

Annex SQ (normative)

Procedures for the standardization of graphical symbols

SQ.1 Introduction

This annex describes the procedures to be adopted in the submission and subsequent approval and registration, when appropriate, of all graphical symbols appearing in ISO documents.

Within ISO the responsibility for the coordination of the development of graphical symbols has been subdivided into two principal areas, allocated to two ISO technical committees:

- ISO/TC 145 – all graphical symbols (except those for use in technical product documentation) (see ISO/TC 145 website);
- ISO/TC 10 – graphical symbols for technical product documentation (tpd) (see ISO/TC 10 website).

In addition there is coordination with IEC/TC 3 (Information structures, documentation and graphical symbols) and with TC 3/SC 3C (Graphical symbols for use on equipment).

The basic objectives of the standardization of graphical symbols are to:

- meet the needs of users;
- ensure that the interests of all concerned ISO committees are taken into account;
- ensure that graphical symbols are unambiguous and conform to consistent sets of design criteria;
- ensure that there is no duplication or unnecessary proliferation of graphical symbols.

The basic steps in the standardization of a new graphical symbol are:

- identification of need;
- elaboration;
- evaluation;
- approval, when appropriate;
- registration;
- publication.

All steps should be carried out by electronic means.

- Proposals for new or revised graphical symbols may be submitted by an ISO committee, a liaison member of an ISO committee or any ISO member organization (hereafter jointly called the 'proposer').
- Each approved graphical symbol will be allocated a unique number to facilitate its management and identification through a register that provides information that can be retrieved in an electronic format.
- Conflicts with the relevant requirements and guidelines for graphical symbols shall be resolved by liaison and dialogue between ISO/TC 145 or ISO/TC 10 and the product committee concerned at the earliest possible stage.

SQ.2 All graphical symbols except those for use in technical product documentation

SQ.2.1 General

ISO/TC 145 is responsible within ISO for the overall coordination of standardization in the field of graphical symbols (except for tpd). This responsibility includes:

- standardization in the field of graphical symbols as well as of colours and shapes, whenever these elements form part of the message that a symbol is intended to convey, e.g. a safety sign;
- establishing principles for preparation, coordination and application of graphical symbols: general responsibility for the review and the coordination of those already existing, those under study, and those to be established.

The standardization of letters, numerals, punctuation marks, mathematical signs and symbols, and symbols for quantities and units is excluded. However, such elements may be used as components of a graphical symbol.

The review and co-ordination role of ISO/TC 145 applies to all committees that undertake the responsibility for creation and standardization of graphical symbols within their own particular fields.

ISO/TC 145 has allocated these responsibilities as follows:

- ISO/TC 145/SC 1: Public information symbols;
- ISO/TC 145/SC 2: Safety identification, signs, shapes, symbols and colours;
- ISO/TC 145/SC 3: Graphical symbols for use on equipment.











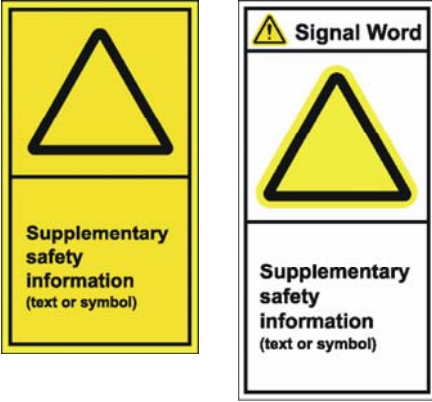



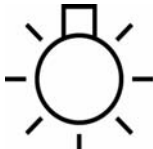
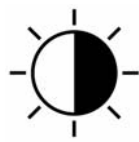
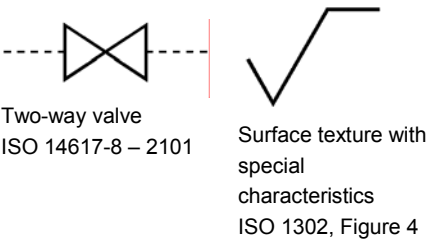
There is also liaison with ISO/TC 10 and with IEC, in particular with IEC/SC 3C, Graphical symbols for use on equipment.

Table SQ.1 shows the categories of graphical symbols covered by each coordinating committee.

Table SQ.1 – Categories of graphical symbols

	Basic message	Location	Target audience	Design principles	Overview	Responsible committee
Public information symbols	Location of service or facility	In public areas	General public	ISO 22727	ISO 7001	ISO/TC 145/SC 1
Safety signs (symbols)	Related to safety and health of persons	In workplaces and public areas	a) General public or b) authorized and trained persons	ISO 3864-1 ISO 3864-3	ISO 7010	ISO/TC 145/SC 2
Product safety labels	Related to safety and health of persons	On products	a) General public or b) authorized and trained persons	ISO 3864-2 ISO 3864-3	—	ISO/TC 145/SC 2
Graphical symbols for use on equipment	Related to equipment	On equipment	a) General public, or b) authorized and trained persons	IEC 80416-1 ISO 80416-2 IEC 80416-3	ISO 7000 IEC 60417	ISO/TC 145/SC 3 IEC/TC 3/SC 3C
tpd symbols	(Product representation)	Technical product documentation (drawings, diagrams, etc.)	Trained persons	ISO 81714-1	ISO 14617 IEC 60617	ISO/TC 10/SC 10 IEC/TC3

Table SQ.2 – Examples of different types of graphical symbols shown in their context of use

<p>Public information symbols</p>	 Telephone ISO 7001 – 008	 Aircraft ISO 7001 –022	 Sporting activities ISO 7001 – 029	 Gasoline station ISO 7001 – 009	 Direction ISO 7001 – 001
<p>Safety signs (symbols)</p>	 Means of escape and emergency equipment signs: E001 – Emergency exit (left hand)	 Fire safety signs: F001 – Fire extinguisher	 Mandatory action signs: M001 – General mandatory action sign	 Prohibition signs: P002 – No smoking	 Warning signs: W002 – Warning; Explosive material
<p>Product safety labels</p>					
<p>Graphical symbols for use on equipment</p>	 Ventilating fan: Air-circulating fan ISO 7000 – 0089	 Parking Brake ISO 7000 – 0238	 Weight ISO 7000 – 0430	 Lamp; lighting; illumination IEC 60417 – 5012	 Brightness / Contrast IEC 60417 – 5435
<p>tpd symbols</p>					

SQ.2.2 Submission of proposals

Proposers shall submit their proposals on the relevant application form as soon as possible to the secretariat of the appropriate ISO/TC 145 subcommittee in order to allow for timely review and comment. It is strongly recommended that this submission be made by proposers at the CD stage, but it shall be no later than the first enquiry stage (i.e. DIS or DAM) in the case of an International Standard.

Prior to submitting a graphical symbol proposal, the proposer should:

- be able to demonstrate the need for the proposed graphical symbol;
- have reviewed the relevant ISO and/or IEC standards of graphical symbols, in order to avoid ambiguity and/or overlap with existing standardized graphical symbols, and to check for consistency with any related graphical symbol or family of graphical symbols already standardized;
- create the proposed graphical symbol in accordance with the relevant standards and instructions, these include design principles and criteria of acceptance.

SQ.2.3 Standardization procedure for proposed graphical symbols

Upon receipt of a proposal, the ISO/TC 145 sub-committee concerned shall review the application form, within two months, to check whether it has been correctly completed and the relevant graphics file(s) has been correctly provided. If necessary, the proposer will be invited to modify the application, and to re-submit it.

Upon receipt of a correctly completed application form, a formal review process shall be commenced to review the proposal for consistency with standardized graphical symbols, the relevant design principles and criteria of acceptance.

When this formal review process has been completed, the results shall be transmitted to the proposer, together with any recommendations. The proposer will, where appropriate, be invited to modify the proposal, and to re-submit it for a further review.

The procedures outlined on the relevant ISO/TC 145 sub-committee website shall be followed:

- ISO/TC 145/SC 1: Public information symbols (www.iso.org/tc145/sc1);
- ISO/TC 145/SC 2: Safety identification, signs, shapes, symbols and colours (www.iso.org/tc145/sc2);
- ISO/TC 145/SC 3: Graphical symbols for use on equipment (www.iso.org/tc145/sc3).

These websites also provide application forms for the submission of proposals.

Graphical symbols approved by ISO/TC 145 shall be assigned a definitive registration number and included in the relevant ISO/TC 145 standard.

- Note: In exceptional cases, unregistered symbols may be included in ISO standards subject to TMB approval.

SQ.3 Graphical symbols for use in technical product documentation (tpd) (ISO/TC 10)

ISO/TC 10 is responsible for the overall responsibility for standardization in the field of graphical symbols for technical product documentation (tpd). This responsibility includes

- maintenance of ISO 81714-1: Design of graphical symbols for use in the technical documentation of products – Part 1: Basic rules, in co-operation with IEC;
- standardization of graphical symbols to be used in technical product documentation, co-ordinated with IEC;
- establishing and maintaining a database for graphical symbols including management of registration numbers

Included is the standardization of symbols for use in diagrams and pictorial drawings.

ISO/TC 10 has allocated these responsibilities to ISO/TC 10/SC 10. The Secretariat of ISO/TC 10/SC 10 is supported by a maintenance group.

Any committee identifying the need for new or revised graphical symbols for tpd shall as soon as possible submit their proposal to the secretariat of [ISO/TC 10/SC 10](#) for review and — once approved — allocation of a registration number.