

SLOVENSKI STANDARD oSIST prEN 795:2023

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Osebna varovalna oprema za zaščito pred padci z višine - Sidrišča				
Personal fall protection equipment - Anchor devices				
Persönliche Absturzschutzausrüstung - Anschlageinrichtungen Équipement de protection individuelle contre les chutes - Dispositifs d'ancrage				
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EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

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November 2022

ICS 13.340.60

Will supersede EN 795:2012

English Version

Personal fall protection equipment - Anchor devices

Équipement de protection individuelle contre les chutes - Dispositifs d'ancrage

Persönliche Absturzschutzausrüstung -Anschlageinrichtungen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 160.

If this draft becomes a European Standard, 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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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 795:2022) has been prepared by Technical Committee CEN/TC 160 "Protection against falls from height including working belts", the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 795:2012.

A list of technical changes between this edition and EN 795:2012 is given in Annex B.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

For relationship with EU Directive(s) / Regulation(s), see informative Annex ZA, which is an integral part of this document.

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Introduction

A reliable anchor device is an essential component of any personal fall protection system.

This document is intended to act as a complementary standard for existing European Standards covering other components used in personal fall protection systems.

The scope and the requirements are based on the philosophy that anchor devices are rated to sustain the maximum dynamic force generated in a fall from a height by the mass of one person, including any equipment carried. The static strength tests are based on a minimum factor of safety of two. To allow for foreseeable misuse of equipment, this document provides requirements and test methods for anchor devices used in personal fall protection systems in accordance with EN 363:2018, even if their intended use is for restraint.

Requirements and test methods for multi-user anchor devices, i.e. anchor devices that allow more than one user to be attached at any one time, are not addressed in this document but advice is provided in a separate CEN Technical Specification.

This document is intended for the type testing of new products before placing them on the market and gives only minimum performance requirements. It is essential that anchor devices are designed and manufactured so that, in the foreseeable conditions of use for which they are intended, the user is able to perform the risk-related activity while being appropriately protected at the highest possible level. Manufacturers may wish to bear these points in mind when deciding on the actual performance of their products.

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1 Scope

This document specifies requirements for performance and associated test methods for single-user anchor devices which are not permanently secured to the structure. These anchor devices incorporate stationary or travelling (mobile) anchor points designed for the attachment of components of a personal fall protection system in accordance with EN 363:2018.

This document also gives requirements for marking and instructions for use, and guidance on installation.

This document is not applicable to:

- anchor devices intended to allow more than one user to be attached at any one time;
- anchor devices used in any sports or recreational activity;
- equipment designed to conform to EN 516:2006;
- permanent anchor devices and roof safety hooks conforming to EN 17235¹;
- elements or parts of structures which were installed for use other than as anchor points or anchor devices, e.g. beams, girders;
- structural anchors (see 3.3).

2 Normative references **STANDARD PREVIEW**

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 360:2002, Personal protective equipment against falls from a height - Retractable type fall arresters

EN 362:2004, Personal protective equipment against falls from a height - Connectors

EN 363:2018, Personal fall protection equipment - Personal fall protection systems

EN 364:1992, Personal protective equipment against falls from a height - Test methods

EN 365:2004, Personal protective equipment against falls from a height - General requirements for instructions for use, maintenance, periodic examination, repair, marking and packaging

EN 892:2012+A2:2021, Mountaineering equipment — Dynamic mountaineering ropes — Safety requirements and test methods

EN ISO 9227:2017, Corrosion tests in artificial atmospheres - Salt spray tests (ISO 9227:2017)

ISO 2232:1990, Round drawn wire for general purpose non-alloy steel wire ropes and for large diameter steel wire ropes — Specifications

EN 39:2001, Loose steel tubes for tube and coupler scaffolds - Technical delivery conditions

¹ Under preparation. Stage at the time of publication: prEN 17235:2018.

Terms and definitions 3

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:

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

3.1

anchor system

system intended for use as part of a personal fall protection system that incorporates an anchor device and/or a linking element and/or a structural anchor (see Figure 1)

Note 1 to entry: Items shown in light grey in all figures throughout this standard are structural parts which are not covered by this standard and shown for clarity only.



- 2 structure (not part of the anchor device)
- structural anchor, e.g. mechanically or resin fixed (not part of the anchor device)

3 linking element

Figure 1 — Examples of anchor systems that include an anchor device

3.2

anchor device

assembly of elements which incorporates one or more anchor points or mobile anchor points that can include a linking element, is intended for use as part of a personal fall protection system and is designed to be temporarily attached to and removable from the structure and to be part of the anchor system

3.2.1

type I anchor device

anchor device with one or more stationary anchor points with the need for a structural anchor/structural anchors to attach it to the structure (see Figure 2) and which may include a flexible or rigid anchor line (see Figure 5a) with or without a mobile anchor point

Note 1 to entry: Anchor points may rotate or swivel when in use, where they are designed to do so.

Note 2 to entry: A stand-alone FAL can be a type I anchor device (see Figure 7).

Note 3 to entry: A davit can be a type 1 anchor device (see Figure 2c).

3.2.2

type II anchor device

anchor device with one or more stationary anchor points without the need for a structural anchor/structural anchors to attach it to the structure (see Figure 3) and which may include a flexible or rigid anchor line (see Figure 5b and Figure 6) with or without a mobile anchor point

Note 1 to entry: Anchor points may rotate or swivel when in use, where they are designed to do so.

Note 2 to entry: A tripod, quadpod, gantry or davit are examples of a type II anchor device with legs (see Figures 3a and 3e).

3.2.3

s.2.3 type III anchor device Teh STANDARD PREVIEW

anchor device for use on surfaces up to 5° from the horizontal with one or more stationary anchor points where the performance relies solely on mass and friction between itself and the surface (see Figure 4) and which may include a flexible or rigid anchor line (see Figure 5c) with or without a mobile anchor point

Note 1 to entry: Anchor points may rotate or swivel when in use, where they are designed to do so.

3.3

structural anchor

element or elements which are designed for use in conjunction with a personal fall protection system and to be permanently incorporated into a structure

Note 1 to entry: A structural anchor is not part of the anchor device.

Note 2 to entry: Examples of a structural anchor is a permanent anchor device conforming to EN 17235 or an element that is cast-in, welded, mechanically or bonded by resin to the structure.

3.4

linking element

element or elements of the anchor device used to connect/fix the anchor device to the structure, and which is/are removable from the structure

Note 1 to entry: A connector conforming to EN 362 can be a linking element.

3.5

locking element

element or elements which is an integral part(s) of the anchor device used to lock the anchor device to the structure or the structural anchor

3.6

anchor point

point on an anchor device where personal fall protection equipment is intended to be attached

3.7

extremity anchor

type I, II or III anchor device which connects the extremity of a flexible anchor line or rigid anchor line onto the structure

3.8

intermediate anchor

type I, II or III anchor device or other element located between the extremity anchors, which connects a flexible anchor line or a rigid anchor line onto the structure

Note 1 to entry: Intermediate supports, e.g. a flexible anchor line guide, which are not intended to withstand the load, are not intermediate anchors.

3.9

mobile anchor point

element with an anchor point which is intended to travel along an anchor line

3.10

man-made fibre

fibre obtained by a manufacturing process

Note 1 to entry: Man-made fibres refer to ISO/TR 11827:2012.

3.11

its length)

flexible anchor line

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FAL flexible line between extremity anchors to which personal fall protection equipment can be attached either directly by a connector or through a mobile anchor point, which deviates from the horizontal by not more than 15° (when measured between the extremity and intermediate anchors at any point along

Note 1 to entry: A flexible anchor line can be a wire rope, fibre rope, or webbing.

Note 2 to entry: Extremity and intermediate anchors can be a type I, type II or type III anchor device.

3.12 rigid anchor line RAL

rigid line between extremity anchors to which personal fall protection equipment can be attached either directly by a connector or through a mobile anchor point, which deviates from the horizontal by not more than 15° (when measured between the extremity and intermediate anchors at any point along its length)

Note 1 to entry: A rigid anchor line can be a rigid profile, e.g. a rigid tube or rigid rail.

Note 2 to entry: Extremity and intermediate anchors can be a type I, type II or type III anchor device.



Figure 2 — Examples of type I anchor devices with a locking element and a structural anchor



2 anchor device 4 locking element





Key

1 anchor point

3

structure

2 mass





1 extremity anchor

- 3 intermediate anchor
- 2 flexible anchor line
- 4 mobile anchor point

adjusting device

5



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Key

- 1 extremity or intermediate anchor (e.g. clamping 3 rigid anchor line 5 end stop bracket) joiner
- 2 mobile anchor point 4 rigid anchor line





Кеу

- 1 linking element 3 flexible anchor line 795:2023
- 2 adjusting device 4 mobile anchor
- 2 adjusting device 4 mobile anchor pren-795-2023 point

Figure 7 — Example of a stand-alone FAL as a type I anchor device