xCell® Banshee

Digital monitoring of consumed capacity
for MD/MDX Bolts



SANDVIK

Digital monitoring of consumed capacity for MD/MDX Bolts

xCell® Banshee is one of our two newest modules in the Digital Ground Support Platform enabling safer and optimized ground support in mines. Thanks to better knowledge about ground conditions and bolt status, all ground support activities & future ground support designs can be optimized. It allows even better workforce deployment, allowing geotechnical engineers to focus on data interpretation and not collection. Constant integrity monitoring of the mine helps to prevent ground support failure and keeps the employees safe. Rehabilitation activities can be planned based on the measured expected lifetime of the installed bolts and the data about ground conditions, significantly reducing the costs of rehabilitation work. With the production of all MD/MDX Bolts gradually changing to the measurable version, all future installed MD/MDX Bolts become a potential measuring point without extra hardware costs. Together with all the other data from our digital solutions, all this essential information, analysis, and documentation is available in just one system – the Digital Ground Support Platform.

Upgraded measurable MD/MDX Bolt

— Optimized design for in-service testing
— New ID tab for extra protection
— Production of MD/MDX Bolts will gradually transition to the measurable version, at no additional cost
— No changes in bolt performance



xCell® Banshee cap

— Unique serial number for 100 % secure allocation of the measuring results to the right bolt in the Digital Ground Support Platform



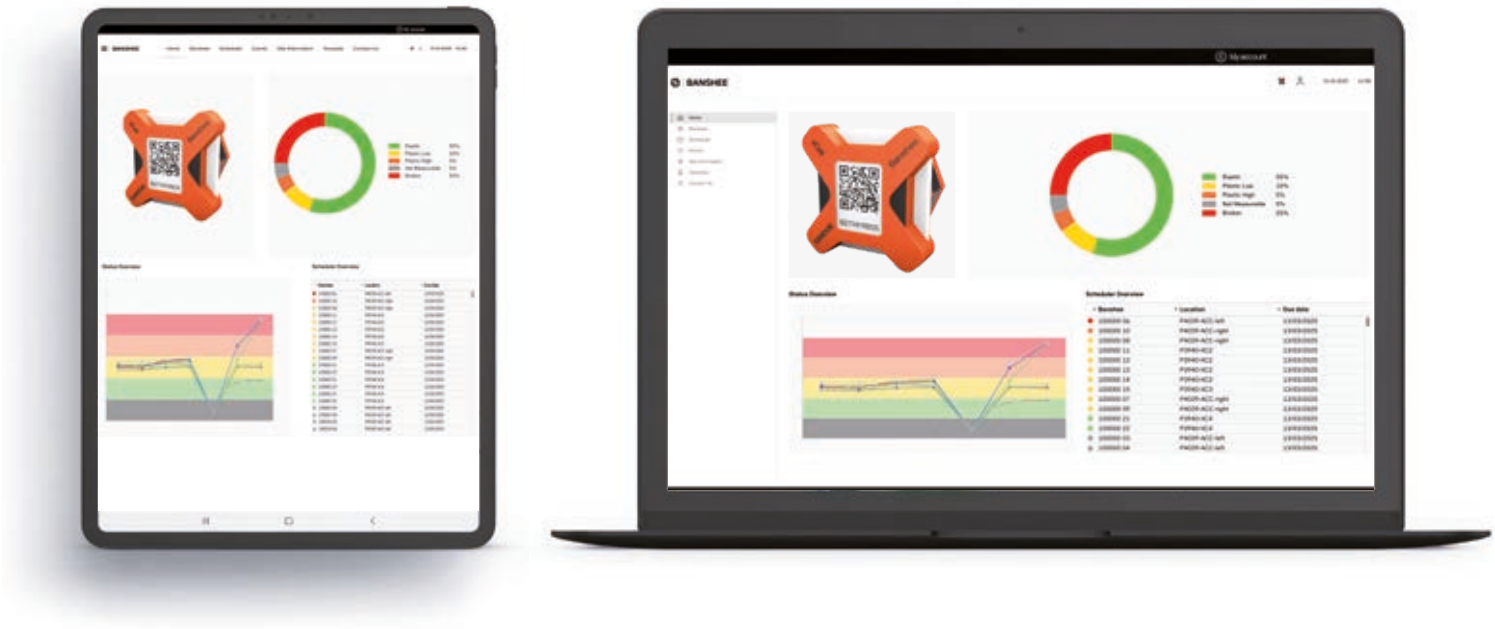
Easy installation and monitoring

There are no changes to the standard MD/MDX Bolt installation process and with the production of MD/MDX Bolts gradually transitioning to the measurable version, all future installed MD/MDX Bolts become a potential measuring point without extra hardware costs. The outstanding bolt performance of the MD/MDX Bolts won't change with this transition.
The consumed capacity of the bolts will be measured by Sandvik personnel, using unique calibration parameters. The xCell® Banshee cap with the individual serial number will be installed at the first measurement, to secure 100 % safe allocation of all future measuring results to the right bolt in the Digital Ground Support Platform.
By testing selected bolts, this efficient new monitoring solution can provide valuable ground support performance insights for planning and execution of ground support activities in mining.

xCell® Banshee module in the Digital Ground Support Platform

iOS interface

Web interface



The cloud-based web and iOS system enables admins and users to collect data, make configurations, and find visualizations of the measurements. Automatic data upload ensures the fast availability of all measuring results. The interface automatically turns the data into graphs and charts showing location, elongation and status of the measured bolt.

Remote access to this data, in contrast to current manual measuring methods, creates safer and more efficient work environments while improving your knowledge of the rock mass behavior in your mine. Together with all the other data from our digital solutions, all this essential information, analysis, and documentation is available in just one system – the Digital Ground Support Platform.

All dimensions, weights, quantities, and specifications are those applicable at the time of this publication and may be amended from time to time. Please contact your local representative for final confirmation of any key specifications.

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