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**Geotehnično preiskovanje in preskušanje - Preskušanje na terenu - 14. del:  
Dinamični preskus vrtin (ISO 22476-14:2020)**

Geotechnical investigation and testing - Field testing - Part 14: Borehole dynamic probing (ISO 22476-14:2020)

Geotechnische Erkundung und Untersuchung - Felduntersuchungen - Teil 14: Bohrlochrammsondierung (ISO 22476-14:2020)

Reconnaissance et essais géotechniques - Essais en place - Partie 14: Sondage dynamique au carottier (ISO 22476-14:2020)

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**Ta slovenski standard je istoveten z: EN ISO 22476-14:2020**

**ICS:**

93.020	Zemeljska dela. Izkopavanja.	Earthworks. Excavations.
	Gradnja temeljev. Dela pod zemljo	Foundation construction. Underground works

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EUROPEAN STANDARD

EN ISO 22476-14

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2020

ICS 93.020

English Version

## Geotechnical investigation and testing - Field testing - Part 14: Borehole dynamic probing (ISO 22476-14:2020)

Reconnaissance et essais géotechniques - Essais en  
place - Partie 14: Sondage dynamique au carottier  
(ISO 22476-14:2020)

Geotechnische Erkundung und Untersuchung -  
Felduntersuchungen - Teil 14:  
Bohrlochrammsondierung (ISO 22476-14:2020)

This European Standard was approved by CEN on 1 March 2020.

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## European foreword

This document (EN ISO 22476-14:2020) has been prepared by Technical Committee ISO/TC 182 "Geotechnics" in collaboration with Technical Committee CEN/TC 341 "Geotechnical Investigation and Testing" the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2020, and conflicting national standards shall be withdrawn at the latest by September 2020.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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INTERNATIONAL  
STANDARD

ISO  
22476-14

First edition  
2020-02

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**Geotechnical investigation and  
testing — Field testing —**

**Part 14:  
Borehole dynamic probing**

*Reconnaissance et essais géotechniques — Essais en place —*

*Partie 14: Sondage dynamique au carottier*

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Reference number  
ISO 22476-14:2020(E)

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Published in Switzerland



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## ISO 22476-14:2020(E)

### Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 182, *Geotechnics*.

A list of all parts in the ISO 22476 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

# Geotechnical investigation and testing — Field testing —

## Part 14: Borehole dynamic probing

### 1 Scope

This document specifies the equipment requirements, execution of and reporting on borehole dynamic probing.

NOTE This document fulfills the requirements for borehole dynamic probing as part of the geotechnical investigation and testing according to EN 1997-1 and EN 1997-2.

The document specifies technical requirements in respect to equipment and implementation, in order to extensively prevent incorrect appraisals of the subsoil conditions and to limit scatter in the probing results due to equipment and implementation.

### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 10025-2, *Hot rolled products of structural steels — Part 2: Technical delivery conditions for non-alloy structural steels* <https://standards.iteh.ai/catalog/standards/sist/e8598548-d033-4730-9c0d-65498370a50b/sist-en-iso-22476-14-2020>

ISO 14688-1, *Geotechnical investigation and testing — Identification and classification of soil — Part 1: Identification and description*

ISO 22475-1, *Geotechnical investigation and testing — Sampling methods and groundwater measurements — Part 1: Technical principles for execution*

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <http://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

#### 3.1

##### probing

indirect subsoil exploration method in soils normally by driving a cone vertically while measuring the *penetration resistance* (3.4) to derive geotechnical parameters

#### 3.2

##### borehole dynamic probing

*probing* (3.1) in the borehole, which is carried out by driving by impact from the borehole base over a defined penetration depth

Note 1 to entry: Here the impact device is directly above the probe in the borehole.

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### 3.3

#### **number of blows $N_{30}$**

blows required for the probe to penetrate by 30 cm, in relation to the depth ranges of 15 cm to 45 cm of the probe depth

### 3.4

#### **penetration resistance**

sum of the tip resistance and negligible skin friction recorded by the *number of blows  $N_{30}$*  ([3.3](#))

### 3.5

#### **derived value**

value of a geotechnical parameter determined by theory, correlation or empirically

Note 1 to entry: The derived values are used as an initial basis for determining characteristic values according to EN 1997-1:2010, 2.4.3.

## 4 Equipment

The device for the borehole dynamic probing is shown in [Figure 1](#). The technical data are shown in [Table 1](#).

The device is lowered into the borehole with an encased impact device on the rope and the probe is driven in from there without a rod.

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