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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 12745-2007

Replacing GB/T 12745-1991

**Geotechnical engineering instrument for test cone static or
dynamic penetrometer**

土工试验仪器 触探仪

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Foreword

This standard is GB/T 12745-1991 "static penetrometer," the amendment. This standard and GB/T 12745-1991 "static sounding instrument" compared to the main differences are as follows:

- Increased dynamic penetrometer relevant content;
- Increasing the relevant terms and definitions penetrometer;
- Increasing the size of static penetrometer schematic structural diagram of the probe and dynamic penetrometer probe;
- Increase the working environment requirements and material requirements;
- Complements the inspection rules and signs, packaging, transportation and storage requirements;
- Gives some information on the technical parameters of portable penetrometer in the appendix. Appendix A of this standard is an informative annex. The standard proposed by the People's Republic of China Ministry of Water Resources. This standard by the Department of International Cooperation, Science and Technology. This standard is mainly drafted by: MWR hydrological instruments and geotechnical engineering Instrument Quality Supervision and Testing Center, the State Power Company Nanjing Electric Power Automation Equipment Factory, Nanjing Hydrological Institute of Automation. Participated in the drafting of this standard. Nanjing Hydraulic Research Institute, Nanjing Soil Instrument Co., Ltd. The main drafters of this standard. Yaoyong Xi, Chang Yu-cheng, Xu Le, Chaconne. Participate drafters of this standard. Bao Liang blunt, Guan Ping Hong, Wang Changsheng, Guo Gongze, Zhu Aihua. This standard superseded standard previously issued as follows:
- GB/T 12745-1991. Soil test equipment penetrometer

1 Scope

GB/T 12745-2007 is the Chinese national standard on geotechnical engineering instrument for test cone static or dynamic penetrometer, in the field of natural and applied sciences. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 11 June 2007 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 September 2007. Classification: ICS 07.060, CCS P10. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the soil test instrument sounding instrument classification and type, composition and specifications, technical requirements, test methods, inspection rules And signs, instructions, sensor calibration tables, packaging, transportation, storage and other requirements. This standard applies to all types of soil test instrument sounding instrument.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 9359-2001 hydrological instruments environmental testing conditions and methods

GB 9969.1 Instructions General Industrial Products

GB/T 15478-1995 pressure sensor performance test method

GB/T 18459-2001 sensor is mainly static performance index calculation method

GB/T 50279 Standard for fundamental terms of geotechnical engineering

3 Terms and Definitions

GB/T 18459-2001, GB/T 50279 and established the following terms and definitions apply to this standard.

3.1 Static pressure can be certain specifications conical probe uniform vertically pressed into the soil, the size of the measured and evaluated according to their territories subject to anti-resistance Layer mechanical properties and indirect estimation of the bearing capacity

of the soil at various depths, deformation modulus and soil were divided in situ geotechnical test equipment. The standard Quasi mainly refers to resistance strain instrument.

3.2 Capable of a certain quality, free-fall from the hammer will hit certain specifications of the probe into the soil, according to the desired weight sink into the soil a certain depth probe Blow count to determine the soil bearing capacity and assess their traits situ geotechnical test equipment.

3.3 Parameters can be single or multi-parameter measurement, the structure is relatively simple, easy to carry and single soil test operation with the penetrometer. NOTE. The main technical parameters of portable penetrometer see Appendix A.

3.4 In direct contact with the soil, having a predetermined shape, size, mass and hardness of the metal cone.

3.4.1 It can only be used to measure the specific penetration resistance probe.