

Geometrical product specifications (GPS) - Dimensional measuring equipment; Height gauges - Design and metrological characteristics (ISO 13225:2012)

EESTI STANDARDI EESSÕNA

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English Version

**Geometrical product specifications (GPS) - Dimensional
measuring equipment; Height gauges - Design and metrological
characteristics (ISO 13225:2012)**

Spécification géométrique des produits (GPS) -
Équipement de mesurage dimensionnel; Mesureurs
verticaux - Caractéristiques de conception et
caractéristiques métrologiques (ISO 13225:2012)

Geometrische Produktspezifikation (GPS) -
Längenmessgeräte: Vertikale Längenmessgeräte -
Konstruktionsmerkmale und messtechnische Merkmale
(ISO 13225:2012)

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Foreword

This document (EN ISO 13225:2012) has been prepared by Technical Committee ISO/TC 213 "Dimensional and geometrical product specifications and verification" in collaboration with Technical Committee CEN/TC 290 "Dimensional and geometrical product specification and verification" 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of an identical text or by endorsement, at the latest by November 2012, and conflicting national standards shall be withdrawn at the latest by November 2012.

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Endorsement notice

The text of ISO 13225:2012 has been approved by CEN as a EN ISO 13225:2012 without any modification.

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Introduction

This International Standard is a geometrical product specification (GPS) standard and is to be regarded as a general GPS standard (see ISO/TR 14638). It influences the chain link 5 of the chain of standards on size and distance.

The ISO/GPS Masterplan given in ISO/TR 14638 gives an overview of the ISO/GPS system of which this document is a part. The fundamental rules of ISO/GPS given in ISO 8015 apply to this document and the default decision rules given in ISO 14253-1 apply to specifications made in accordance with this document, unless otherwise indicated.

For more detailed information of the relation of this International Standard to the GPS matrix model, see Annex D.

This International Standard is intended to serve the purpose of promoting

- the relationship between the manufacturer and purchaser, and
- the management of measuring instruments in the quality-assurance system.

Geometrical product specifications (GPS) — Dimensional measuring equipment; Height gauges — Design and metrological characteristics

1 Scope

This International Standard specifies the most important design and metrological characteristics of height gauges (with analogue indication or digital indication) for linear-dimensional measurements perpendicular to a surface plate.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the cited editions apply. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1:2002, *Geometrical Product Specifications (GPS) — Standard reference temperature for geometrical product specification and verification*

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

ISO 14253-2, *Geometrical product specifications (GPS) — Inspection by measurement of workpieces and measuring equipment — Part 2: Guidance for the estimation of uncertainty in GPS measurement, in calibration of measuring equipment and in product verification*

ISO 14978:2006, *Geometrical product specifications (GPS) — General concepts and requirements for GPS measuring equipment*

IEC 60529, *Degrees of protection provided by enclosures (IP Code)*

ISO/IEC Guide 98-3, *Uncertainty of measurement — Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)*

ISO/IEC Guide 99, *International vocabulary of metrology — Basic and general concepts and associated terms (VIM)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 14978, ISO/IEC Guide 99 and the following apply.

3.1

height gauge

measuring instrument in which a slider with a measuring stylus moves relative to a measuring scale on a beam and in which this motion is along a single vertical axis nominally perpendicular to a reference plane on the instrument base

NOTE 1 Height gauges are designed to be used with surface plates in which the reference plane of the height gauge is placed in contact with the surface plate.

NOTE 2 Various types of measuring scales on the beam with appropriate indication are possible, such as analogue indication, including vernier and circular scales, and digital indication.

NOTE 3 Most height gauges are capable of using various types of measuring styli, including a scriber.