



The Orca-90 is Geomil Equipment's versatile and fully integrated Cone Penetration Testing (CPT) testing and sampling system for downhole use and is designed to be combined with several existing drilling methods.

The Orca-90 is able to operate in water depths of up to 1,500 m while still providing real time data. The system is pressurized by water, making it environmentally friendly by omitting the need for hydraulic oil. Note: see the Orca-90 DW for water depths up to 3,000 m.

The system can be deployed as a wireline, data wireline or an umbilical operated tool. The Orca-90 has 90 kN push force capacity. Optionally, a higher push capacity can be obtained. Measuring the penetration length of the Orca is accurate, thanks to the built-in downhole depth encoder.

CPT and soil sampling can be conducted intermittently. After completion of a CPT or soil sampling, drilling can be advanced to the next test depth, and the program can continue until final investigation depth is reached. Data can be received in real-time when using the umbilical or data wireline. In wireline mode, data can be downloaded once the Orca is retrieved.

The Orca-90 supports Geomil's standard 10 cm² cones.

The Orca-90 tooling consists of:

- Orca-CPT, the tool to perform CPT tests, available in 1.5 m and 3 m stroke.
- Orca-PST, the piston sampler tool, for high quality 1,000 mm long sampling in soft soil conditions.
- Orca-PSH, the push sampler tool, for 1,000 mm long window sampling where the Orca-PST would be too delicate.

Supporting items:

- Bottom Hole Assembly (BHA) in various configurations.
- Constant tension (CT) winch, incl. Orca hose umbilical with termination, or (data) wireline.
- Umbilical sheave.
- Data control box (GSN) and Orca power box.
- High pressure water pump.

Suitable drill systems and sizes:

- API 4 ½ " IF (NC50).
- API 5 ½ " FH.
- PQ(3) coring system.

Alternative sizes can be accommodated. The largest OD of the Orca tools is 4 " (101.6 mm).

For more technical information or a quotation based on your specific requirements, please contact sales@geomil.com or call us at +31 172 427 800.

