

Mining applications

Vibration sensors help improve reliability and efficiency so you can minimize unplanned downtime, reduce operating costs and protect critical components from damage or failure.



Monitoring machine vibration in mining operations

Using vibration monitoring in mining applications is proven to maximize operational uptime and minimize maintenance costs. Detecting and preventing unexpected component problems is a priority.

Vibration monitoring helps to establish machine baselines, and can continuously trend key components for 24/7 observation. This provides a reliable aid in maintaining components, extending equipment life and maximizing operational efficiency, while reducing overall maintenance costs.

Critical machines to monitor

- Motors
- Pumps
- Draglines
- Conveyors
- Generators

Quickly identify common machinery faults

- Imbalance*
- Misalignment*
- Bearing damage*
- Gear mesh faults
- Pump cavitation
- Belt issues
- Bent shaft

* primary causes of equipment failure



Shutdowns are not an option. Make sure your machines keep working. See below for an explanation of key issues often encountered in mining applications and how vibration monitoring can help you reduce risk and keep your plant running smoothly.

Key considerations	Solutions	Products
Continuous operation of machines over long periods of time	Continuous monitoring with 4-20 mA sensors or high MTBF accelerometers for long-term trend data	PC420 sensors, 786A, 787A
Corrosion or abrasion in material handling pumps	IP68 rated cable/connector assemblies and watertight sensors	786F, 786A + R6Q-J9T2A
Gear mesh faults	Compact/tight tolerance sensor, standard accelerometer	780A, 786A
Faults on geared motors and belts in conveyor drive system	Broad sensor response and 24/7 trend data with standard accelerometers or 4-20 mA sensors	786A, 787A PC420
Bearing damage or fatigue	Dynamic, high-frequency accelerometers and intelligent vibration transmitter for field-configurability and connection to control system	786A, 786A-I + iT300