

Geomatech Automating the study of soils

By choosing a mechanical piston, an electro-mechanical actuator and an entirely mechatronic system, Geomatech has completely renewed its range of pressure gauges and made soil expertise simpler in the process. Read on to find out how!

Construction and civil engineering contractors always have to know exactly where they are putting their feet, or rather laying their foundations, before starting works. Geomatech and its subsidiary Apageo have been selling automated pressure gauges since September 2009 – gauges that make it simple to carry out highly precise, accurate and repeatable measurements.

Automated measurements

To date, measuring soil resistance has always been entrusted to experienced technicians as the use of the old devices requires a certain degree of practice and good knowledge of different types of equipment.

The principle of the test involves transmitting water pressure to a given depth by means of a pipe. However, standard devices do not take into account the pressure losses resulting from their length. The automated system of the new equipment, with its optimum control, makes it possible to incorporate the data automatically in the final calculation of soil resistance.

The input of mechatronics

Jean-Pierre Arsonnet, head of Apageo, emphasises the ambitious nature of the project that was launched at the end of 2008 with Cetim and Cedarnet: *“As far as the mechanical part is concerned, we know what to do – and rather well at that. But we needed an overall view*



© Geomatech

of mechatronics and calculating capabilities, and that is what Cetim have brought us. We have also relied on Cedarnet's expertise for the system architecture, automation, electronic development and IT.” The basic idea was to replace the gas with a mechanical piston driven by an electro-mechanical actuator.

“Now we can obtain much greater pressures than we used to before with gas”, explains Jean-Pierre Arsonnet. *“Our standard model reaches 100 bar, and we can go as far as 250, even 500 bar, using the same principle whilst with gas we did not pass 200 bar. For soft soils we can limit ourselves to 50 bar. And so now we are going to offer a complete range of devices to the French and English-speaking markets”.*

OUR CLIENT

Corporate name
Geomatech

Activity
Designer and manufacturer of geotechnical, drilling and laboratory equipment: equipment for on-site tests, versatile borers and drilling and coring tools

Turnover
5 million euros

Workforce
21

Subsidiary
Apageo achieves a turnover of 6.6 million euros with a staff of 35 people

Cetim's asset

Cetim uses its calculating and mechatronic expertise to help expand the standard features of a product. Cetim's experts support companies whilst mechanical, electronic and computer technologies are incorporated into their equipment.

