HELIX
CANYON OFFSHORE

ROVDrill

GEOTECHNICAL SURVEYING ROV SYSTEM

www.helixesg.com

ROVDrill
GEOTECHNICAL SURVEYING ROV SYSTEM

The **ROVDrill** system provides a seabed operated drilling module capable of carrying out a range of drilling, sampling and in SITU tests.

The **ROVDrill** is a state of the art remote seabed drilling module used for geotechnical site investigation recovering samples to 50m below the seabed and carrying out cone penetration testing (CPT) to over 90m.

The **ROVDrill** is launched from a dynamically positioned vessel. The self-contained system can drill and test with complete real-time monitoring via cameras and subsea sensors.

ROVDrill's tool racks are configured to provide a total of 14 tool slots, six slots are able to carry four tools and eight slots are able to carry three tools, for storing as many as 48 x 3m long tools of various functions.

Seabed drilling is proven to provide better quality sampling than conventional drill ships. Remote seabed drilling offers massive HSE benefits compared with drill ships

EXPERIENCE

Canyon Offshore currently operates and maintains 54 work class ROVs, 5 trenching systems, 2 ROVDrill systems and 3 DP III support vessels via strategic offices in key areas of the world.

INNOVATION

Canyon Offshore works closely with our clients and vendors to seek and resolve complex technical developments to engineer practical solutions and implement in the most efficient, safe and economical ways possible.

VALUE

Canyon Offshore is one of the most innovative and reliable specialty marine contractors in the world. Focusing on providing leading edge underwater, unmanned services in extreme environments, Canyon strives to deliver the highest value to its customers.

APPLICATIONS & BENEFITS

The proven ROVDrill Mk. 2 system offers seabed geotechnical drilling, sampling and in situ testing for a range of applications:

- Foundation design analysis for piles and structures
- Seabed condition at anchor survey sites
- Seabed integrity survey prior to installation of jack-up rig
- Pre-installation pipeline surveys
- Piezometer installation

SPECIFICATIONS

Tool & Rod Capacity	48 x 3m Tools
In-Air Weight	18,000 kgs
CPT Capability (Continuous) 10 & 15 cm² Cones	96 Metres
Based on CPT Tooling Load	2x CPT Assemblies (3.0m Long) 31x NWY Rods (3.0m long) 2x Open Hole Drilling Assemblies 9x HW Casing (3.0m Long) 6x Empty Slots for Tool Handling
Shelby Tube Sampling (Continuous)	31.5 Metres
Based on Shelby Tube Tooling Load	21x 1.5m long Sample Tubes (3.0m long assembly, 76mm Sample Dia) 24x NWY Rods (3.0m Long) 3x Empty Slots for Tool Handling
L70 Tube Sampling (Continuous)	31.5 Meters
Based on L70 Tube Tooling Load	21x 1.5m long Sample Tubes (3.0m long assembly, 57mm Sample Dia) 24x NWY Rods (3.0m Long) 3x Empty Slots for Tool Handling
L90 Tube Sampling (Continuous)	42.0 Meters
Based on L90 Tube Tooling Load	21x 2.0m long Sample Tubes (3.0m long assembly, 77mm Sample Dia) 24x NWY Rods (3.0m Long) 3x Empty Slots for Tool Handling
Piston Tube Sampling (Continuous)	29.40 Meters
Based on Piston Tube Tooling Load	21x 1.4 m long Sample Tubes (3.0m long assembly, 76mm Sample Dia) 24x NWY Rods (3.0m Long) 3x Empty Slots for Tool Handling
Maximum Push-Down Force	100 kN
Maximum Pull-Up Force	114 kN
Rotary Boring	Cased & Uncased
Mud System	Polymer Based
Depth Rating	2500 m

ROVDRILL MK. 2 - BENEFITS

- Seabed drilling is proven to provide better quality sampling than conventional drill ships
- The system can be deployed from any suitable DP vessel
- The system can drill to depths 114m and perform CPT to depths of 96m below the seabed
- Remote seabed drilling offers massive HSE benefits compared with drill ships
- Full suite of drilling, sampling and testing with or without casing
- Environmentally friendly drilling mud including viscosifier and bore-hole stability agent can be added to assist drilling operations
- Precise seabed positioning using ROV thrusters and cameras
- Integrated geotechnical analysis and reporting via Canyon/Geomarine geotechnical engineers

TOOL RACK CONFIGURATION & HANDLING

The tool racks are configured to provide a total of 14 tool slots with 6 slots capable of holding four tools and 8 slots capable of holding three tools. This arrangement allows the racks to store up to a maximum of 48 x 3.0 meter long tools of various functions.

The configuration enables a range of geotechnical equipment and sensors to be selected to offer:

- CPT with continuous real time monitoring and recording
- A range of Shelby and Liner sample diameters and lengths
- Piston sampling (full bore or through casing)
- Rotary coring using T2-66, 76 and 86 mm core barrels
- Casing capability

The typical depth achievable with a full range of sampling and in situ testing is 60 m

Coring of harder strata including rock can be carried out to a maximum hole depth of 50 m

The system can carry casing to provide lateral support to geotechnical boreholes in unstable soils

Tool handling via two state-of-the-art robotic arms

Tool rack configuration can be optimized to suit borehole-specific requirements

Canyon Offshore - Americas
3505 W. Sam Houston Parkway North,
Suite 400
Houston, Texas 77043 USA

Office 281-618-0400
Fax 281-681-0544

Canyon Offshore - Europe / West Africa
Helix House, Kirkton Drive,
Pitmedden Industrial Estate,
Dyce, Aberdeen, UK, AB21 0BG

Office +44(0)1224.351800
Fax +44(0)1224.351801

Canyon Offshore - Asia Pacific
25 Loyang Crescent
Loyang Offshore Supply Base
Block 603, Tops Ave 6, Unit 1, Box 5009
Singapore 508988

Office +65 6.501.0130
Fax +65 6.542.8675

www.helixesg.com

Revision Date 07.10.2018