

## Drill hoses

RYCO has debuted its latest hoses for the mining industry. Released under the brand DRILLER, the hoses have been specifically designed for use on mining drill rigs. The high pressure large bore hose is suitable for air or oil and has the flexibility of half SAE bend radius. More commonly known as Bull Hose, the drill rig hoses are reinforced internally with two braided layers of high tensile steel wire with a robust, flame and abrasion resistant synthetic rubber cover.

Available in two sizes – at 2" and with a maximum working pressure of 1300 psi, or at 1½" with a maximum working pressure of 1450 psi – it has been designed to match with Rycos's 1700 series non-slave couplings.

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## Modular drill rig

BOART Longyear has launched the self-transportable SC11 surface exploration drill rig.

The compact and modular drill provides 5456 Nm of torque, can manage PQ size rods, and is targeted at the 1300 to 1500 metre NQ market.

The drill rig is able to be broken down into a number of parts and flown into sites where it can be reassembled via quick connect hydraulic couplings, with the heaviest lift being only 680 kg.

The SC11 comes with a large diameter, deep hole drilling capacity with a 132 kN pullback rating, and a variable speed motor that provides 5456 Nm at the head of the tri-cone drilling and 1230 rpm speed for diamond drilling.

The rod handler is controlled hydraulically and utilises LM rod handling technology as well as proximity sensors to protect the operator from rod drops.

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Has a 132kN pullback.

## Drilling software

REFLEX has released the GMIT 5 software which controls gyro survey instruments.

The software is updated from Reflex's MeasureIT software, and provides greater control as well as full three dimensional displays.

It allows operators to analyse post survey data in tabular and graphical formats, and view multiple borehole paths in 3D co-ordinates.

This means operators no longer have to switch between plan and section views, as the 3D graphics allow them to easily analyse the drill hole from all directions and afterwards plot any of the available parameters after surveys on the drill site. The GMIT 5 software has faster processing speed than previous incarnations and also has improved diagnostic functions, which alert operators to survey errors by providing an error number and a brief description of it.

The software allows the Reflex Gyro and High Temperature Gyro Smart Instruments to be used for a variety of drilling applications, including underground conventional, horizontal and drop tool.

The software runs on field computers and controls the survey instruments via Bluetooth.

The instruments themselves engage with orthogonally mounted digital MEMS-gyros and mounted accelerometers that sample and record data at a rate of more than 7000 samples per minute.

GMIT 5 guides the operator through the survey process from set up and tool connection to pre-survey alignment, azimuth input, carrying out the survey, post survey alignment and the downloading of raw data.

After survey completion, the data is transferred to a field computer for processing.

Azimuths for each survey station is calculated based on the gyro data, and angular rates integrated according to time.

The timing of the station marks is synchronized with the timing of the recorded gyro data, and the change of azimuth stations is calculated. For near inclined boreholes a known azimuth value can be entered, however for near vertical boreholes the software guides the operator through a procedure where the tool face of the gyro instruments are directed in a known azimuth direction using a sight (either optical or GPS compass) that is attached to the instrument. The software displays the azimuth and dip for each survey station, the borehole coordinates and a number of other parameters including deviations from the intended borehole path; gravity field; dog leg severity; and tool rotation.

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## Exploration drill rigs

HYDCO International has unleashed its Australian-designed Hydco 1200H exploration drill rig.

Described as ideal for WA drilling applications, the Hydco 1200H features powerful RC and coring capabilities. It can core drill to depths of more than 2000 meters and features a mast structure that produces 21.5 tonnes of pullback to provide contractors with high performance levels.

The rig was developed to build on the success of the company's Hydco 1000H drill. Hydco 1000Hs regularly drill to depths between 1000 and 2000 meters and have proven to be strong workhorses. The large, multi-purpose 1200H offers quick crossovers from air applications to coring.

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Features RC and coring capabilities.

## Drilling rigs and fluids

AIRDRILL has showcased its growing Queensland presence. With the burgeoning coal seam gas drilling markets, Air Drill is well placed to provide the rig, expertise and knowledge for terrestrial-based drilling.

Airdrill will also showcase its Schramm Rotadrills and Telemast Drill Rigs; multipurpose Drill Rigs, Exploration Drill Rigs, Grade Control Drill Rigs, Blast Hole Drill Rigs, Rotary Heads and Clutches; Matex Drilling Fluids; Diaspan Spanners; and Atlas Copco (Hurricane) boosters.

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## Diamond coring bits

BOART Longyear has upgraded its Stage diamond coring bits.

The new bits include upgrades to the Stage3 waterways, Stage bits with a 16 millimetre crown and an optional face-discharge feature.

With crown heights of more than 25 millimetres, the new bits provide better penetration rates, longer active drilling in the hole and fewer rod trip outs.

The design features an expansion of the window which improves productivity, revised window layout and Boart's Razordisc face design which the company claims provides the driller with a ready to cut bit straight from the box.

These window upgrades includes window with rounded corners for greater durability and increased resistance to damage caused by debris in fractured ground conditions. The Stage windows are now positioned to rotate in the opposite direction of the rod's rotation, creating more surface material which increased the strength of the crown. The windows also feature an inward twin taper design to increase wear resistance and creates more material on the window's inner diameter which increases material strength.

In addition, the tapered windows cause high fluid velocity in the inner diameter, resulting in better flushing of fluids, cuttings and debris.

The 16 millimetre model also includes the upgraded technology for more options when drilling at shallower target depths.

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Ready to cut from the box.