



SLOVENSKI STANDARD

SIST ISO 13715:2018

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Nadomešča:
SIST ISO 13715:2004

Tehnična dokumentacija izdelkov - Robovi nedoločenih oblik - Opredelitve in dimenzioniranje

Technical product documentation - Edges of undefined shape - Indication and dimensioning

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Documentation technique de produits - Arêtes de forme non définie - Indication et cotation

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INTERNATIONAL
STANDARD

ISO
13715

Third edition
2017-03

**Technical product documentation —
Edges of undefined shape —
Indication and dimensioning**

*Documentation technique de produits — Arêtes de forme non définie
— Indication et cotation*

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Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Indications on drawings	4
4.1 Basic indication.....	4
4.2 Types of undefined edge.....	5
4.3 Size.....	5
4.4 Direction of passing or undercut.....	7
4.4.1 Indication in one direction.....	7
4.4.2 Asymmetrical indication.....	8
4.5 Location of the basic symbol.....	8
4.5.1 General.....	8
4.5.2 Individual indication of edges.....	9
4.5.3 Indication of limited areas.....	10
4.5.4 General indication of edges.....	11
4.5.5 Exceptions from general indications of edges.....	13
4.6 Reference to this document.....	15
Annex A (normative) Proportions and dimensions of graphical symbols	16
Annex B (informative) Examples of indication of undefined edges	18
Bibliography	22

[SIST ISO 13715:2018](https://standards.iteh.ai/catalog/standards/sist/768b83c9-a2d5-4627-9c68-98803f03ae7b/sist-iso-13715-2018)

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ISO 13715:2017(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.

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).

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For an explanation on the voluntary nature of standards, 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. (standards.iteh.ai)

This document was prepared by Technical Committee ISO/TC 10, *Technical product documentation*, Subcommittee SC 6, *Mechanical engineering documentation*.

This third edition cancels and replaces the second edition (ISO 13715:2000), which has been technically revised with the following changes:

- title changed from *Technical drawings — Edges of undefined shape — Vocabulary and indications to Technical product documentation — Edges of undefined shape — Indication and dimensioning*;
- Normative references updated;
- text rearranged in [Clause 4](#);
- figure titles changed;
- figures added and improved;
- [4.4.2](#) “Asymmetrical indications” added;
- Clause 5 deleted and Table 2 “Examples” is moved to [Annex B](#), explanations have been improved;
- [Annex B](#) “Recommended edge sixe” has been deleted, definition of sharp edge is deleted.

Introduction

In technical drawings, the ideal geometric shape is represented without any deviation and, in general, without consideration of the conditions of the edges. Nevertheless, for many purposes (the functioning of a part or out of safety considerations, for example) particular conditions of edges need to be indicated. Such conditions include those of external edges free from burr or those with a burr of limited size, and internal edges with a passing.

This document provides a symbology for the indication of the desired edge.

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Technical product documentation — Edges of undefined shape — Indication and dimensioning

1 Scope

This document specifies rules for the indication and dimensioning of undefined edges in technical product and dimensions. The proportions and dimensions of the graphical symbols to be used are also specified.

In cases where the geometrically defined shape of an edge (for example, $1 \times 45^\circ$) is required, the general dimensioning principles given in ISO 129-1 apply.

2 Normative references

There are no normative references cited in this document.

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>
<https://standards.itec.ai/catalog/standards/sist/76665c9-azd5-4627-9c68-98803f03ae7b/sist-iso-13715-2018>

3.1

edge of undefined shape

transition line, included in an intersection plane, which is not defined on the nominal model and which exists between two adjacent integral surfaces

3.2

undercut

deviation inside the ideal geometrical shape of an edge defined by two tangent outside straight lines to the adjacent feature of the zone of the undefined edge

Note 1 to entry: The explanation of the definition is given in [Figures 1](#) and [3](#). In order to simplify the illustration, only the undercut and the two tangents outside straight lines are represented.

Note 2 to entry: Examples are presented in [Figures 2](#) and [4](#).

3.3

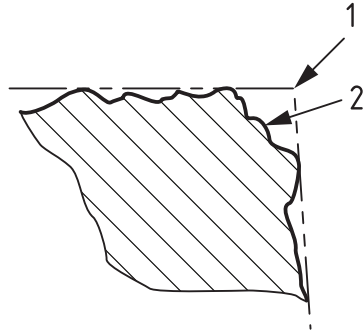
passing

deviation outside the ideal geometrical shape of an edge defined by two tangent outside straight lines to the adjacent feature of the zone of the undefined edge

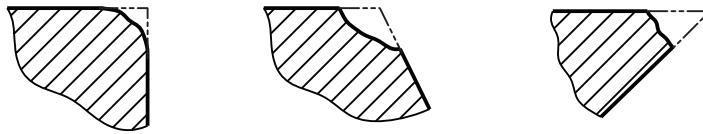
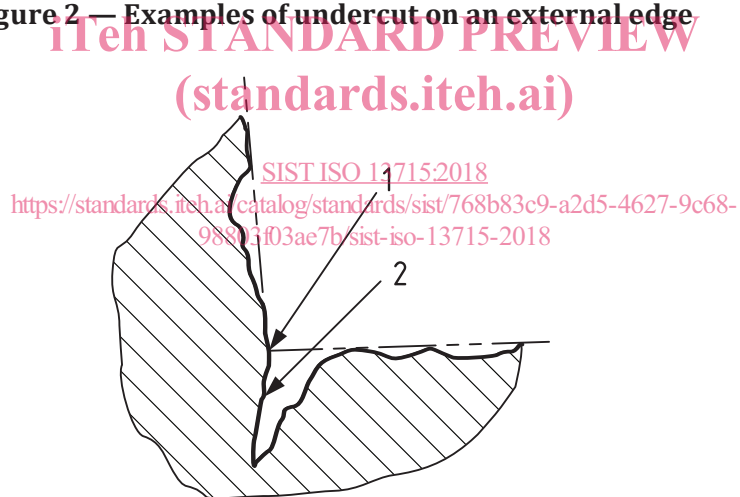
Note 1 to entry: The explanation of the definition is given in [Figures 5](#) and [7](#). In order to simplify the illustration, only the passing and the two tangents outside straight lines are represented.

Note 2 to entry: A burr or a flash (see [Figure 5](#)) can be considered to be a special case of external passing.

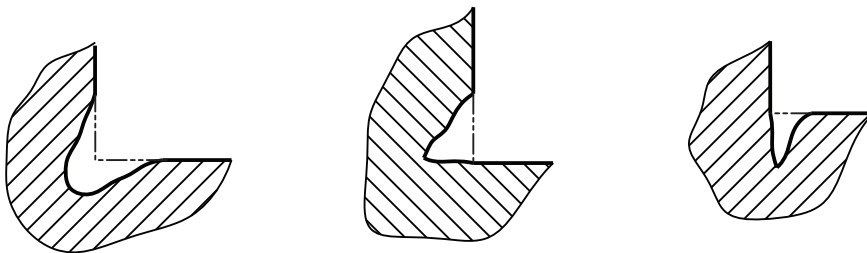
Note 3 to entry: Examples are presented in [Figures 6](#) and [8](#).

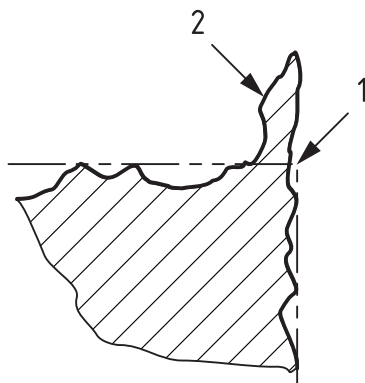
**Key**

- 1 ideal sharp edge
- 2 undercut

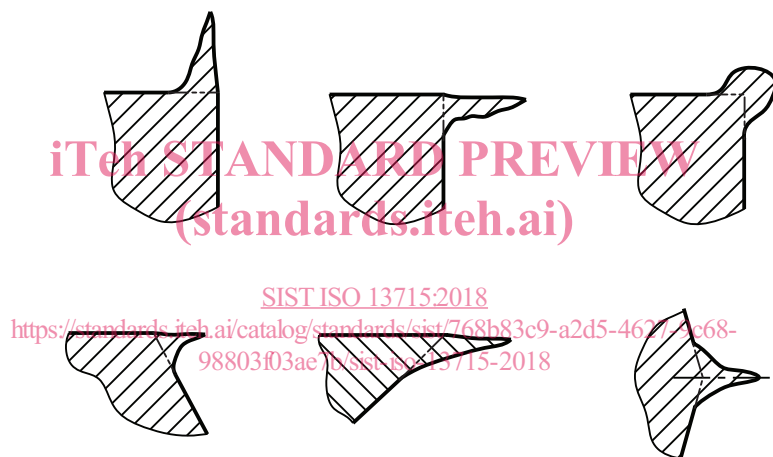
Figure 1 — Undercut on an external edge**Figure 2 — Examples of undercut on an external edge****Key**

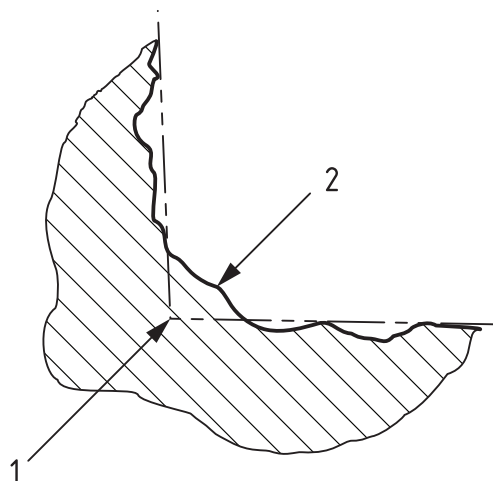
- 1 ideal sharp edge
- 2 undercut

Figure 3 — Undercut on an internal edge**Figure 4 — Examples of undercut on an internal edge**

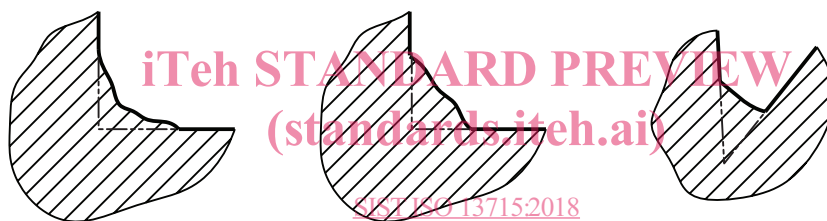
**Key**

- 1 ideal sharp edge
- 2 passing

Figure 5 — Passing on an external edge (flash or burr)**Figure 6 — Examples of passing on external edge (burr or flash)**

**Key**

- 1 ideal sharp edge
- 2 passing

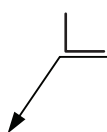
Figure 7 — Passing on an internal edge**Figure 8 — Examples of passing on an internal edge****4 Indications on drawings****4.1 Basic indication**

The requirements for an edge of a part shall be indicated by the basic graphical indication shown in [Figure 9](#). If all edges of a part are to be specified as undefined, the basic general indication is used (see [Figure 10](#)).

The graphical symbol and the specification shall be represented in such a way that they can be read from the bottom of the drawing.

The proportions of this symbol are given in [Annex A](#). Additional indications can be placed in the areas a₁, a₂ or a₃, see [Figure A.1](#).

Undefined edges cannot be described by the basic element alone. As a minimum indication, the type of undefined edge shall be specified.

**Figure 9 — Basic indication**