SLOVENSKI STANDARD
SIST EN 15312:2026

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Prosto dostopna večnamenska športna oprema - Varnostne zahteve in preskusne metode

Free access multi-sports equipment - Safety requirements and test methods

Frei zugängliche Multisportgeräte - Anforderungen, einschließlich Sicherheit und Prüfverfahren

Equipements sportifs en accès libre - Exigences, y compris de sécurité et méthodes d'essai

Ta slovenski standard je istoveten z: **EN 15312:2026**

ICS:

97.220.40	Oprema za športe na prostem in vodne športe	Outdoor and water sports equipment

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English Version

Free access multi-sports equipment - Safety requirements and test methods

Équipements sportifs en accès libre - Exigences de sécurité et méthodes d'essai

Frei zugängliche Multisportgeräte - Anforderungen einschließlich Sicherheit und Prüfverfahren

This European Standard was approved by CEN on 2 February 2026.

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

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European foreword

This document (EN 15312:2026) has been prepared by Technical Committee CEN/TC 136 “Sports, playground and other recreational facilities and 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of an identical text or by endorsement, at the latest by September 2026, and conflicting national standards shall be withdrawn at the latest by September 2026.

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.

This document supersedes EN 15312:2007+A1:2010.

EN 15312:2026 includes the following significant technical changes with respect to EN 15312:2007+A1:2010:

— Added new Introduction.

— Changed Scope to exclude equipment that have their specific product standards and not to mention user age.

— Changed title.

— Added some definitions e.g. for competent person and standing surface.

— Added references to risk assessment to various requirements throughout the document.

— Excluded entrapment testing from inaccessible structures.

— Updated examples of unexpected obstacles.

— Added requirements for mini-arenas.

— Added new basketball class F.

— Added minimum diameter for yarns of basketball nets.

— Added points to consider when deciding whether a ball stop screen is needed or not.

— Rewritten requirements for spectator platforms.

— Added area specific considerations.

— Edited requirements for table tennis tables.

— Harmonized entrapment test methods with EN 1176-1.

— Clarified spaces relating to equipment.

— Added informative annex about installation, inspection, maintenance and operation.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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, Türkiye and the United Kingdom.

Introduction

Benefits that can be derived from outdoor activities are widely recognized and include among others physical exercising, mental wellbeing, and opportunities to improve social connections. Engaging in these activities can involve a certain level of risk. However, benefits and risks need to be well balanced to avoid the existence of unacceptable, severe, disabling, or fatal injuries. Understanding user's own level of competence and recognize their personal limits is an important factor in managing and mitigating risks; other factors include design, construction, installation, operation, maintenance, and inspection.

To extract the most benefit from these areas users should be encouraged, wherever possible to join games in progress, meet fresh contacts and make new friends. Although systems for reserving the area are not excluded, they can inhibit some users from making new friends.

Facilities can be targeted to different age groups from children through to adults, which should be considered in risk assessment from design stage to the end of facility's life cycle. Within the encouraged age range groups, the facility can be designed to be accessible to all users, including those with disabilities.

Free access multi-sports equipment is a multi-faceted concept where several elements and sports activities are combined to one area. Specific safety requirements are given only for the most common elements and combinations.

Entrapments and other safety requirements are addressed in this document, but the focus should be on the risks arising from facility's sporting use. All games that involve movement of people or objects present some risk of injury. Therefore, a site-specific risk assessment may be required.

For the quality of reading and understanding this document, the following wording is used:

— shall = requirement;

— should = recommendation;

— may = permission;

— can = possibility.

1 Scope

This document is applicable to free access unsupervised multi-sports equipment and combinations intended for permanent installation, primarily used for training, recreational and educational use outdoors.

This document specifies requirements for free access unsupervised multi-sports equipment which can incorporate a multi-sports surround, ball stop screen and various equipment for sports such as badminton, basketball, football, futsal, handball, hockey, tennis, and volleyball.

This document specifies requirements, including safety, for the equipment itself as well as for its installation, operation, inspection, and maintenance. This document is applicable to multi-sports equipment intended for individual and collective public use primarily by children and teenagers.

This document is not applicable to equipment as defined in the following standards:

— Playground equipment and surfacing EN 1176 series,

— Skateparks EN 14974,

— Artificial climbing structures EN 12572 series,

— Basketball equipment EN 1270,

— Volleyball equipment EN 1271,

— Football goals EN 748,

— Handball goals EN 749,

— Hockey goals EN 750,

— Table tennis EN 14468-1 and EN 14468-2,

— Tennis equipment EN 1510,

— Badminton equipment EN 1509,

— Portable and permanent socketed goals EN 16579,

— Lightweight goals EN 16664,

— Parkour equipment EN 16899 and

— Permanently installed outdoor fitness equipment EN 16630.

This document does not deal with beach equipment, the ground surfaces, the local environment, and any feature outside the multi-sports equipment. This document does not include any specific requirements other than for access and egress for disabled users.

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 636, *Plywood — Specifications*

EN 1270, *Playing field equipment — Basketball equipment — Functional and safety requirements, test methods*

EN 1271, *Playing field equipment — Volleyball equipment — Functional and safety requirements, test methods*

EN 1991-1-3, *Eurocode 1: Actions on structures — Part 1-3: General actions — Snow loads*

EN 1991-1-4, *Eurocode 1: Actions on structures — Part 1-4: General actions — Wind actions*

EN 1991-1-5, *Eurocode 1: Actions on structures — Part 1-5: General actions — Thermal actions*

EN ISO 1806, *Fishing nets — Determination of mesh breaking force of netting (ISO 1806)*

EN ISO 2062, *Textiles — Yarns from packages — Determination of single-end breaking force and elongation at break using constant rate of extension (CRE) tester (ISO 2062)*

EN ISO 2307, *Fibre ropes — Determination of certain physical and mechanical properties (ISO 2307)*

ISO 8793, *Steel wire ropes — Ferrule secured eye terminations*

3 Terms and definitions

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

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

— ISO Online browsing platform: available at https://www.iso.org/obp/

— IEC Electropedia: available at https://www.electropedia.org/

3.1
free access unsupervised multi-sports equipment
multi-sports equipment
combination of equipment and/or enclosure with which it is possible to practice more than one sport and where the access to the facilities is neither regulated nor necessarily supervised

Note 1 to entry: Some are in combination with a multi-sports surround or ball stop screen.

3.2
goal
defined opening or area which forms the target for ball games, usually comprising two uprights and one crossbar

Note 1 to entry: The net is optional.

3.3
basketball equipment
equipment comprising the following components: one backboard and one ring; the supporting frame; stability devices

3.4
multi-sports surround
element surrounding the area where ball games are played and which is designed to limit the motion of the user and/or the area of play

Note 1 to entry: A multi-sports surround is e.g. a fence or a ball rebound wall; ball games are e.g. hockey, football.

3.5
ball stop screen
flexible or rigid fence or screen for restricting a ball from going in a specific direction

Note 1 to entry: It is important that the location of the area of play accounts for the risks of balls leaving it. If the area of play is located next to a road, a ball stop screen can minimize the risk of players having to recover the ball from the road. It is equally important that other activities (e.g. playground area, artificial climbing structure) are protected from ball impact.

3.6
mini-surround
equipment with a low surround where the intention is to keep the ball close to the ground

3.7
entrapment
hazard presented by the situation in which a body, or part of a body, or clothing can become trapped

Note 1 to entry: This document only considers certain types of entrapment where the user is not able to free themselves and injury is caused by the entrapment.

[SOURCE: EN 1176-1:2017+A1:2023, 3.18, modified – Note 1 to entry]

3.8
competent person
person, suitably trained, qualified by knowledge and practical experience to carry out the required task

Note 1 to entry: A competent person might be the operator, inspector, employee of the manufacturer or else.

3.9
standing surface
platform or ground where a user can stand securely without the need for hand support

3.10
V-shape
partially bound opening subject to neck entrapment test regardless to its real shape (V, U, square etc.)

4 General requirements

4.1 General

Equipment installed as a part of a free access multi-sports facility shall comply with the requirements of this document. For any equipment types not specifically covered here, requirements can be found in their equipment specific standards.

4.2 Materials

Materials shall be selected and protected such that the structural integrity of the equipment manufactured from them is not affected before the next relevant maintenance inspection. All materials shall be weather resistant.

NOTE 1 The provisions relating to certain materials in this document do not imply that other equivalent materials are unsuitable in the manufacture of multi-sports equipment.

The selection of materials and their use should be in accordance with the appropriate documents where applicable.

Particular care should be taken in the choice of materials where equipment is to be used in extreme climatic or atmospheric conditions.

In the choice of a material or substance for equipment, consideration should be given to the eventual disposal of the material or substance having regard to any possible environmental toxic hazard.

NOTE 2 Attention is drawn to the provisions of the REACH Regulation (EC) 1907/2006 and its successive modifications. Restricted materials listed in the document include, but are not limited to, asbestos, lead, formaldehyde, coal tar oils, carbolineums, polychlorinated biphenyls (PCBs) and polycyclic aromatic hydrocarbons (PAH compounds).

4.3 Structural integrity

Structural integrity of the equipment, including stability, shall be assessed by one or the combination of the following unless otherwise stated in Clause 5:

— calculation, carried out in accordance with Annex A and Annex B, or

— physical testing in accordance with Annex C.

When calculations are carried out in accordance with Annex B, no limit states shall be exceeded at combinations of loads as given in Clause B.2.

When tested in accordance with Annex C, the equipment shall not show any cracks, damage, or excessive permanent deformation.

For some equipment, these specific calculations or tests are not always appropriate, but the structural integrity shall be at least equivalent.

For a family of products, the structural integrity for the worst case of the intended combinations shall be proved.

Each structure shall resist both the permanent and variable loads acting on equipment and parts of equipment as described in Annex C.

NOTE 1 No allowance for accidental loads, i.e. loads produced by fire, collision by vehicles or earthquake, need to-be made for multi-sports equipment.

NOTE 2 The loads associated with fatigue are in general much smaller than the loads in combination with the appropriate load factors when calculated according to Clause B.2. Therefore, the equipment does not need to be verified for fatigue, in general.

Structural parts shall resist the worst-case loading condition.

NOTE 3 In order to achieve this, it can be necessary to remove that part of the user load causing favourable effects, as shown in Figure 1.

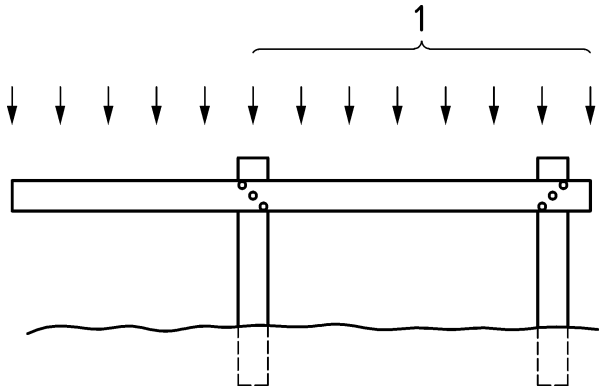
When multi-ball-sports equipment relies on one post for its stability, the construction should be carried out in order to:

— minimize rotting or corrosion in parts relevant for stability;

— allow for controlling degradation and the need for decommission;

— be used without collapse within the foreseen inspection period when maintained correctly.

NOTE Useful inspection information regarding one post equipment can be found in CEN/TR 17994.



Key

1 part of the load to be removed because of favourable effects

Figure 1 — Example of removal of that part of the user load which causes a favourable effect

4.4 Finish of equipment

Wooden equipment shall be made of wood with a low susceptibility to splintering. The surface finish of equipment made of other materials (e.g. glass fibre) shall be non-splintering.

Rough surfaces should not present any risk of injury.

There shall be no protruding nails, projecting wire, rope terminations or pointed or hard and sharp-edged parts within any accessible part of the equipment. Corners, edges and projecting parts within any accessible part of the equipment that project more than 8 mm, and which are not shielded by adjacent areas that are not more than 25 mm from the end of the projecting part, shall be rounded off. The minimum radius of the curve shall be 3 mm.

Protruding bolt threads within any accessible part of the equipment shall be permanently covered, e.g. dome-headed nuts. Nuts and bolt heads that project less than 8 mm shall be free from burrs. All welds shall be ground smooth.

NOTE Figure 2 shows examples of protection for nuts and bolts.

Dimensions in millimetres

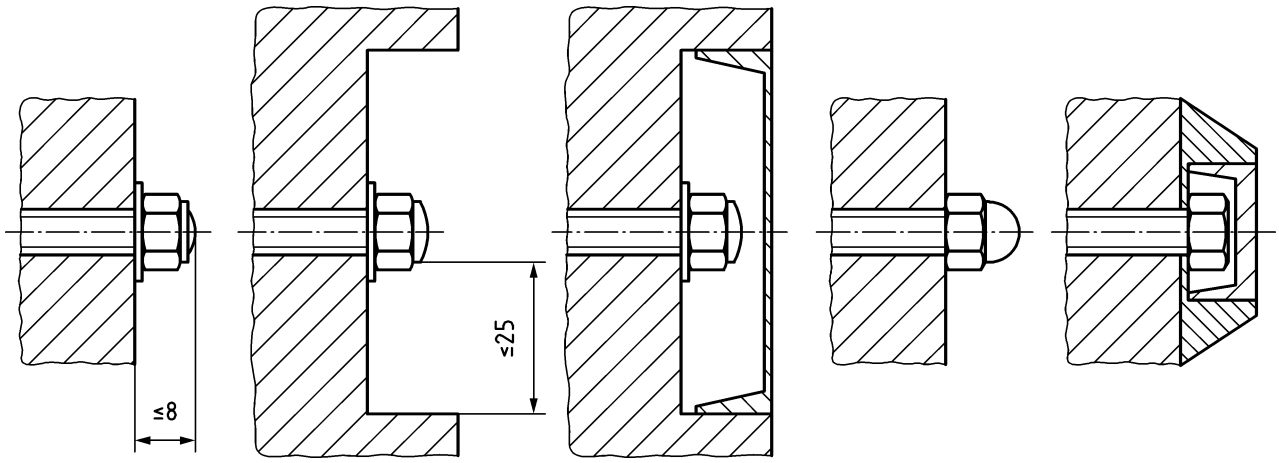


Figure 2 — Examples of protection for nuts and bolts

4.5 Entrapment

4.5.1 General

Entrapment requirements apply to all accessible structures that are considered parts of multi sports equipment including barriers and spectator platforms, and shall be in accordance with Annex D.

There can be inaccessible structures where the risk of entrapment is residual. For example, ball stop screens and top parts of basketball stands. These should be risk assessed case by case.

NOTE Inaccessible parts of structures are those which users do not encounter when using the equipment as intended or in the manner that is reasonably foreseeable.

4.5.2 Protection against entrapment

4.5.2.1 Entrapment of the head and neck

Equipment shall be constructed so that any openings do not create head and neck entrapment hazards either by head first or feet first passage.

a) Completely bound openings

Accessible completely bound openings with a lower edge more than 600 mm above a standing surface shall be tested in accordance with D.3.1.

Small probes C (torso) or E (small head) shall not pass through any opening unless it also allows the passage of probe D (large head).

b) Partially bound and V-shaped openings

Accessible partially bound and V-shaped openings with an entrance at 600 mm or more above the standing surface shall be constructed so that either:

— the opening is not accessible when tested in accordance with D.3.2, or

— if accessible at a position of 600 mm or more above the standing surface when tested in accordance with D.3.2,

depending on the angular orientation range of the opening (see Figure D.7 b), shall comply with the following:

— Range 1: (template centre line ±45° from vertical); the template apex contacts the base of the opening, and the depth of the opening is less than the length of the template to the underside of the shoulder section.

— Range 2: (template centre line from horizontal to +45°); when the template apex contacts the base of the opening, the depth of the opening shall be less than the 'A' portion of the template. If the depth of the opening is greater than the 'A' portion of the template all parts of the opening above the 'A' portion shall also allow insertion of the shoulder section of the template or probe D.

— Range 3: no template test requirements.

NOTE Partially bound and V-shaped openings can also be present within completely bound openings that allow insertion of the test probe D (large head).

4.5.2.2 Entrapment of finger

Openings and holes which have a lower edge more than 1 000 mm above a standing surface, when tested in accordance with D.2, shall conform to the following requirements:

— opening shall not allow insertion of the ⌀8 mm rod, or

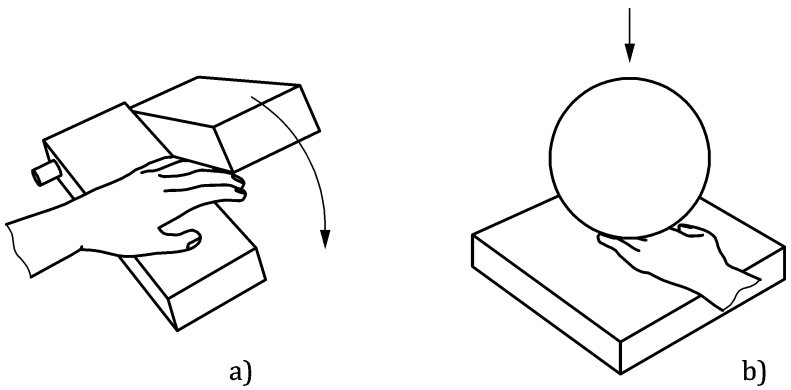
— opening shall allow insertion of the ⌀25 mm rod.

For openings with a bottom and between ⌀8 mm and ⌀25 mm in size, the ratio between the depth and the width shall be such, that ⌀8 mm rod, when inserted to the bottom, can be turned less than 45° from the surrounding surface (see D.2.2.).

The ends of tubes and pipes shall be closed off to prevent the risk of finger entrapment. The closures shall not be removable without using tools.

4.6 Moving parts

There shall be no crushing points or shearing points between moving and/or stationary parts of the equipment, see Figure 3.



Key

a shearing point

b crushing point

Figure 3 — Examples of shearing and crushing points