

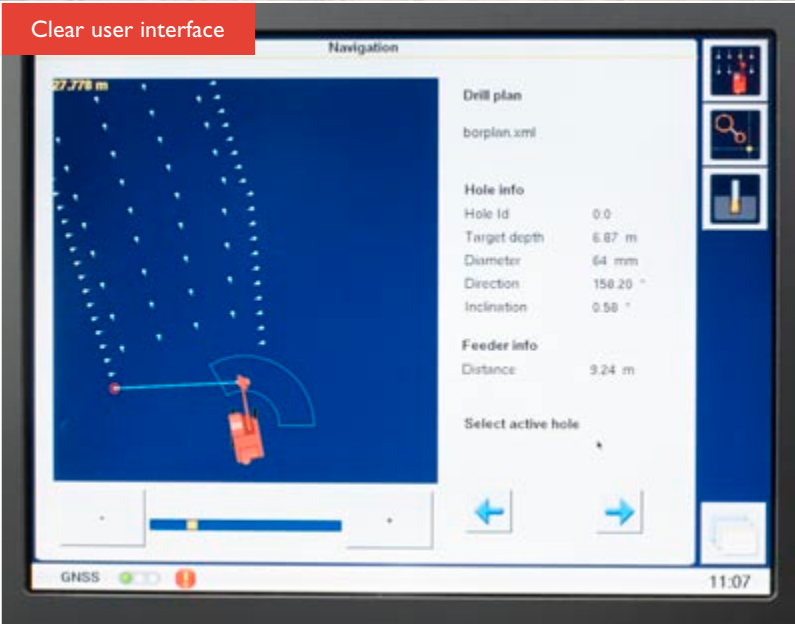
Sandvik TIM3D

On top of accuracy

Advanced navigation system for surface top hammer drilling



Accurate navigation



A new era of navigation

Sandvik TIM3D is a drill rig navigation system that brings drilling rigs into the realm of 3D machine automation. The system uses satellite navigation to guide the starting point and the correct course of drilling in accordance with the drilling plan. TIM3D consists of three essential operations: Rig navigation, feed alignment and drilling.

TIM3D is available for Sandvik DPi and DX series surface top hammer drill rigs.

ACCURACY FOR ABSOLUTE EFFICIENCY

The TIM3D navigation system improves hole quality and hole position accuracy. This translates into better fragmentation and decreased amount of boulders and fines, resulting in

increased efficiency further in the production process, both in crushing and loading and hauling. The system also removes the need for surveying and for any hole marks, and thereby also the risk for marking errors, significantly speeding up drilling.

Based on a multisatellite RTK GNSS navigation, TIM3D is compatible with GPS and GLONASS satellite systems. The navigation uses drilling plans made either with standard office programs or with the system itself. The plan is imported to the rig with a USB memory in IREDES standard format, containing the target coordinates in three dimensions. Local base station, or VRS correction, keeps navigation accuracy within 10 centimetres.

TIM3D improves drilling accuracy and efficiency in quarrying, construction and open pit mining applications.

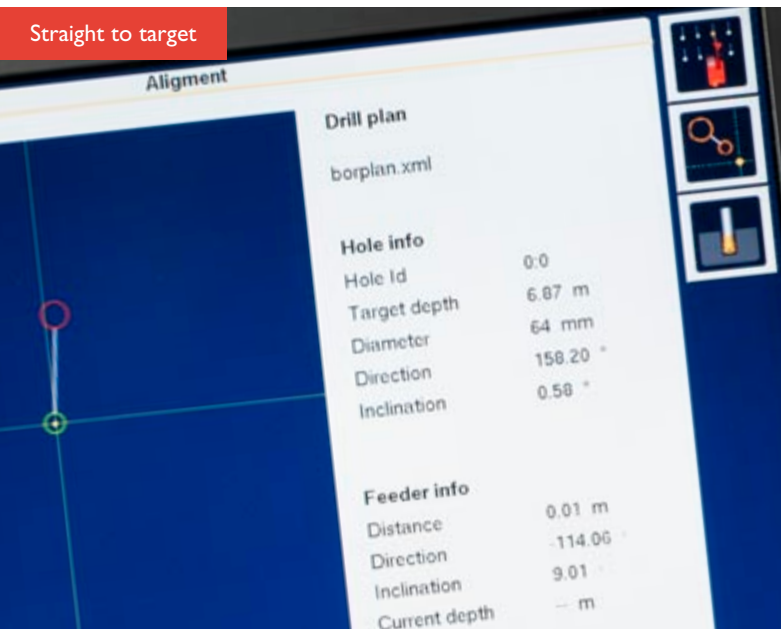
Simple system

Easy drilling

Thanks to a modern and clear user interface, the TIM3D system is easy to use. Not only that, it makes the drilling process easier for the operator in many other ways. The system compares the position of the drill bit with the planned hole position and guides the operator to the correct starting point of the chosen hole. During drilling, the operator can follow the penetration rate and hole depth, distance to target, number of required rods and current feed

alignment. At the target depth, drilling stops automatically. In addition, the system shows the status of the holes with color codes.

TIM3D allows the operator to deviate from the drill plan if needed, for example due to an infeasible planned starting point. Despite the modification, the hole bottom remains as planned: TIM3D system automatically calculates a new course based on the actual starting point of the hole.



TIM3D allows deviations from the drill plan. If this is done, a new course is automatically calculated.



Accurate drilling. Excellent fragmentation

Reports for all needs

The drilling data – the actual parameters - are stored in the system memory from where it can be imported in various programs, such as blasting simulation. The data includes a quality report, position and depth of the drilled holes, drilling time, and start and end points.



Productivity in Action

Sandvik is a high-technology engineering group with world-leading positions in selected areas – tools for metal working, advanced materials technology, and mining and construction. We employ more than 47 000 people and are represented in 130 countries.

Sandvik Mining and Construction represents one third of the overall Sandvik Group and serves a broad range of customers in construction, mineral exploration, mining and bulk materials handling. Our construction expertise covers quarrying, tunneling, demolition and recycling, and other civil engineering applications. Our mining products and services support customers on the surface and under ground, in all mineral, coal and metal mining applications from exploration to ore transportation.



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