



PEAK INDUSTRIAL PERFORMANCE

WATCHMAN 360

Provides you with actionable diagnostic and repair recommendations—not just data—to drive effective maintenance decisions from your vibration program.

Programs include:

- Portable, walkaround high-quality data acquisition devices
- Permanently installed, wired or wireless, data acquisition hardware
- Expert Automated Diagnostic System analysis
- End-to-end communication methods from plant floor to all decision makers
- Machine health models to rapidly setup asset for automated diagnostics
- Delivery of plant results, including business level metrics

The challenges

Maintaining a PdM or vibration program sounds simple enough. However, staying compliant with data collection and analysis is getting more and more difficult. Finding skilled and experienced resources to turn vibration data into equipment insights is even harder.

The answer

WATCHMAN 360™ by Symphony AzimaAI. WATCHMAN 360™ provides vital machinery health information in addition to vibration data, by rapidly screening vibration measurements and applying over 6000 unique rules to identify over 1200 individual faults in a wide variety of machine types. Our proven automated machinery condition assessment system can process hundreds of vibration measurements in just a few minutes leaving you with a fault diagnosis, fault severity and repair priority and recommended

action. Instead of overwhelming you with data that is difficult to interpret, WATCHMAN 360 provides fast and accurate screening that will lead to better diagnostic results.

The result? Plain-language, actionable insights into machinery health with advance notice so work can be planned, and interruptions avoided.

How does it work

WATCHMAN 360's sophisticated rule base methodology extends beyond simple monitoring of alarms on peaks or spectral bands. Our test-point variation feature captures and compares complex patterns detected from the entire set of locations on your machine. By using this machine-specific baseline data, WATCHMAN 360 becomes a highly accurate, automated diagnostic system.

Data is collected from machines by wireless devices, walk around portable data collectors or by online systems. This data is passed to our secure cloud where the data is analyzed by ExpertALERT™, our diagnostic engine. The results are shared through the WATCHMAN Reliability Portal™, providing clear insights into which machines have faults, the severity of those faults and recommended actions to address them.

By providing clear visibility, more people can be involved in the program through the cloud infrastructure. Analysis can communicate with the field to obtain feedback on visual or other conditions, providing valuable first-hand insight on machine states. Analysts also communicate with all decision makers, providing more value to the repair decisions. Actual findings, root cause, and time-stamped events help improve program accuracy as well as quantify the program success.

Solution Highlights

Expert Automated Diagnostic System

The Expert System, or EADS, enables the most efficient analysts. Vibration data is automatically screened against 6000+ unique diagnostic rules which can identify over 1200 fault conditions for a wide variety of common machine types. Results include the onset of developing faults, allowing for adequate planning for repairs. Each diagnostic fault is ranked by severity and trended. Repair recommendations are prioritized, providing the level of urgency and attention necessary for the analyst. The Expert System is highly accurate allowing analysts to prioritize their workload, focusing on the most important issues.



Synchronized Data Acquisition

Machine vibration and other data inputs can arrive from a variety of sources ranging from intuitive portable data collectors put into hands of technicians and operators, sophisticated field analyzers for advanced measurements and troubleshooting, permanently installed wired or wireless sensors, as well as API-based communication from third-party providers. TRIO® is a modular acquisition device using Bluetooth® to communicate with an easily-upgradable tablet controller. Our SPRITE™ acquisition devices remove the human requirement for collection by leveraging wireless connectivity to send data to our Expert System. Our wireless devices use logic to manage frequency, storage, and notification of data collected.



WATCHMAN Reliability Portal

This web portal interface gives decision makers a picture of asset health based on results from multiple diagnostic technologies. Early detection of faults and clear, actionable advice mean maintenance teams can plan corrective actions, rather than react to failures. Maintenance events and machine health are tracked over time, and users can upload relevant materials, for easy, centralized access. Business level metrics provide management an understanding of risks to production and program performance.



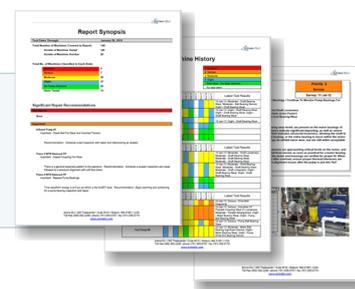
WATCHMAN Reliability Services

Symphony AzimaAI are the experts in vibration analysis. Plants today are overwhelmed with data and are getting little results. WATCHMAN Reliability Services from Symphony AzimaAI offers true meaning to your program. Our deep-bench of domain experts can help ensure your assets have the coverage you need and the insights management requires. AzimaAI offers diagnostic services that are flexible and scalable, including support in multiple technologies.



Annual Assessment Reports

A detailed annual program assessment ensures your PdM investment is justified, plant availability is on target, and critical assets are properly monitored using best practices.



Why Choose WATCHMAN 360

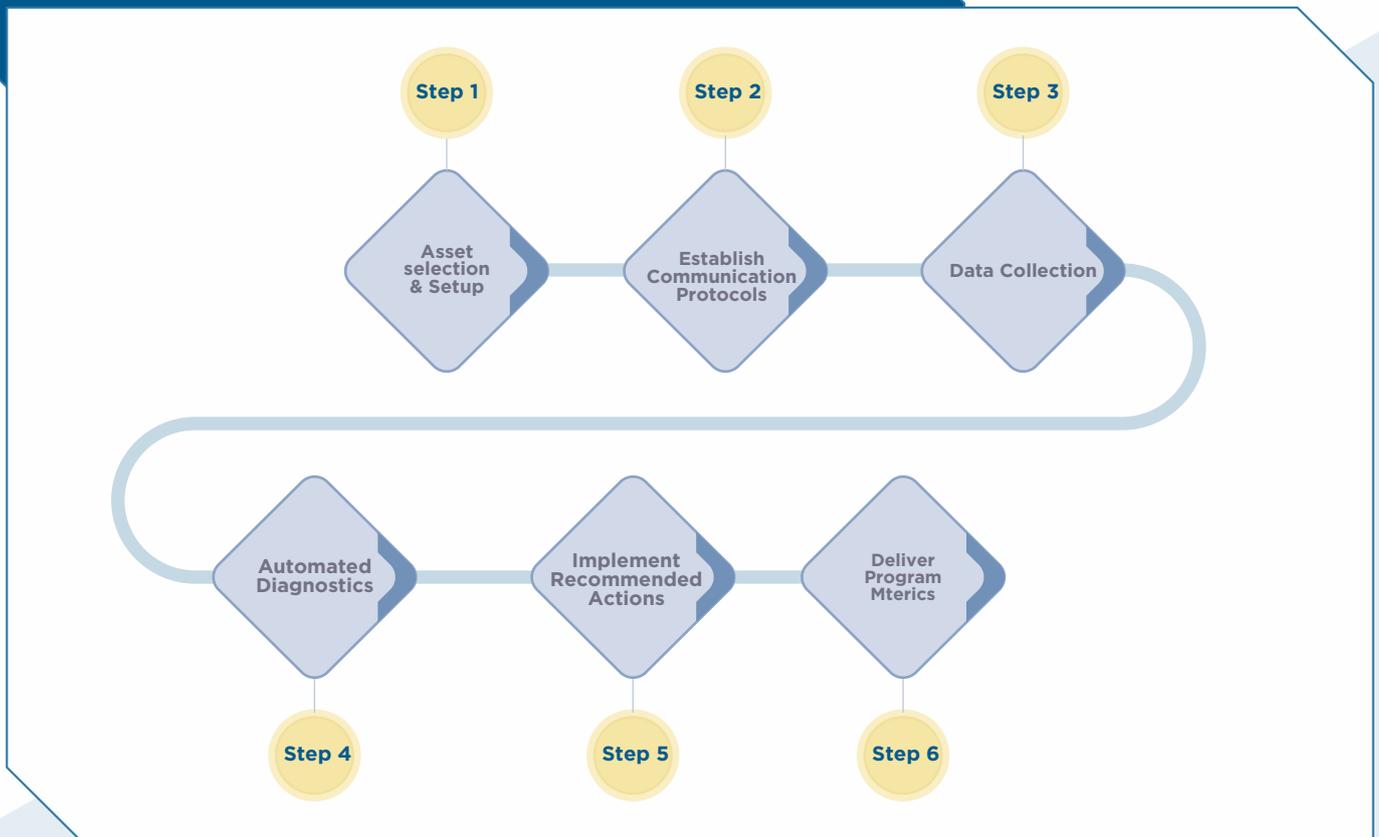
When it comes to vibration analysis, there are several solutions to consider. A vibration program can be accomplished in-house utilizing your own analytical staff. AzimaAI offers hardware and software to support these programs. The challenge to these programs is the retention of staff, the skillset required, and the ongoing development expected of the program. Another option is to outsource to a local contractor. Though you could likely find a team that is highly skilled, the ability to get analysis on assets when you need them is often the challenge. Data is typically captured only on the selected machines available during the contract visit.

WATCHMAN 360 offers uniquely flexible programs that cater to your exact needs. The program is highly

suitable to putting the data collection into the hands of technicians and operators. Machine data is gathered when they are running and available or as needed when there may be concern for its health. AzimaAI can offer permanently installed acquisition hardware on critical or hard-to-access machinery, analyzed alongside the balance of plant for full plant insights.

The analysis offered by AzimaAI is also flexible to your program. Utilizing our advanced automated diagnostic engine, volumes of data can be screened, reporting only action items you need. Mature programs can use automation to minimize costs by analyzing only on severity exception. AzimaAI analysts are the most efficient in the industry by utilizing advanced AI tools to streamline their work.

WATCHMAN 360 | How to - Step by Step



About Symphony AzimaAI

Symphony AzimaAI is the emerging leader of artificial intelligence-based monitoring, analysis, and prediction solutions that optimize the health and operational performance of industrial assets and processes. Our cloud-based platform integrates a wide variety of data streams with proven analysis models and deep machine learning to illuminate anomalies and recommend pre-emptive actions.

Headquartered in Boston, Massachusetts, Symphony AzimaAI serves a wide-range of industries from process to discrete manufacturing to defense.