INNOMOTICS

The DigiMine AssetAnalytics experience.

For Innomotics Gearless Mill Drives (GMD)

innomotics.com

Knowledge is uptime.

Gearless Mill Drives (GMD) are impressive and robust machines, but they require maintenance due to various factors such as contamination, power supply changes, mechanical stress, demanding operating conditions, and tight production plans.

Innomotics DigiMine AssetAnalytics (formerly called AHA) for GMD is a condition monitoring system that uses mathematical models, artificial intelligence algorithms, and Innomotics' expertise to assess the GMD's status and maintenance needs. It combines advanced analytics with product expertise to uncover actionable insights, supporting experts in preventing failures and identifying opportunities for performance improvements and potential maintenance savings.

GMD analytics by Innomotics has the potential to translate data into real business value, from designing the monitoring network to providing data in the cloud, ultimately increasing productivity and plannability through data analysis.

Overall, Innomotics DigiMine AssetAnalytics offers the following key benefits:

- Identifying patterns that may lead to anomalous behavior, with a high probability of early detection
- Reduced unexpected/unplanned downtime through accurate operational history for better root cause analysis
- Increased operational efficiency in maintenance planning and execution through immediate asset transparency

Transform data into valuable insights.

Next-level reliability? You've got it.

DigiMine AssetAnalytics give you all the insights you need to keep your machines running at peak performance. Here's how you'll get them:

Asset Health

- Assessment of actual status (Health) for all GMD assets
- Anomaly detection based on mathematical and AI models
- Display of events and most frequent faults

Asset Integrity

- Assessment of GMD maintenance status (Integrity)
- Based on Innomotics maintenance schedule
- Display of events and immediate action requirements

Long Term Analysis

- Consistent preventive expert analysis (mid- and long-term)
- Quarterly expert report with abnormal conditions long before reaching operational limits or facing downtime risks
- Maintenance recommendations for informed decision-making

Real-time analytics

While monitoring the health of your GMD assets using Innomotics DigiMine AssetAnalytics in almost real-time, we provide comprehensive status assessments, including maintenance status. Our AI-powered anomaly detection can identify issues before they become critical, alerting you to events and immediate action requirements. Through the seamless collection of data using advanced sensors and analysis for anomalies, we aim to help you prevent costly shutdowns and maintain smooth operation.

Transparency on demand

Innomotics DigiMine AssetAnalytics gives you access to a user-friendly dashboard that presents easily understandable KPIs and trend analysis, providing instant visibility of your assets' condition and their maintenance requirements. This empowers you to make well-informed decisions quickly and effectively. Furthermore, our comprehensive quarterly reports deliver customized maintenance strategies and action plans developed by our GMD experts.

Flexible data infrastructure

The Innomotics DigiMine AssetAnalytics system offers a flexible infrastructure customized to your specific needs, whether you prefer on-premises hardware or remote cloud solutions. Our advanced sensors monitor critical metrics such as air gap measurements and rotor temperatures (provided WRM was installed), ensuring a comprehensive oversight of your equipment. With secure data storage, we maintain data integrity through robust security measures. Additionally, our system provides immediate remote access, allowing you to retrieve data and generate reports from any location in real-time.

DigiMine AssetAnalytics.

Enhance and optimize your GMD classical service contract for seamless performance with Innomotics DigiMine AssetAnalytics.

Your GMD classical service contract

On-call support with helpdesk & remote access

- Service rates agreement
- On-call services – 24/7 hotline
- Remote support

Maintenance plan

- Regular preventive maintenance
- Corrective maintenance assistance

Service contract including Innomotics DigiMine AssetAnalytics

- Early anomaly detection through the analysis of individual fingerprints and their trends
- Enhanced failure identification for faster implementation of corrective actions
- Ensuring access to our experts in addition to frequently reporting
- Preventive maintenance based on expert evaluation of asset condition using information generated by AssetAnalytics

The five pillars of Innomotics DigiMine AssetAnalytics:

Data acquisition

- Automation
- Drive
- Vibration sensors
- Rotor monitoring

Data processing

- Operation points
- Vibration raw data processing

Models and artificial intelligence

How to define a normal operational range?
Models and AI defines an operational range. Anomalies outside the operational range helps to define KPIs.

Calculation of KPIs and analysis tools

Main KPIs

- Asset health
- Asset integrity

Analysis tools

- Fingerprint

Intuitive customer dashboard

Information structured for an easy understanding of the actual status and maintenance

Your DigiMine AssetAnalytics benefits at a glance.

Continuous improvement

Health KPI

What is the actual status?

Additional KPI

Deep under-standing what is happening?

Integrity KPI

Were the maintenance tasks performed?

Fingerprint

What are the trends?

Expert support

— Continual monitoring and expert analysis
— Tailored recommendations and maintenance planning

Deep understanding of root causes

— KPI-based monitoring for early warnings
— AI-powered trend analysis for informed decision making

Preventive maintenance

— Optimize tasks and schedules based on data generated by DigiMine AssetAnalytics and GMD Experts
— Minimize unplanned downtimes and enhance reliability

Improved operational efficiency

— Actionable insights into asset health and performance
— Data-driven decisions to sustain and improve production quality

reliable motion for a better tomorrow