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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 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.

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.

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 × 45°) 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.