

Improved safety and production through centralised underground blasting using BlastWeb 4G

Sponsored Content

DYNO
Dyno Nobel

🕒 September 1, 2021 📁 Features



Dyno Nobel's BlastWeb 4G delivers safety benefits while increasing operational efficiency for underground mines.

Introducing BlastWeb 4G, the latest release of Dyno Nobel's centralised underground electronic blasting system.

Typically, in underground mines, blasts are initiated at the end of shift with multiple development headings and production blasts fired across various levels and areas of the mine.

Generally, blast headings are only connected to the firing lines once a blast area is completely clear of personnel.

This practice results in production downtime as personnel and machinery needs to be stood down early enough for the shotfirer to connect all blasts safely prior to the end of shift.

Once the tag board is cleared, the shot crew starts initiating the blasts, firing all work areas independently, as they retreat up the decline.

This is a time-consuming procedure with the added risk of personnel being underground during blasting.

The BlastWeb 4G, Dyno Nobel's latest centralised electronic blasting system was specifically developed for the underground blasting environment.

It utilises a network of Blast Control Units (BCUs) installed across the mining area. The system is designed to interface via a variety of communication media, providing the operation with the ability to safely initiate all development and production blasts from a central location on the surface.

Due to the intrinsic safety of Dyno Nobel's electronic detonators and the BlastWeb 4G, blast faces can be connected, tested and monitored prior to the allocated blasting window, without the need to stand down equipment and clear personnel out of the area.

This combined with the ability to fire all BCUs from a central location on the surface, allows the BlastWeb 4G to reduce downtime due to blasting by up to an hour a day.

The unique flexibility of the BlastWeb 4G system also provides the mine the opportunity to select the right initiating system for the specific application and rock conditions:

- Nonel systems, via a DriftShot Starter detonator to fire development headings or production blasts,
- DigiShot Plus.4G electronic detonators in production blasts to improve fragmentation and combat ore dilution,
- a combination of EZShot detonators for perimeter holes and non-electric detonators for the remainder of the development face for improved brow stability, perimeter control and overbreak reduction.
- CyberDet I wireless system to reduce personnel exposure to the brow and provide significant improvements to the blasting cycle.

The BlastWeb 4G demonstrates Dyno Nobel's approach to Practical Innovation. It delivers enhanced safety while increasing operational efficiency.

The user experience was a priority of recent improvements, with reduced scan time, increased network communication speed and revised lighting on a local indication device all designed to shorten the time at the face.

The Surface Blast Controller interface was simplified and modernised as well.

In combination with DriftShot Starters, DigiShot Plus 4G, EZShot and CyberDet I, the BlastWeb 4G is a powerful centralised electronic blasting system.

It has a shallow learning curve, supporting blast crew acceptance. With limited user interaction required and simple to use, BlastWeb 4G is the best solution to improve safety, enhance efficiency, combat downtime and gain flexibility in underground blasting operations.