FLUKE ®

Reliability

Fluke Reliability vibration monitoring portfolio

Start with a small pilot program, scale and expand quickly

Building a comprehensive vibration monitoring portfolio isn't as complex, time-consuming, or expensive as you may think.

If you start small with a pilot program, cost savings, results, and buy-in can be achieved relatively quickly, paving the way for a more robust, interconnected condition monitoring system.

Because Fluke Reliability has the industry's most extensive array of vibration monitoring and analysis hardware and software, we can help you build a complete system.

Start small

Many maintenance and reliability teams are afraid to embrace a predictive vibration monitoring program because they think it costs too much, takes years, and will be too disruptive to already overburdened teams.

Those misconceptions arose because some teams have tried launching large, costly projects that could take years to produce meaningful results.

Condition–based maintenance focused on vibration monitoring doesn't have to be that hard. If you start with a small incremental approach, you can expand the program over time. A pilot lets you see if your organization is ready to add remote technology and have the connectivity necessary to integrate.

Begin with Fluke's Vibration Monitoring sensor systems

Before you start a pilot program, determine what you want and need to get out of it. Create a targeted strategy focused on goals, hardware requirements, workflow maintenance changes, and determine ending metrics to understand when the pilot is complete.

Step 1: Asset selection

Resist the urge to sensor up a large number of assets. Instead, pick just five to 10 to see how the sensors work in your facility and not too much that you break the bank. Choose different types of assets that give you recurring problems and shut down often. Stay away from throw–away assets as well as those that have never failed.

Step 2: Sensor selection

Consider jumpstarting your condition monitoring program by deploying the Fluke 3563 Analysis Vibration Sensor system and the Fluke 3562 Screening Vibration Sensor system in a single plant utilizing a common software interface, the LIVE–Asset™ Portal.

Why the 3562 and 3563?

Fluke Reliability's newest wireless sensors offer continuous data capture and are easy to install. The 3563 system enables data analysis, while the 3562 system features a batteryless sensor that screens for trends and notifies you to vibration anomalies.

Step 3: Sensor setup

Get your sensors configured, commissioned, and installed as quickly as possible. Don't let maintenance emergencies constantly deter you. Reach out to a specialist at the manufacturer, if needed, and get your team involved so you can show results faster.

Fluke 3562 Screening Vibration Sensor system

The Fluke 3562 Screening Vibration Sensors are batteryless, always-on sensors that send alarm notifications when data thresholds are crossed. This instant notification lets you ignore the 80% of machines operating normally and focus your time and money on important assets needing attention. With easy implementation and minimal upkeep, these intrinsically safe sensors maximize plant uptime and increase maintenance program efficiencies.

Key 3562 features

- Batteryless sensor powered by the Everactive® Edge self-powered circuit and networking technology, holds a charge using a thermoelectric and/or photovoltaic harvester to deliver virtually continuous operation
- Long-wavelength, sub-GHz radio signal facilitates long distance sensor-to-gateway communication, requiring fewer gateways
- Scalable system enables connections of up to 1000 sensors per gateway expanding machine condition monitoring coverage to a broader number of machines, and hard to reach areas
- Triple network connectivity options, LTE, Wi-Fi, or Ethernet, provide flexibility

Fluke 3563 Analysis Vibration Sensor system

The Fluke 3563 Analysis Vibration Sensor delivers a range of features that enable machine performance tracking to fault analysis. Leverage the sensor's software application to generate thresholds automatically based on asset details or enter custom data. Maintenance professionals, regardless of experience, can then gather insights immediately and take time-sensitive steps necessary to avoid unplanned downtime. With this sensor, your maintenance team can wirelessly monitor an extensive variety of production critical machines using just one system.

Key 3563 features

- High-frequency, high-resolution piezoelectric sensor for more in-depth vibration readings, enabling early fault detection
- Dual network connectivity options, Wi-Fi and Ethernet, give users flexibility
- Unique smart battery-management capability that allows for user-determined data transmission rate

Step 4: Gather and analyze data

Look at your data and make sure it works for you. Understand the data that matters most and what it is telling you. If you are getting too much data and have trouble understanding it, reach out to a specialist to learn more about what it means.

The LIVE-Asset Portal software application, depending on what Fluke sensor system you have onsite, helps you monitor a wealth of data via machine health dashboards and trending graphs.

The Fluke 3563 system empowers users to analyze high-frequency data from both banded overall values and narrowband values by capturing: vibration measurements that include RMS and peak-to-peak, time waveform and temperature. It also leverages auto-generated thresholds based on asset details and alarm notifications to help you identify the fault causing a problem.

The Fluke 3562 system enables users to trend both overall values and magnitudes of the nine highest spectral peaks, and temperature. Users can set custom threshold alarms on overall vibration levels, and warning notifications are received via email and/or through the LIVE-Asset Portal. With this capability, users can determine the machine's health and decide which actions should be taken.

You can, with the help of both systems, then decide if further data analysis is required or evaluate critical next-step to spur quick action.

Step 5: Act on data when needed

When your data analysis indicates something is wrong, investigate and take corrective action with your machine. Some sensors are early-warning sensors, and you may have to figure out what's wrong. Other sensors are more analytical, suggesting you need to take corrective action incorporated into a standard work order in a week or a month. The idea is to get the asset back to baseline and understand its health and optimal health.

Step 6: Share your success

To get buy-in to expand your program, it's essential to let your team and leadership know how successful the pilot was. Make sure they know you caught a critical problem that allowed the asset to keep operating or that you lowered its maintenance costs, for example. Sharing successes are vital to growing your program.

Seamlessly expand with Fluke Reliability's vibration portfolio

Fluke Reliability holds the industry's most extensive portfolio of integrated condition monitoring hardware and software tools, with expert support and services.

Once you succeed with the 3562 and 3563 sensor systems and gain buy-in from leadership, you can grow your vibration monitoring program by adding other Fluke Reliability products.

In addition to our suite of handheld vibration screening tools, power monitoring devices, and wireless condition monitoring sensors, we also offer the PRUFTECHNIK line of tools. Designed for more complex machinery, the technologically advanced tools and professional services enable in-depth machine condition data analysis and diagnosis.

	Screening	Analysis
Compare to similar types of sensors (screening or analysis)	**Fluke 3562**	**Fluke 3563**
Key success criteria best practice		
Attachment method	▪	▪
Simple commissioning process	▪	▪
Battery life	▪	▪
Radio range and reliability	▪ Up to 1 km line-of-sight, depending on environment	▪ Up to 100 m line-of-sight, depending on environment
Gateway capacity (sensors/gateway)	▪ Connect up to 1000 sensors	▪ Connect up to 20 sensors
Configuration ease	▪	▪
Richness of visualization	▪	▪
Data security	▪	▪
High quality data (frequency and resolution)		▪

The Fluke Reliability portfolio enables customers to choose the vibration monitoring products they want and scale an asset condition monitoring program to fit the organization's unique needs.

The Fluke Reliability vibration portfolio

In addition to the Fluke 3562 and 3563, the portfolio includes:

Fluke 3561 FC Vibration Sensor
Fluke 3561 FC sensor monitors asset performance data continuously and can detect changes based on preset thresholds. It is a simple, scalable solution that can be quickly installed in any location, including hard-to-reach or hazardous areas.

Fluke 805 FC Vibration Meter
The Fluke 805 FC meter captures bearing condition, overall vibration, and temperature measurements. It calculates one single overall vibration value to determine overall machine health and trend asset condition over time. The Fluke Connect app enables technicians to access data remotely and view, update, and document work order completions using a mobile phone, tablet, or PC.

Fluke 810 Vibration Tester
The Fluke 810 uses auto-diagnosis for vibration and fault severity level. The three-axis vibration transducer measures vibration data in three different degrees of freedom. Diagnostic reports clarify measurements and correctly locate the fault cause.

VibXpert II
The VibXpert II is the mobile power package for fast and reliable recording and machine condition data analysis. Because it can also be used for operational balancing, the VibXpert II is the most powerful and effective device in mobile condition monitoring.

VibXpert II Balancer
The VibXpert II balancer detects and eliminates imbalances on rotating driveshafts, and its intelligent measuring principle and powerful computing capacity mean you can balance on one or two planes.

VibXpert EX
The VibXpert EX is a high-performance, fully-featured data collector, vibration analyzer, and field balancer for easy condition monitoring and troubleshooting of rotating equipment in explosive environments. It collects field data, including vibration information, bearing condition, inspection, and process data.

VibScanner 2
The VibScanner 2 is a fast, easy-to-use, handheld measuring device that even non-specialists can use to effectively measure machine vibration on rotating machinery. It uses a forward-looking measuring principle and acquires data across three axes with the triaxial sensor, allowing all relevant condition data to be recorded with the touch of a single button.
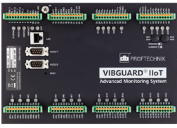
VibGuard IIoT

Operating autonomously and automatically, the VibGuard IIoT allows critical assets to be continuously monitored and protected against unplanned shutdowns. It offers a choice of 12, 16, or 20 measuring channels that are sampled in parallel and synchronously for almost all kinds of signal inputs.

VibGuard compact

VibGuard compact offers six measuring channels for continuous monitoring for critical assets requiring high availability, high aggregate values, complex drives, and changing operating conditions. The measuring channels are designed as highly dynamic analog input channels and can be equipped with either standard ICP vibration sensors or with voltage input signals for process variables.

Vibronet Signalmaster

The Vibronet Signalmaster allows you to install up to 162 measuring points to monitor entire production areas. Its wiring concept reduces installation costs, and vibration, temperature, RPM, and other process parameters can be integrated into a monitoring network covering whole plant sections.

*To learn more about the comprehensive Fluke Reliability vibration monitoring portfolio, visit **Fluke.com** and **Pruftechnik.com**.*