

# **SLOVENSKI STANDARD**

## **SIST EN 358:1996**

**01-februar-1996**

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**Osebna oprema za delo in zaščito pred padci z višine - Sistemi za namestitev pri delu**

Personal protective equipment for work positioning and prevention of falls from a height - Work positioning systems

Persönliche Schutzausrüstung für Haltefunktionen und zur Verhinderung von Abstürzen - Haltesysteme

Equipement individuel de maintien au travail et de prévention contre les chutes de hauteur - Systemes de maintien au travail

<https://standards.iteh.ai/catalog/standards/sist/1211e55a-2c5c-4b21-bc4a-7fc791cb7d06/sist-en-358-1996>

**Ta slovenski standard je istoveten z: EN 358:1992**

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**ICS:**

13.340.60	Zaščita pred padci in zdrsi	Protection against falling and slipping
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**SIST EN 358:1996**

**en**

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EUROPEAN STANDARD

EN 358:1992

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 1992

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Descriptors: Work safety, personal protective equipment, accident prevention, protection against fall, safety devices, supports, safety belts, specifications, tests, characteristics, instructions, marking

English version

**Personal equipment for work positioning and  
prevention of falls from a height - Work  
positioning systems**

Équipement individuel de maintien au travail et  
de prévention contre les chutes de hauteur -  
Systèmes de maintien au travail

Persönliche Schutzausrüstung für  
Haltefunktionen und zur Verhinderung von  
Abstürzen - Haltesysteme

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist 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 Central Secretariat has the same status as the official versions.

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

## CEN

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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Foreword

This European Standard was prepared by the Technical Committee CEN/TC 160 "Protection against falls from a height including working belts", of which the secretariat is held by DIN.

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

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 June 1993, and conflicting national standards shall be withdrawn at the latest by June 1993.

The Standard was approved and in accordance with the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

## 0 Introduction

In cases where there exists the hazard of falling and where, for technical reasons or for work of very short duration, safe access cannot be otherwise provided. It is necessary to consider the use of personal protective equipment. Such use should never be improvised and its adoption should be specifically provided for in the appropriate formal provisions for safety in the work place.

Equipment complying with this standard should satisfy ergonomic requirements and should only be used if the work allows means of anchorage and can be carried out safely. Personnel should be trained and instructed in the safe use of the equipment and be observant of such training and instruction.

## 1 Scope

This standard specifies requirements, testing and the marking, labelling and packaging of systems intended for work positioning and support of the worker at a height including the prevention of free fall. A work positioning system is not meant to be used for fall arrest.

## 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.

- |             |   |
|-------------|---|
| EN 362      | Personal protective equipment against falls from a height - Connectors                    |
| EN 363:1992 | Personal protective equipment against falls from a height - Fall arrest systems           |
| EN 364:1992 | Personal protective equipment against falls from a height - Test methods                  |
| ISO 1835    | Short link chain for lifting purposes - Grade M(4), non-calibrated, for chain slings etc. |

## 3 Definitions

For the purposes of this standard the following definitions apply:

### 3.1 Element

"A part of a component or a sub-system. Ropes webbing, attachment elements, fittings and anchorage lines are examples of elements." (EN 363)

### 3.2 Component

"A part of a system at a point of sale by the manufacturer, supplied with packaging, markings and instructions for use. Body supports and lanyards are examples of components of systems" (EN 363)

### 3.3 Work positioning system

A work positioning system is composed of components interconnected to constitute a complete arrangement of equipment ready for use for work positioning.

Note 1: Fixed assemblies of two or more components can make up a bigger part of a work positioning system. e.g. a work positioning lanyard with an energy absorber or a belt with a energy absorber.

Note 2: Work positioning systems are intended for the use of linesmen and other workers required to work at heights on poles or other structures in a supported position thereby enabling them to have both hands free for working. They are not intended for fall arrest.

### 3.4 Work positioning belt

A component that encircles the body comprised of elements, which suitably arranged and assembled and with a work positioning lanyard support the wearer during a work at a height.

Note 1: A work positioning belt can be incorporated within a garment.

Note 2: A work positioning belt can be a component in a harness.

### 3.5 Work positioning lanyard

A component for connecting the work positioning belt around a structure.

## 4 Requirements

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### 4.1 Ergonomics

The work positioning system shall be so designed that in the use for which it is intended and for the foreseeable period of wear the user can perform his work without undue discomfort whilst safely secured against the risks that occur in connection with the intended use.

### 4.2 Work positioning belt

#### 4.2.1 Design and construction

Webbing and thread elements shall be made from synthetic fibres, having characteristics consistent with those of polyamide and polyester.

Sewing threads shall be physically compatible with and of comparable quality to that of the webbing and shall be of a contrasting shade or colour from that of the webbing in order to facilitate visual inspection.

The work positioning belt shall have either a minimum of two attachment elements or an integral work positioning lanyard and one attachment element for attaching the work positioning lanyard.

The waist strap shall be not less than 43 mm wide. A belt including back support shall have rounded edges and be so stiff that the forces will be spread over the whole width of the belt during use.

A work positioning belt may be equipped with adjustable shoulder and sitting straps. These straps must not impair the operation of the work positioning belt in any way. Attachment elements must not be positioned on shoulder or sitting straps.

A work positioning belt shall be so constructed that it cannot be dismantled by hand.

The buckle of a work positioning belt shall be so designed and constructed that when correctly fastened an involuntary opening of the buckle is prevented. If it can be fastened in more than one manner, each manner of fastening shall comply with the performance requirements.

The back support shall be designed so as to give adequate support to the worker without preventing normal movement. Minimum length of the back support is dependent on the maximum distance between the attachment elements or the fastening of an integral work positioning lanyard and the opposite attachment element measured round the back. Minimum length shall be 50 mm longer than this distance (25 mm in both ends). Minimum width is 100 mm on a length of 200 mm in the center and 60 mm on other parts of the back support. Back supports of differing arrangement but providing adequate support with the equivalent area of support may be used.

It shall be possible to carry out a visual inspection of the whole work positioning belt even if it is incorporated within garment.

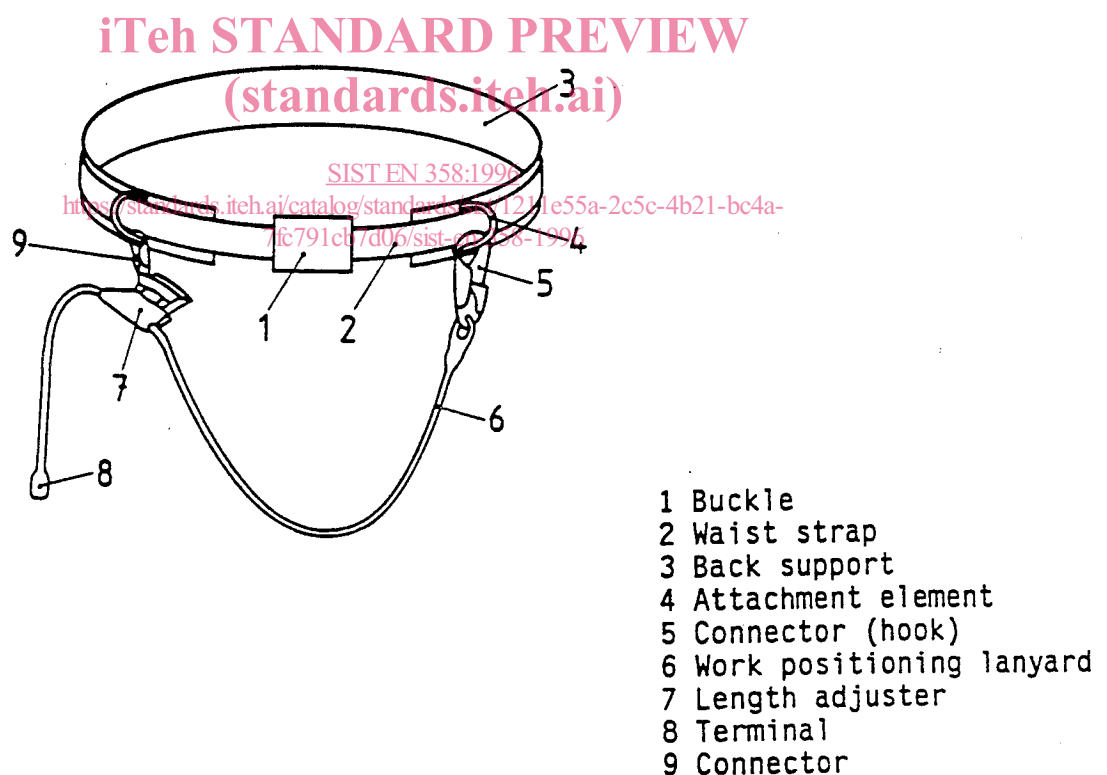


Figure 1: Work positioning belt with a work positioning lanyard attached to two attachment elements - main elements

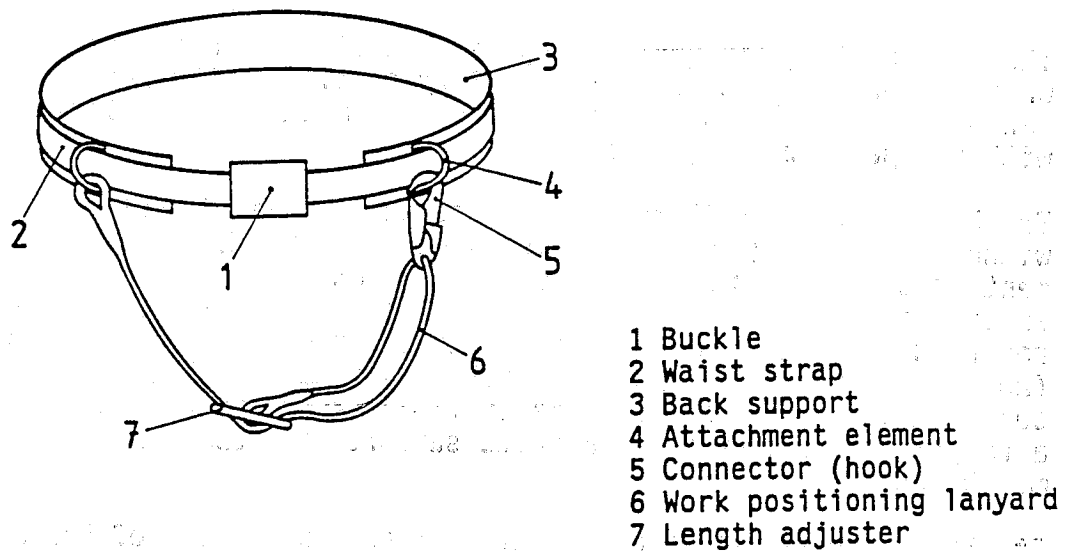
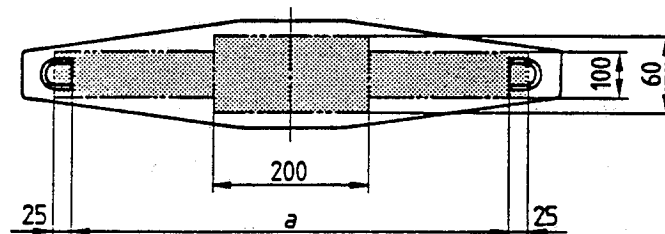


Figure 2: Work positioning belt with an integral work positioning lanyard - main elements

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SIST EN 358:1996 Dimensions in millimetres  
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a Maximum distance between attachment elements

 Minimum requirements

Figure 3: Back support - Example of minimum dimensions



#### 4.2.2 Static strength

When tested as described in 5.2.1 with a force of 15 kN, the work positioning belt shall not release the test cylinder described, when the test is applied in turn to each attachment element. Where there are symmetrically situated identical attachment elements, only one shall be tested.

Note: Each attachment element may be tested with a new specimen.

#### 4.2.3 Dynamic strength

The work positioning belt shall withstand the dynamic strength test described in 5.3 without releasing the torso dummy, when the test is applied in turn to each attachment element. Where there are symmetrically situated identical attachment elements, only one shall be tested.

Note: Each attachment element may be tested with a new specimen.

#### 4.3 Work positioning lanyard

##### 4.3.1 Design and construction

##### 4.3.1.1 General requirements

The work positioning lanyard shall be so designed and constructed that an involuntary release of the work positioning lanyard from the work positioning belt is prevented. If the work positioning lanyard can be assembled in more than one manner, all methods of assembly shall comply with the performance requirements.

The work positioning lanyard shall be equipped with a length adjuster and shall have a maximum length of 2 m under all normal circumstances. When this is impracticable then the length of the lanyard shall be kept to the minimum length which is consistent with maintaining the protection which is intended to be afforded to the worker by the equipment.

It shall be possible to carry out a visual inspection of all the components.

Note: A work positioning lanyard made of rope, webbing or steel cable shall be terminated in a way which prevents the length adjuster from being released from the work positioning lanyard involuntarily.

##### 4.3.1.2 Ropes and webbing

Ropes, webbing and threads shall be made from synthetic fibres having characteristics consistent with those of polyamide or polyester.

Sewing threads shall be physically compatible with and of comparable quality to that of the webbing and should be of a contrasting shade or colour from that of the webbing in order to facilitate visual inspection.

Ropes and webbing used in the manufacture of work positioning lanyards shall have a minimum breaking force of 22 kN.