SLOVENSKI STANDARD
SIST EN ISO 9013:2017

01-maj-2017

Nadomešča:
SIST EN ISO 9013:2003
SIST EN ISO 9013:2003/A1:2004

Toplotno rezanje - Razvrstitev toplotnih rezov - Geometrijska specifikacija izdelkov in tolerance kakovosti (ISO 9013:2017)

Thermal cutting - Classification of thermal cuts - Geometrical product specification and quality tolerances (ISO 9013:2017)

Thermisches Schneiden - Einteilung thermischer Schnitte - Geometrische Produktspezifikation und Qualität (ISO 9013:2017)

Coupage thermique - Classification des coupes thermiques - Spécification géométrique des produits et tolérances relatives à la qualité (ISO 9013:2017)

Ta slovenski standard je istoveten z: **EN ISO 9013:2017**

ICS:

17.040.20	Lastnosti površin	Properties of surfaces
25.160.10	Varilni postopki in varjenje	Welding processes

SIST EN ISO 9013:2017 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 9013

February 2017

ICS 25.160.10

Supersedes EN ISO 9013:2002

English Version

Thermal cutting - Classification of thermal cuts - Geometrical product specification and quality tolerances (ISO 9013:2017)

Coupage thermique - Classification des coupes thermiques - Spécification géométrique des produits et tolérances relatives à la qualité (ISO 9013:2017)

Thermisches Schneiden - Einteilung thermischer Schnitte - Geometrische Produktspezifikation und Qualität (ISO 9013:2017)

This European Standard was approved by CEN on 1 January 2017.

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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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Ref. No. EN ISO 9013:2017 E

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European foreword

This document (EN ISO 9013:2017) has been prepared by Technical Committee ISO/TC 44 “Welding and allied processes” in collaboration with Technical Committee CEN/TC 121 “Welding and allied processes” the secretariat of which is held by DIN.

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 August 2017, and conflicting national standards shall be withdrawn at the latest by August 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 9013:2002.

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 9013:2017 has been approved by CEN as EN ISO 9013:2017 without any modification.

INTERNATIONAL STANDARD

ISO 9013

Third edition
2017-02

Thermal cutting — Classification of thermal cuts — Geometrical product specification and quality tolerances

Coupage thermique — Classification des coupes thermiques — Spécification géométrique des produits et tolérances relatives à la qualité

Reference number
ISO 9013:2017(E)

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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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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 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.

The committee responsible for this document is ISO/TC 44, *Welding and allied processes*, Subcommittee SC 8, *Equipment for gas welding, cutting and allied processes*.

This third edition cancels and replaces the second edition (ISO 9013:2002), which has been technically revised.

Requests for official interpretations of any aspect of this document should be directed to the Secretariat of ISO/TC 44/SC 8 via your national standards body. A complete listing of these bodies can be found at www.iso.org.

Thermal cutting — Classification of thermal cuts — Geometrical product specification and quality tolerances

1 Scope

This document presents geometrical product specifications and quality tolerances for the classification of thermal cuts in materials suitable for oxyfuel flame cutting, plasma cutting and laser cutting. It is applicable to flame cuts from 3 mm to 300 mm, plasma cuts from 0,5 mm to 150 mm and laser cuts from 0,5 mm to 32 mm.

The geometrical product specifications are applicable if reference to this document is made in drawings or pertinent documents, e.g. delivery conditions. If this document were also to apply, by way of exception, to parts produced by other cutting processes, this would have to be agreed upon separately.

Flatness defects are not addressed as such in this document. The references are to the current standards for the materials used.

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 1302:2002, *Geometrical Product Specifications (GPS) — Indication of surface texture in technical product documentation*

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

ISO 4288, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Rules and procedures for the assessment of surface texture*

ISO 8015, *Geometrical product specifications (GPS) — Fundamentals — Concepts, principles and rules*

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 http://www.iso.org/obp

3.1 General

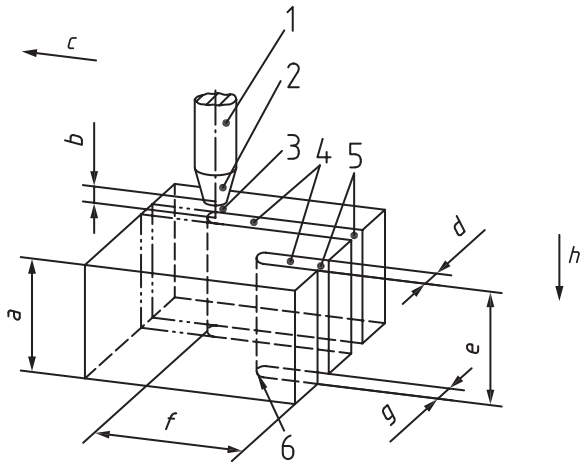
3.1.1
cutting
operation of cutting the work piece

3.1.2
cut
result of the cutting operation

3.2 Terms and definitions explained by figures

NOTE Figure 1 indicates the terms related to the cutting process of the work piece after the cutting process has started, Figure 2 indicates the terms for the finished work piece, Figure 3 shows a straight cut and Figure 4, a contour cut.

3.2.1 Terms related to the cutting process



Key

1	torch/cutting head	*a*	work piece thickness
2	nozzle	*b*	nozzle distance
3	beam/flame/arc	*c*	advance direction
4	kerf	*d*	top kerf width
5	start of cut	*e*	cut thickness
6	end of cut	*f*	length of cut
		g	bottom kerf width
		h	cutting direction

Figure 1 — Terms related to the cutting process of the work piece