

GeoPAC®

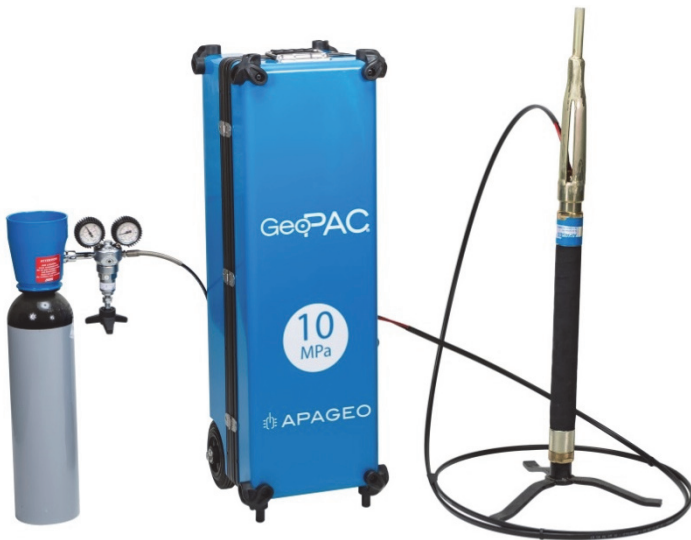
GENERAL PRESENTATION

Following the footsteps of Louis Ménard, Apageo proposes an exclusive device: **GeoPAC®, the Auto-Controlled Pressuremeter, driven by GeoBOX®.**

GeoPAC®, such as its predecessor the Ménard Pressuremeter, allows Ménard pressuremeter test according to the ISO 22476-4 standard. It is the first equipment **totally automatic and autonomous** on the market that manages all the different steps of the test, ordered by the operator.

GeoPAC® makes the whole process **easier to conduct** for the operator, **reinforces the reliability** of the results, and **reduces the time** of preparation.

➔ **New : cyclic test with personal programmation.**



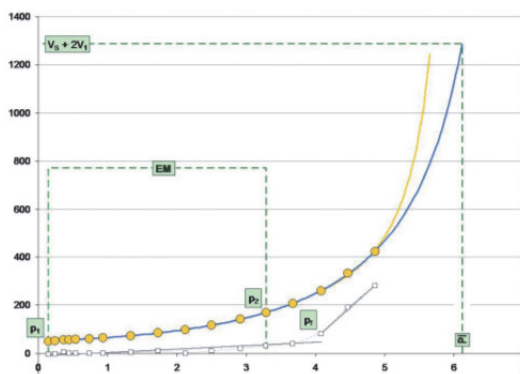
ORIGINALITY OF THE SYSTEM

The ingenuity of the system lays on the **physical separation** of the 2 circuits necessary to pressuremeter test: Gas and Water (exclusive system, never seen on the market). Thanks to this technology on the water circuit, the **accuracy on water regulation is nonpareil.**

GeoPAC® specifications

- Dimensions : 1000 * 380 * 340 mm
- Weight : 45kg (empty)
- Handle for transport and wheels
- Max. gas pressure : 50 or 100 bar
- Power supply : 9 – 18VDC
- Volumeter capacity : Roughly 1200cm³

MÉNARD PRESSUREMETER TEST



A pressuremeter test is an in situ controlled loading test performed on the wall of a borehole using a cylindrical probe that expands radially.

From the test readings (volume variation based on controlled pressure), a stress-strain curve can be obtained for the soil at hand in the case of plane deformation.

Testing enables definition of three parameters:

- Ménard pressuremeter modulus (E_m)
- Creep pressure (P_{cr})
- Limit pressure (P_L)

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IMPLEMENTATION



1. The borehole is drilled so as to minimize wall disturbance and maintain a cavity diameter compatible with the probe size (63 or 76 mm).
2. In accordance to the principle of Ménard Pressuremeter test, Geopac® executes pressure and volume loss processes, ordered by GeoBOX®. As soon as the probe is lowered into the borehole to the required test depth, the operator enters parameters of the test in GeoBOX® (pressure of 1st pressure stage etc...) which launch the test execution by WIFI to Geopac®. From now, it manages by its own the expansion and deflation of the probe. Pressure increments and pressure lag settings are also automated.
3. During the entire process, GeoBOX® offers a monitoring of the pending test on its screen (real time display of the data, evolution, curve, etc...). At any time, the operator can decide to stop the test from GeoBOX®.

When the test is over, data are saved on GeoBOX® (no time limit). Results can be printed directly on GeoBOX® printer, saved on a USB key or sent to the office via a GPRS system (option).



TEST TREATMENT

Test can be transferred via a USB key or **GPRS system** (option) into our geotechnical data processing software GeoVISION®.