

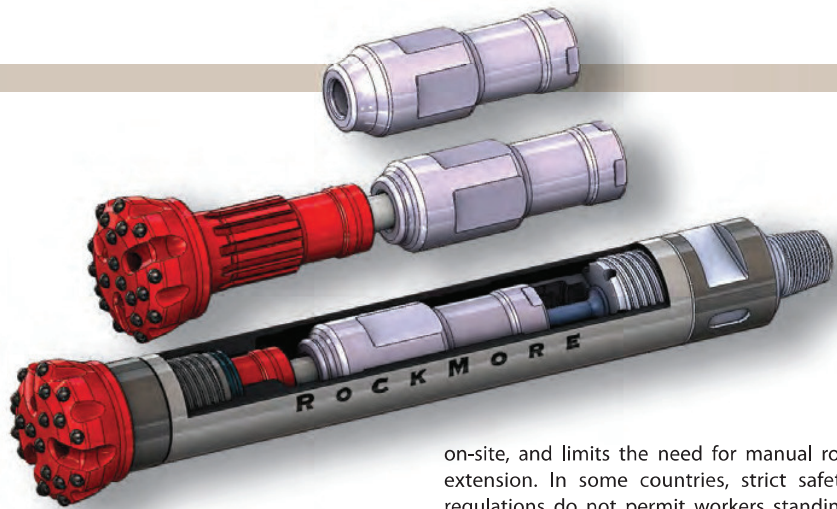
Rockmore International's new ROK 600A and 650A DTH hammers are said to demonstrate better performance and penetration rates suited to smaller compressors

increase productivity and accuracy in the industry.

Atlas Copco's Boomer E-series features a new Rig Control System and a new version of Atlas Copco's advanced Underground Manager System software, for instance. The upgraded control system features a user-friendly interface, an expanded 381mm touch screen and two multi-functional joysticks instead of four.

All functions have been grouped in nine blocks under a new tree structure for easy navigation within the system. Together with the new touch screen display, operation is streamlined and training time is said to be reduced for new operators.

The Underground Manager technology, meanwhile, is said to take planning and evaluation to a higher level. The system contains a new drill plan generator, complete 3D view of the tunnel, smart interpolation of contours, and an improved log and report function.



Göran Manell, site manager for rock excavation at contractor at NCC, praised the new technology. "The new Boomer with its updated Rig Control System has as much better interface and a more user-friendly screen. It's much faster for operators to work with than its predecessor. The new RHS (Rod Handling System) has also given us a big advantage. Everything works much smoother and we have a much safer working environment."

Using a hydraulic carousel and two gripping arms, the RHS allows new rods to be attached

on-site, and limits the need for manual rod extension. In some countries, strict safety regulations do not permit workers standing on the service platform carrying out manual work while drilling is being performed with other booms. This means booms equipped with RHS can handle rods mechanically while face drilling is being conducted with the other boom(s).

Atlas Copco's latest launches also include the COP 4038 rock drill for the new series of Boomer E rigs. Designed for hard rock conditions, the manufacturer claims the COP 4038 is the strongest and fastest on the market – between 20% and 30% faster than its nearest competitor.

The 40kW COP 4038 comes with a COP Care Pro service agreement to help safeguard reliability, availability and productivity. It is designed for 43 to 64mm drifter holes and uses Atlas Copco's high-frequency technology together with a double damping system to absorb reflex shock waves – making it possible to drill exceptionally fast without increasing wear on the drill steel, according to the company.

HAMMER INTRODUCTIONS

Rockmore International has also added to its DTH product line with the introduction of the ROK 600A and 650A hammers. These 6in (152mm) class hammers are the first of a new A Class range from the manufacturer, featuring new component designs that are said to demonstrate better performance and penetration rates suited to smaller compressors.

The company said the more efficient use of compressed air translates to lower air consumption, which leads to lower costs.

"We are committed to developing new DTH hammer solutions that increase productivity and reduce drilling operating costs," said Pejman Eghdami, executive vice president of Rockmore International.

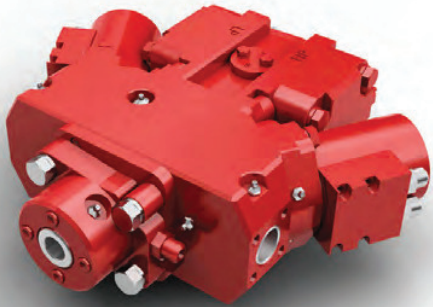
"Our new A Series line incorporates technological advancements that allow the hammers to be compatible with a wider range of compressors. This has been achieved by lowering air consumption rates and instilling higher efficiency levels."

The piston and wear sleeve components have been redesigned to increase airflow efficiency at lower air volumes for the hammer cycle. This modification has resulted in air consumption to drop to 26.5m³/min at 24.1 bar – allowing smaller compressors to be used – while increasing penetration rates and further improving productivity and performance. The new 600A and 650A >

Sandvik's tunnelling jumbos now come with an Access Detection System that shuts down drilling should a person enter the booms' working area.



DRILLING



TEI Rock Drills' new TE60 – the OEM market for underground bolting equipment has been requesting a shorter drifter "for many years"

hammers are targeted for DTH bits to drill from 155 to 178mm.

The technology on Sandvik's tunnel drilling rigs, meanwhile, is packaged into a system called DTi, which was first introduced in 2008. Features added since include wireless local area network (WLAN) remote access and the iBolt navigation and bolting system.

The latest additions are an Access Detection System that stops feed and rotation if a person enters working area near the booms, while the rigs themselves are also available with Sandvik's new high frequency RD5 series rock drills.

The Access Detection System is an important safety enhancement built around sensors on the sides of the jumbo. If they detect in the dangerous area near the booms, rotation and feed will automatically stop. This prevents anyone from entering the working area while the booms are in operation and a separate



Minnich's new A-1 Utility can drill both vertically and horizontally

reset is required by before drilling can restart.

The new RD5 high frequency rock drills meanwhile feature a low profile design and a patented stabiliser with an intelligent control system that dampens harmful shockwaves. The simple body structure of the drills along with their modular construction and visual wear indicators are designed for ease of use and maintenance.

Sandvik says these units offer 15% to 20%

higher penetration rates and significantly longer tool life compared than the previous HLX5 range.

OEM MARKET

TEI Rock Drills, meanwhile, claims the OEM market for underground bolting equipment has been requesting a shorter drifter for many years, as well as new drifters for limited access drilling such as installing hollow-bar micropiles in the repair of old buildings and bridges.

Drifter rock drills are drills which are placed on top of a feed that travels with the drill.

The new TE160 is said to provide more power in a much smaller package than was previously available. It is a very short (420mm) drifter that provides a high blow frequency (7,400bpm) with high torque (135daNm).

This combination is said to make the TE160 especially suited for drilling where low headroom or short space is a priority. The drill also uses TEI Rock Drills' internal dampening system, which allows full percussion power only when the shank adapter is entirely engaged.

The TE160 is available with one or two rotation motors, and a percussion unit that delivers 7kW of power. Whether mounted on a TEI Rock Drill excavator attachment or another manufacturers' rig, it fills a void that has existed in the manufacturing of hydraulic drifters, according to the company.

Another small drill has been introduced by Minnich Manufacturing, targeting concrete drilling applications in the utilities sector. The A-1 Utility can drill both vertically and horizontally and is available in two models – the A-1-24 UTL and the A-1-30 UTL.

The A-1-24 UTL has an operating weight of 34kg and can reach a drill depth of 177mm, with a cutout width of 609mm. The A-1-30 UTL weighs 36kg and can reach a drill depth of 254mm with a cutout width of 762mm.

Drilling down with confidence

Ditch Witch has developed new technology designed to give directional drill contractors confidence when breaking ground for the first time, even in high interference areas. The TK Series horizontal directional drilling (HDD) Guidance System features dual locating methods, a four-frequency beacon, and a depth range of up to 33.5m.

On a typical underground construction jobsite, operators of HDD locating electronics have to contend with signal interference from sources including metal fences, radio signals, underground and overhead utilities, and nearby structures.

The Ditch Witch TK Series HDD Guidance System is designed to cut through the interference and enable the operator to confidently, and accurately, determine the location of the drill head beacon.

Three models are available – the single-frequency TK for smaller rigs and relatively short bores, the dual-frequency TKD for medium-size rigs and standard bores, and the TKQ four-frequency tracker for large rigs and long bores.

The TDR remote display can also be custom mounted, and when the job is done and it is time to document the bore, the TK Series' bore-logging/reporting software is said to provide an accurate "as built" record.

The Ditch Witch TK Series HDD Guidance System is designed to cut through the interference to allow operators to determine the location of drill head beacons.

