

Leading European service provider for the mining industry

Machinery & equipment



Surface Drilling Rigs

Exploration

Resource upgrade

Geotechnical





1

Epiroc Christensen C140 Specs

- **Cummins QSB 6.7lt Tier 4F 160kW (215hp)**
- **RPM : 1800**
- **Diesel turbocharged**
- **Cooling : water**
- **Rod holding force : 130kN**
- **Chuck holding capacity : 178kN**
- **Mast pull force : 138kN**
- **Mast thrust force : 59.6kN**
- **Mud pump : Trido 140H (140lt/min, 64bar)**
- **Max Torque (Rotation Unit): 7600Nm**
- **Max Speed (Rotation Unit): 1300rpm**
- **Drilling Capacity : 1400m (NQ)**
- **Wireline hoist : 2000m**
- **Max drum pull : 13kN**
- **Drilling angle : 45°-90°**

The Christensen surface core drilling rigs have a well-earned reputation for reliability when it comes safety and performance. Large core samples, a gear driven rotation unit and a constant penetration rate allow the Christensen 140 to boost your productivity and profits. The durable Christensen 140 rig is also designed to help you meet tough environmental protection demands anywhere in the world.

- ✓ Wireline
- ✓ Crawler
- ✓ PQ, HQ, NQ



2

Epiroc Christensen CS14 Specs

- **Cummins QSB 6.7lt Tier 3 / 153kW (208hp)**
- **RPM : 1900**
- **Diesel turbocharged**
- **Cooling : water**
- **Rod holding force : 130kN**
- **Chuck holding capacity : 178kN**
- **Mast pull force : 138kN**
- **Mast thrust force : 59.6kN**
- **Mud pump : Trido 140H (140lt/min, 64bar)**
- **Max Torque (Rotation Unit) : 5100 Nm**
- **Max Speed (Rotation Unit) : 1300 rpm**
- **Drilling Capacity : 1200m (NQ)**
- **Wireline hoist : 2000m**
- **Max drum pull : 13kN**
- **Drilling angle : 45°-90°**

The CS14 represent the most flexible rig size in the Christensen range of surface core drilling rigs. Medium-sized, the Christensen 14 range is ideal for a variety of drilling applications - suitable for most depths or types of terrain. All models have a drill capacity of 1200 meters (NQ), and are equipped with a powerful feed system, main winch and Stage 3A/Tier3 ready engines which reduce emission levels.

- ✓ Wireline
- ✓ Trailer
- ✓ PQ, HQ, NQ





3

Boart Longyear 44 Specs

- **DEUTZ 914 / 74kW (99hp)**
- **RPM : 2800**
- **Diesel turbocharged**
- **Cooling : water**
- **Holding force : 100kN**
- **Pull force : 75kN**
- **Hydraulic chuck Boyles : 12HH**
- **Mud pump : Piston pump 110lt/40bar**
- **Drilling Capacity : 1100m (NQ)**
- **Drilling angle : 55°-90°**

The Boart Longyear 44 surface core drilling rig is a flexible solution for any kind of terrain. Mounted optionally on truck or on skids can be installed easily in open landscapes or even on mine benches.

- ✓ Wireline
- ✓ Down-the-hole
- ✓ Truck, skid
- ✓ HQ, HQ3, NQ, NQ3



4

JKS Boyles 37 Specs

- **Deutz F5L-912 / 66kW (88hp)**
- **RPM : 2500**
- **Diesel turbocharged**
- **Cooling : water**
- **Rod holding force : 100kN**
- **Mast pull force : 75kN**
- **Hydraulic chuck Boyles : 12HH**
- **Mud pump : Piston pump 110lt/40bar**
- **Drilling Capacity : 690m (NQ)**
- **Wireline hoist : 2200m**
- **Max drum pull : 9.3kN**
- **Drilling angle : 55°-90°**

The Boart Longyear 44 surface core drilling rig is a flexible solution for any kind of terrain. Mounted optionally on truck or on skids can be installed easily in open landscapes or even on mine benches.

- ✓ Wireline
- ✓ Down-the-hole
- ✓ Truck, skid
- ✓ HQ, HQ3, NQ, NQ3



5

JKS Boyles 17 Specs

- **Deutz F4L-913 / 66kW (88hp)**
- **RPM : 2500**
- **Diesel turbocharged**
- **Cooling : water**
- **Rod holding force : 55kN**
- **Mast pull force : 40kN**
- **Hydraulic chuck Boyles 234HH**
- **Mud pump : Piston pump 110lt/40bar**
- **Drilling Capacity : 500m (NQ)**
- **Wireline hoist : 600m**
- **Drilling angle : 55° to -90°**

The JKS Boyles 17 surface core drilling rig is low power, yet flexible solution. Mounted optionally on truck or on its own skids can be installed easily in open landscapes or even on mine benches to drill low- to medium-depth boreholes.

- ✓ Wireline
- ✓ Down-the-hole
- ✓ Truck, skid
- ✓ HQ, HQ3, NQ, NQ3



6

Boart Longyear 34 Specs

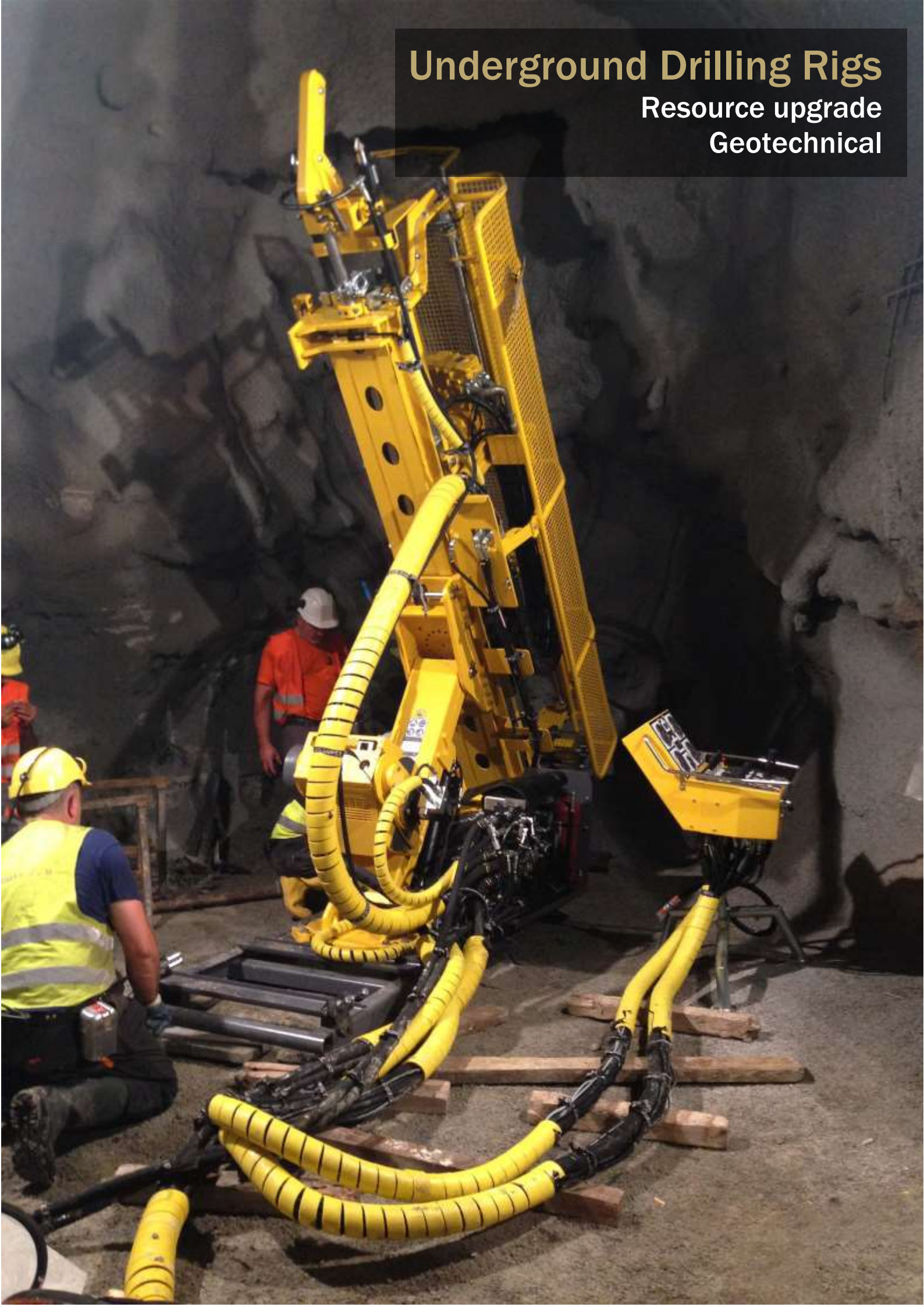
- **DEUTZ 912 / 63kW (85hp)**
- **RPM : 2800**
- **Diesel turbocharged**
- **Cooling : water**
- **Pull force : 50kN**
- **Hydraulic chuck 234HH**
- **Mud pump : Piston pump 110lt/40bar**
- **Drilling Capacity :300m (NQ)**
- **Drilling angle :55° to -90°**

The Boart Longyear 34 surface core drilling rig is low power, yet flexible solution. Mounted optionally on truck or on its own skids can be installed easily in open landscapes or even on mine benches to drill low- to medium-depth boreholes.

- ✓ Wireline
- ✓ Down-the-hole
- ✓ Truck, skid
- ✓ HQ, HQ3, NQ, NQ3

Underground Drilling Rigs

Resource upgrade
Geotechnical



1

Atlas Copco Diamec U6 APC Specs



- **DEMAC Y2-280M-4 / 90kW (122hp)**
- **RPM : 1480**
- **Electrical motor : PU6E**
- **Cooling : water type oil cooler**
- **Max pull force : 85kN**
- **Feed length : 1400mm**
- **Rotation speed : 1400r/min**
- **Mud pump : Trido 140H (140lt/min, 70bar)**
- **Drilling Capacity : 900m (NQ)**
- **Wireline hoist : 1300m**
- **Max drum pull : 10kN**
- **Drilling angle : 90° to -90°**

Powerful core drilling rig for underground operations with wireline (A-H) and conventional core barrels. Improved performance and reliability with new drilling design and hydraulic control system.

- ✓ Wireline
- ✓ Skid
- ✓ PQ, HQ, NQ

2

Atlas Copco Diamec U6 PHC Specs



- **PU6E PHC / 90kW (122hp)**
- **RPM : 1480**
- **Electrical motor**
- **Cooling : water type oil cooler**
- **Max pull force : 89kN**
- **Feed length : 1800mm**
- **Rotation speed : 1200r/min**
- **Mud pump : Trido 140H (140lt/min, 70bar)**
- **Drilling Capacity : 900m (NQ)**
- **Wireline hoist : 1300m**
- **Max drum pull : 10kN**
- **Drilling angle :90° to -90°**

Powerful core drilling rig for underground operations with wireline (A-H) and conventional core barrels. Improved performance and reliability with new drilling design and hydraulic control system.

- ✓ Wireline
- ✓ Crawler
- ✓ PQ, HQ, NQ

3

Atlas Copco Diamec 282 Specs



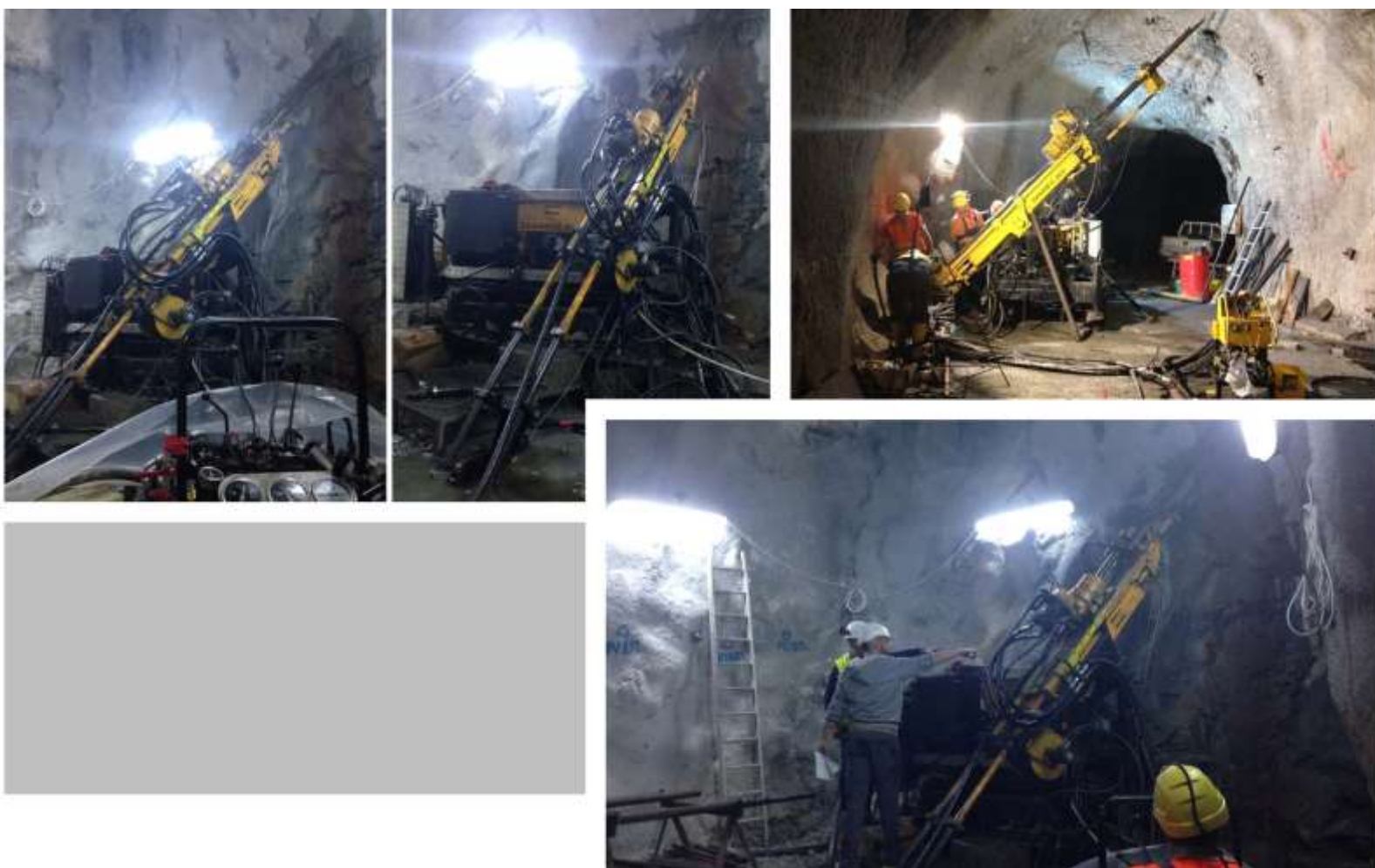
- **Electric engine 75kW (100hp)**
- **RPM : 1450**
- **Electrical motor**
- **Cooling :** water type oil cooler
- **Max pull force :** 90kN
- **Feed length :** 1750mm
- **Max torque :** 1950Nm
- **Rotation speed :** 1200r/min
- **Mud pump :** Boyles BBP 40
- **Drilling Capacity :** 800m (NQ)
- **Wireline hoist :** 1200m
- **Drilling angle :** 90° to -90°

Diamec 282 is an all-hydraulic diamond core drill ideal for prospecting drilling below ground. Easy to handle and operate, the 282 can be set up to drill in different directions, both upward and downward facing.

- ✓ Wireline
- ✓ Crawler
- ✓ PQ, HQ, NQ

4

Atlas Copco Diamec 262 Specs



- **ABB MBT 225M / 52kW (69hp)**
- **RPM : 1450**
- **Electrical motor**
- **Cooling : water type oil cooler**
- **Max pull force : 65kN**
- **Max holding force : 100kN**
- **Feed length : 1800mm**
- **Max torque : 1350Nm**
- **Rotation speed : 900r/min**
- **Mud pump : FMC Trido 80 (80lt/min, 70bar)**
- **Drilling Capacity : 400m (NQ)**
- **Drilling angle :90° to -90°**

Diamec 262 is an all-hydraulic diamond core drill ideal for prospecting drilling below ground. Easy to handle and operate, the 262 can be set up to drill in different directions, both upward and downward facing.

- ✓ Wireline
- ✓ Skid
- ✓ PQ, HQ, NQ



Special Equipment
Geotechnical
Monitoring

Coring equipment

Core sampling equipment includes various types of core-barrels, suitable either for soil or rock coring. The core equipment aims to achieve continuous and high-quality core and to meet any core recovery requirement.



Conventional (metric) core barrels include single- or double-tube core barrels ("T" series). Wireline core barrels include core barrels of "P", "H" and "N" size. Split-type conventional core barrels (T6S) and triple-tube wireline core barrels (PQ3, HQ3, NQ3) are also available for better recovery in soft and fractured rock masses. "Shelby" tube and "Terzaghi" (SPT) core barrel are also available for sampling in clayey and sandy soil formations. Finally, "non-coring" set-ups are available either with wing or surface-set "non-coring" bits, for drilling applications without coring requirements.

Downhole Survey

Accurate and reliable survey data gives you the confidence to evaluate in real time the hole progress against the plan in real-time. We offer variable solutions based on the drilling environment.



Reflex Gyro

The REFLEX GYRO™ is a complete downhole surveying instrument capable of surveying in all environments, magnetic and non-magnetic. With proven reliability and accuracy, it utilizes a digital surface referenced MEMS-gyro.

Equipped with pump-in kits for downhole survey in upwards directed holes and centralizers for vertical hole surveys.

(Able to fit to wireline drill strings from B up to P size).

Reflex EZ Trac

Magnetic electronic multi shot and single shot instrument for surveying changes in inclination and azimuth against depth of vertical or inclined drill holes.

(Able to fit to wireline drill strings from B up to P size).





Core orientation

Structural information is critical at all stages of exploration, planning, pre-production and mining. Core orientation provides information on system geometry and the orientation of structural elements (potential faults) that could offset mineralization.

Oriented cores provide a tool to measure the orientations of crucial elements that influence the interpretation of chemistry trends, lithological and structural which in turn affect geological interpretation in the 3D geological model.

Reflex ACT III



REFLEX ACT III™ is a digital core orientation system that records the orientation of the core sample and other key data in core drilling operations.

It has a patented rapid descent system that reduces time to complete core recovery. It delivers exceptional accuracy, while being easy to use and reliable in harsh field conditions and is the preferred core orientation system for drillers and geologists worldwide. Its high level of data accuracy leads to better understanding of the geological structure, ultimately resulting in enhanced drill program management and geotechnical planning.

(Able to fit to wireline core barrels from B up to P size).

Packer systems

A packer is a key component to borehole monitoring. Geotest offers a range of packer system for standard or challenging boreholes.



STX4-60 wireline packer system

Hydraulic Packer for water pressure tests at great depths. Compatible with wireline coring system (HQ - NQ size). Configured either as single or straddle packer system.



Bimbar packer

Standard pneumatic Packer (single and straddle) for water permeability tests.

Diameter: 54mm - 72mm



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