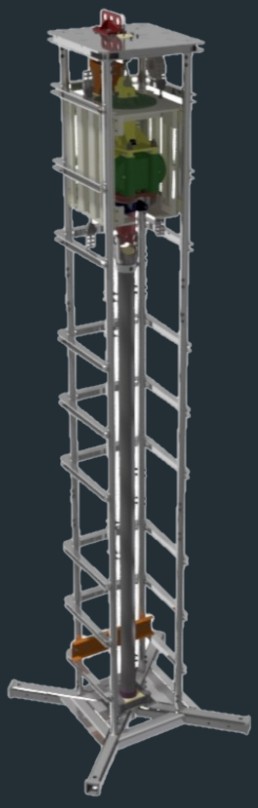
Polaris Pro

# GEO-100

## UNDERWATER VIBROCORER

*Efficiency, Modularity, and Precision for Offshore Geotechnical Investigations Down to 100 Meters Depth.*



TECHNICAL SPECIFICATIONS AND PRODUCT DATA SHEET

## SYSTEM OVERVIEW

The **GEO-100** is a cutting-edge vibrocoring system engineered to meet the most demanding challenges of marine geotechnical and environmental investigations. By combining powerful mechanical thrust, lightweight structural materials, and intelligent surface telemetry, the GEO-100 ensures maximum core recovery even in the most complex and compact stratigraphies.

## KEY OPERATIONAL ADVANTAGES

### Modularity & Lightweight Design

Fully manufactured from 6082 aluminum alloy, it combines high structural integrity with reduced weight, significantly easing vessel deck handling operations.

### Ready to Deploy (Plug-and-Play)

Engineered to minimize operational downtime. Enables rapid mobilization, streamlining logistics and deployment setups.

### Configurational Versatility

Modular height increments allow the frame length to be adjusted to match exact project sampling requirements.

### Stratigraphic Control

Advanced frequency adjustments preserve core sample integrity by adapting to variable sediment densities.

## TECHNICAL SPECIFICATIONS

| PARAMETER | TECHNICAL SPECIFICATION | OPERATIONAL BENEFIT |
|---|---|---|
| **Thrust Force** | **Up to 50 kN** | Effective penetration even in highly compact sediments and stiff soils. |
| **Operating Depth** | **Up to 100 m** | Maximum versatility for coastal, port, and offshore survey environments. |
| **Frame Material** | 6082 Aluminum | High structural durability and total resistance to marine corrosion. |

| PARAMETER | TECHNICAL SPECIFICATION | OPERATIONAL BENEFIT |
|---|---|---|
| **Length Modularity** | From 2 to 6 meters | Flexible configuration based on targeted core length and vessel limits. |
| **Connection System** | Plug-and-Play | Rapid deck installation and a drastic reduction in rig-up times. |

## TECHNOLOGY & ADVANCED SURFACE CONTROL

### Frequency Control

Allows real-time vibration frequency tuning to optimize penetration performance based on the specific encountered stratigraphy.

### Real-Time Monitoring

An integrated penetration sensor feeds continuous, highly accurate data on the corer's progress into the seabed directly to the operator.

**Marine Core Drilling Division**

For commercial inquiries, quotes, or technical support regarding the GEO-100:

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