

I- og H-profiler av konstruksjonsstål

Form- og dimensjonstoleranser

Structural steel I and H sections
Tolerances on shape and dimensions

Nasjonalt forord

Den engelskspråklige versjonen av europeisk standard EN 10034:1993 er fastsatt som Norsk Standard NS-EN 10034:1994.

Denne standarden erstatter deler av NS 1907:1983, NS 1908:1983 og NS 1910:1983.

Punkt 2 Dimensjoner i NS 1907:1983, punkt 2 Dimensjoner i NS 1908:1983 og punkt 2 Dimensjoner i NS 1910:1983 erstattes ikke av NS-EN 10034:1994. Disse punktene utgis som nasjonale tillegg NA, NB og NC til denne standarden.

De nasjonale tilleggene er:

| | |
|--------------------------------|----|
| Tillegg NA (informativt) | |
| Varmvalsede HE-A-bjelker | 7 |
| Tillegg NB (informativt) | |
| Varmvalsede HE-B-bjelker | 11 |
| Tillegg NC (informativt) | |
| Varmvalsede IPE-bjelker | 15 |

National foreword

The English language version of European standard EN 10034:1993 has been adopted as Norwegian Standard NS-EN 10034:1994.

This standard supersedes parts of NS 1907:1983, NS 1908:1983 and NS 1910:1983.

Clause 2 Dimensions in NS 1907:1983, clause 2 Dimensions in NS 1908:1983 and clause 2 Dimensions in NS 1910:1983 are not superseded by NS-EN 10034:1994. These clauses are published as national annexes NA, NB and NC to this standard.

The national annexes are:

| | |
|-------------------------------|----|
| Annex NA (informative) | |
| Hot-rolled columns HE-A | 7 |
| Annex NB (informative) | |
| Hot-rolled columns HE-B | 11 |
| Annex NC (informative) | |
| Hot-rolled beams IPE | 15 |

UDC 669.14.018.29-423.1 : 621.753.1

Descriptors: Iron and steel products, I beams, structural steels, dimensional tolerances, form tolerances

English version

Structural steel I and H sections — Tolerances on shape and dimensions

Poutrelles I et H en acier de construction —
Tolerances de formes et de dimensions

I- und H-Profile aus Baustahl —
Grenzabmaße und Formtoleranzen

This European Standard was approved by CEN on 1993-08-30. 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, 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

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Foreword

This European Standard has been prepared by ECISS/TC11 Sections: Tolerances and Dimensions; the Secretariat of which is held by BSI.

The discussions within ECISS/TC11 were based on Euronorm 34-62 *Broad flanged beams with parallel sides. Rolling tolerances*

and

Euronorm 44-63 *Hot rolled IPE joists. Rolling tolerances*

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at least by March 1994, and conflicting national standards shall be withdrawn at the latest by March 1994.

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

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1 Scope

This European Standard specifies tolerances on shape dimensions and mass of structural steel I and H sections. These requirements do not apply to I and H sections rolled from stainless steel. These requirements do not apply to taper flange sections.

NOTE. Until a European Standard for dimensions of I and H beams is published Euronorm 19 and Euronorm 53 or corresponding national standards may be used.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 10079 *Definition of steel products*

Euronorm 19 : 1957 *IPE beams, parallel flanged beams*

Euronorm 53 : 1962 *Wide flange beams with parallel flanges*

3 Definitions

For the purpose of this European Standard, the definitions in EN 10079 apply.

4 Rolling tolerances for structural steel I and H sections

4.1 Section height (h)

The deviation from nominal on section height measured at the centre line of web thickness shall be within the tolerance given in table 1.

4.2 Flange width (b)

The deviation from nominal on flange width shall be within the tolerance given in table 1.

4.3 Web thickness (s)

The deviation from nominal on web thickness measured at the mid-point of dimension h shall be within the tolerance given in table 1.

4.4 Flange thickness (t)

The deviation from nominal on flange thickness measured at the quarter flange width point shall be within the tolerance given in table 1.

4.5 Out-of-squareness ($k + k'$)

The out-of-squareness of the section shall not exceed the maximum given in table 2.

4.6 Web off-centre (e)

The mid-thickness of the web shall not deviate from the mid-width position on the flange by more than the distance (e) given in table 2.

4.7 Straightness (q_{xx} or q_{yy})

The straightness shall comply with the requirements given in table 3.

5 Tolerance on mass

The deviation from the nominal mass of a batch or a piece shall not exceed $\pm 4.0\%$.

The mass deviation is the difference between the actual mass of the batch or piece and the calculated mass.

The calculated mass shall be determined using a density of $7,85 \text{ kg/dm}^3$.

6 Tolerance on length

The sections shall be cut to ordered lengths to tolerances of:

- $\pm 50 \text{ mm}$; or
- $+100 \text{ mm}$ where minimum lengths are requested.

L represents the longest useable length of the section assuming that the ends of the section have been cut square (see figure 1).