Vibrocorer - XL

For 30 cm to 50 cm diameter cores



Large Diameter Vibrocorer System

With the vibrocorer - XL, a large diameter steel barrel can be vibrated into seabed. The system is typically used to penetrate into material that is otherwise hard to sample (e.g. soft chalk, gravel, boulder clay, etc.) and allows retrieval of large volume undisturbed samples. Use is made of a high capacity vibro-hammer, normally used in pile driving. The vibrohammer excerts a centrifugal force of 898 kN at a frequency of 30 Hz. Alternative hammer types are possible. To monitor progress into seabed, use is made of a 50kHz echosounder. verticallity is monitored with inclinometers.

Specifications

A typical equipment spread includes a base frame, a vibrating unit, a hydraulic powerpack, a reel with hydraulic leads, an umbilical reel with cable (for monitoring functions), a service container and a portable computer. Several barrel lengths and diameters are available. barrels are splitable. To contain core material, full-face core catchers are available to handle cores, a core handling table is needed. Some system specifications are given below.

Dimensions (depending on setup):

Height: 11.5m (6m barrel)
Width: 5 m (inc. Base frame)
Length: 5 m (inc. Base frame)
Weight in air: 8 - 15 ton
Core barrel length: 6 m, other I.
optional

Barrel	Liner
(od/id, mm)	(od/idm mm
559/510	500/470
360/320	315/290

Vessel requirements

Electric power: 380V AC, 50 Hz
Hoisting Height: 13.0m minimum
SWL: 30T minimum
Required deck-space: 150m²
minimum

Application

Typical application areas are taking high quality undisturbed samples in geotechnical field investigations for route surveys, dredging works and foundation design or taking large volume bulk samples in alluvial mining.







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