

Welding and allied processes — Classification of geometric imperfections in metallic materials —

Part 1: Fusion welding

The European Standard EN ISO 6520-1:1998 has the status of a
British Standard

ICS 25.160.40

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National foreword

This British Standard is the English language version of EN ISO 6520-1:1998. It is identical with ISO 6520-1:1998. It supersedes BS EN 26520:1992 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee WEE/1, Definitions and symbols for welding, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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

Cross-references

Attention is drawn to the fact that CEN and CENELEC standards normally include an annex which lists normative references to international publications with their corresponding European publications. The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN ISO title page, page 2, the ISO title page, pages ii and vi, pages 1 to 26 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

Amendments issued since publication

Amd. No.	Date	Comments

This British Standard, having been prepared under the direction of the Engineering Sector Committee, was published under the authority of the Standards Committee and comes into effect on 15 December 1998

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ISBN 0 580 30569 4

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English version

Welding and allied processes — Classification of geometric imperfections in metallic materials — Part 1: Fusion welding

(ISO 6520-1:1998)

Soudage et techniques
connexes — Classification des défauts
géométriques dans les soudures des matières
métalliques — Partie 1: Soudage par fusion
(ISO 6520-1:1998)

Schweißen und verwandte
Prozeße — Einteilung von geometrischen
Unregelmäßigkeiten an Metallen —
Teil 1: Schmelzschweißen
(ISO 6520-1:1998)

This European Standard was approved by CEN on 4 September 1998.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Foreword

The text of the International Standard ISO 6520-1:1998 has been prepared by Technical Committee ISO/TC 44 “*Welding and allied processes*” in collaboration with Technical Committee CEN/TC 121 “*Welding*”, the secretariat of which is held by DS.

This European Standard supersedes EN ISO 26520:1991.

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 1999, and conflicting national standards shall be withdrawn at the latest by April 1999.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association. This European Standard is considered to be a supporting standard to those application and product standards which in themselves support an essential safety requirement of a New Approach Directive and which make reference to this European Standard.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

NOTE FROM CEN/CS: The foreword is susceptible to be amended on reception of the German language version. The confirmed or amended foreword, and when appropriate, the normative Annex ZA for the references to international publications with their relevant European publications will be circulated with the German version.

Endorsement notice

The text of the International Standard ISO 6520-1:1998 was approved by CEN as a European Standard without any modification.

**INTERNATIONAL
STANDARD**

**ISO
6520-1**

**NORME
INTERNATIONALE**

First edition
Première édition
1998-10-15

**Welding and allied processes —
Classification of geometric imperfections in
metallic materials —**

Part 1:
Fusion welding

**Soudage et techniques connexes —
Classification des défauts géométriques
dans les soudures des matériaux
métalliques —**

Partie 1:
Soudage par fusion



Reference number
Numéro de référence
ISO 6520-1:1998(E/F)

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Descriptors: Welding, fusion welding, welded joints, weld defects, imperfections, classification.

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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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 6520-1 was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 7, *Representation and terms*.

This first edition of ISO 6520-1 cancels and replaces ISO 6520:1982, of which it is a revised version.

The former content and numbering system have been retained as far as possible. New numbers have been introduced for microshrinkage in order to distinguish better between macroscopic and microscopic phenomena. Undercut has been systematically renumbered.

This part of ISO 6520 has been augmented by the addition of imperfections not previously included. Furthermore, information is given about cracking during and after welding.

The object is to make possible a full description of weld imperfections.

ISO 6520 consists of the following parts, under the general title *Welding and allied processes — Classification of geometric imperfections in metallic materials*:

- *Part 1: Fusion welding*;
- *Part 2: Welding with pressure*.

Annex A of this part of ISO 6520 is for information only.

Avant-propos

L'ISO (Organisation internationale de normalisation) est une fédération mondiale d'organismes nationaux de normalisation (comités membres de l'ISO). L'élaboration des Normes internationales est en général confiée aux comités techniques de l'ISO. Chaque comité membre intéressé par une étude a le droit de faire partie du comité technique créé à cet effet. Les organisations internationales, gouvernementales et non gouvernementales, en liaison avec l'ISO participent également aux travaux. L'ISO collabore étroitement avec la Commission électrotechnique internationale (CEI) en ce qui concerne la normalisation électrotechnique.

Les projets de Normes internationales adoptés par les comités techniques sont soumis aux comités membres pour vote. Leur publication comme Normes internationales requiert l'approbation de 75 % au moins des comités membres votants.

La Norme internationale ISO 6520-1 a été élaborée par le comité technique ISO/TC 44, *Soudage et techniques connexes*, sous-comité SC 7, *Représentation et terminologie*.

Cette première édition de l'ISO 6520-1 annule et remplace l'ISO 6520:1982, dont elle constitue une version révisée.

Le contenu précédent et le système de numérotation ont été conservés dans la mesure du possible. Des numéros nouveaux ont été introduits pour les microretassures de manière à mieux différencier les aspects macroscopiques et microscopiques. Les caniveaux ont été systématiquement renumérotés.

La présente partie de l'ISO 6520 a été, complétée par l'introduction de quelques défauts non inclus précédemment. De plus, des informations sont données sur la fissuration pendant et après le soudage.

L'objectif est de permettre une description complète des défauts d'une soudure.

L'ISO 6520 comprend les parties suivantes, présentées sous le titre général *Soudage et techniques connexes — Classification des défauts géométriques dans les soudures des matériaux métalliques*:

- *Partie 1: Soudage par fusion;*
- *Partie 2: Soudage avec pression.*

L'annexe A de la présente partie de l'ISO 6520 est donnée uniquement à titre d'information.

