

# Seismic frame

Seabed CPT system add-on

**Geomil**  
equipment

*World's first manufacturer  
of CPT equipment*



The Seismic frame is Geomil Equipment's latest development in add-on modules for the Manta-200 seabed Cone Penetration Testing (CPT) systems. When seismic testing is required, the Seismic frame is the ideal addition for the Manta-200.

The built-in hammer generates an energy impact using a closed-loop system based on a compressed energy charge with an adjustable output, enabling to measure an S-wave at intermittent depth under the seabed level. To prevent vibrations that could affect the test results, the design incorporates a unique source damping system.

The frame is part of the modular Manta seabed concept and positioned directly underneath the base frame and its ballast plates. The system is operated from deck using the standard Manta controls while the unit remains submerged.

Main characteristics of the Seismic frame:

- Generates bi-directional shear (S) waves.
- Adjustable output between 100 - 1250 J.
- Load controlled lowering of the hammer up to 500 mm below the seabed frame.
- Integrated source damping system.
- Efficient system recharge time of 1-2 minutes.

- Depth rated to 1500 m of water.
- Robust design with a lifespan of 40,000 blows.
- Powered and controlled by the Manta-200 version 3.1 and higher, with fiber optic communication.
- CPT and seismic testing are performed at the same location, in a non-consecutive manner.
- Manta modular ballast packs can be attached to lower the point of gravity.
- Designed for Studio Prof. Marchetti dual array seismic system.
- Fits in a 20 ft container.

The Seismic frame package consists of:

- Seismic frame with hammer.
- Hydraulic interface with the Manta.
- Power and control interface with the Manta.

The system is modular, easy to handle and measures, including fenders, approx. 2,210 x 2,210 x 925 mm (L x W x H). The dry weight is approx. 4,100 kg.

Supporting items for the Seismic frame:

- Seismic set dual array for 15cm<sup>2</sup> cones.
- Studio Prof. Marchetti S.R.L hardware and software.

For more technical information or a quotation based on your specific requirements please contact [sales@geomil.com](mailto:sales@geomil.com) or call us at +31 172 427 800.



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