



WIRELESS BLASTING REDUCES
MINE OPERATION DOWNTIME
DURING LIGHTNING EVENTS

WEBGEN™
WIRELESS
INITIATING
SYSTEM

LIGHTNING RISK REDUCTION

Introducing WebGen™ in surface mining removes the need for downlines and surface connecting wires. Eliminate the risk of unplanned initiation of explosives on a loaded blast pattern as a result of lightning hazards and gain back lost mine production time with WebGen™ today.

orica.com/wireless

WebGen™
Wireless Electronic Blasting Systems

 **ORICA**

The use of WebGen™ technology can eliminate the risk of lightning induced explosion hazards in loaded blast holes, including holes that remain unstemmed.

With the removal of all remaining explosives from the bench, mine sites no longer require a lightning exclusion zone to continue operations, reducing mine operation downtime that exists with the use of conventional initiating systems.



Using WebGen™ eliminates the need for a lightning exclusion zone.



Exclusion zones are required in blast patterns using conventional initiating systems in the event of storms.



Tether lock

Pentex™ W booster enclosing i-kon™ Plugin detonator

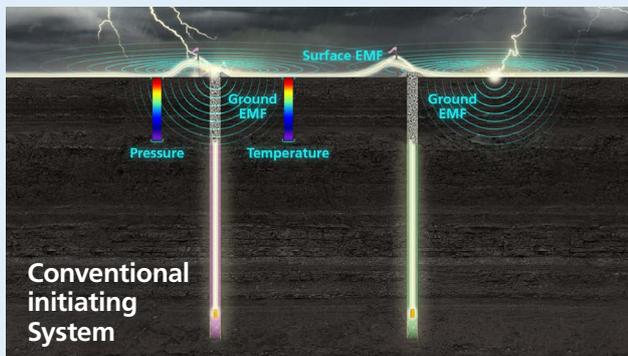
Battery and electronics

Communications port through which delay times are assigned

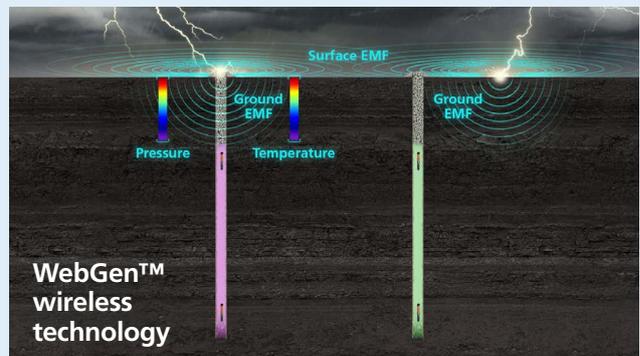
3 x Axis antenna

WebGen™ allows for groups of in-hole primers to be wirelessly initiated by a firing command that communicates through rock, air and water. This eliminates the need for surface connecting wires, enabling new mining methods and blasting techniques that are safe and reliable - removing people from harm's way, reducing operating costs, and at the same time increasing productivity benefits.

Using low frequency magnetic signals to communicate with each WebGen™ primer prior to a blast, WebGen™ is the only commercial explosives product with a Safety Integrity Level (SIL) 3 rating – having the highest functional safety standard of any commercial explosives product in the world. The system includes an i-kon™ III plugin detonator, a Pentex™ W booster and a DRX™, which is a digital receiver comprising a multi-directional antenna and a battery which serves as the in-hole power source.



Lead wires and signal tubes in conventional initiating systems increase the likelihood of unplanned initiation due to lightning storms.



WebGen™ wireless blasting can eliminate the risk of unplanned initiation with the absence of lead wires.

At a depth of 3 metres below the collar of a blast hole, WebGen™ units are protected from the hazards of lightning. In a lightning event, the temperature and pressure effects of lightning are rapidly attenuated by the earth. The absence of lead wires in this scenario prevents current transfer. Additionally, the magnetic field induced by lightning will not carry the correct digital code to activate a WebGen™ unit for firing.

To learn more about wireless blasting solutions, please contact your local Orica representative or visit [orica.com/wireless](https://www.orica.com/wireless)

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