

**Metallmaterjalid. Üheteljesuunaliste  
katseseadmete kontrollimiseks  
kasutatavate jõumõõteriistade  
kalibreerimine**

Metallic materials - Calibration of force-proving  
instruments used for the verification of uniaxial  
testing machines

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 376:2005 sisaldab Euroopa standardi EN ISO 376:2004 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 25.01.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 376:2005 consists of the English text of the European standard EN ISO 376:2004.</p> <p>This document is endorsed on 25.01.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b></p> <p>This International Standard covers the calibration of force-proving instruments used for the static verification of uniaxial testing machines (e.g. tension/compression testing machines) and describes a procedure for classifying these instruments. This International Standard generally applies to force-proving instruments in which the force is determined by measuring the elastic deformation of a loaded member or a quantity which is proportional to it.</p>	<p><b>Scope:</b></p> <p>This International Standard covers the calibration of force-proving instruments used for the static verification of uniaxial testing machines (e.g. tension/compression testing machines) and describes a procedure for classifying these instruments. This International Standard generally applies to force-proving instruments in which the force is determined by measuring the elastic deformation of a loaded member or a quantity which is proportional to it.</p>
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**ICS** 77.040.10

**Võtmesõnad:** deformatsiooni mõõtmised, dünamomeetrid, jõud, kalibreerimine, klassifikatsioonid, kontrollimine, metalltooted, mõõteriistad, teimiseade, utiliseerimine

**English version**

Metallic materials

**Calibration of force-proving instruments used for the  
verification of uniaxial testing machines**

(ISO 376 : 2004)

Matériaux métalliques – Etalonnage  
des instruments de mesure de force  
utilisés pour la vérification des ma-  
chines d'essais uniaxiaux  
(ISO 376 : 2004)

Metallische Werkstoffe – Kalibrierung  
der Kraftmessgeräte für die Prüfung  
von Prüfmaschinen mit einachsiger  
Beanspruchung (ISO 376 : 2004)

This European Standard was approved by CEN on 2004-10-20.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

The European Standards exist 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, and the United Kingdom.

**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

**Management Centre: rue de Stassart 36, B-1050 Brussels**

## Foreword

International Standard

ISO 376 : 2004 Metallic materials – Calibration of force-proving instruments used for the verification of uniaxial testing machines,

which was prepared by ISO/TC 164 'Mechanical testing of metals' of the International Organization for Standardization, has been adopted by Technical Committee EC/ISS/TC 1 'Steel – Mechanical testing', the Secretariat of which is held by AFNOR, as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by May 2005 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, and the United Kingdom.

## Endorsement notice

The text of the International Standard ISO 376 : 2004 was approved by CEN as a European Standard without any modification.

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## Introduction

No information is currently provided in this International Standard for determining the uncertainty of a force-proving device or its indicator. An ISO/TC 164/SC 1 working group is currently developing procedures for determining the measurement uncertainty of force-proving devices. Until such information is provided in this International Standard, procedures for determining the measurement uncertainty of force-proving devices can be found in the two first documents listed in the Bibliography.

## 1 Scope

This International Standard covers the calibration of force-proving instruments used for the static verification of uniaxial testing machines (e.g. tension/compression testing machines) and describes a procedure for classifying these instruments.

This International Standard generally applies to force-proving instruments in which the force is determined by measuring the elastic deformation of a loaded member or a quantity which is proportional to it.

## 2 Normative references

The following referenced documents are indispensable for the application 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/IEC 17025, *General requirements for the competence of testing and calibration laboratories*

## 3 Terms and definitions

For the purposes of this document, the following term and definition apply.

### 3.1

#### **force-proving instrument**

whole assembly from the force transducer through to, and including, the indicator

## 4 Symbols and their designations

Symbols and their designations are given in Table 1.