



SLOVENSKI STANDARD
oSIST prEN 353-2:2021
01-november-2021

Osebna varovalna oprema za zaščito pred padci - 2. del: Drseče naprave za zaustavljanje na gibljivem vodilu

Personal protective equipment against falls from a height - Part 2: Guided type fall arresters including a flexible anchor line

Persönliche Absturzschutzausrüstung - Teil 2: Mitlaufende Auffanggeräte einschließlich beweglicher Führung

Equipement de protection individuelle contre les chutes de hauteur - Partie 2: Antichutes mobiles incluant un support d'assurance flexible

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Ta slovenski standard je istoveten z: prEN 353-2

ICS:

13.340.60 Zaščita pred padci in zdrsi Protection against falling and slipping

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 353-2

September 2021

ICS 13.340.60

Will supersede EN 353-2:2002

English Version

Personal fall protection equipment - Part 2: Guided type fall arresters including a flexible anchor line

Équipement de protection individuelle contre les
chutes de hauteur - Partie 2: Antichutes mobiles
incluant un support d'assurage flexible

Persönliche Absturzschutzausrüstung - Teil 2:
Mitlaufende Auffanggeräte einschließlich beweglicher
Führung

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.

This draft European Standard was established by CEN 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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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

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

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prEN 353-2:2021 (E)

European foreword

This document (prEN 353-2:2021) has been prepared by Technical Committee CEN/TC 160 "Protection

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 353-2:2002.

Annex B provides details of significant changes between this European Standard and the previous edition EN 353-2:2002.

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

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 a guided type fall arrester including a flexible anchor line is rated to sustain the maximum dynamic load generated in a fall from a height by the mass of one person, including any equipment carried. This document provides requirements and test methods for guided type fall arresters including a flexible anchor line used in personal fall protection systems in accordance with EN 363.

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prEN 353-2:2021 (E)**1 Scope**

This document specifies requirements, test methods, marking, manufacturer's instructions and information and packaging for guided type fall arresters including a flexible anchor line. This anchor line is usually attached to an upper anchor point. Guided type fall arresters including a flexible anchor line conforming to this document are components of one of the fall arrest systems covered by EN 363. Other types of fall arresters are specified in EN 353-1 or EN 360.

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

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

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

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

EN 10025-2:2019, *Hot rolled products of structural steels - Part 2: Technical delivery conditions for non-alloy structural steels*

EN ISO 683-1:2018, *Heat-treatable steels, alloy steels and free-cutting steels - Part 1: Non-alloy steels for quenching and tempering (ISO 683-1:2016)*

EN 10278:1999, *Dimensions and tolerances of bright steel products*

EN 13411-5:2003+A1:2008, *Terminations for steel wire ropes - Safety - Part 5: U-bolt wire rope grips*

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

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 <http://www.iso.org/obp>

3.1

guided type fall arrester including a flexible anchor line

component of a fall arrest system consisting of a self-locking guided type fall arrester and a flexible anchor line to which it is attached

Note 1 to entry: The guided type fall arrester and flexible anchor line form one product, i.e. they are tested, certified and intended to be used together.

Note 2 to entry: An energy dissipating element may be part of the guided type fall arrester and/or the flexible anchor line.

3.2

guided type fall arrester

GTFA

device with a self-locking function, a guide facility and a connection element for connection to the appropriate attachment point of a full body harness, which accompanies the user along the line without requiring manual adjustment and locks automatically on the flexible anchor line when a fall occurs

Note 1 to entry: See Figure 1 and Figure 2

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3.3

connection element

permanent or removable element permitting connection between the GTFA and the appropriate fall arrest attachment point on the full body harness conforming to EN 361

Note 1 to entry: The connection element can be or may include an energy dissipating element.

3.4

flexible anchor line

synthetic fibre rope or wire rope for use with the GTFA and fixed at its top termination to an anchor point

3.5

energy dissipating element

element or component of a fall arrest system which is designed to dissipate the kinetic energy developed during a fall from a height

3.6

manual locking feature

specific feature to prevent the GTFA from moving away from the anchor point under its own weight, in order to limit potential fall distance whilst the user is stationary

prEN 353-2:2021 (E)**3.7****length of connection element**

length L in metres from one load bearing point to the other load bearing point measured in an unloaded, but taut condition of the connection element

3.8**arrest distance** H_{AD}

vertical distance measured between the initial and final positions of the test mass in the dynamic performance and function tests

Note 1 to entry: Arrest distance is expressed in metres.

3.9**locking distance** H_{LD}

vertical distance measured between the initial and final positions of the guided type fall arrester in the function override test

Note 1 to entry: Locking distance is expressed in metres.

3.10**maximum rated load**

maximum mass of the person, including tools and equipment carried, as specified by the manufacturer

Note 1 to entry: Maximum rated load is expressed in kilograms.

3.11**minimum rated load**

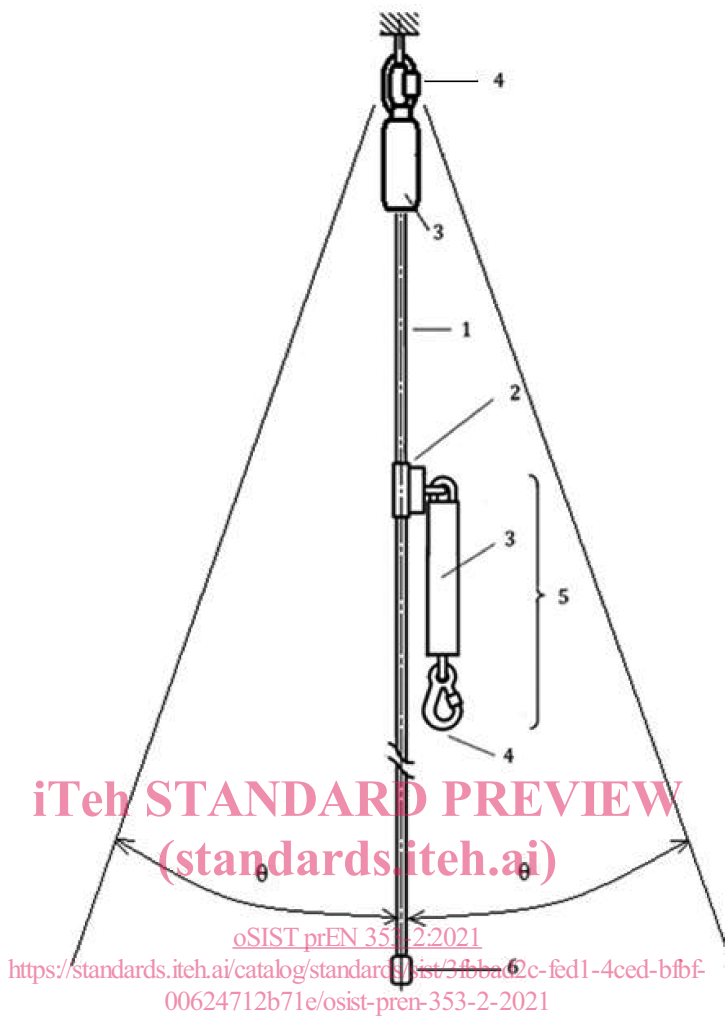
minimum mass of the person, excluding tools and equipment carried, as specified by the manufacturer

Note 1 to entry: Minimum rated load is expressed in kilograms.

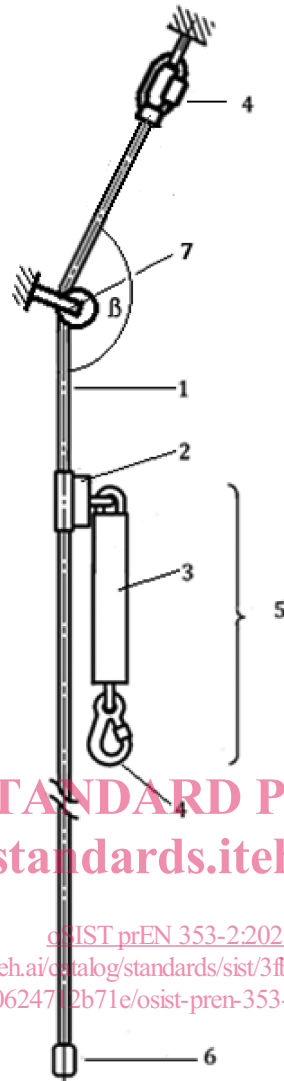
3.12**deviation device**

device (e.g. a pulley) that changes the direction of the flexible anchor line between the top termination of the flexible anchor line and the GTFA

Note 1 to entry: See Figure 1b.



a) Example of a GTFA and flexible anchor line in a vertical application



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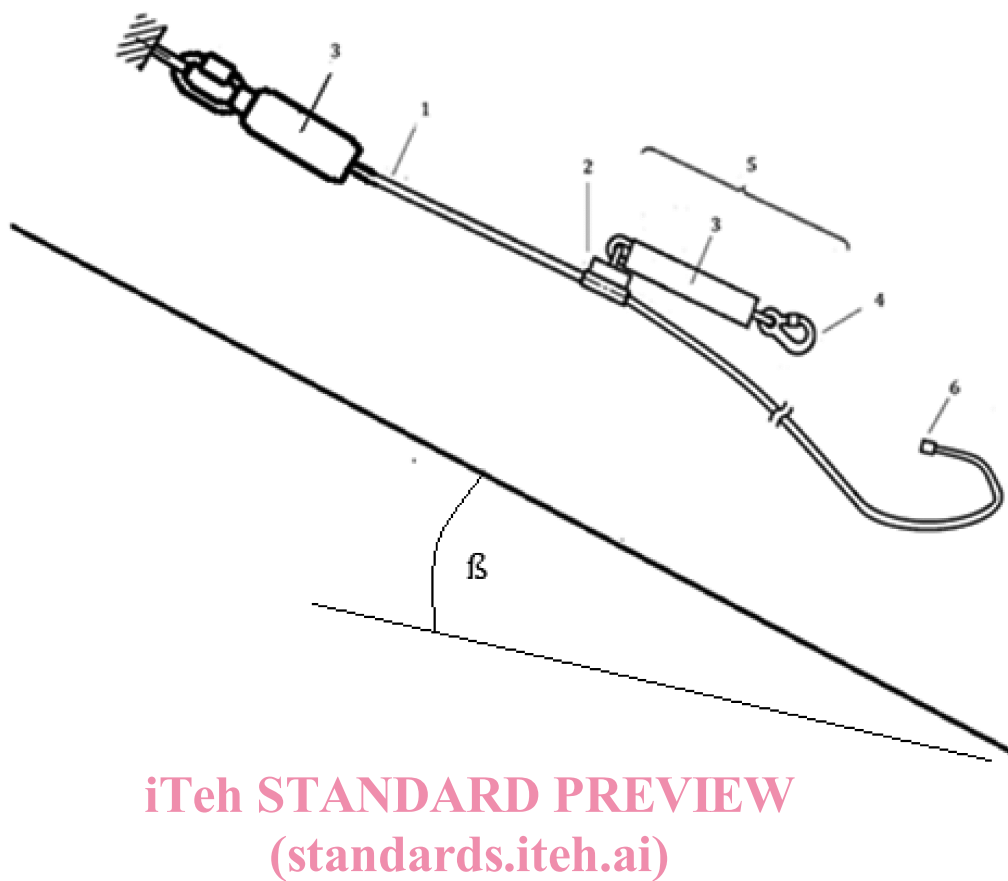
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b) Example of a GTFA and flexible anchor line including a deviation device

Key

- | | | | |
|---|--------------------------------------------|----------|-----------------------------------------|
| 1 | flexible anchor line | 6 | end stop |
| 2 | guided type fall arrester | 7 | deviation device |
| 3 | energy dissipating element (if applicable) | θ | angle from true vertical max 15° |
| 4 | connector | β | deviation angle of flexible anchor line |
| 5 | connection element | | |

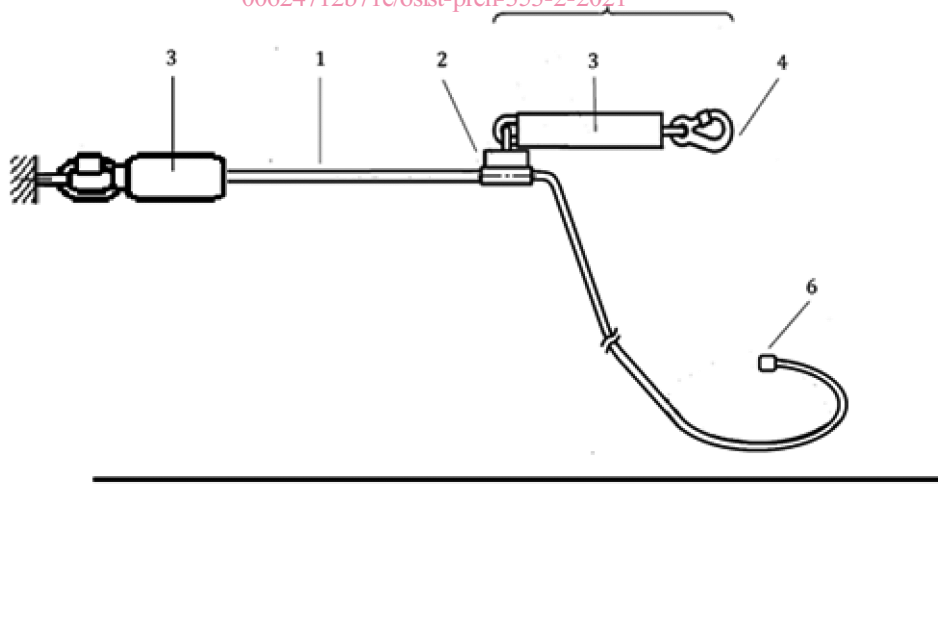
Figure 1 — Examples of a GTFA and flexible anchor line in a vertical application



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a) Example of a GTFA and flexible anchor line in an inclined application

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b) Example of a GTFA and flexible anchor line in a horizontal application