

ROCKMORE

BOOTH: C2.327

After several years of intense research and development followed up with monitored field tests in various ground conditions, Rockmore International has developed a new thread design, XT, for the Vector Rod system. The new XT design incorporates revolutionary new guided cylindrical contact zones between the male and female thread joints. These guided surface features are located in the nose and rear of the thread connections and serve various benefits and improvements over traditional threads.

The XT thread profile is based on the traditional trapezoidal 'T' thread design and is therefore compatible with industry standard thread types such as T38, T45 and T51. Thus, one can interchange and connect standard 'T' style threaded components with the new XT thread, although the guiding advantages aforementioned would be neglected, according to Rockmore. For example, a T45 threaded bit or shank adapter can be connected to a XT45 threaded rod with full compatibility.

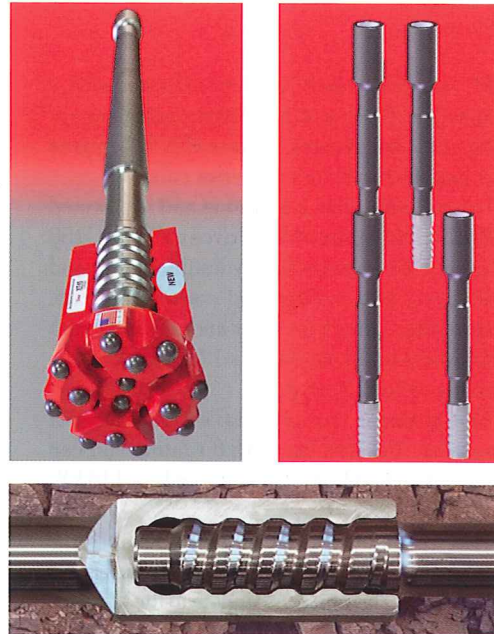
In order to achieve the full engineered benefits of the XT thread, however, one must consider the drill string as a system of connections between the shank adapter, rods and the bit in extension drilling applications, said Rockmore. Thus, the XT thread design employed in the Vector Rod system enables many performance and reliability benefits leading to major overall cost savings in the drilling cycle.

The dual cylindrical contact zones in the nose and rear of the XT threads significantly increase the lateral support between thread joints and stabilise the connections with more rigidity to provide better energy transfer. The enhanced thread support and geometry extends thread life and increases the overall component service life of the shank adapters, rods and bits with XT threads that comprise the Vector Rod system.

Because the XT thread guide feature improves thread alignment, the impact duration when 'rattling' rods, as required in uncoupling connections, is minimised. This leads to lower wasted energy transmission, cooler couplings on rods, and ultimately to longer rod life. Thread grease is also better retained on the thread pitches resulting from the new XT geometry, further increasing thread life in all XT components.

Another key advantage of this rod system over traditional threaded components is providing straighter holes and minimising its deviation, so inherently critical in modern drill and blast techniques, explained Rockmore. The guided XT thread feature increases the rigidity and stability of the connections between the shank adapters, rods and bits so significantly that overall rod bending is minimised and hole straightness improved. In fact, this improvement allows for larger and deeper blast holes to be achieved using existing rod diameters, but only by converting to XT threaded components. In underground mining long-hole and production applications where up to 30 rod connections are common, hole deviation can be reduced substantially by using Vector Rods.

The Vector Rod system is offered in multiple configurations of button bits, MF rods and shank adapters. These drill string components are available in XT38, XT45, XT51 and XT60 thread types, designed to improve drilling productivity and reduce extension drilling operating costs in surface and underground percussive drilling. ■



All images: Rockmore has developed a new thread design, XT, for the Vector Rod system.



**Our Moisture Measurement
is Better than Ever**



NEW: Hydro-Probe



NEW: Hydro-Mix

Our new sensor models retain the existing proven exterior design but have been updated internally for an even better performance

- Accurate, consistent, real time moisture measurement
- Digital technology with precise linear output
- Easy to integrate into new or existing systems
- Remote calibration and configuration
- Temperature stable

enquiries@hydronix.com
www.hydronix.com

bauma 2016
Hall C1 Stand 144