

**Geometrical Product Specifications
(GPS) - Acceptance and reverfication
tests for coordinate measuring
machines (CMM) - Part 3: CMMs with
the axis of a rotary table as the fourth
axis**

Geometrical Product Specifications (GPS) -
Acceptance and reverfication tests for coordinate
measuring machines (CMM) - Part 3: CMMs with the
axis of a rotary table as the fourth axis

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 10360-3:2000 sisaldab Euroopa standardi EN ISO 10360-3:2000 ingliskeelset teksti. Käesolev dokument on jõustatud 12.09.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN ISO 10360-3:2000 consists of the English text of the European standard EN ISO 10360-3:2000. This document is endorsed on 12.09.2000 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.
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Käsitlusala: This part of ISO 10360 specifies the acceptance test which verifies that the performance of a four-axis coordinate measuring machine (CMM) is as stated by the manufacturer. It also specifies the reverification tests, which enables the user to reverify the CMM four-axis performance periodically.	Scope: This part of ISO 10360 specifies the acceptance test which verifies that the performance of a four-axis coordinate measuring machine (CMM) is as stated by the manufacturer. It also specifies the reverification tests, which enables the user to reverify the CMM four-axis performance periodically.
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Võtmesõnad: acceptance testing, coordinate measuring machines, dimensional measurements, geometrical product specifications, measuring instruments, metrological characteristics, performance tests, tests, verification

English version

Geometrical product specifications (GPS)
**Acceptance and reverification tests for coordinate
measuring machines (CMM)**
Part 3: CMMs with the axis of a rotary table as the fourth axis
(ISO 10360-3 : 2000)

Spécification géométrique des
produits (GPS) – Essais de réception
et de vérification périodique des
machines à mesurer tridimensionnel-
les (MMT) – Partie 3: MMT ayant l'axe
de rotation d'un plateau tournant
comme quatrième axe
(ISO 10360-3 : 2000)

Geometrische Produktspezifikation
(GPS) – Annahmeprüfung und
Bestätigungsprüfung für Koordi-
natenmessgeräte (KMG) – Teil 3:
KMG mit der Achse eines Dreh-
tisches als vierte Achse
(ISO 10360-3 : 2000)

This European Standard was approved by CEN on 2000-03-15.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

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

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Foreword

International Standard

ISO 10360-3 : 2000 Geometrical product specifications (GPS) – Acceptance and reverification tests for co-ordinate measuring machines (CMM) – Part 3: CMMs with the axis of a rotary table as the fourth axis,

which was prepared by ISO/TC 213 'Dimensional and geometrical product specifications and verification' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 290 'Dimensional and geometrical product specifications and verification', the Secretariat of which is held by DIN, 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 September 2000 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, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 10360-3 : 2000 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in Annex ZA (normative)

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Introduction

This part of ISO 10360 is a geometrical product specification (GPS) standard and is to be regarded as a general GPS standard (see ISO/TR 14638). It influences link 5 of the chains of standards on size, distance, radius, angle, form, orientation, location, run-out and datums.

For more detailed information on the relationship of this part of ISO 10360 to other standards and the GPS matrix model, see annex B.

The acceptance test and reverification test of this part of ISO 10360 are applicable to CMMs which use a rotary table for the orientation of a workpiece being measured.

The tests specified in this part of ISO 10360 are performed in addition to the size measuring tests according to ISO 10360-2, which are conducted with the rotary table stationary. They are designed to detect the system measuring errors relative to an axis system fixed to the rotary table. It is normally not useful to isolate the rotary table errors from other sources of machine error.

1 Scope

This part of ISO 10360 specifies the acceptance test which verifies that the performance of four-axis coordinate measuring machines (CMM) is in accordance with that stated by the manufacturer. It also specifies the reverification test, which enables the user to reverify the performance of a four-axis CMM periodically.

The acceptance test and reverification test described in this part of ISO 10360 are applicable only to four-axis machines with three axes for measuring workpiece coordinates, plus a rotary table for orienting the workpiece.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 10360. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 10360 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 10360-1:—¹⁾, *Geometrical Product Specifications (GPS) — Acceptance and reverification tests for coordinate measuring machines (CMM) — Part 1: Vocabulary*.

ISO 14253-1:1998, *Geometrical Product Specifications (GPS) — Inspection by measurement of workpieces and measuring equipment — Part 1: Decision rules for proving conformance or non-conformance with specifications*.

International Vocabulary of Basic and General Terms in Metrology (VIM). BIPM, IEC, IFCC, ISO, IUPAC, IUPAP, OIML, 2nd edition, 1993.

3 Terms and definitions

For the purposes of this part of ISO 10360, the terms and definitions given in ISO 10360-1, ISO 14253-1 and VIM apply.

1) To be published.