

## SLOVENSKI STANDARD SIST EN 361:2002

#### 01-november-2002

BUXca Yý U. SIST EN 361:1996

#### CgYVbU'j Ufcj UbU'cdfYa U'nU'nUý ]hc'dfYX'dUXW['n'j]ý]bY'!'JUfcj U'b]'dUgcj]

Personal protective equipment against falls from a height - Full body harnesses

Persönliche Schutzausrüstung gegen Absturz - Auffanggurte

#### iTeh STANDARD PREVIEW

Equipement de protection individuelle contre les chutes de hauteur - Harnais d'antichute (standards.iteh.ai)

Ta slovenski standard je istoveten zsist metali 2002

https://standards.iteh.ai/catalog/standards/sist/519186a5-21cc-4591-95e5-

<u>ICS:</u> 13.340.60 Zæz ãæzÁ, ¦^åÁ, æå&ãç Áå¦∙ã

Protection against falling and slipping

SIST EN 361:2002

en



## iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN 361:2002</u> https://standards.iteh.ai/catalog/standards/sist/519186a5-21cc-4591-95e5-344a118c5481/sist-en-361-2002

#### SIST EN 361:2002

## EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

**EN 361** 

May 2002

ICS 13.340.99

Supersedes EN 361:1992

English version

# Personal protective equipment against falls from a height - Full body harnesses

Equipement de protection individuelle contre les chutes de hauteur - Harnais d'antichute

Persönliche Schutzausrüstung gegen Absturz - Auffanggurte

This European Standard was approved by CEN on 15 March 2002.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

<u>SIST EN 361:2002</u> https://standards.iteh.ai/catalog/standards/sist/519186a5-21cc-4591-95e5-344a118c5481/sist-en-361-2002



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

© 2002 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

Ref. No. EN 361:2002 E

## Contents

|   | Ŗ   | age                             |
|---|---|---------------------------------|
| Forewo  | ord   | 3                               |
| 1   | Scope   | 4                               |
| 2   | Normative references  | 4                               |
| 3   | Terms and definitions   | 4                               |
| 4<br>4.1<br>4.2<br>4.3<br>4.4<br>4.5<br>4.6         | Requirements<br>Design and ergonomics<br>Materials and construction<br>Static strength<br>Dynamic performance<br>Additional elements<br>Marking and information | 7<br>7<br>7<br>7<br>7<br>7<br>8 |
| 5<br>5.1<br>5.1.1<br>5.1.2<br>5.2<br>5.2.1<br>5.2.2 | Test methodsStatic strength test<br>ApparatusMethodIIeh STANDARD PREVIEW<br>Dynamic performance test  | 8<br>8<br>8<br>8<br>8<br>8<br>8 |
| 6   | MarkingSIST EN 3612002  | 8                               |
| 7   | Information supplied by the manufacturer.5481/sistem-361-2002   | 9                               |
| 8<br>Annex  | Packaging   | 9<br>10                         |
| Bibliog   | Jraphy  | 11                              |

#### Foreword

This document EN 361:2002 has been prepared by Technical Committee CEN/TC 160 "Protection against falls from a height including working belts", 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 November 2002, and conflicting national standards shall be withdrawn at the latest by November 2002.

This document supersedes EN 361:1992. This new edition contains the old text of the standard and incorporates some urgent amendments that are intended to give additional information and clarify inconsistencies. A comprehensive revision of the standard will follow at a later stage.

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

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

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

### (standards.iteh.ai)

<u>SIST EN 361:2002</u> https://standards.iteh.ai/catalog/standards/sist/519186a5-21cc-4591-95e5-344a118c5481/sist-en-361-2002

#### 1 Scope

This European Standard specifies the requirements, test methods, marking, information supplied by the manufacturer and packaging for full body harnesses. Other types of body support, specified in other European Standards, e. g. EN 358, EN 813 or EN 1497, may be incorporated into the full body harness. Fall arrest systems are specified in EN 363.

#### 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies (including amendments).

EN 358, Personal protective equipment for work positioning and prevention of falls from a height – Belts for work positioning and restraint and work positioning lanyards.

EN 362:1992, Personal protective equipment against falls from a height – Connectors.

EN 363:2002, Personal protective equipment against falls from a height - Fall arrest systems.

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

EN 365:1992, Personal protective equipment against falls from a height General requirements for instructions for use and for marking.

EN 813, Personal protective equipment for prevention of falls from a height – Sit harnesses.

EN 892, Mountaineering equipment - Dynamic mountaineering ropes - Safety requirements and test methods.

#### 3 Terms and definitions

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

#### 3.1

#### full body harness

body support primarily for fall arrest purposes, i.e. a component of a fall arrest system. The full body harness may comprise straps, fittings, buckles or other elements, suitably arranged and assembled to support the whole body of a person and to restrain the wearer during a fall and after the arrest of a fall [EN 363].

#### 3.2

#### primary straps/secondary straps

primary straps are those straps of a full body harness which are intended by the manufacturer to support the body or exert pressure on the body during the fall of a person and after the arrest of the fall. The other straps are secondary straps

#### 3.3

#### attachment element

specific connecting point for components or sub-systems



#### Key

- 1 Shoulder strap
- 2 Secondary strap
- 3 Sit strap (Primary strap)
- 4 Thigh strap
- 5 Back support for work positioning
- 6 Adjustment element
- 7 Fall arrest attachment element
- 8 Buckle
- 9 Attachment element for work positioning
- a) Marking, see clause 6
- b) Marking with capital letter "A"

## Figure 1 — Example of a full body harness with back attachment for fall arrest and attachment for work positioning



#### Key

- 1 Shoulder strap
- 2 Front attachment
- 3 Thigh strap (Primary strap)
- 4 Adjustment element
- 5 Back attachment

6 Buckle

- a) Marking, see clause 6
- b) Marking with capital letter "A"

Figure 2 — Example of a full body harness with front attachment and back attachment for fall arrest

#### **4** Requirements

#### 4.1 Design and ergonomics

The general requirements for the design and ergonomics are specified in 4.1 of EN 363:2002.

#### 4.2 Materials and construction

Webbing and sewing threads of a full body harness shall be made from virgin filament or multifilament synthetic fibres suitable for their intended use.

The breaking tenacity of the synthetic fibre shall be known to be at least 0,6 N/tex.

Threads used for sewing shall be physically compatible with the webbing, and the quality shall be compatible to that of the webbing. They shall, however, be of a contrasting shade or colour in order to facilitate visual inspection.

A full body harness shall comprise straps or similar elements which are placed in the pelvic area and on the shoulders, e. g. as shown in Figure 1. The full body harness shall fit the wearer. Means of adjustment may be provided.

Straps shall not migrate from position and shall not loosen by themselves.

The width of primary straps shall be at least 40 mm and of secondary straps at least 20 mm.

It shall be visually confirmed during the static strength test specified in 5.1 that those straps which support the torso dummy or exert pressure on the torso dummy are primary straps.

#### (standards.iteh.ai)

The fall arrest attachment element(s) may be placed so as to lie, during the use of the full body harness, above the centre of gravity, in front of the chest and/or at the back and/or at both shoulders of the wearer.

https://standards.iteh.ai/catalog/standards/sist/519186a5-21cc-4591-95e5-The full body harness may be incorporated within a garment.

It shall be possible to carry out a visual inspection of the whole full body harness, even if the full body harness is incorporated within a garment. All securing buckles (i. e. buckles other than those used primarily for adjustment of fit) shall be designed in such a way that they can only be assembled in a correct manner or, if they are capable of being assembled in more than one way, that each method of assembly shall conform to the strength and performance requirements.

Metallic fittings shall conform to the corrosion protection requirements specified in 4.4 of EN 362:1992.

#### 4.3 Static strength

When tested at each attachment element as described in 5.1.4.2 of EN 364:1992 with a force of 15 kN and as described in 5.1.4.3 of EN 364:1992 with a force of 10 kN, the full body harness shall not release the torso dummy.

#### 4.4 Dynamic performance

When tested at each fall arrest attachment element as described in 5.2 with a torso dummy of 100 kg mass, the full body harness shall withstand two successive drop tests with an adjusted free fall distance of 4 m (one drop test with the torso dummy feet first and one drop test with the torso dummy head first) without releasing the torso dummy. After each drop test, the torso dummy shall be arrested in a head-up position and the angle between the longitudinal axis of the dorsal plane of the torso dummy and the vertical shall be a maximum of 50°.

#### 4.5 Additional elements

If a full body harness is additionally equipped with elements for the use of the full body harness in a work positioning or restraint system, these elements shall conform to EN 358 and/or EN 813.