SLOVENSKI STANDARD
SIST EN ISO 7500-1:2018

01-julij-2018

Nadomešča:
SIST EN ISO 7500-1:2016

Kovinski materiali - Umerjanje in preverjanje statičnih enoosnih preskuševalnih strojev - 1. del: Preskuševalni stroji za natezni/tlačni preskus - Umerjanje in preverjanje sistema za merjenje sile (ISO 7500-1:2018)

Metallic materials - Calibration and verification of static uniaxial testing machines - Part 1: Tension/compression testing machines - Calibration and verification of the force-measuring system (ISO 7500-1:2018)

Metallische Werkstoffe - Kalibrierung und Überprüfung von statischen einachsigen Prüfmaschinen - Teil 1: Zug- und Druckprüfmaschinen - Kalibrierung und Überprüfung der Kraftmesseinrichtung (ISO 7500-1:2018)

Matériaux métalliques - Étalonnage et vérification des machines pour essais statiques uniaxiaux - Partie 1: Machines d'essai de traction/compression - Étalonnage et vérification du système de mesure de force (ISO 7500-1:2018)

Ta slovenski standard je istoveten z: **EN ISO 7500-1:2018**

ICS:

77.040.10 Mehansko preskušanje kovin Mechanical testing of metals

SIST EN ISO 7500-1:2018 **en,fr,de**

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 7500-1

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ICS 77.040.10

Supersedes EN ISO 7500-1:2015

English Version

Metallic materials - Calibration and verification of static uniaxial testing machines - Part 1: Tension/compression testing machines - Calibration and verification of the force-measuring system (ISO 7500-1:2018)

Matériaux métalliques - Étalonnage et vérification des machines pour essais statiques uniaxiaux - Partie 1: Machines d'essai de traction/compression - Étalonnage et vérification du système de mesure de force (ISO 7500-1:2018)

Metallische Werkstoffe - Kalibrierung und Überprüfung von statischen einachsigen Prüfmaschinen - Teil 1: Zug- und Druckprüfmaschinen - Kalibrierung und Überprüfung der Kraftmesseinrichtung (ISO 7500-1:2018)

This European Standard was approved by CEN on 8 March 2018.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN ISO 7500-1:2018) has been prepared by Technical Committee ISO/TC 164 "Mechanical testing of metals" in collaboration with Technical Committee ECISS/TC 101 "Test methods for steel (other than chemical analysis)" the secretariat of which is held by AFNOR.

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 2018, and conflicting national standards shall be withdrawn at the latest by September 2018.

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.

This document supersedes EN ISO 7500-1:2015.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 7500-1:2018 has been approved by CEN as EN ISO 7500-1:2018 without any modification.

INTERNATIONAL STANDARD

ISO 7500-1

Fifth edition
2018-02

Metallic materials — Calibration and verification of static uniaxial testing machines —

Part 1: Tension/compression testing machines — Calibration and verification of the force-measuring system

Matériaux métalliques — Étalonnage et vérification des machines pour essais statiques uniaxiaux —

Partie 1: Machines d'essai de traction/compression — Étalonnage et vérification du système de mesure de force

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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.

This document was prepared by Technical Committee ISO/TC 164, *Mechanical testing of metals*, Subcommittee SC 1, *Uniaxial testing*.

This fifth edition cancels and replaces the fourth edition (ISO 7500-1:2015), of which it constitutes a minor revision. The changes compared to the previous edition are as follows:

— the definitions of ΔF, Δm, Δg, E, E', U, and U' in Table 1 have been editorially revised.

A list of all parts in the ISO 7500 series can be found on the ISO website.

Metallic materials — Calibration and verification of static uniaxial testing machines —

Part 1: Tension/compression testing machines — Calibration and verification of the force-measuring system

1 Scope

This document specifies the calibration and verification of tension/compression testing machines.

The verification consists of:

— a general inspection of the testing machine, including its accessories for the force application;

— a calibration of the force-measuring system of the testing machine;

— a confirmation that the performance properties of the testing machine achieve the limits given for a specified class.

NOTE This document addresses the static calibration and verification of the force-measuring systems. The calibration values are not necessarily valid for high-speed or dynamic testing applications. Further information regarding dynamic effects is given in the Bibliography.

CAUTION — Some of the tests specified in this document involve the use of processes which can lead to a hazardous situation.

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 376, *Metallic materials — Calibration of force-proving instruments used for the verification of uniaxial testing machines*

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:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

3.1
calibration
operation that establishes the relationship between the force values (with associated uncertainties) indicated by the testing machine and those measured by one or more force-proving instruments