



SLOVENSKI STANDARD SIST EN 17293:2020

01-junij-2020

Oprema za začasna dela - Izvedba - Zahteve za izdelavo

Temporary works equipment - Execution - Requirements for manufacturing

Temporäre Konstruktionen für Bauwerke - Ausführung - Anforderungen für die Herstellung

Equipements temporaires de chantiers - Exécution - Exigences pour la fabrication

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Ta slovenski standard je istoveten z: **EN 17293:2020**

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ICS:

91.220

Gradbena oprema

Construction equipment

SIST EN 17293:2020

en,fr,de

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EUROPEAN STANDARD

EN 17293

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2020

ICS 91.220

English Version

Temporary works equipment - Execution - Requirements for manufacturing

Equipements temporaires de chantiers - Exécution -
Exigences pour la fabrication

Temporäre Konstruktionen für Bauwerke - Ausführung
- Anforderungen für die Herstellung

This European Standard was approved by CEN on 22 December 2019.

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

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 17293:2020) has been prepared by Technical Committee CEN/TC 53 “Temporary works equipment”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by September 2020, and conflicting national standards shall be withdrawn at the latest by September 2020.

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

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

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EN 17293:2020 (E)**Introduction**

Steel, aluminium and timber components for temporary works equipment are usually designed according to Eurocodes.

NOTE Temporary works equipment are products covered by CEN/TC 53, for example, scaffolds, formworks, falseworks.

Components designed specifically for temporary works equipment are not intended to be incorporated in a permanent manner in construction works (buildings or civil engineering works). They are manufactured in accordance with standards within the scope of CEN/TC 53 and not covered by the Construction Products Regulation EU 305/2011. Therefore, EN 1090-1 is not applicable for these components and they are not to be marked CE.

EN 1090-2, EN 1090-3, EN 1090-4, EN 1090-5 give requirements for execution of steel and aluminium components. This document gives special requirements for manufacturing components for temporary works equipment in addition or contrary to the requirements of EN 1090-2, EN 1090-3, EN 1090-4, EN 1090-5, to ensure adequate levels of mechanical resistance and stability, serviceability and durability.

EN 1995-1-1 gives requirements for execution of timber components. This document gives special requirements for manufacturing glued timber joints in components of temporary works equipment.

This document presupposes that manufacturing is carried out with the necessary skill and adequate equipment and resources to perform that manufacturing in accordance with the requirements of this document.

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1 Scope

This document specifies requirements for manufacturing components for temporary works equipment:

- a) in a factory; or
- b) on site where manufacturing in a factory is not practicable.

This document specifies requirements for manufacturing components for temporary works equipment in addition or contrary to the requirements of EN 1090-2, EN 1090-3, EN 1090-4, EN 1090-5 and EN 1995-1-1.

Furthermore, this document specifies requirements for manufacturing timber components, designed according to Eurocodes, to be used in temporary works equipment.

This document does not specify requirements for erection and transportation of temporary works equipment.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 74-2, *Couplers, spigot pins and baseplates for use in falsework and scaffolds — Part 2: Special couplers - Requirements and test procedures*

EN 1004, *Mobile access and working towers made of prefabricated elements — Materials, dimensions, design loads, safety and performance requirements*

EN 1065, *Adjustable telescopic steel props — Product specifications, design and assessment by calculation and tests*

EN 1090-2:2018, *Execution of steel structures and aluminium structures — Part 2: Technical requirements for steel structures*

EN 1090-3:2019, *Execution of steel structures and aluminium structures — Part 3: Technical requirements for aluminium structures*

EN 1090-4:2018, *Execution of steel structures and aluminium structures — Part 4: Technical requirements for cold-formed structural steel elements and cold-formed structures for roof, ceiling, floor and wall applications*

EN 1090-5:2017, *Execution of steel structures and aluminium structures — Part 5: Technical requirements for cold-formed structural aluminium elements and cold-formed structures for roof, ceiling, floor and wall applications*

EN 1993-1-3, *Eurocode 3: Design of steel structures — Part 1-3: General rules — Supplementary rules for cold-formed members and sheeting*

EN 1993-1-8:2005, *Eurocode 3: Design of steel structures — Part 1-8: Design of joints*

EN 1995-1-1:2004, *Eurocode 5: Design of timber structures — Part 1-1: General — Common rules and rules for buildings*

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- EN 1999-1-1, *Eurocode 9 — Design of aluminium structures — Part 1-1: General structural rules*
- EN 1999-1-4, *Eurocode 9 — Design of aluminium structures — Part 1-4: Cold-formed structural sheeting*
- EN 10111, *Continuously hot rolled low carbon steel sheet and strip for cold forming — Technical delivery conditions*
- EN 10162:2003, *Cold-rolled steel sections — Technical delivery conditions — Dimensional and cross-sectional tolerances*
- EN 10204, *Metallic products — Types of inspection documents*
- EN 10217 (series), *Welded steel tubes for pressure purposes — Technical delivery conditions*
- EN 10305 (series), *Steel tubes for precision applications — Technical delivery conditions*
- EN 12810-1, *Façade scaffolds made of prefabricated components — Part 1: Products specifications*
- EN 12811-1, *Temporary works equipment — Part 1: Scaffolds — Performance requirements and general design*
- EN 12811-2, *Temporary works equipment — Part 2: Information on materials*
- EN 12811-4, *Temporary works equipment — Part 4: Protection fans for scaffolds — Performance requirements and product design*
- EN 12812, *Falsework — Performance requirements and general design*
- EN 12813, *Temporary works equipment — Load bearing towers of prefabricated components — Particular methods of structural design*
- EN 14399 (series), *High-strength structural bolting assemblies for preloading*
- EN 15048 (series), *Non-preloaded structural bolting assemblies*
- EN 15088, *Aluminium and aluminium alloys — Structural products for construction works — Technical conditions for inspection and delivery*
- EN 16031, *Adjustable telescopic aluminium props — Product specifications, design and assessment by calculation and tests*
- EN 16508, *Temporary works equipment — Encapsulation constructions — Performance requirements and general design*
- EN ISO 3834-3, *Quality requirements for fusion welding of metallic materials — Part 3: Standard quality requirements (ISO 3834-3)*
- EN ISO 3834-4, *Quality requirements for fusion welding of metallic materials — Part 4: Elementary quality requirements (ISO 3834-4)*
- EN ISO 14731, *Welding coordination - Tasks and responsibilities (ISO 14731:2019)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp/ui>

3.1

welding production batch size

quantity of components which are manufactured using identical welding parameters

3.2

fully mechanised welding

welding in which all main operations (excluding the handling of the work piece) are performed automatically

Note 1 to entry: Manual adjustment of welding variables during welding is possible.

[SOURCE: ISO/TR 25901:2007, 2.159]

3.3

automatic welding

welding in which all operations are performed automatically

Note 1 to entry: Manual adjustment of welding variables during welding is not possible.

[SOURCE: ISO/TR 25901:2007, 2.21]

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3.4

manufacturing

all activities required to produce a component

Example: procurement, preparation and assembly, welding, mechanical fastening, surface treatment, inspection and documentation

3.5

optical check

continuous automatic inspection for example with a camera

3.6

monitoring

real-time acquisition and analysis of welding parameters

3.7

welding monitoring classes

3.7.1

welding monitoring class 1

welding without automatic parameter monitoring

3.7.2

welding monitoring class 2

fully mechanised welding and automatic welding with automatic parameter monitoring