CRD100 Seafloor Drill

CELLULA ROBOTICS LTD.

KEY FEATURES

65 METER CONTINUOUS CORING DEPTH WITH 12 METER CASING / UP TO 120 METER DEEP CPT
AUTONOMOUS TOOL HANDLING / WIRELINE CORE RECOVERY / 3000M OPERATING DEPTH

CRD100 Seafloor Drill

The CRD100 is a state of the art, fourth generation seafloor drill capable of providing a complete suit e of accurate, and reliable geotechnical services.

An integrated hydraulic power unit, thrusters, telemetry and control system enables the CRD100 to operate without any subsea support in water depths down to 3000m.

Applications

- Geotechnical seabed drilling and sampling
- Mineral exploration characterization
- Methane gas hydrate sampling
- Downhole instrument deployment

Vessel Interface

- Matched launch & recovery system available
- 15,000kg A-frame (3g DNV approved)
- Active heave compensated winch
- Lifting umbilical

Specifications

DRILL

- Conventional or wireline
- 1500 N-m torque at 200 RPM
- Up to 800 RPM
- Up to 100 mm per minute bit advancement (depending on ground conditions)
- 100 kN push and pull force
- Onboard polymer injection drilling fluid system

TOOLS

- 65m continuous coring depth with 12m casing
- Industry standard H-size tooling
- 1.5 m rods and core samples
- 61.1 mm core diameter
- Capacity for up to 96 tools
- 2.5" piston samplers

CPT

- Conventional or wireline
- 120m CPT push
- 10 & 15 cm^2 cones
- Conventional or wireline
- 2 cm / second at up to 100 kN
- Wireless real-time transmission of data

CONTROL

- Dedicated 20' ISO container control van
- Dual operator chairs
- Autonomous tool handling
- Eight video channels & sensor feedback on all actuators

OPTIONS

- Jack up legs for rugged seabed
- Outriggers for soft seabed
- Custom tooling up to 450mm outside diameter
- Downhole logging tools including natural gamma, conductivity, temperature and magnetic susceptibility

PHYSICAL

- 3000m operating depth
- 13,500 Kg in air (with full tool suite)
- 10,500 Kg in water
- 5.3 m x 2.4 m x 3.1 m (H x W x D)
- Ships in a standard 20' ISO high cube container

Benefits

- ✔ **Improved sample quality.** (Decoupling the vessel motion provides a stable drill platform on the seafloor)
- ✔ **Precise seabed positioning using** four thrusters, auto heading & auto leveling legs.
- ✔ **Deployed off any suitable DP vessel.**
- ✔ **HSE benefits** compared to drill ships by eliminating manual tool handling.

CELLULA B109-9000 Bill Fox Way, Burnaby BC V5J 5J3, Canada
T +1 (604) 540-5530 **F** +1 (604) 525-5570 **E** info@cellula.com
CELLULA.COM

CELLULA UK Suite 122 Brathens Eco-Business Park
Hill of Brathens, Glassel, Banchory, Aberdeenshire, AB31 4BW
United Kingdom **T** +44-1330-826-889 **E** allan.spencer@cellula.com