

Hexagon Blast Movement Monitoring

Improve your blasting process with the industry's only reliable method for measuring ore movement

Hexagon Blast Movement Monitoring is the only reliable method for measuring ore movement and can be implemented with minimal disruption to the mining process. The package includes Blast Movement Monitors (BMMs), BMM Activator, BMM Detector, software and regular software/firmware upgrades.

BMMs are active transmitters that can be installed in monitoring holes days or even weeks ahead of a blast, making it easy to coordinate installation with production or to stay one step ahead of bad weather. The package features a choice of two kinds of BMM Detector: a non-GNSS based detector, meaning survey personnel will need to record the locations of installation and pickup; or a high-precision GNSS-based detector, which removes the need for survey personnel to be involved in the BMM installation and detection process.

Pre-blast dig polygons from the mine's ore control software can be imported with blast design files to the included BMM Explorer Software and, within seconds, post-blast dig lines will be translated based on the measured movement. Final dig locations can then be communicated directly to the shovel. Note that the included BMM Activator elevates the BMM into a ready state to sense the blast when detonated, and the activator can be used to set delays in increments between one hour and 99 hours for standoff periods.

Hexagon Blast Movement Monitoring is the key to improve your blasting processes by calculating areas of ore loss, dilution and misclassification that would have occurred if blast movement were unaccounted for—all with minimal disruption to the mining process.

Benefits

- Unique as the industry's only reliable method for measuring blast movement within the rock mass
- Easy to use and flexible to workflows with minimal disruption to the mining process
- A complete method for defining ore/waste and minimising dilution
- Reduces misclassification risks

Features

- Installation can be performed days or weeks ahead of a blast to adapt to shot planning, and monitors do not activate until the blast detonates, to account for blast delays or adverse weather
- BMM calculates the value of recovered ore and minimised dilution while also redefining ore boundaries or digging levels to account for the measured movement
- Measuring the movement and redrawing ore polygons minimises misclassification

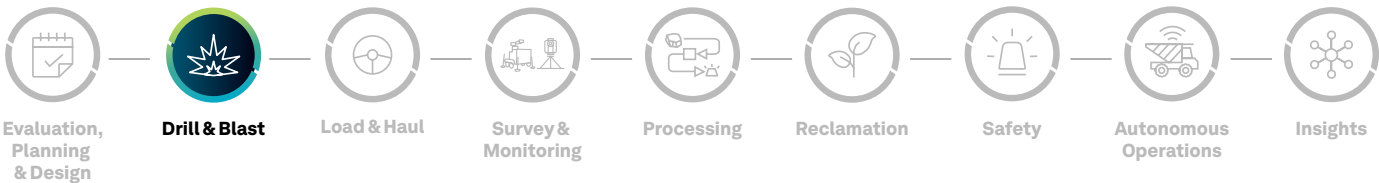
Included Tools:

Tools	Key Capabilities
Blast Movement Monitor (BMM) transmits measurements from multiple depths	• Can be installed in a monitoring hole well before blast • Four colours enable field personnel to install up to four BMMs in a single monitoring hole to measure movement at multiple depths throughout the bench
BMM Activator readies BMMs to sense detonations	• Allows for BMMs to remain dormant until activated by a blast • Set delays in increments between one hour and 99 hours for standoff periods before commencing the BMM detection process
Standard or Survey-Enabled Detector detects the location of BMMs	• Allows the flexibility to choose between having survey personnel record installation and pickup locations or using a high-precision global navigation satellite system to detect the locations
BMM Explorer Software manages collected field data	• Imports pre-blast dig polygons with blast design files from the mine's ore control software to instantaneously translate post-blast dig lines based on the measured movement • Communicates final dig locations directly to the shovel and/or export them to ore control software • Can be used to calculate areas of ore loss, dilution and misclassification that would have occurred if blast movement was unaccounted for

Integrated life-of-mine solutions

Having one technology partner for the life of your mine is a superpower in the face of modern mining challenges. Our integrated, data-driven solutions help eliminate the need for disparate products across workflows within mine planning, fleet management, monitoring, safety and beyond. With Hexagon, you gain a trusted partner backed by over 50 years of expertise who remains focussed on an autonomous future both above and underground.

This offering includes solutions to support:



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