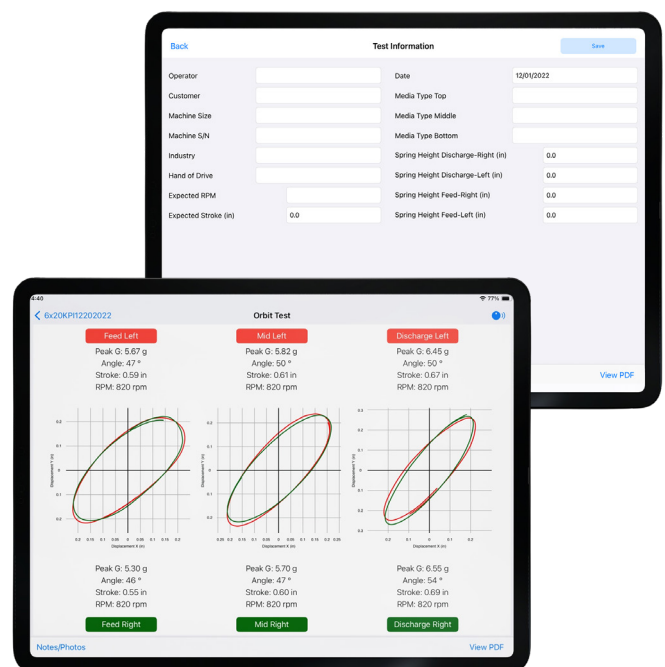
- Using vibration signals, the app automatically calculates key orbit test metrics such as machine RPM, G-force, stroke, and angle.

Interactive Visualization:

- Users gain deeper insights with interactive vibration waveforms and FFT spectra generated for all test points.

Enhanced Orbit Plots:

- X-Y (G Motion) orbit plots are intelligently smoothed for improved clarity, with overlaid plots from both sides of the same end to enable intuitive comparisons.



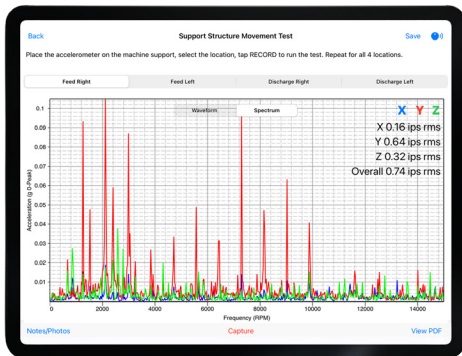


BUMP TESTS

Users can perform multiple bump tests with ShakerWatch quickly, with the option to automatically detect or manually input the machine's primary frequency. This frequency is highlighted on the FFT spectrum along with a user-defined safety band. The system also marks the machine's three major peaks, making it easy to see at a glance whether it's operating within a safe RPM range.

SIDE PLATE DISPLACEMENT TESTS

Nine test points on each side plate are designated for displacement testing. With a single tap, ShakerWatch calculates displacement values and compares them against user-defined thresholds. Results are color-coded for clear, instant interpretation.



SUPPORT STRUCTURE MOVEMENT TESTS

ShakerWatch supports movement testing at four key points on the support structure. Results include vibration velocity spectra along with velocity RMS values for the X, Y, Z axes and overall measurement, providing a comprehensive view of structural behavior.

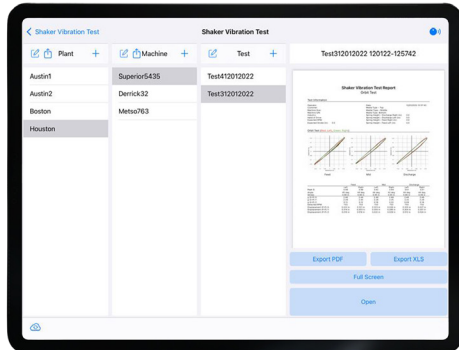
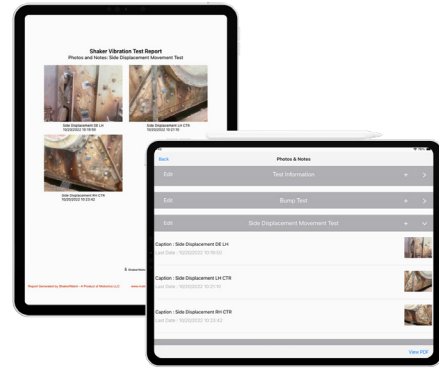
AUTO PDF TEST REPORTS

No more need for manual report generation. The ShakerWatch app automatically generates PDF test reports with just a tap of a button, streamlining the documentation process and saving valuable time and effort.



ATTACH PHOTOS AND NOTES DURING THE TEST

Enhancing documentation, this feature allows users to attach photos and notes during testing, which are then incorporated into the automatically generated PDF report.

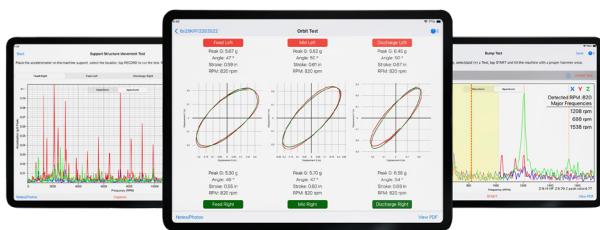
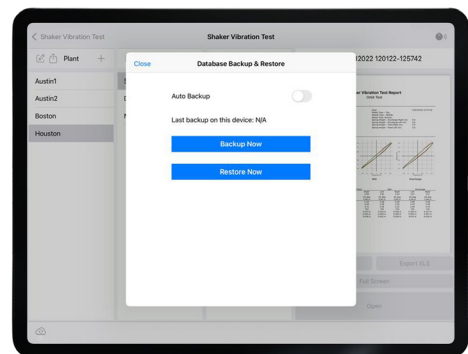


LOCAL RECORD MANAGER

Vertical and horizontal deflection values are calculated and displayed automatically in real time as deflection readings are taken at set test points.

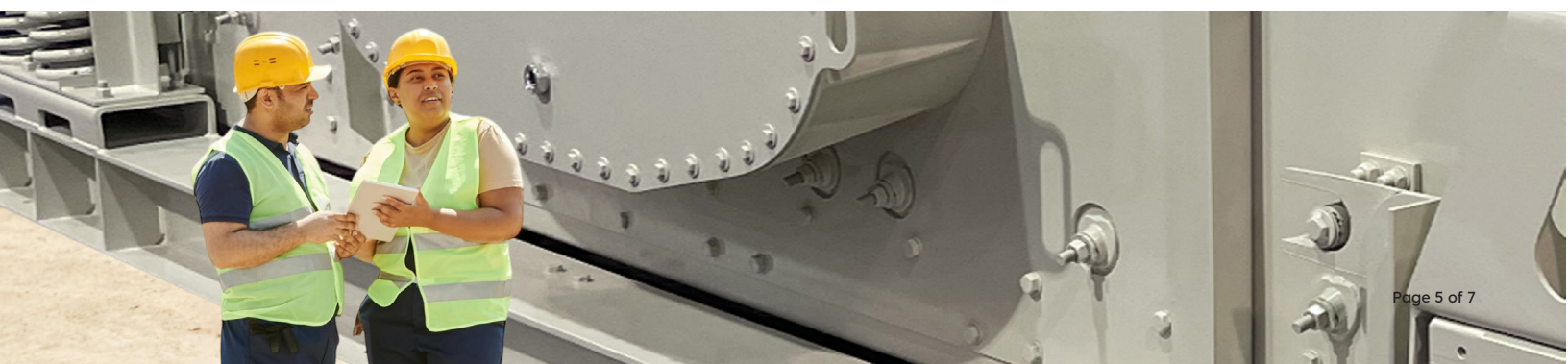
CLOUD BACKUP AND RESTORE

The entire test database can be backed up to iCloud either manually or automatically at user-defined intervals. These online backups can be used to restore data to any iPad linked to the same Apple ID.



EXPORT AND SHARE TEST DATA

Individual test records can be shared as PDF reports or Excel files containing test data. Multiple records can also be exported together as a database file, organized by plant and machine, and imported onto another iPad.

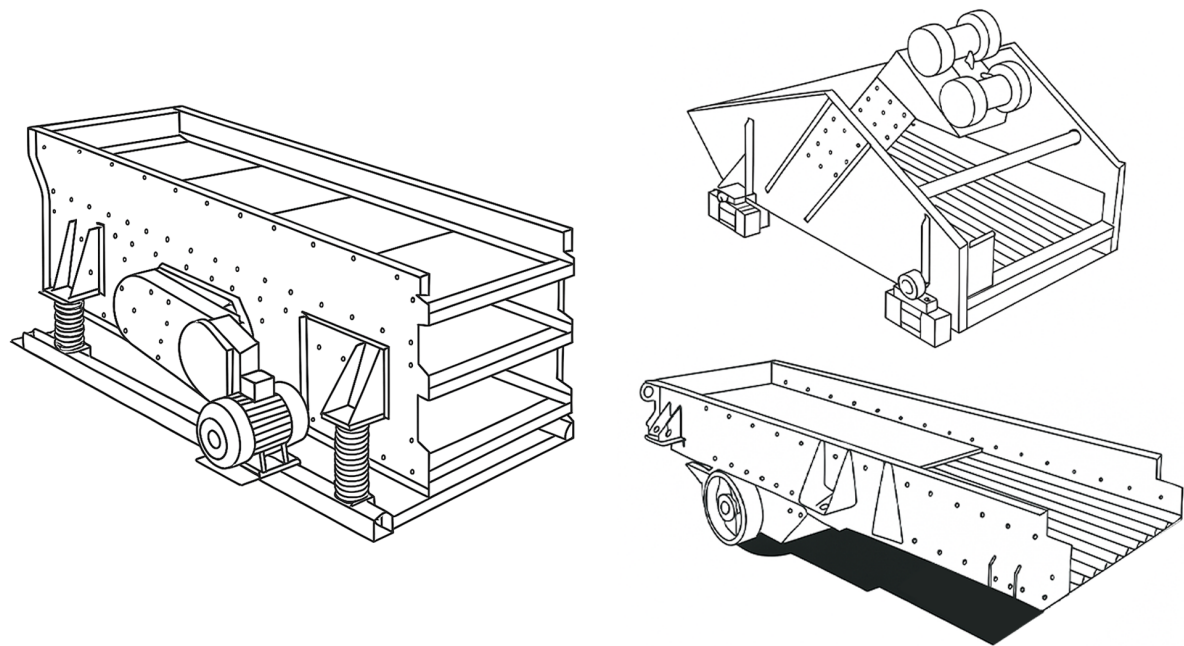


PRODUCT SPECIFICATION

Accelerometer Type	Tri-Axial
Measurement Range	±40g
Resonant Frequency	5500Hz
Sampling Rate	500-4000Hz (adjustable)
Data Block Size	256-4096 samples (adjustable)
Connectivity	Bluetooth Low Energy
Data Transmission Range	98ft (30m)
Weight	0.380lb (172g)
Dimensions	3.2"W x 2.0"D x 1.6"H (81mm x 52mm x 40mm)
Working Temperature	-4 to 140°F (-20 to 60°C)
Dust/ Water Protection	IP66
Magnetic Base	Round 35lb (15.88kg)
Battery	Lithium CR2477 3VDC
Battery Life	500hrs
Software Compatibility	iPadOS

DESIGNED FOR SAFETY, ACCURACY, EFFICIENCY & COMPATIBILITY

ShakerWatch can be used across various industries including aggregate, mining, oil and gas. The device is compatible with all types of shakers and brands including: Superior Industries, Metso, Derrick, Schenck, Weir Minerals and more.





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