

Pile Dynamics introduces new model of SPT Analyzer

Pile Dynamics has launched a new model of its SPT Analyzer for calibrating SPT rigs.

The Standard Penetration Test (SPT) is a widely used soil exploration method that involves driving a split barrel sampler into the soil, retrieving samples of the disturbed soil for classification purposes, and noting the number of blows required to penetrate the last 300 mm. This is known as the N-Value, which is a relative indicator of soil strength.

Because SPT hammers have varying efficiencies, SPT codes and standards from both ASTM and Eurocode recommend that the N-value be normalised based on the energy transferred to the SPT rod, and accept only one method of measuring the energy transferred to the SPT rod - through the measurement of force and velocity by sensors attached to the SPT rod. This procedure is commonly known as 'calibration of the SPT rigs', and should be performed periodically on SPT equipment. Eurocode requires calibration of SPT rigs every six months, while the Departments of Transportation of California, Florida, Utah, Oregon and many other US States require calibration of their SPT rigs every two years.

The new SPT Analyzer has a rechargeable internal battery with up to eight hours of continuous use, an enhanced touch screen for easy operation, and a bright colour screen visible in all lighting conditions. Test results are displayed on the screen in real time and its software produces a variety of relevant graphs and tables. The new SPT Analyzer also has a wireless option that dispenses with cables from the sensors to the instrument, and offers digitising frequencies of up to 100 kHz that meet Eurocode requirements.

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The new model of SPT Analyzer from Pile Dynamics.



The SPT Analyzer being used on a job site.