

STANDARD PENETRATION TEST - SPT EN ISO 22476-3

The purpose of the Standard Penetration Test is to identify the soil stratification and engineering properties of soil layers. During the SPT, it was possible to take disturbed and undisturbed samples (using split barrel-sampler) which were used for further laboratory tests.

The in situ penetration test provides a soil sample for identification purposes and for the laboratory tests that allow the use of disturbed samples. The method of sampling soil consists of driving a split-barrel sampler to obtain a representative, disturbed sample and to simultaneously obtain a measure of the resistance of the subsoil to the penetration of a standard sampler. The resistance to penetration is obtained by counting the number of blows required to drive a steel tube of specified dimensions into the subsoil to a specified distance using a hammer of a specified weight (mass).

All pertinent borehole data, penetration resistance, and sample data must be recorded on a boring log data sheet. The depths at the top or bottom of each 150-mm increment of sampler penetration along with the number of blows required to affect that segment of penetration should be reported. Data obtained from SPT, N-value, is collected following some important steps:

- preliminary test - number of blows for the 0- to 150-mm interval of sampler penetration;
- real test – number of blows for the 150- to 300-mm interval and the 300- to 450-mm interval .

Hydraulic SPT automatic device, fitted on the drill mast side for an easy positioning over the SPT rods. Drop stroke 760 mm, drop weight 63,5 kg, with blows counter display on control panel.

