Predictive Maintenance Redefined

Transform Equipment Monitoring with FLBV Vibration Analytics Solution

Hidden Costs

Unplanned downtime costs an average of **42%** of maintenance budgets spent on **reactive repairs**, resulting in production losses, emergency repair costs, **safety incidents**, and customer delivery delays.

Evolution of Maintenance

Reactive maintenance fixes after failure with high costs and unplanned downtime. Preventive maintenance is schedule-based but leads to over-maintenance and unnecessary replacements. **Predictive maintenance is data-driven, optimizing timing and preventing failures through condition-based monitoring.**

Reactive approach

This traditional maintenance method addresses equipment only after failure occurs, resulting in higher repair costs, extended downtime, and disruption to operations.

Preventive strategy

Schedule-based maintenance performed regardless of equipment condition often leads to unnecessary part replacements and inefficient resource allocation.

Predictive technology

Data-driven maintenance uses condition monitoring to optimize repair timing, prevent unexpected failures, and extend equipment life through real-time analysis.

Overview

Complete Solution

FLBV combines hardware, software, and intelligence to monitor, predict, and prevent equipment failures. The industrial-grade FLBV Sensor features 3-axis MEMS technology with real-time vibration, sound & temperature monitoring. Our Cloud Analytics Platform delivers AI/ML-powered failure prediction with unlimited data storage & processing, accessible via mobile app. Seamless integration through RESTful APIs connects with existing CMMS/ERP systems.
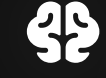
Industrial-grade sensors with 3-axis MEMS technology.

Real-time monitoring of vibration, sound and temperature.

Cloud Analytics Platform with unlimited storage capacity.

AI/ML-powered intelligence predicts equipment failures accurately.

Mobile accessibility for monitoring from anywhere.

Seamless integration with existing CMMS/ERP systems.

Proven Results with guaranteed fast payback

Accuracy

Detection precision

FLBV delivers an impressive 98% detection accuracy in identifying potential issues. This high level of precision ensures no false alarms or missed failures occur in your operations.

Savings

Cost reduction

Customers experience significant financial benefits with a 40% reduction in maintenance expenses. This substantial savings comes from preventing unnecessary maintenance and addressing issues before they become costly problems.

Efficiency

Reduced downtime

Production continuity improves dramatically with 70% less downtime across operations. This remarkable efficiency gain keeps your production lines running smoothly and minimizes interruptions.

Investment

Fast ROI

Your investment pays for itself within the first year, with a 12-16 month return on investment timeframe. This quick payback period is guaranteed, providing financial security for your decision.

Advanced Technology for Industrial Intelligence

Performance

Extreme condition operation

Designed to operate reliably in temperatures ranging from -40°C to +200°C, ensuring continuous monitoring in the harshest industrial environments.

Monitoring

Comprehensive capabilities

Features advanced 3-axis vibration analysis, temperature monitoring, and sound detection to provide complete oversight of equipment health and performance.

Data

Real-time transmission

Delivers critical operational data every 10 seconds, enabling immediate response to changing conditions and potential issues before they escalate.

Security

Enterprise protection

Protected by AES128/256 encryption and SHA-1 secure authentication, with a zero-maintenance design featuring direct 24VDC power connection and flexible magnetic or direct mounting options.

AI-Powered Analytics for Predictive Maintenance

Intelligence

Machine learning engine

Our sophisticated engine is trained on massive vibration datasets with continuous algorithm improvement. It leverages pattern recognition technology to identify potential failures before they occur, helping maintain operational efficiency and reducing downtime.

Analysis

Advanced analytics

The system performs comprehensive analysis including FFT frequency domain analysis and anomaly detection algorithms. These advanced techniques enable predictive failure modeling that accurately forecasts potential issues based on detected patterns and historical data.

Speed

Real-time processing

Cloud-scale processing delivers analysis results in less than one second, ensuring immediate awareness of developing issues. The platform offers unlimited scalability to handle growing data volumes without compromising performance or analytical capabilities.

Vigilance

Continuous monitoring

Our solution provides 24/7 monitoring capability to ensure no critical events are missed. This constant vigilance allows for immediate notification of anomalies and potential failures, giving maintenance teams time to address issues before they impact operations.

Simple Installation with Seamless Connectivity

Installation

Quick setup

Complete setup in just one week with magnetic or stud mounting options that require no drilling, making the installation process clean and non-invasive.

Configuration

Automatic connection

Enjoy hassle-free Wi-Fi auto-configuration that establishes instant connectivity to your network without complex setup procedures.

Monitoring

Mobile access

Access our iOS and Android apps for comprehensive remote monitoring capabilities, allowing you to check system status from anywhere with push notifications for critical alerts.

Compatibility

System integration

Plug into your current infrastructure with RESTful APIs for CMMS integration and ERP system compatibility, ensuring no disruption to your existing workflows.

Monitoring

Complete **Visibility**

Performance tracking

Monitor equipment efficiency across your entire operation with comprehensive performance metrics. Identify underperforming assets quickly and implement corrective measures to optimize productivity and extend equipment lifespan.

Actionable insights

Asset health scorecards provide clear indicators of equipment condition and performance status. Maintenance recommendations help prioritize service activities, while failure probability forecasts allow teams to address potential issues before they cause downtime.

Intelligent alerting

Stay informed with SMS and email notifications when issues arise. Configurable thresholds ensure you're alerted only when necessary, while escalation management routes critical alerts to the right personnel. Mobile push alerts keep teams connected even when away from their desks.

Real-time dashboards

Live waveform visualization provides immediate insights into machine performance. Customizable KPI displays and multi-machine comparison views allow teams to monitor critical metrics at a glance, while historical trend analysis helps identify patterns over time.

Implementation Path to Predictive Maintenance Success

Assessment

Site evaluation

Your path begins with Week 1 site assessment & planning. This includes equipment audit, sensor placement strategy, and network configuration to ensure optimal system performance.

Installation

System deployment

Weeks 2-3 focus on installation & commissioning with sensor deployment, connectivity testing, and baseline data collection. These steps establish the foundation for your predictive maintenance system.

Activation

Go-live process

Week 4+ includes go-live & optimization with live monitoring activation, alert threshold fine-tuning, and team training. Your staff will become proficient in utilizing the predictive capabilities.

Support

Ongoing assistance

We provide 24/7 technical assistance, regular system health checks, and continuous algorithm updates. This ensures your predictive maintenance system delivers optimal performance long-term.

Advantages

Competitive Edge

Choose Fournine Labs for our 98% accuracy guarantee with no false alarms promise and proven detection reliability. We offer unlimited scalability to monitor infinite machines through our cloud-based architecture. True plug & play requires no complex setup and is Wi-Fi ready out of the box. Our complete solution includes hardware, software, and support from one vendor with zero hassles. Fast ROI delivers a 12-16 month payback period with measurable cost savings from Day 1.

98% accuracy guarantee with no false alarms

Unlimited scalability through cloud-based architecture

True plug & play with Wi-Fi ready setup

Complete solution from one vendor

Fast ROI with 12-16 month payback

Measurable savings from Day 1

Industry Applications

FLBV has proven success across multiple industries

Pharmaceutical

Oil & Gas

Manufacturing solutions

Optimizes production line

Defense

Aerospace support

Next Steps

Ready to **transform** your maintenance?