



# VC-700

## Vibrocoring System

The SEAS VC-700 is the newest and largest of SEAS single core vibrocoring systems, catering for water depths to 1000m and core samples up to 6.5m in length.

The SEAS VC-700 follows the same light weight highly efficient system design as the smaller VC-450, but incorporates a 4.4kW drive head to provide greater penetration in tough coring conditions. A central access bore has been included through the centre of the drive head to allow utilization of piston coring techniques to aide recovery if desired.

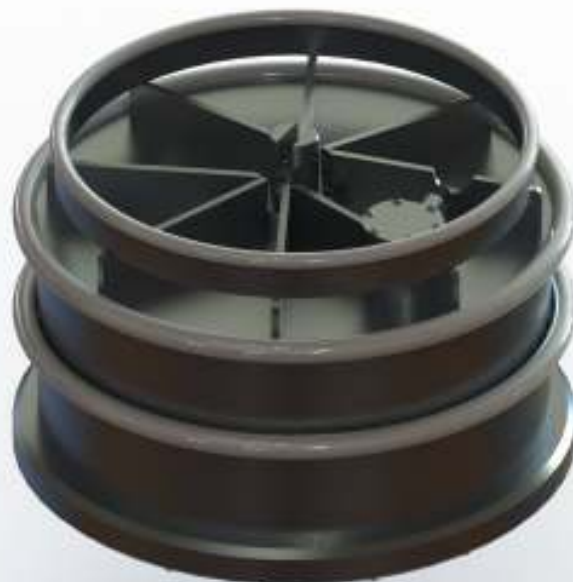
For Deeper water operation, SEAS can provide telemetry and sensors to monitor coring operations and provide real-time feedback on coring progress. The system is ideally suited to operating with SEAS Launch and Recovery System (LARS), which facilitates faster and safer deployment in a wider range of sea conditions than can be achieved with conventional deck crane configurations.



3m configuration with short stabilizing legs , telemetry pod and LARS

## Specifications

Depth Rating	1000 m
Core Length	Up to 6.5 m
Support Tower	
Height:	3.5m to 7m configurable on-site
Stabilising legs	Three legs at 120° separation. Long configuration: 2500mm legs, Seabed Footprint: 6170mm Short configuration: 1130mm legs, Seabed Footprint: 3435mm
Construction:	Tubular Aluminium alloy
Core Guide	Polypropylene Rollers. Video monitoring of penetration in deep water.
Weight in air	160kg (Including lead ballast weights)
Weight in water	135kg (Including lead ballast weights)
Vibrocoring Drive Unit	
Dimensions:	Diameter: 680mm    Height: 548mm
Weight in air	315kg
Weight in water	278 kg
System Power	415 Vac or 220 Vac 3ø 50/60 Hz (Configurable to client specification and on-site conditions)
Power requirements	4.4kW, Maximum startup current: 9 amps (415vAC), 16 amps (220vAC) Compatible with shipboard 3ø power or 10kVA 3ø genset
Power Supply Cable	Siemens Hydrofirm 4-core sea cable: 1 x 50m length and 1 x 150 m extension with Sea Con underwater connectors.
Surface Control System	Residual Current Device (RCD) protected switch box and deck cable with remote switching.
Core Barrels:	For lithological studies, single-use 80mm OD x 76mm ID Extruded Aluminium core tube. No core liners required. Core barrel serves as liner / storage vessel.  For contaminated sediment studies, 101.6 mm Stainless core barrels with 84mm OD x 80mm ID polycarbonate liners can be used or 90mm OD x 86mm ID PVC.  On-Site surface processing can include cutting into manageable lengths (pipe-cutter) and capping, longitudinal slabbing (circular saw & knife) or extruding into core trays for description.
Lifting gear required:	SEAS Recommends using the SEAS Launch and Recovery System (LARS) and a deck winch with 3Tonnes minimum pull capacity and sufficient cable for the water depth.  Alternatively an A-Frame or deck crane with SWL of 3 Tonnes minimum lift required for extracting core barrel from seabed (usually less lift is required unless coring in firm clay or very



VC-700 Drive Head