

Proven operation

The original vibracorer „VKG-3/6“ (VC) have been successfully operated for more than 40 years and worked at perfect satisfaction. Operated in the Atlantic Ocean, Baltic Sea, North Sea and Mediterranean Sea also at harsh climates and choppy waters it proves the best return on investment due to its sophisticated design. Well known companies such as Federal Maritime and Hydrographic Agency Germany, MMT Sweden, Fugro and Geo Marine Survey Systems (Geo-Corer) Netherlands, Next Geosolutions Italy, Jan De Nul Belgium are fully pleased customers.

Standard operational abilities

Our „VC“ is an electrically driven vibracorer system, vibrating at around 30 Hz (optionally 15 Hz), coring bottom samples up to 250m water depth (optional up to 1000m) with

- optimum cores in fine, middle and grain sands and any mixtures thereof
- good results in peats and sands with silty-argillaceous and/or gravel components, moreover smaller stiff stratums are penetrated too.

Unique working principle

An USP feature is the decoupling of the vibrating and penetrating force. A minimized deadweight is resulting in maximum efficiency for the vibration to overcome the friction in the sediment. The penetration force, caused by the gravitation force of all the down sliding masses only, is therefore maximized by this construction.

Easy handling

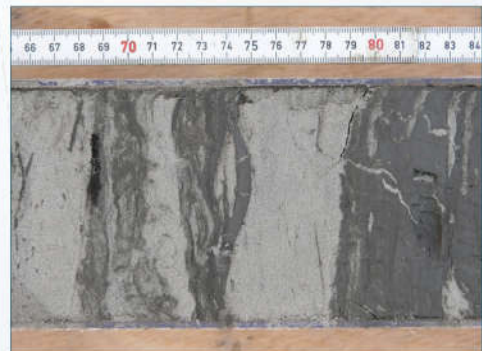
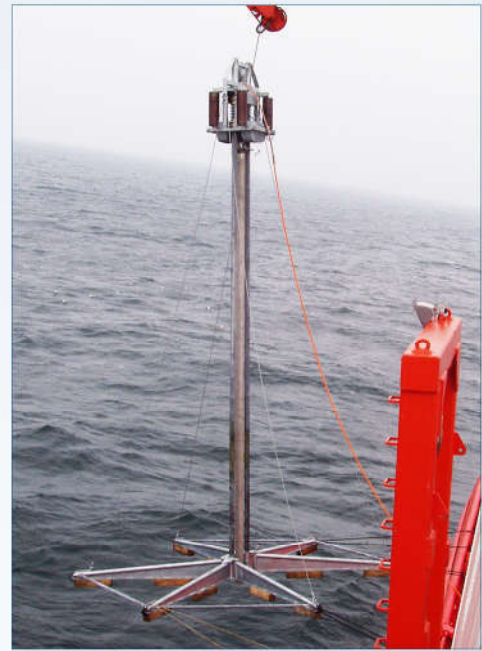
The unique design out of just 4 main components allows a fast and eased mob/ demob (assembly), by parts handled manually. This is a second USP feature within this class of coring systems.

Reliability

The subtle design and an elaborated manufacturing guarantees an outstanding reliability and a minimum of downtime.

High quality cores

Variable uploads allows you to optimise the penetration force/speed to some 2 meters per minute. This minimizes a resorting of the sediment as well as any bending of its finestructures/layers.



Variable core length/diameters

Standard is the „VC-6“ version, i.e. a 6m length of the cores, but shorter core barrels of 3 – 5m have been manufactured too. On request are splitted barrels of up to 9m length available (VC-9). The standard core diameter is 102mm (barely or by using a plastic hose). When using a 100*2mm liner it is 96mm, transparent liners are available. Barrels for using liners with an enlarged dimension (110*2mm i.e. a core diameter of 106mm) are offered. Any VC version may be switched to 3m core barrel length, further easing all handling and operating procedures, esp. with the smaller diameter basement.

“Small vessel” operation

Because of its comparatively small size and weight the „VC-6“ may be operated at smaller platforms/vessels too. A winch/lift with a load capacity of not more than 20 kN is necessary only, if the lifting steel wire is assembled in the “small vessel option”.

Deep sea options

A pressure compensated version was run so far down to 800m, but is in general unlimited in the working depth. One option could be a supply by an umbilical with fibre optics for control and data transmission. Otherwise a battery (e.g. 48V DC) driven version with a memory based control and data storage, as well as a remote control (sonic) is under design.

Hard sediment penetration

By help of a newly designed gear the penetration power can be highly increased (vertically and horizontally vibrating at the same time). With a new cutter design this gives the ability to penetrate as well into permafrost sediments or crusts of gashydrates.

VC-3

The „VC-3“ is the smaller version with a shorter core barrel (core length 3 m), a smaller basement diameter (2.7 m max.) and rigging height (4.7 m).

Therefore the overall handling is much eased, esp. the core recovery is fastened, what has been very valuable at the exploration of gravel sites in the western Baltic Sea.

Operational efficiency

The specific design of cutters, catchers and valves gives you a superb filling of the barrel. The barrel length exceeds the core net length by 150 mm only. Although the runtime of the vibrator unit is unlimited, the typical penetration/retraction time is at around 5 minutes. There is no need to dismantle the light weight core barrel while extracting the core sample. The unique barrel flip aside design allows an efficient operation with up to 40 cores/sites per day.

