

DIN EN ISO 286-2



ICS 17.040.10; 17.040.40

Supersedes
DIN EN ISO 286-2:2019-02

**Geometrical product specifications (GPS) –
ISO code system for tolerances on linear sizes –
Part 2: Tables of standard tolerance classes and limit deviations for holes
and shafts (ISO 286-2:2010 + Cor 1:2013);
English version EN ISO 286-2:2010 + AC:2013,
English translation of DIN EN ISO 286-2:2019-09**

Geometrische Produktspezifikation (GPS) –
ISO-Toleranzsystem für Längenmaße –
Teil 2: Tabellen der Grundtoleranzgrade und Grenzabmaße für Bohrungen und Wellen
(ISO 286-2:2010 + Cor 1:2013);
Englische Fassung EN ISO 286-2:2010 + AC:2013,
Englische Übersetzung von DIN EN ISO 286-2:2019-09

Spécification géométrique des produits (GPS) –
Système de codification ISO pour les tolérances sur les tailles linéaires –
Partie 2: Tableaux des classes de tolérance normalisées et des écarts limites des alésages et
des arbres (ISO 286-2:2010 + Cor 1:2013);
Version anglaise EN ISO 286-2:2010 + AC:2013,
Traduction anglaise de DIN EN ISO 286-2:2019-09

Document comprises 61 pages

Translation by DIN-Sprachendienst.

In case of doubt, the German-language original shall be considered authoritative.

A comma is used as the decimal marker.

National foreword

This document (EN ISO 286-2:2010 + AC:2013) has been prepared by Technical Committee ISO/TC 213 “Dimensional and geometrical product specifications and verification” in collaboration with Technical Committee CEN/TC 290 “Geometrical product specifications and verification” (Secretariat: AFNOR, France).

The responsible German body involved in its preparation was *DIN-Normenausschuss Technische Grundlagen* (DIN Standards Committee Technical Fundamentals), Working Committee NA 152-03-02 AA “CEN/ISO Geometrical product specification and verification.”

ISO 286 consists of the following parts, under the general title *Geometrical product specifications (GPS) — ISO code system for tolerances of linear sizes*:

— *Part 1: Basis of tolerances, deviations and fits*

— *Part 2: Tables of standard tolerance grades and limit deviations for holes and shafts*

The start and finish of text introduced or altered by amendment is indicated in the text by tags AC AC.

The DIN documents corresponding to the international documents referred to in this document are as follows:

ISO 286-1	DIN EN ISO 286-1
ISO 1101	DIN EN ISO 1101
ISO 1302	DIN EN ISO 1302
ISO 2692	DIN EN ISO 2692
ISO 2768-1	DIN ISO 2768-1
ISO 14405-1	DIN EN ISO 14405-1
ISO/TR 14638	DIN V 32950

Amendments

This standard differs from DIN ISO 286-2:1990-11 as follows:

- a) the standard has been technically revised;
- b) the standard contains Corrigendum ISO 286-2:1988/Cor. 1:2006.

Compared with DIN EN ISO 286-2:2010-11 the following corrections have been made:

- a) Figures 1 and 2 have been swapped;
- b) single erroneous table values have been corrected.

Compared with DIN EN ISO 286-2:2019-02, the following corrections have been made to the German version:

- a) the term “*Abweichung*” has been replaced by “*Abmaß*” throughout the document;
- b) the term “*Grundabweichung*” has been replaced by “*Grundabmaß*” throughout the document;

- c) the terms *“obere/untere Grenzabweichung”* have been replaced by *“oberes/unteres Grenzabmaß”* throughout the document;
- d) Figures 1 and 2 have been corrected;
- e) the titles of Figures 2 and 6 have been corrected;
- f) in all tables, it has been clarified that the nominal size is indicated as “above” and “up to and including”;
- g) in Annex A, the term *“Toleranzfeld”* has been replaced by *“Toleranzzone”*;
- h) the standard has been editorially revised.

Previous editions

DIN 7160-1: 1936-10, 1942-04
 DIN 7160-2: 1936-10, 1942-04
 DIN 7160-3: 1936-10, 1942-04
 DIN 7160-4: 1936-10, 1942-04
 DIN 7160-5: 1936-10, 1942-04
 DIN 7160-6: 1936-10, 1942-04
 DIN 7161-1: 1936-10, 1942-04
 DIN 7161-2: 1936-10, 1942-04
 DIN 7161-3: 1936-10, 1942-04
 DIN 7161-4: 1936-10, 1942-04, 1954-02
 DIN 7161-5: 1936-10, 1942-04
 DIN 7161-6: 1936-10, 1942-04
 DIN 7161-7: 1936-10, 1942-04
 DIN 7160-7: 1942-04
 DIN 7172-2: 1965-06, 1986-03
 DIN 7160: 1965-08
 DIN 7161: 1965-08
 DIN ISO 286-2: 1990-11
 DIN EN ISO 286-2: 2010-11, 2019-02

National Annex NA (informative)

Bibliography

DIN EN ISO 286-1, *Geometrical product specifications (GPS) — ISO code system for tolerances on linear sizes — Part 1: Basis of tolerances, deviations and fits*

DIN EN ISO 1101, *Geometrical Product Specifications (GPS) — Geometrical tolerancing — Tolerances of form, orientation, location and run-out*

DIN EN ISO 1302, *Geometrical Product Specifications (GPS) — Indication of surface texture in technical product documentation*

DIN EN ISO 2692, *Geometrical product specifications (GPS) — Geometrical tolerancing — Maximum material requirement (MMR), least material requirement (LMR) and reciprocity requirement (RPR)*

DIN ISO 2768-1, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

DIN EN ISO 14405-1, *Geometrical product specifications (GPS) — Dimensional tolerancing — Part 1: Linear sizes*

DIN V 32950, *Geometrical product specification (GPS) — Masterplan*

English Version

**Geometrical product specifications (GPS) —
ISO code system for tolerances on linear sizes —
Part 2: Tables of standard tolerance classes and limit
deviations for holes and shafts
(ISO 286-2:2010 + Cor 1:2013)**

Spécification géométrique des produits (GPS) —
Système de codification ISO pour les tolérances sur les
tailles linéaires —
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et des écarts limites des alésages et des arbres
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Grenzabmaße für Bohrungen und Wellen
(ISO 286-2:2010 + Cor 1:2013)

EN ISO 286-2 was approved by CEN on 2010-05-15 and Corrigendum AC:2013 on 2013-08-07.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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Foreword

This document (EN ISO 286-2:2010) has been prepared by Technical Committee ISO/TC 213 “Dimensional and geometrical product specifications and verification” in collaboration with Technical Committee CEN/TC 290 “Dimensional and geometrical product specification and verification” the secretariat of which is held by AFNOR.

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 December 2010, and conflicting national standards shall be withdrawn at the latest by December 2010.

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

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Endorsement notice

The text of ISO 286-2:2010 has been approved by CEN as a EN ISO 286-2:2010 without any modification.

AC Foreword to Corrigendum 1 AC

AC This document (EN ISO 286-2:2010/AC:2013) has been prepared by Technical Committee ISO/TC 213 “Dimensional and geometrical product specifications and verification” in collaboration with Technical Committee CEN/TC 290 “Dimensional and geometrical product specification and verification” the secretariat of which is held by AFNOR.

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