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Izvedba jeklenih in aluminijastih konstrukcij - 2. del: Tehnične zahteve za izvedbo jeklenih konstrukcij

Execution of steel structures and aluminium structures - Part 2: Technical requirements for steel structures

Ausführung von Stahltragwerken und Aluminiumtragwerken - Teil 2: Technische Regeln für die Ausführung von Stahltragwerken

Exécution des structures en acier et des structures en aluminium - Partie 2: Exigences techniques pour les structures en acier

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Execution of steel structures and aluminium structures - Part 2: Technical requirements for steel structures

Exécution des structures en acier et des structures en
aluminium - Partie 2: Exigences techniques pour les
structures en acier

Ausführung von Stahltragwerken und
Aluminiumtragwerken - Teil 2: Technische Regeln für
die Ausführung von Stahltragwerken

This draft European Standard is submitted to CEN members for second enquiry. It has been drawn up by the Technical Committee CEN/TC 135.

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

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European foreword

This document (prEN 1090-2:2016) has been prepared by Technical Committee CEN/TC 135 “Execution of steel structures and aluminium structures”, the secretariat of which is held by SN.

This document is currently submitted to the second CEN Enquiry.

This document will supersede EN 1090-2:2008+A1:2011.

Technical requirements for cold-formed structural steel elements members and sheeting and cold-formed steel structures for roof, ceiling, floor, wall, and cladding applications have been removed from this Part of the EN 1090 series, as they are given in prEN 1090-4.

Informative Annex B giving guidance for the determination of execution class has been removed and normative requirements for the selection of execution class are now included in of EN 1993-1-1, Annex C.

A new informative Annex D has been included giving guidance on a procedure for checking the capability of thermal cutting processes.

A new informative Annex I has been included giving guidance on determination of the loss of preload from thick coatings on contact surfaces in preloaded connections.

Normative Annex J “Use of compressible washer-type direct tension indicators” has been removed.

A new informative Annex L has been included giving guidance on the selection of weld inspection classes.

Other annexes have been renumbered accordingly:

- Annex D becomes Annex B;
- Annex K becomes Annex J;
- Annex L becomes Annex K;

Annexes A, C, E, F, G, H and M have not been renumbered.

There have been some amendments included in these annexes.

The main text contains some changes. It includes updated cross-references to supporting standards and some corrections.

EN 1090, *Execution of steel structures and aluminium structures* will consist of the following parts relevant to steel structures:

- Part 1: *Requirements for conformity assessment of structural components.*
- Part 2: *Technical requirements for steel structures.*
- Part 4: *Technical requirements for cold-formed structural steel members and sheeting and cold-formed steel structures for roof, ceiling, floor and wall and cladding applications.*

Hence, technical requirements covered in EN 1090-4 have been removed from EN 1090-2.

Introduction

This European Standard specifies requirements for execution of steel structures, in order to ensure adequate levels of mechanical resistance and stability, serviceability and durability.

This European Standard specifies requirements for execution of steel structures in particular those that are designed according to the EN 1993 series and the steel parts of composite steel and concrete structures designed according to the EN 1994 series.

This European Standard presupposes that the work is carried out with the necessary skill and adequate equipment and resources to perform the work in accordance with the execution specification and the requirements of this European Standard.

iTeh STANDARD PREVIEW
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SIST EN 1090-2:2018

<https://standards.iteh.ai/catalog/standards/sist/39a237fb-204e-4f71-99ba-27ce5a802396/sist-en-1090-2-2018>

1 Scope

This European Standard specifies requirements for execution of structural steelwork as structures or as manufactured components, produced from:

- hot rolled, structural steel products up to and including grade S690;
- cold formed components and sheeting up to and including grades S700 (unless coming within the scope of prEN 1090-4);
- hot finished or cold formed austenitic, austenitic-ferritic and ferritic stainless steel products;
- hot finished and cold formed structural hollow sections, including standard range and custom-made rolled products and hollow sections manufactured by welding.

For cold formed components, sheeting, and cold formed structural hollow sections that are within the scope of prEN 1090-4, the requirements of prEN 1090-4 take precedence over corresponding requirements in this European Standard.

This European Standard may also be used for structural steel grades up to and including S960, provided that conditions for execution are verified against reliability criteria and any necessary additional requirements are specified.

This European Standard specifies requirements, which are mostly independent of the type and shape of the steel structure (e.g. buildings, bridges, plated or latticed components) including structures subjected to fatigue or seismic actions. Certain requirements are differentiated in terms of execution classes.

This European Standard applies to structures designed according to the relevant part of the EN 1993 series. With respect to the execution of piling designed to EN 1993-5, this European Standard applies to the execution of anchors, walings, bracings, connections and fabricated piles but does not supersede the execution requirements given in EN 12699 or EN 14199.

This European Standard applies to steel components in composite steel and concrete structures designed according to the relevant part of the EN 1994 series.

This European Standard may be used for structures designed according to other design rules provided that conditions for execution comply with them and any necessary additional requirements are specified.

This European Standard includes the requirements for the welding of reinforcing steels to structural steels. This European Standard does not include the execution of reinforcing steels for concrete applications.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

2.1 Constituent products

2.1.1 Steels

EN 10017, *Steel rod for drawing and/or cold rolling - Dimensions and tolerances*

EN 10021, *General technical delivery conditions for steel products*

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EN 10024, *Hot rolled taper flange I sections - Tolerances on shape and dimensions*

EN 10025-1, *Hot rolled products of structural steels - Part 1: General technical delivery conditions*

EN 10025-2, *Hot rolled products of structural steels - Part 2: Technical delivery conditions for non-alloy structural steels*

EN 10025-3, *Hot rolled products of structural steels - Part 3: Technical delivery conditions for normalized/normalized rolled weldable fine grain structural steels*

EN 10025-4, *Hot rolled products of structural steels - Part 4: Technical delivery conditions for thermomechanical rolled weldable fine grain structural steels*

EN 10025-5, *Hot rolled products of structural steels - Part 5: Technical delivery conditions for structural steels with improved atmospheric corrosion resistance*

EN 10025-6, *Hot rolled products of structural steels — Part 6: Technical delivery conditions for flat products of high yield strength structural steels in the quenched and tempered condition*

EN 10029, *Hot-rolled steel plates 3 mm thick or above - Tolerances on dimensions and shape*

EN 10034, *Structural steel I and H sections - Tolerances on shape and dimensions*

EN 10048, *Hot rolled narrow steel strip - Tolerances on dimensions and shape*

EN 10051, *Continuously hot-rolled strip and plate/sheet cut from wide strip of non-alloy and alloy steels - Tolerances on dimensions and shape*

EN 10055, *Hot rolled steel equal flange tees with radiused root and toes - Dimensions and tolerances on shape and dimensions* [://standards.iteh.ai/catalog/standards/sist/39a237fb-204e-4f71-99ba-27ce5a802396/sist-en-1090-2-2018](https://standards.iteh.ai/catalog/standards/sist/39a237fb-204e-4f71-99ba-27ce5a802396/sist-en-1090-2-2018)

EN 10056-1, *Structural steel equal and unequal leg angles - Part 1: Dimensions*

EN 10056-2, *Structural steel equal and unequal leg angles - Part 2: Tolerances on shape and dimensions*

EN 10058, *Hot rolled flat steel bars for general purposes - Dimensions and tolerances on shape and dimensions*

EN 10059, *Hot rolled square steel bars for general purposes - Dimensions and tolerances on shape and dimensions*

EN 10060, *Hot rolled round steel bars for general purposes - Dimensions and tolerances on shape and dimensions*

EN 10061, *Hot rolled hexagon steel bars for general purposes - Dimensions and tolerances on shape and dimensions*

EN 10080, *Steel for the reinforcement of concrete - Weldable reinforcing steel - General*

EN 10088 (all parts), *Stainless steels*

EN 10088-4:2009, *Stainless steels - Part 4: Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for construction purposes*

- EN 10088-5:2009, *Stainless steels - Part 5: Technical delivery conditions for bars, rods, wire, sections and bright products of corrosion resisting steels for construction purposes*
- EN 10131, *Cold rolled uncoated and zinc or zinc-nickel electrolytically coated low carbon and high yield strength steel flat products for cold forming - Tolerances on dimensions and shape*
- EN 10139, *Cold rolled uncoated low carbon steel narrow strip for cold forming - Technical delivery conditions*
- EN 10140, *Cold rolled narrow steel strip - Tolerances on dimensions and shape*
- EN 10143, *Continuously hot-dip coated steel sheet and strip - Tolerances on dimensions and shape*
- EN 10149 (all parts), *Hot rolled flat products made of high yield strength steels for cold forming*
- EN 10163 (all parts), *Delivery requirements for surface condition of hot-rolled steel plates, wide flats and sections*
- EN 10164, *Steel products with improved deformation properties perpendicular to the surface of the product - Technical delivery conditions*
- EN 10169, *Continuously organic coated (coil coated) steel flat products — Technical delivery conditions*
- EN 10204, *Metallic products - Types of inspection documents*
- EN 10210-1, *Hot finished structural hollow sections of non-alloy and fine grain steels - Part 1: Technical delivery conditions*
- EN 10210-2, *Hot finished structural hollow sections of non-alloy and fine grain steels - Part 2: Tolerances, dimensions and sectional properties*
- EN 10219-1, *Cold formed welded structural hollow sections of non-alloy and fine grain steels - Part 1: Technical delivery conditions*
- EN 10219-2, *Cold formed welded structural hollow sections of non-alloy and fine grain steels - Part 2: Tolerances, dimensions and sectional properties*
- EN 10268, *Cold rolled steel flat products with high yield strength for cold forming — Technical delivery conditions*
- EN 10279, *Hot rolled steel channels - Tolerances on shape, dimensions and mass*
- EN 10296-2:2005, *Welded circular steel tubes for mechanical and general engineering purposes - Technical delivery conditions - Part 2: Stainless steel*
- EN 10297-2:2005, *Seamless circular steel tubes for mechanical and general engineering purposes - Technical delivery conditions - Part 2: Stainless steel*
- EN 10346, *Continuously hot-dip coated steel flat products for cold forming - Technical delivery conditions*
- EN ISO 1127, *Stainless steel tubes - Dimensions, tolerances and conventional masses per unit length (ISO 1127)*