

HyperPAC®



GENERAL PRESENTATION

Following the footsteps of Louis Ménard, Apageo proposes an exclusive device: **the Auto-Controlled pressuremeter for high pressure tests, driven by GeoBOX®**. HyperPAC® has been developed in order to conduct very high pressure tests in rocks and very hard formation.

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.

HyperPAC® 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

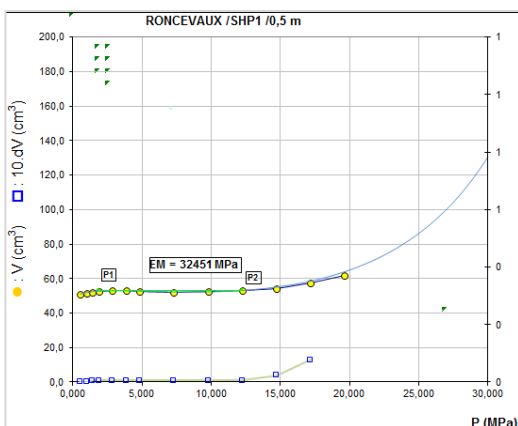
The ingenuity of the system lays on a unique water circuit, mechanically pressurized to conduct test with a perfect reproducibility. Specific probes have been developed to resist to very high pressure.

HyperPAC® specifications

- Dimensions : 1170 * 380 * 340 mm
- Weight : 40kg
- Handle for transport and wheels
- Max liquide pressure : 250 or 500 bar
- Power supply : 9 – 18VDC

HyperPAC® is available in 250 bar or 300 bar (option)

THE VERY HIGH PRESSUREMETER TEST



It is an in situ controlled loading test performed on the wall of a borehole in rocks or very hard formations, 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 rock or hard soil at hand in the case of plane deformation.

Testing enables definition of three parameters:

- Ménard pressuremeter modulus (E_m)
- Creep pressure (P_f)
- Limit pressure (P_L)

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IMPLEMENTATION



1. The borehole is done by coring or rotary-percussive methods, with a diameter compatible to the probe size (46 mm).
2. In accordance to the principle of Ménard Pressuremeter test, HyperPAC® 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 order the test execution by WIFI to HyperPAC®. From now, HyperPAC® 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 view of the results, progression, line graph 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 a GPRS system (option) into our geotechnical data processing software GeoVISION®.