

# ABB remote-control rock breaking system boosts mining safety and productivity

Zurich, Switzerland, June 9, 2015: Deploying technology of the Internet of Things, Services and People to boost safety and productivity in underground mining

ABB, the leading power and automation technology group, is supplying a remote control rock breaking system for Boliden's Garpenberg Mine, deploying technology of the Internet of Things, Services and People to boost safety and productivity in underground mining.

The project includes two ABB remote control stations with ABB remote control desks as well as process and safety controllers, all of which are being integrated along with a real-time video system into the ABB System 800xA automation platform. ABB also developed a 3D simulator, to aid in training and to verify the rock breaker's remote control system.

The 800xA will integrate rock breakers and their hydraulics within Garpenberg's unified system of mill drives, hoists, ventilation and crushing equipment, coordinating what had been fragmented sub-operations into seamless tasks. All fixed equipment can now be controlled from the same control system, ensuring safety and boosting efficiency.

With the remote-control rock breaker, Boliden crews on the surface can continue rock breaking a kilometer or more below ground without pausing for shift changes or waiting until blasting has been completed, meaning they can significantly boost productivity while simultaneously reducing the potential for accidents.

"ABB's remote control technology will make the operation of the rock breakers underground safer and more efficient by enabling operation in a remote station above the ground during blasting and shift changes," says Patrik Westerlund, product manager for underground mine automation at ABB. "The modularized design will also allow Boliden to add more rock breakers as the mine expands by simply adding another ABB remote control station to the network."

The project will be commissioned during the second half of 2015.

Among automation products being delivered by ABB for the rock breaking system are AC800 High Integrity process and safety controllers, four ABB Rock Breaker Remote Control units, ABB remote control desks and the company's Jokab safety equipment, ranging from gates, light curtains, warning lights and emergency stops. During the course of the project, ABB developed the 3D simulator to help verify the functionality of the remote control system as well as to provide a new training tool for companies like Boliden that are seeking to maximize production by boosting the effectiveness of their employees.

For help with any technical terms in this release, please go to: [www.abb.com/glossary](http://www.abb.com/glossary)

## About ABB

ABB ([www.abb.com](http://www.abb.com)) is a leader in power and automation technologies that enable utility, industry, and transport and infrastructure customers to improve their performance while lowering environmental impact. The ABB Group of companies operates in roughly 100 countries and employs about 140,000 people.

## About Boliden's Garpenberg Mine

Successful exploration, coupled with industry-leading technological development, has enabled an expansion of Boliden's Garpenberg Mine, located in Hedemora, 180 km from Stockholm. The investment totaled SEK 3.9 billion and will increase production from 1.4 million tons of ore per year to 2.5 million tons by 2015. ABB's contributions have helped make Garpenberg one of the world's most cost-effective and automated modern mines.

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