

Irish Standard I.S. EN ISO 25178-606:2015

Geometrical product specification (GPS) -Surface texture: Areal - Part 606: Nominal characteristics of non-contact (focus variation) instruments (ISO 25178-606:2015)

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Geometrical product specification (GPS) - Surface texture: Areal - Part 606: Nominal characteristics of non-contact (focus variation) instruments (ISO 25178-606:2015)

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EN ISO 25178-606:2015 (E)

Contents

Page

European foreword	 3

European foreword

This document (EN ISO 25178-606:2015) 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of an identical text or by endorsement, at the latest by December 2015, and conflicting national standards shall be withdrawn at the latest by December 2015.

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INTERNATIONAL STANDARD

ISO 25178-606

First edition 2015-06-15

Geometrical product specification (GPS) — Surface texture: Areal —

Part 606: Nominal characteristics of non-contact (focus variation) instruments

Spécification géométrique des produits (GPS) — État de surface: Surfacique —

Partie 606: Caractéristiques nominales des instruments sans contact (à variation de focale)



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Page

Contents

Fore	word		iv
Intro	ductio	n	vi
1	Scop	e	1
2	Norr	native references	1
3	Tern 3.1 3.2 3.3 3.4 3.5	ns and definitions Terms and definitions related to all areal surface texture measurement methods Terms and definitions related to x- and y-scanning systems Terms and definitions related to optical systems Terms and definitions related to optical properties of the workpiece Terms and definitions specific to focus variation instruments	
4	Desc 4.1 4.2 4.3	ription of the influence quantities General Overview Influence quantities	16 16 17 17
Anne	ex A (in	formative) Components of a focus variation microscope	
Anne	ex B (in	formative) Relation to the GPS matrix model	25
Bibli	ograpł	Ŋ	27

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ISO 25178-606:2015(E)

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.

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: Foreword — Supplementary information.

The committee responsible for this document is ISO/TC 213, *Dimensional and geometrical product specifications and verification*.

ISO 25178 consists of the following parts, under the general title *Geometrical product specification (GPS)* — *Surface texture: Areal*:

- Part 1: Indication des états de surface
- Part 2: Terms, definitions and surface texture parameters
- Part 3: Specification operators
- Part 6: Classification of methods for measuring surface texture
- Part 70: Material measures
- Part 71: Software measurement standards
- Part 72: Format de fichier XML x3p
- Part 601: Nominal characteristics of contact (stylus) instruments
- Part 602: Nominal characteristics of non-contact (confocal chromatic probe) instruments
- Part 603: Nominal characteristics of non-contact (phase-shifting interferometric microscopy) instruments
- Part 604: Nominal characteristics of non-contact (coherence scanning interferometry) instruments
- Part 605: Nominal characteristics of non-contact (point autofocus probe) instruments
- Part 606: Nominal characteristics of non-contact (focus variation) instruments
- Part 701: Calibration and measurement standards for contact (stylus) instruments

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ISO 25178-606:2015(E)

The following parts are planned:

- Part 73: Defects on material measures Terms and definitions
- Part 600: Metrological characteristics for areal-topography measuring methods
- Part 607: Nominal characteristics of non-contact (imaging confocal microscopy) instruments

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ISO 25178-606:2015(E)

Introduction

This part of ISO 25178 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 areal surface texture.

The ISO/GPS Masterplan given in ISO/TR 14638 gives an overview of the ISO/GPS system of which this part of ISO 25178 is a part of. The fundamental rules of ISO/GPS given in ISO 8015 apply to this part of ISO 25178 and the default decision rules given in ISO 14253-1 apply to specifications made in accordance with this part of ISO 25178, unless otherwise indicated.

For more detailed information of the relation of this part of ISO 25178 to other standards and the GPS matrix model, see <u>Annex B</u>.

This part of ISO 25178 describes the metrological characteristics of focus variation microscopes designed for the measurement of surface topography maps.

For more detailed information on the focus variation technique, see <u>Annex A</u>.

NOTE Portions of this part of ISO 25178, particularly the informative sections, describe patented systems and methods. This information is provided only to assist users in understanding the operating principles of focus variation. This part of ISO 25178 is not intended to establish priority for any intellectual property, nor does it imply a license to proprietary technologies described herein.

Geometrical product specification (GPS) — Surface texture: Areal —

Part 606: Nominal characteristics of non-contact (focus variation) instruments

1 Scope

This part of ISO 25178 defines the metrological characteristics of a particular non-contact method measuring surface texture using a focus variation (FV) sensor.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3274:1996, Geometrical Product Specifications (GPS) — Surface texture: Profile method — Nominal characteristics of contact (stylus) instruments

ISO 4287:1997, Geometrical Product Specifications (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters

ISO 10934-2:2007, Optics and optical instruments — Vocabulary for microscopy — Part 2: Advanced techniques in light microscopy

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

ISO 17450-1, Geometrical product specifications (GPS) — General concepts — Part 1: Model for geometrical specification and verification

ISO 25178-2:2012, Geometrical product specifications (GPS) — Surface texture: Areal — Part 2: Terms, definitions and surface texture parameters

ISO 25178-3:2012, Geometrical product specifications (GPS) — Surface texture: Areal — Part 3: Specification operators

ISO 25178-6:2010, Geometrical product specifications (GPS) — Surface texture: Areal — Part 6: Classification of methods for measuring surface texture

ISO 25178-601, Geometrical product specifications (GPS) — Surface texture: Areal — Part 601: Nominal characteristics of contact (stylus) instruments

ISO 25178-602, Geometrical product specifications (GPS) — Surface texture: Areal — Part 602: Nominal characteristics of non-contact (confocal chromatic probe) instruments

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 3274, ISO 4287, ISO 10934-2 ISO 17450-1, ISO 14978, ISO 25178-2, ISO 25178-3, ISO 25178-6, ISO 25178-601, ISO 25178-602, and the following apply.



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