

Extending underground

Rockmore International is now targeting underground drilling projects with its Vector rod system

Rockmore International, a global manufacturer of rock drilling tools for the mining and construction sectors, originally launched its Vector rod system in early 2016 at Bauma in Munich, Germany.

It was created as a solution for improving performance and service life of extension drilling tools for percussive drilling applications.

According to the company, the line of drilling tools offers advantages in productivity and reliability and has exceeded expectations thus far.

As a result of several years of research and development, the company's engineers developed a new thread design, XT, for the Vector rod system. The XT thread design incorporates 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.

SKIMMING THE SURFACE

Initially, Rockmore says, surface drilling applications were introduced to the Vector rod system that experienced great results and improvements in drilling efficiencies.

Contractors and mining operations realised the benefits of the XT thread in their drill-and-blast surface drilling routines and many converted their surface rig fleets over to the Vector rods.

During the last year, however,



Rockmore has pursued the underground percussive drilling segment in the production and long-hole drilling sectors to convert them accordingly to the Vector rod system.

This type of drilling is common in mines, underground quarries, and large underground construction projects that all use extension drilling tools that are male-female rod based.

"We have recently specifically targeted underground drilling applications to broaden our Vector rod market and offer its benefits to more drilling operations," says Pejman Eghdami, executive vice-president of Rockmore International, commenting on the recent developments.

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.

Another key advantage of this rod system over traditional

threaded components is providing straighter holes and minimising deviation, which is inherently critical in modern drill-and-blast techniques, especially in underground long-hole drilling patterns.

The guided XT thread feature increases the rigidity and stability of the connections between the shank adapters, rods and bits, so that overall rod bending is minimised and hole straightness improved.

In underground mining long-hole and production applications, where up to thirty rod connections are common, hole deviation is reduced substantially by using Vector rods, Rockmore says.

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. ▼

The Vector rod system can be used for production and long-hole drilling underground