

# The Development Optimiser<sup>®</sup>

Increase Accuracy. Reduce Over-Break. Increase Advance.



The development drilling process is heavily reliant on operator skill/training. This reliance, combined with the inherent complexities of underground mining often results in inaccurate and inconsistent drilling, which in turn produces poor development blasting outcomes.

Typically these outcomes are unplanned overbreak and dishing of the face, which increases haulage cost and reduces rate of advance. The net is slower and more expensive development drilling, reducing NPV for asset owners and decreasing margins for contractors.

The Minnovare Development Optimiser® system combines advanced hardware with a digital platform to improve the drilling accuracy to ensure the drilling is as per the design.

## KEY VALUE



**Improved drilling accuracy**



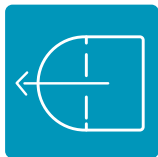
**Optimal blasts**



**Reduced over-break / under-break**



**Minimised scaling and re-work**



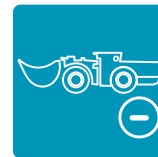
**Minimised 'dishing' of the face**



**Improved ground support**



**Drive /heading shape consistent to design**



**Reduced bogger time on grading**

### Primary Features & Benefits

The system allows operators of all levels of skill and experience to accurately bore in line with design, to deliver more consistent blasting outcomes for every cut. The result is more optimal blasts, reduced over-break and increased rate of advance. This delivers a lower cost/faster development drilling process. Highly accurate and applicable for use on ALL development drill rig makes and models.

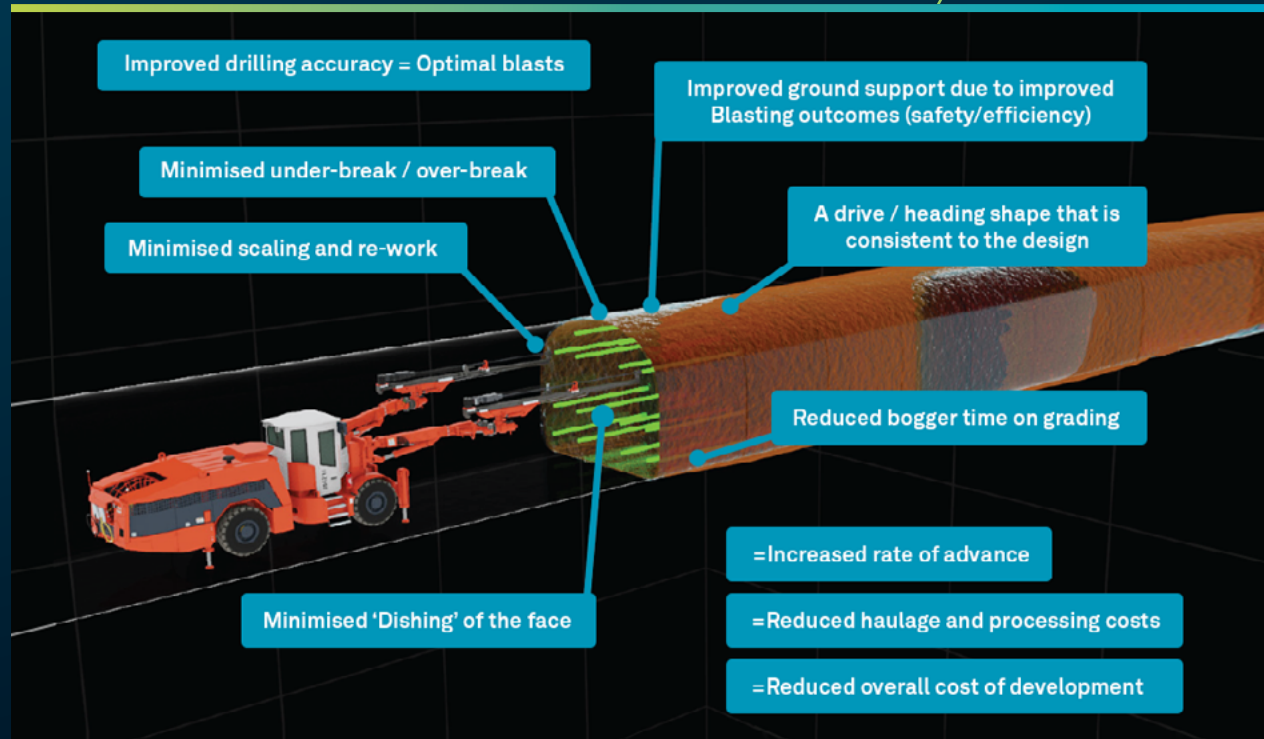
### Improve Drilling Accuracy

- The Development Optimiser® system delivers superior setup accuracy - the primary cause of blast-hole deviation;
- System maintains rail trajectory to designed target and parallelity between rails; works independently of onboard systems.

### Achieve Optimum Blasts / Cuts

- Reduce over-break / underbreak and dishing of the face;
- Improve fragmentation;
- Reduce associated operating costs (scaling, grading haulage and processing);
- Increase the rate of advance;
- Increase drilling productivity with less time spent on rework and more time drilling.

### Features Summary / Technical Specifications



# The Technology Ecosystem

## Alignment Accuracy.

The Development Optimiser® significantly improves the alignment accuracy of the rig - leading to optimal blasts with each cut: Minimal over-break/under-break and maximum advance.

## Set the 'TARGET'

Once the rail is aligned to the designed trajectory, the driller sets the 'TARGET' on the touch screen interface mounted inside the rig cabin - locking in the trajectory for every hole and removing all guess-work.

## Minnovare CORE®

Client Online Reporting Engine (CORE), includes digital drill plans (Digi-Plan) that capture all real-time drilling data.

## Take Control of your Drilling Data

- Wireless system interface - featuring digital drill plans (Digi-Plan) via Minnovare CORE®;
- Digi-Plan module - no more time consuming, unreliable paper system: Access real-time drill data right across your operation;
- Integrates seamlessly with your rig and mine planning / drill and blast software - for direct import and export of drilling data;
- Low cost of implementation, low maintenance system. 24hr global support team on-hand.



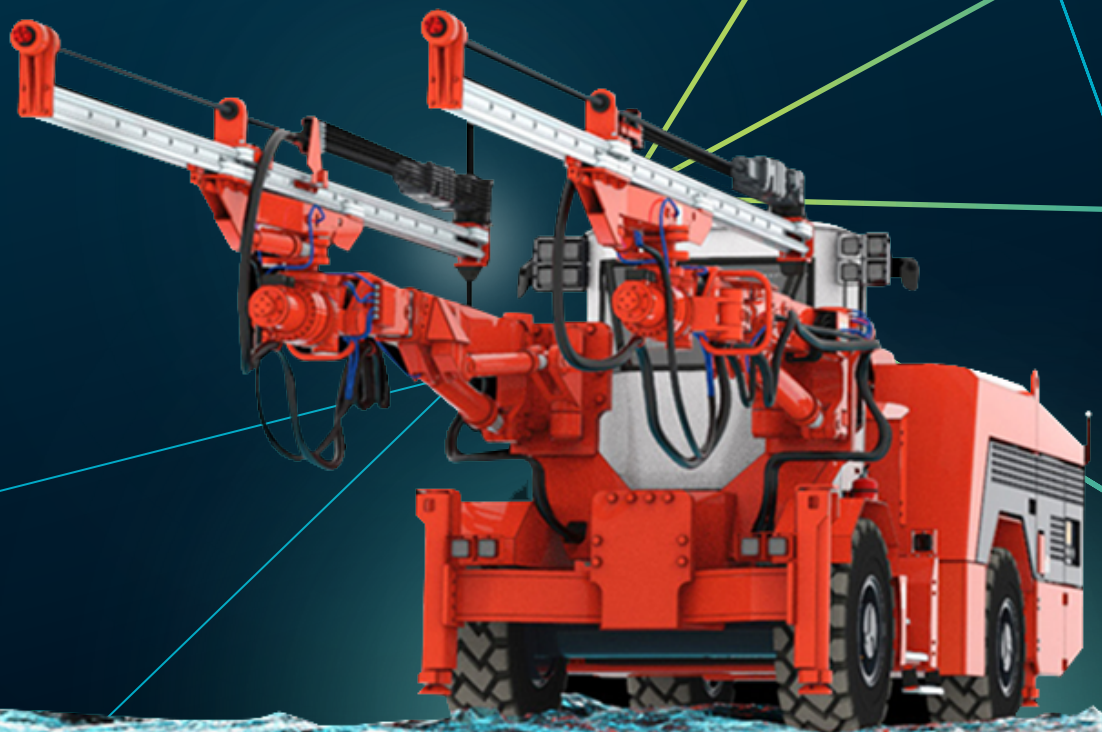


HEXAGON



DEVELOPMENT<sup>®</sup>  
OPTIMISER

**Increase Accuracy.**  
**Reduce Over-Break.**  
**Increase Advance.**





## About Hexagon

Hexagon is a global leader in digital reality solutions, combining sensor, software and autonomous technologies. We are putting data to work to boost efficiency, productivity, quality and safety across industrial, manufacturing, infrastructure, public sector, and mobility applications.

Our technologies are shaping production and people-related ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Hexagon's Mining division solves surface and underground mine challenges with proven technologies for planning, operations and safety.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 24,000 employees in 50 countries and net sales of approximately 5.5bn USD. Learn more at [hexagon.com](https://hexagon.com) and follow us @HexagonAB.

| Visit us at [hexagon.com/mining](https://hexagon.com/mining)



### The Power of One partner for your mining solutions

A safer, more productive and sustainable future depends on digital transformation. A global leader in digital reality solutions, combining sensor, software and autonomous technologies, Hexagon helps mines to autonomously connect by integrating critical workflows. Only Hexagon can take you there.

### Connect with Us

Digital transformation demands more than partial solutions. Hexagon is the complete solution, connecting all parts of your mine.

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*\*Minnovare is now part of Hexagon.*

