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Epiroc highlights automation and digital solutions at SME 2019

Commerce City, Colorado: Epiroc, a leading productivity partner for the mining and infrastructure industries, highlighted its suite of innovative automation and digital solutions at the 2019 Society for Mining, Metallurgy & Exploration (SME) Annual Conference & Expo in Denver, Colorado. Epiroc automation and digital solutions create a connected worksite to make mining operations safer, more productive and more efficient.

“Creating a complete mining ecosystem in which systems, machines and people work together is Epiroc’s vision for the future,” said Hans Schill, Automation Application Center Manager at Epiroc in the U.S. “Through product and technology innovation, Epiroc is working to redefine worksite safety, productivity and predictability.”

Epiroc highlighted a spectrum of scalable solutions for automation, telematics, teleremote operation, high-precision drilling, and decision support. Solutions featured included:

Certiq telematics

The [Certiq](#) telematics solution gathers, compares and communicates vital equipment information through a user-friendly web portal. Available for new and existing surface and underground machines, Certiq also records information for later use in training, assessment and planning. It is a key component in a comprehensive solution to optimize workflow and enhance monitoring and management of equipment fleets.

BenchREMOTE remote operator station

Remotely operating drills is the fastest growing trend to optimize drilling operations. The Epiroc [BenchREMOTE remote operator station](#) enables operators to control multiple smart surface drill rigs from a distance, leading to safer and more effective operation. The operator can perform all of the same drilling functions that can be done in the cab, with communication between the BenchREMOTE and remote rigs ensured via closed and secured wireless networks. The solution also supports geofencing for added safety.

Hole Navigation System (HNS)

The Epiroc [Hole Navigation System \(HNS\)](#) works with GPS satellite coordinates to guide the drill to the exact spot for drilling each hole. It ensures that all holes are drilled to the correct depth and at the correct angle according to the drill plan, improving precision and reducing non-drilling time. HNS removes the need to manually mark and survey hole positions, which greatly improves efficiency and safety on the bench.

Surface Manager

Surface Manager converts production data into useful information and reports. The software displays data in an easy-to-use layout to map drill usage, evaluate production statistics, track consumables and compare planned outcomes against actual results. Portrayed on charts and graphs, such management tools help with driller training and provide decision-making support. Surface Manager also allows for the creation of geofences.

Underground Manager

[Underground Manager](#) is support software for planning, administration and evaluation of the drilling operation in mining and tunneling projects. Epiroc drifting and tunneling rigs with Underground Manager can utilize

planning data for navigation and positioning of the holes to be drilled. The software also continuously and automatically collects drilling data.

Advanced Boom Control (ABC) Total

ABC Total is a smart function that allows for complete automation of the drilling process, even through personnel breaks and shift changes. The drill pattern is selected, the boom and feed is positioned automatically and fully automatic drilling takes place including automatic collaring of the hole. The program also includes hole sequence programming and boom collision control.

Scooptram Automation Regular

The [Automation Regular package](#) allows the Epiroc Scooptram underground loader to be controlled through an operator station from a remote location, boosting productivity and safety. The automation package also makes it possible for operators to quickly and easily transition from manual to automatic mode, which is crucial in mines with a dynamic environment or quick advancements.

Mobilaris Mining Intelligence (MMI)

Mobilaris Mining Intelligence (MMI) is a position-based decision support system that increases personnel safety and productivity. It can be used to track and find equipment, vehicles, personnel and oversee infrastructure in real-time 3D. Thanks to its open interface, Mobilaris is also easy to integrate with mining applications for information-driven mining and tunneling operations.

AutoDrill 2

Patent-pending AutoDrill 2 recognizes drill bits and adjusts rotary drilling performance to rock conditions in real time. Available for Epiroc Pit Viper blasthole drills, the fully automated drill cycle optimizes drill, bit and ground performance to deliver quality holes, consistency in operation, and superior production. AutoDrill 2 is continuously optimized with new software releases.

Auto Rod Change (ARC)

Rod changing is one of the most detailed and repetitive phases of multi-pass drilling. Auto Rod Change (ARC) seamlessly integrates into the existing Epiroc AutoDrill 2 to provide a complete multi-pass automation product for blasthole drilling. ARC is a patent-pending technology that throughout the AutoDrill process reliably and efficiently adds rods to reach target depth and removes rods during the retract and cleaning phases. The efficiency, safety and predictability increases that AutoDrill 2 provides have helped many Epiroc customers reach new levels of drilling.

Mobius® unmanned command and control

Mobius from Epiroc partner ASI Mining offers the industry's most advanced unmanned command and control solution for safer and more productive robotic vehicle operations. Featuring embedded artificial intelligence, the user-friendly Mobius system enables multi-vehicle command, control and monitoring to maximize productivity and safety.

Epiroc automation and digital solutions can be used to connect work sites in many surface and underground applications, and the company will continue to add to its suite. For example, the automation-ready Epiroc Pit Viper PV-231 surface blasthole drills will become available in spring 2019.

The Pit Viper series of surface blasthole drills offers Rig Control Systems (RCS) with automation capabilities as standard. The RCS is entering its fifth generation, building on the proven RCS4 platform with operational

enhancements. Customers have the ability to operate their Pit Vipers manually with automated assistance or to utilize the platform for fully autonomous operation experienced today at mines around the world.

Since its debut at MINExpo 2016, the PV-231 has undergone 18 months of successful field testing. The drills deliver application flexibility, fuel-efficient performance and enhanced safety with outstanding operator comfort and ease of maintenance.

The PV-231 builds on the innovation and success of the Pit Viper PV-235, which is operating at more than 20 major mine sites, while maintaining the highest levels of productivity and reliability. One customer base looking to get as much value out of a single-pass surface drill is the gold market. Epiroc has worked with many gold mining companies to make the drilling process more productive and efficient with the PV-231.

For more about Epiroc, visit www.epiroc.us or call 844-437-4762.

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Epiroc is a leading global productivity partner for the mining and infrastructure industries. With cutting-edge technology, Epiroc develops and produces innovative, safe and sustainable drill rigs, rock excavation and construction equipment and tools. The company also provides world-class service and solutions for automation and interoperability. Epiroc is based in Stockholm, Sweden, had revenues of SEK 38 billion in 2018, and has more than 14,000 passionate employees supporting and collaborating with customers in more than 150 countries. Learn more at www.epiroc.us.