



**SLOVENSKI STANDARD
SIST EN ISO 22476-8:2018**

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Geotechnical investigation and testing - Field testing - Part 8: Full displacement pressuremeter test (ISO 22476-8:2018)

Geotechnische Erkundung und Untersuchung - Felduntersuchungen - Teil 8: Vollverdrängungspressiometerversuch (ISO 22476-8:2018)

Reconnaissance et essais géotechniques - Essais en place - Partie 8: Essai au pressiomètre refoulant (ISO 22476-8:2018)

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EUROPEAN STANDARD

EN ISO 22476-8

NORME EUROPÉENNE

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October 2018

ICS 93.020

English Version

Geotechnical investigation and testing - Field testing - Part 8: Full displacement pressuremeter test (ISO 22476- 8:2018)

Reconnaissance et essais géotechniques - Essais en
place - Partie 8: Essai au pressiomètre refoulant (ISO
22476-8:2018)

Geotechnische Erkundung und Untersuchung -
Felduntersuchungen - Teil 8:
Vollverdrängungspressiometerversuch (ISO 22476-
8:2018)

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European foreword

This document (EN ISO 22476-8:2018) 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of an identical text or by endorsement, at the latest by April 2019, and conflicting national standards shall be withdrawn at the latest by April 2019.

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.

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Endorsement notice

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2018-09

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

**Part 8:
Full displacement pressuremeter test**

Reconnaissance et essais géotechniques — Essais en place —

Partie 8: Essai au pressiomètre refoulant

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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).

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

For an explanation on 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 the following URL: www.iso.org/iso/foreword.html. (standards.iteh.ai)

This document was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 341, *Geotechnical investigation and testing*, in collaboration with ISO Technical Committee ISO/TC 182, *Geotechnics*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

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.

Geotechnical investigation and testing — Field testing —

Part 8: Full displacement pressuremeter test

1 Scope

This document specifies the equipment requirements, execution of and reporting on full displacement pressuremeter (FDP) tests.

NOTE This document fulfils the requirements for full displacement pressuremeter test as part of the geotechnical investigation services according to EN 1997-1 and EN 1997-2.

Tests with the full displacement pressuremeter cover the measurement in situ of the deformation of soils and weak rocks by the expansion/contraction of a cylindrical flexible membrane under pressure.

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.

ISO 22476-1, *Geotechnical investigation and testing — Field testing — Part 1: Electrical cone and piezocone penetration test*

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ISO 22476-4:2012, *Geotechnical investigation and testing — Field testing — Part 4: Ménard pressuremeter test*

ISO 10012, *Measurement management systems — Requirements for measurement processes and measuring equipment*

ENV 13005:1999; *Guide to the expression of uncertainty in measurement*

3 Terms, definitions and symbols

3.1 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 <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1.1

full displacement pressuremeter

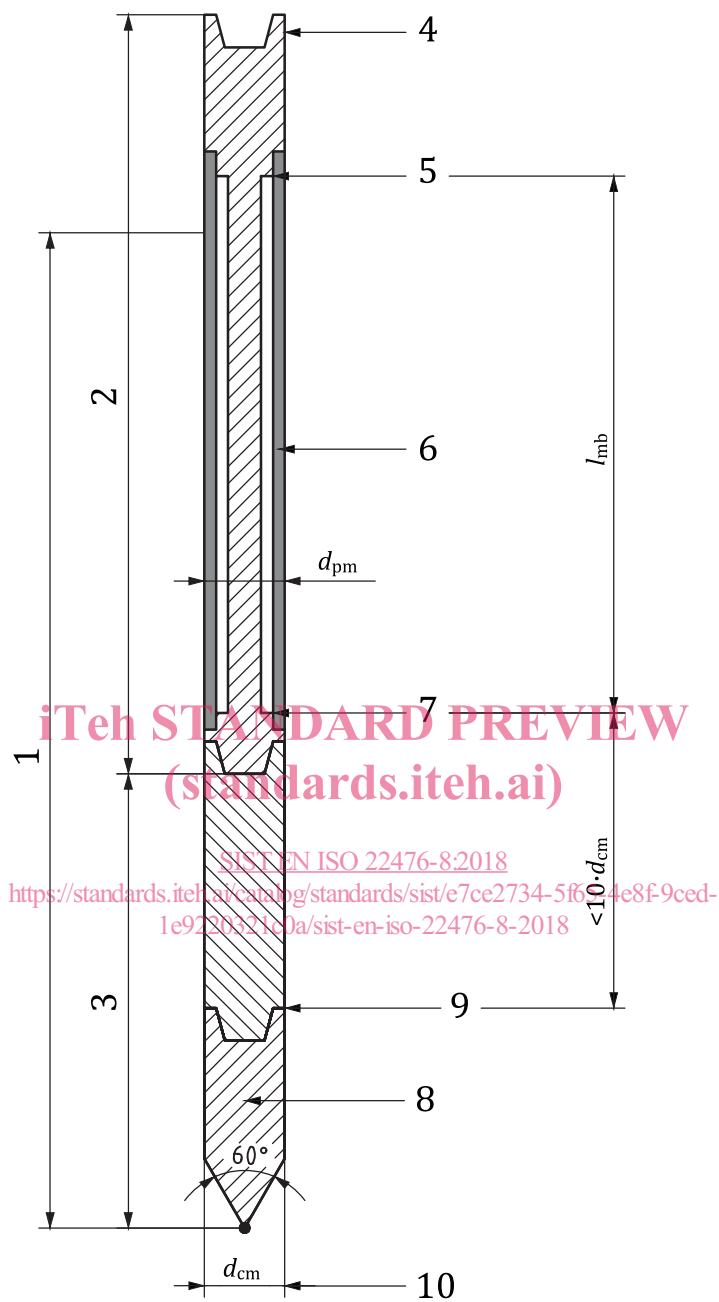
FDP

assembly containing a *pressuremeter module* (3.1.2) and a *cone module* (3.1.3)

Note 1 to entry: The FDP is jacked or driven directly into undisturbed ground with an integral cone at its lower end thereby creating its own test hole. No preparation of the cavity is permitted either by pre-boring, pre-pushing or any other means.

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Note 2 to entry: The applied pressure and associated expansion of the probe are measured and recorded so as to obtain the stress-displacement relationship for the soil as tested (see [Figure 1](#)).



Key

- | | | | |
|---|---------------------------------|----|---|
| 1 | full displacement pressuremeter | 6 | membrane |
| 2 | pressuremeter module | 7 | lower fixed membrane point |
| 3 | cone module | 8 | cone |
| 4 | push rod connector | 9 | cone tip |
| 5 | upper fixed membrane point | 10 | 25 mm to 50 mm (according to ISO 22476-1) |

NOTE The example is not to scale.

Figure 1 — Cross section of a full displacement pressuremeter