



**SLOVENSKI STANDARD**  
**SIST EN 1993-1-1:2005/A1:2014**  
**01-julij-2014**

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**Evrokod 3: Projektiranje jeklenih konstrukcij - 1-1. del: Splošna pravila in pravila za stavbe**

Eurocode 3: Design of steel structures - Part 1-1: General rules and rules for buildings

Eurocode 3: Bemessung und Konstruktion von Stahlbauten - Teil 1-1: Allgemeine Bemessungsregeln und Regeln für den Hochbau

Eurocode 3: Calcul des structures en acier - Partie 1-1: Règles générales et règles pour les bâtiments

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**Ta slovenski standard je istoveten z: EN 1993-1-1:2005/A1:2014**

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**ICS:**

91.010.30	Tehnični vidiki	Technical aspects
91.080.10	Kovinske konstrukcije	Metal structures

**SIST EN 1993-1-1:2005/A1:2014**                      **en,fr,de**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 1993-1-1:2005/A1**

May 2014

ICS 91.010.30; 91.080.10

English Version

## Eurocode 3: Design of steel structures - Part 1-1: General rules and rules for buildings

Eurocode 3: Calcul des structures en acier - Partie 1-1:  
Règles générales et règles pour les bâtiments

Eurocode 3: Bemessung und Konstruktion von Stahlbauten  
- Teil 1-1: Allgemeine Bemessungsregeln und Regeln für  
den Hochbau

This amendment A1 modifies the European Standard EN 1993-1-1:2005; it was approved by CEN on 6 March 2014.

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.

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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 1993-1-1:2005/A1:2014) has been prepared by Technical Committee CEN/TC 250 “Structural Eurocodes”, the secretariat of which is held by BSI.

This Amendment to the European Standard EN 1993-1-1:2005 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2015, and conflicting national standards shall be withdrawn at the latest by May 2015.

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.

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**EN 1993-1-1:2005/A1:2014 (E)****1 Modification to the Contents**

*After implementing all the changes, please regenerate the whole table of Contents while making sure that the new Annex C appears in it; see below).*

**2 Modification to the Foreword**

*At the end of the list for "National annex for EN 1993-1-1", add the following list entries:*

"

C.2.2(3)

C.2.2(4)

".

**3 Modification to 1.1.1**

*In Paragraph (3), replace the reference to EN 1090 with:*

"

- EN 1090-1, *Execution of steel structures and aluminium structures – Part 1: Requirements for conformity assessment of structural components*
- EN 1090-2, *Execution of steel structures and aluminium structures – Part 2: Technical requirements for steel structures*

[SIST EN 1993-1-1:2005/A1:2014](https://standards.iteh.ai/catalog/standards/sist/1c46438c-6a48-49c8-b5c8-1151b6fbc2a/sist-en-1993-1-1-2005-a1-2014)

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".

**4 Modification to 2.1.2**

*Replace the content of the clause with the following text:*

"

(1)PWith respect to the application of EN 1090-1 and EN 1090-2, execution classes shall be selected in accordance with Annex C in this standard.

(2) If different levels of reliability are required, these levels should preferably be achieved by an appropriate choice of quality management in design and execution, according to EN 1990 Annex B and Annex C and EN 1090.

".

**5 Addition of a new Annex C**

*Add the following new Annex C after Annex B:*

"

## Annex C (normative)

### Selection of execution class

#### C.1 General

##### C.1.1 Basic requirements

(1) To obtain the reliability of the completed works required according to EN 1990 an appropriate execution class shall be selected. This annex forms the basis for this selection.

##### C.1.2 Execution class

(1) Execution class (EXC) is defined as a classified set of requirements specified for the execution of the works as a whole, of an individual component or of a detail of a component.

(2) In order to specify requirements for the execution of steel structures to EN 1090-1 and EN 1090-2 the choice of execution class, EXC1, EXC2, EXC3 or EXC4, should be made prior to the commencement of execution. The execution requirements are progressively more onerous from EXC1 up to EXC4.

**NOTE 1** EN 1993 and EN 1994 are based on the assumption that they are used in conjunction with EN 1090-1 and EN 1090-2. EN 1993-1-9, EN 1993-2, EN 1993-3-1 and EN 1993-3-2 give supplementary requirements to EN 1090-2 for the execution of structures or components or details subject to fatigue actions. In addition to EN 1090-2, EN 1993-5 refers to other European Standards for the execution of piling works.

**NOTE 2** EN 1090-2 states that EXC2 should apply if no execution class is specified.

#### C.2 Selection process

##### C.2.1 Governing factors

(1) The selection of the execution class should be based on the following three factors:

- the required reliability;
- the type of structure, component or detail; and
- the type of loading for which the structure, component or detail is designed.

##### C.2.2 Selection

(1) In terms of reliability management, the selection of execution class should be based on either the required consequences class (CC) or the reliability class (RC) or both. The concepts of reliability class and consequences class are defined in EN 1990.

(2) In terms of the type of loading applied to a steel structure or component or detail, the selection of execution class should be based on whether the structure or component or detail is designed for static actions, quasi-static actions, fatigue actions or seismic actions.

(3) The selection of execution class (EXC) should be based on Table C.1.

## EN 1993-1-1:2005/A1:2014 (E)

Table C.1 — Choice of execution class (EXC)

Reliability Class (RC) or Consequences Class (CC)	Type of loading	
	Static, quasi-static or seismic DCL <sup>a</sup>	Fatigue <sup>b</sup> or seismic DCM or DCH <sup>a</sup>
RC3 or CC3	EXC3 <sup>c</sup>	EXC3c
RC2 or CC2	EXC2	EXC3
RC1 or CC1	EXC1	EXC2

<sup>a</sup> Seismic ductility classes are defined in EN 1998-1: Low = DCL; Medium = DCM; High = DCH.  
<sup>b</sup> See EN 1993-1-9.  
<sup>c</sup> EXC4 may be specified for structures with extreme consequences of structural failure.

**NOTE 1** The National Annex may specify whether the selection of execution classes is based on reliability classes or consequences classes or both and may specify the choice in terms of the type of the structure. The National Annex may specify whether Table C.1 is to be adopted.

**NOTE 2** Designs to EN 1993-4-1 and EN 1993-4-2 depend on the choice of consequences class. Designs to EN 1993-3-1 and EN 1993-3-2 depend on the choice of reliability class.

(4) If the required execution class for particular components and/or details is different from that applicable to the structure in general, then these components and/or details should be clearly identified.

**NOTE** The National Annex may specify the choice of execution class in terms of types of components or details. The following is recommended:

If EXC1 is selected for a structure, then EXC2 should apply to the following types of component:

- welded components manufactured from steel products of grade S355 and above;
- welded components essential for structural integrity that are assembled by welding on the construction site;
- welded components of CHS lattice girders requiring end profile cuts;
- components with hot forming during manufacturing or receiving thermic treatment during manufacturing.

(5) Specification of a higher execution class for the execution of a structure or component or detail should not be used to justify the use of lower partial factors for resistance in the design of that structure or component or detail.

”.