

Magcone-250

Combined CPT and UXO/ferromagnetic detection



*World's first manufacturer
of CPT equipment*



The Geomil Magcone-250 is a high-resolution magnetic sensing system designed to measure anomalies in Earth's magnetic field, the data of which can be used to detect buried ferrous objects.

Typical applications include Unexploded Ordnance (UXO) screening, detection of metallic obstructions, identification of underground infrastructure, pipeline and cable route investigations, and a wide range of dredging and civil engineering projects.

Based on the renowned and high-end technology of German manufacturer Sensys, the Magcone integrates a dual-array of Fluxgate® magnetometer sensors, coupled with a 15 cm² (piezo)cone fitted with non-magnetic outer parts. This facilitates obtaining both CPT and magnetometer data in one combined test.

The dual sensor array enables gradient measurements, resulting in reduced noise and higher spatial resolution than conventional single-sensor total field anomaly mapping. This is particularly advantageous on industrial sites with electromagnetic interference, and in historically built-up areas with many ferrous objects.

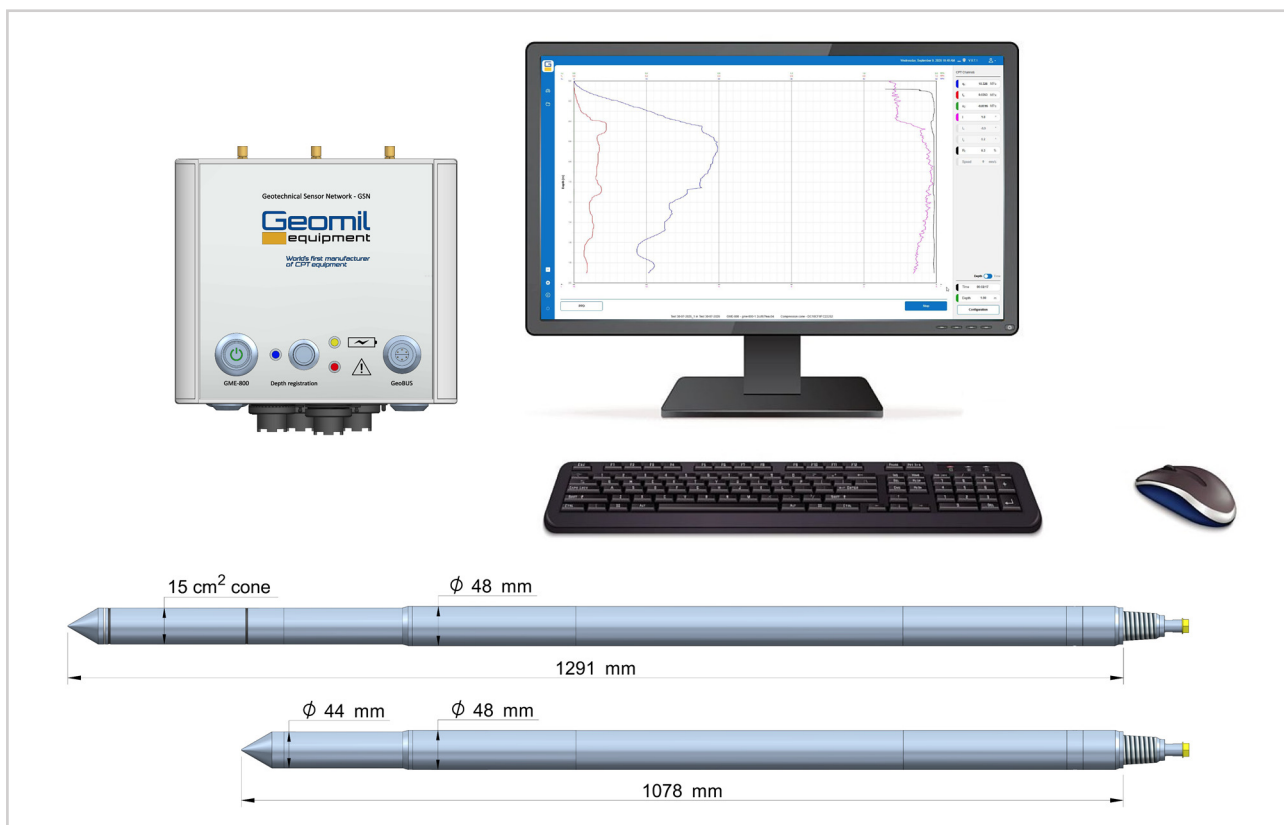
SENSYS® Magnetometers & Survey Solutions

At the core of the system is the new GME-800 data acquisition unit with integrated CPTest-6 software.

While pushed the Magcone records a complete set of CPT parameters together with magnetic data from the two independent sensors in the X, Y and Z orientations.

The measurements are then displayed in CPTest-6 in real time as graphical and numerical outputs against depth. Once complete, the magnetometer dataset can be exported in ASCII format for further interpretation using the Sensys Magneto® processing software.

For simplified operations, the magnetometer module can also be used stand-alone, and when required, integrated with third-party sensors such as Vallon's magnetometers.



Main characteristics of the Magcone-250

Magnetometer

Measurement method	Dual-array with 2 sensors measuring in 3D
Sensor model	FGM3D/250® Fluxgate Magnetometer
Range (nT)	-250 000 ... +250 000
Resolution (pT)	< 150
Noise rating (pT)	10 ... 20
Cutoff frequency (Hz)	3

Data acquisition

System	GME-800 / GSN-2
Software	CPTest-6

Cone

Cone type	15 cm² (DC15/DS15)
Material	Non-magnetic outer parts

Module

Length (mm)	1078 / 1291 (with cone)
Max diameter (mm)	48
Electrical connection	Standard GSN cables
Mechanical connection	DSH44 thread, crossover to 36 mm STD thread optional
Extension	Non-magnetic tubes, 2 m

The Magcone-250 system incorporates the following:

- Cone, non-magnetic outer parts
- Magnetometer module
- GSN cables
- Non-magnetic extension tubes with DSH44 thread, or crossover to 36 mm STD thread
- Data acquisition system GME-800 / GSN-2
- Acquisition software CPTest-6

Supporting items:

- Pushing system
- Pushing tubes
- Processing software Sensys Magneto®

Geomil offers a full portfolio of equipment for magnetometer testing such as the Grizzly, Panther and Kodiak series.

The Hornet and Panther rigs fitted with Continuous Drive System (CDS) technology greatly improve efficiency while reducing project time and operational risks.

Our rigs and systems are supported by dedicated after-sales and service teams.

For more information about the Magcone-250 and the rest of our product range, please visit www.geomil.com.



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