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BSI Standards Publication

## Technical product documentation – Edges of undefined shape – Indication and dimensioning

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## National foreword

This British Standard is the UK implementation of EN ISO 13715:2019. It is identical to ISO 13715:2017. It supersedes BS ISO 13715:2017, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee TPR/1, Technical Product Realization.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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**Compliance with a British Standard cannot confer immunity from legal obligations.**

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 March 2017.

### Amendments/corrigenda issued since publication

Date	Text affected
31 October 2019	This corrigendum renumbers BS ISO 13715:2017 as BS EN ISO 13715:2019

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EUROPÄISCHE NORM

October 2019

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English Version

## Technical product documentation - Edges of undefined shape - Indication and dimensioning (ISO 13715:2017)

Documentation technique de produits - Arêtes de forme non définie - Indication et cotation (ISO 13715:2017)

Technische Produktdokumentation - Kanten mit unbestimmter Gestalt - Angaben und Bemaßung (ISO 13715:2017)

This European Standard was approved by CEN on 5 August 2019.

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 CEN-CENELEC Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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## European foreword

The text of ISO 13715:2017 has been prepared by Technical Committee ISO/TC 10 "Technical product documentation" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 13715:2019 by CCMC.

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 April 2020, and conflicting national standards shall be withdrawn at the latest by April 2020.

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

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## Endorsement notice

The text of ISO 13715:2017 has been approved by CEN as EN ISO 13715:2019 without any modification.

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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](http://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](http://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 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](http://www.iso.org/iso/foreword.html).

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.

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## 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>

### 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](#).