



NSAI
Standards

Irish Standard
I.S. EN 1993-1-4:2006&A1:2015

Eurocode 3 - Design of steel structures - Part 1-4: General rules - Supplementary rules for stainless steels

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I.S. EN 1993-1-4:2006&A1:2015

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The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWIFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

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Údarás um Chaighdeáin Náisiúnta na hÉireann

National Foreword

I.S. EN 1993-1-4:2006&A1:2015 is the adopted Irish version of the European Document EN 1993-1-4:2006, Eurocode 3 - Design of steel structures - Part 1-4: General rules - Supplementary rules for stainless steels. NSAI adopts all Eurocodes as Irish Standards.

Eurocodes permit certain design parameters to be selected nationally. In Ireland, the selection of National Design Parameters (NDP's) is the responsibility of the Eurocodes Consultative Committee (NSAI TC 015). National Annexes are developed in accordance with CEN and NSAI procedures and include a public consultation process.

Where NSAI TC 015 considers it appropriate, NDP's are agreed and listed in Irish National Annexes to Eurocodes.

Eurocodes must always be used in conjunction with the accompanying National Annex (NA), where available. For example, I.S. EN 1991-1-4, Eurocode 1: Actions on structures – Part 1-4: General actions – Wind actions is to be used in conjunction with NA to I.S. EN 1991-1-4.

National Annexes are reviewed as necessary e.g. when a new edition, an amendment or a corrigendum to a Eurocode is issued. The National Annex identifies what amendments/corrigenda are addressed. The user should check that the National Annex addresses the latest changes to the Eurocode. Previews of all documents are available on www.standards.ie. Any questions should be directed to NSAI.

Where an Irish National Annex to a Eurocode has not been prepared, the user must make sure that the general requirements of I.S. EN 1990 and the accompanying Irish National Annex are complied with.

Where a Eurocode has been changed (revised/amended/corrected) and the National Annex has yet to be revised to account for the change(s), the National Annex for the previous version is available. Engineering judgement must be applied if using guidance contained therein e.g. when selecting appropriate parameters.

Information on Eurocodes and the related national annexes is available from www.nsai.ie.

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 1993-1-4:2006/A1

June 2015

ICS 91.010.30; 91.080.10

English Version

**Eurocode 3 - Design of steel structures - Part 1-4: General rules
- Supplementary rules for stainless steels**

Eurocode 3 - Calcul des structures en acier - Partie 1- 4 :
Règles générales - Règles supplémentaires pour les aciers
inoxydables

Eurocode 3: Bemessung und Konstruktion von Stahlbauten
- Teil 1-4: Allgemeine Bemessungsregeln - Ergänzende
Regeln zur Anwendung von nichtrostenden Stählen

This amendment A1 modifies the European Standard EN 1993-1-4:2006; it was approved by CEN on 1 March 2015.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This amendment 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 1993-1-4:2006/A1:2015) has been prepared by Technical Committee CEN/TC 250 "Structural Eurocodes", the secretariat of which is held by BSI.

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 June 2016, and conflicting national standards shall be withdrawn at the latest by June 2016.

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.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 1993-1-4

October 2006

ICS 91.040.01; 91.080.10

Supersedes ENV 1993-1-4:1996

English Version

**Eurocode 3 - Design of steel structures - Part 1-4: General rules
- Supplementary rules for stainless steels**

Eurocode 3 - Calcul des structures en acier - Partie 1-4:
Règles générales - Règles supplémentaires pour les aciers
inoxydables

Eurocode 3 - Bemessung und Konstruktion von
Stahlbauten - Teil 1-4: Allgemeine Bemessungsregeln -
Ergänzende Regeln zur Anwendung von nichtrostender
Stählen

This European Standard was approved by CEN on 9 January 2006.

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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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This European Standard EN 1993-1-4, Eurocode 3: Design of steel structures: Part 1-4 General Rules – Supplementary rules for stainless steels, has been prepared by Technical Committee CEN/TC250 « Structural Eurocodes », the Secretariat of which is held by BSI. CEN/TC250 is responsible for all Structural Eurocodes.

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 2007 and conflicting National Standards shall be withdrawn at latest by March 2010.

This Eurocode supersedes ENV 1993-1-4.

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National Annex for EN 1993-1-4

This standard gives alternative procedures, values and recommendations with notes indicating where national choices may have to be made. The National Standard implementing EN 1993-1-4 should have a National Annex containing all Nationally Determined Parameters to be used for the design of steel structures to be constructed in the relevant country.

National choice is allowed in EN 1993-1-4 through clauses:

- 2.1.4(2)
- 2.1.5(1)
- 5.1(2)
- 5.5(1)
- 5.6(2)
- 6.1(2)
- 6.2(3)

1 General

1.1 Scope

(1) This Part 1.4 of EN 1993 gives supplementary provisions for the design of buildings and civil engineering works that extend and modify the application of EN 1993-1-1, EN 1993-1-3, EN 1993-1-5 and EN 1993-1-8 to austenitic, austenitic-ferritic and ferritic stainless steels.

NOTE 1: Information on the durability of stainless steels is given in Annex A.

NOTE 2: The execution of stainless steel structures is covered in EN 1090.

NOTE 3: Guidelines for further treatment, including heat treatment, are given in EN 10088.

1.2 Normative references

This following normative documents contain provisions which, through reference to this text, constitute provisions of this European Standard. For dated references, subsequent amendments to or revisions of any of these publications do not apply. However, parties to agreements based on this European Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies.

| | |
|---------------|---|
| EN 1990 | <i>Eurocode 0: Basis of structural design</i> |
| EN 508-3 | <i>Roofing products from metal sheet. Specification for self-supporting products of steel, aluminium or stainless steel sheet. Stainless steel;</i> |
| EN 1090-2 | <i>Execution of steel structures and aluminium structures – Part 2: Technical requirements for steel structures;</i> |
| EN 1993-1-1 | <i>Design of steel structures: General rules and rules for buildings;</i> |
| EN 1993-1-2 | <i>Design of steel structures: Structural fire design;</i> |
| EN 1993-1-3 | <i>Design of steel structures: Cold formed thin gauge members and sheeting;</i> |
| EN 1993-1-5 | <i>Design of steel structures: Plated structural elements;</i> |
| EN 1993-1-6 | <i>Design of steel structures: Strength and stability of shell structures;</i> |
| EN 1993-1-8 | <i>Design of steel structures: Design of joints;</i> |
| EN 1993-1-9 | <i>Design of steel structures: Fatigue;</i> |
| EN 1993-1-10 | <i>Design of steel structures: Material toughness and through-thickness properties;</i> |
| EN 1993-1-11 | <i>Design of steel structures: Design of structures with tension components made of steel;</i> |
| EN 1993-1-12 | <i>Design of steel structures: Additional rules for the extension of EN 1993 up to steel grades S 700;</i> |
| EN ISO 3506-1 | <i>Mechanical properties of corrosion resistant stainless steel fasteners – Part 1: Bolts, screws and studs;</i> |
| EN ISO 3506-2 | <i>Mechanical properties of corrosion resistant stainless steel fasteners – Part 2: Nuts</i> |
| EN ISO 3506-3 | <i>Mechanical properties of corrosion resistant stainless steel fasteners – Part 3: Set screws and similar fasteners under tensile tests;</i> |
| EN ISO 7089 | <i>Plain washers - Normal series - Product grade A;</i> |
| EN ISO 7090 | <i>Plain washers, chamfered - Normal series - Product grade A;</i> |
| EN ISO 9445 | <i>Continuously cold-rolled stainless steel narrow strip, wide strip, plate/sheet and cut lengths - Tolerances on dimensions and form</i> |
| EN 10029 | <i>Specification for tolerances on dimensions, shape and mass for hot rolled steel plates 3 mm thick or above;</i> |

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