WEBGEN™
THE WORLD’S FIRST WIRELESS INITIATING SYSTEM

COMPLETELY ELIMINATE THE NEED FOR DOWN-WIRES AND SURFACE CONNECTING WIRES

WebGen™ communicates through rock, air and water to initiate blasts reliably and safely, removing people from harm’s way. This industry-changing technology enables new mining methods and blasting techniques to increase productivity and reduce operating costs.

orica.com/wireless
WebGen™ can deliver sustainable improvements that:

- Accelerates extraction rates and ore recovery for many underground mining methods.
- Reduces waste dilution and increases mucking productivity.
- Increases loading efficiency and operational predictability in open-cut mines by eliminating the final tie-in process and need for back-up priming.

**BLOCK CAVES**

**DRAWBELL & UNDERCUT**

- **Safe Pre-charging**
  Eliminate the need to work near rill or the brow and reduce the impact of brow loss.
- **Reduces labour requirements**
  Eliminate tie up, speeding up your rate of advance.
- **Cave draw reliability**
  Faster and more reliable blasting with less disruptions, reducing risk of seismic related delays and providing consistent cave draw.

**PRECONDITIONING**

- **People Exposure**
  Reduction in exposure of people in hazardous areas.
- **Consistent performance**
  Elimination of back up detonators, simplified pre-stemming, no leakage and no misfires.
- **Accelerate mining process cycle**
  Time savings on pre-conditioning cycle.

**HANG UP BLASTING**

- **People Exposure**
  Eliminate operator exposure to load and tie in.
- **Drawpoint availability**
  Adjacent drawpoints are often closed to loadout during hang up charging. Tele-remote solution increases access to drawpoints by enabling less production disruption.
- **Faster oversize removal**
  Increase speed of hang up turnover.

**SUB LEVEL CAVES**

- **Safe Pre-charging**
  Eliminate the need to work near rill or the brow and reduce the impact of brow loss.
- **Hole Dislocations or Loss**
  Significantly reduce loss and underperforming holes caused by lead damage/dislocation while eliminating rework.
- **Flow & Recovery**
  Reliable initiation produces more uniform fragmentation and enables improved draw extraction to plan, thus improves flow and recovery.

**TEMPORARY RIB PILLAR METHOD**

- **Improves Safety**
  The new mining method has led to significant safety improvements as the operators do not have to work adjacent to the open stope.
- **Increases Productivity**
  Improvement in mucking productivity by eliminating waste rehandling and improving truck fill factors.
- **Improved Ore Recovery**
  A measurable improvement in conditions of the stope walls delivers a reduction in waste dilution.
**SUB LEVEL OPEN STOPE MINING**

- **Reduction in exposure to hazards**
  Pre-charging with WebGen™ eliminates the need to work near the open stope or brow at the middle and upper levels of the stope.

- **Maximise free bogging**
  By pre-charging holes with WebGen™ primers, rings can be continually fired, optimising drawpoint availability and enabling a reduction in the use of tele remote bogging.

- **Reducing underbreak**
  Post splitting perimeter of the stope with WebGen™ ensures full extraction of ore from the stope.

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**STRANDED PILLAR RECOVERY**

- **Reduces mining costs**
  Reduction in extraction costs

- **Increases productivity**
  Reduces “Stope Open Time” and creates opportunity for increased capacity for mine development elsewhere

- **Increases Ore Recovery**
  Increases extraction of ore block to plan

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**OPEN CUT MINING**

- **Improved On Bench safety**
  Eliminates the interaction between heavy vehicles and initiating systems while also reducing people exposure to on bench hazards

- **Bench Productivity & Blasting Cost Reduction**
  No tie in process, no misfires from wire damage, reduce resources on bench, lower stemming costs, reduce inventory and eliminate back up practices

- **Load and Haul Productivity**
  Increase flexibility in pit planning, increased blasted inventory, reduce misfire zones and eliminate firing window variability and minimise impact of lightning production delays

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**SAFEST COMMERCIAL EXPLOSIVES PRODUCT IN THE WORLD**

WebGen™ is a Safety Integrity Level 3 (SIL 3) certified design which defines the probability of failure and ensures the system is always in a safe state until the firing command is transmitted. Every shipment is 100% tested to ensure components will function as designed. Over 240,000 tests were performed in TUV Rheinland’s evaluation of our Safety Integrity Rating.
WEBGEN™ SYSTEM CONFIGURATION

1. WIRELESS PRIMER
2. ENCODER CONTROLLER
3. FIRE SYSTEM TRANSMITTER
4. TRANSMITTER CONTROLLER
5. ANTENNA