

MINI CPT EQUIPMENT (MARINE APPLICATION)

Gregg Drilling & Testing has developed a unique miniature cone penetrometer (Mini CPT) system. The remotely operated unit can be deployed with barges and work boats and is a cost effective tool for determining near surface soil strength information

Penetration reaction is provided by the weight of the self righting seabed deployment frame. The Mini CPT is attached to a coiled rod which is straightened and pushed into the sea floor by a thruster unit attached to the seabed frame. This same unit coils the rod while it retracts the cone after a sounding. The coiled rod and thruster unit allow for a rapid and continuous deployment of the system while keeping the overall size of the unit to a minimum.

SPECIFICATIONS:

- Cone Diameter: 2 cm²
- Water Depth: Maximum of 10,000 feet
- Penetration Depth: Maximum of 35 feet below sea floor
- Can be coupled with piston sampling and gravity coring methods

OPERATION:

- Mini CPT is contained in a self-righting seabed deployment frame and lowered to sea floor with a winch line.
- Mini CPT is attached to coiled rod which is straightened and pushed into the sea floor by a thruster attached to the frame.
- Thruster recoils the rod and retracts the cone after each sounding.
- All functions of the Mini CPT are controlled by means of an electromechanical umbilical cord attached to a computer located onboard the vessel or operated from the seabed using an ROV.

ADVANTAGES:

- 2 cm² cone provides the same valuable stratigraphic detail and soil strength information as the large diameter cone
- Smaller cone relates to a smaller zone of influence in the soil and therefore, more detailed stratigraphic logging.
- Mini CPT detects small, thin layers better than larger cones.
- Pushing system completely operator independent.
- Cost effective solution for marine applications.



The Mini CPT is ideally suited to cable route and dredge surveys.



The Mini CPT can be deployed off the back of a ship using a simple A-frame and winch.



The Mini CPT ready for deployment in self-righting seabed deployment frame which is lowered to the sea floor with a winch line.



QUALITY • SAFETY • VALUE

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