

## Autonomous Machine Health 24/7/365

with Augury's Fully Prescriptive AI Diagnostics

WHAT USED TO REQUIRE hiring, training, and managing an army of Reliability Experts to deliver comprehensive machine health insights, now only requires Augury's powerful AI and machine learning diagnostics engine. While other solutions on the market use terms like AI and machine learning, Augury's end-to-end system is unmatched when it comes to delivering precise fault diagnostics, root cause analysis, and detailed instructions on what needs to be done to avert machine failures.

With Augury's 24/7/365 autonomous machine health coverage and 99.9% accuracy rate, our partners understand exactly what they need to prioritize months in advance. This means no more confusion, no more anxiety about machines failing, and no more unplanned downtime.





#### **Augury Delivers**

Fully Prescriptive Diagnostics 99.9%+ Fault Detection Accuracy 90%+ Response & Engagement Rate 3X+ ROI Payback within Months Insurance-backed Guarantee

## More High Quality Data

Augury's wireless sensors capture triaxial vibration, magnetic, and temperature data. By fusing and analyzing these data points, our algorithms provide a comprehensive view of machine health. After nearly a decade of continuous monitoring and data labelling by trained domain experts, our dataset now includes more than 50 million hours of machine recordings from over 80 thousand unique machines. As the recording volume exponentially increases, so does the accuracy, relevancy, and timeliness of fault insights our algorithms deliver to users.

# Extracting Signal from Noise

Augury's first layer of diagnostics applies advanced signal processing methods to filter machine data from irrelevant noises. The processed raw data reflects the changing magnitude of signals over time and allows us to carefully monitor meaningful deviations from baseline.

### Prescriptive Diagnostics and Repair Validations

Augury's system goes beyond simply assigning general health conditions with machine learning models designated to particular fault types. Condition estimates at the component and bearing levels automate root cause analysis, enabling Augury's diagnostics to highlight the severity of specific fault types and issue repair recommendations. Once repairs are executed, Augury's system validates that they were done correctly. This ensures confidence that the machines are up and running effectively, while providing important feedback loops for our algorithms.

### Calculating Machine Health Parameters

Augury's algorithms extract over 840 unique feature sets from the machine's data. Some of these features are simple, such as standard deviation of the magnetic signal, while others are more complicated, like calculating motor RPM. Having learned from our dataset which features indicate a healthy machine versus an unhealthy one, Augury's algorithms are able to recognize and synthesize feature patterns rapidly and at scale.

### **Anomaly Detection**

Our advanced anomaly detection algorithms monitor machine data for developing issues. These issues might manifest in sudden and abrupt performance changes, or gradually overtime. Additional situations like repair improvements or sensor positioning discrepancies also have specific models running in order to accurately identify any changes quickly.



For more information on how Augury's patented AI and Machine Learning ensures success of your Machine Health program, visit us at **augury.com**.