

GEOceptor



Online data can be viewed anywhere on the vessel where there are network connections.

System set-up, GEOceptor

- operation container
- storage container
- umbilical
- control unit for GEOceptor
- data acquisition package

Option:

- tension winch with umbilical
- network PC for Client
- online display for crane operator.

Control unit for GEOceptor

Industrial PC with GEO's rig control software, special control unit for all rig functions and remote control unit for main functions.

Status of all rig functions are displayed online.

Data acquisition package

Standard PC with GEO's data acquisition software, with online display of data. Data stored in GEO format.

Printout of results in the field and conversion to ascii form.

CPT set-up in accordance with ISSMFE Procedures 1988.

Combined seabed rig

GEOceptor is a combined rig for CPT (Cone Penetration Test) and vibrocore. It is fast and cost-effective and suited for geotechnical investigations for offshore installations.

Description:

GEOceptor is rated to work at water depth down to 3000 m. The rig produces effective and reliable information about the seafloor needed for the offshore industry.

Besides the double clamp thrust machine for CPT and the special wheel drive system for vibrocore sampling, the rig offers many features such as:

- automatic extension of base area during operation if required
 - antisuction devices
 - altimeter
 - thrusters and cameras
- everything ensuring reliable and effective operation offshore.

GEOceptor:

Dimension:

LxWxH 3,2 m x 2,4 m x (2,2 m + vibrocore sample length)

Weight in air 9,5 – 14 ton

Weight in water 7,2 – 12,1 ton

Sample length 3, 4, 5 or 6 m. Option up to 10m

CPT length 1-11m. Option up to 30m

Specifications:

CPT/Trust system Dual hydraulic clamps

Trust capacity 100 kN

Rate of penetration 20 mm / sec

CPT Cones 10 cm². Optional 5 and 15 cm²

Vibrocore system:

Dual vibrator system Low frequency 20-35 Hz. High frequency 100-130 Hz

Trust system Wheel drive

Core dimension 106 mm

Core catcher 3 types of metal lamellae

Vacuum system Vacuum valve or piston

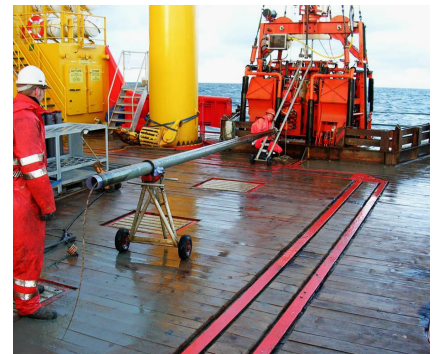
Rig:

Operation depth 350 m. Option up to 3000 m

Power 690V/33kW

Lifting system Single or double acting wire

Special features Anti suction system at base plate, Extension of base area, 2 Thrusters, Depth sensor, Altimeter, Magnetic and fibre optic gyro, Inclinator, Colour camera on pan and tilt unit, B/W camera, Load cell at lifting wire



Operation container:

Dimension: Standard 10 feet container, weight approx 5 ton

Specifications: Used for rig operation and control

Power supply 240 VAC 5 kW
400 VAC/60 Hz or 380 VAC/50 Hz, 40 kW

Storage container:

Dimension: Standard 10 feet container, weight approx 10 ton

Specifications: Storage for spare parts and consumables

Power supply 240 VAC 5 kW

Umbilical:

Standard Scorpio: 6169 for 350 meters water depth

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GEO is a Danish engineering consultant and contractor offering geotechnical and geophysical services. In GEO 200 employees offer Denmark's most comprehensive expertise concerning soil and water.

The company's core competences are within geotechnical site investigations, both onshore and offshore. GEO also specializes in geotechnical engineering and is world-leading in geomechanical modelling and geotechnical laboratory testing, particularly Rock Mechanics.

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