

SLOVENSKI STANDARD oSIST prEN 16630:2025

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| Trajno nameščena zunanja fitnes oprema - Varnostne zahteve in preskusne metode |
|--|
| Permanently installed outdoor fitness equipment - Safety requirements and test methods |

Standortgebundene Fitnessgeräte im Außenbereich - Sicherheitstechnische Anforderungen und Prüfverfahren

Modules d'entraînement physique de plein air - Exigences de sécurité et méthodes d'essai

Ta slovenski standard je istoveten z: prEN 16630

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<u>ICS:</u>

97.220.40 Oprema za športe na prostem in vodne športe

Outdoor and water sports equipment

oSIST prEN 16630:2025

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Permanently installed outdoor fitness equipment - Safety requirements and test methods

Modules d'entraînement physique de plein air -Exigences de sécurité et méthodes d'essai Standortgebundene Fitnessgeräte im Außenbereich -Sicherheitstechnische Anforderungen und Prüfverfahren

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European foreword

This document (prEN 16630:2025) 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 document is currently submitted to the CEN Enquiry.

This document will supersede EN 16630:2015.

prEN 16630:2025 includes the following significant technical changes with respect to EN 16630:2015:

- a) "Forced movement" was deleted in the text throughout the document;
- b) Clause 3: New terms were added;
- c) 4.3 "Design and manufacture": Changes were made to the requirements in 4.3, especially:
 - Figures 4, 5, 7, 8 were redrawn to be more clear
 - 4.3.5 "Moving parts" was rewritten (clearance, moving elements, end stops)
 - 4.3.6.2 "Entrapment of fingers" was clarified
 - New Clause 4.3.9 was added including requirement for platforms higher than 2000 mm
 - 4.3.14.4 "Chains" was modified to be consistent with requirements in EN 1176-1:2017+A1:2023
 - 4.3.15.2 and 4.3.15.5: Maximum allowed falling distance on an object was increased
 - 4.3.15.5, Table 4: Distinction was made to "hanging" and "climbing" use

https://---- 4.3.17 "Deadlift" was added; deadlift is conditionally allowed 15-bfa2768dc4f8/osist-pren-16630-2025

- d) Former Clauses 7, 8 and 9 were restructured;
- e) New Annex A was added giving guidance for operators.

Introduction

Outdoor fitness equipment is suitable for people who enjoy movement and want to actively engage themselves. The equipment is designed to promote physical activity across a wide range of abilities. Such activities can include cardiovascular, strength, toning, balance, coordination and flexibility exercises.

When drafting this document, the difficulties have been recognized to address safety issues by age criteria alone, because the ability to handle risks is based on the individual users' level of skill. Also, age groups other than the intended ones will almost certainly make use of the outdoor fitness equipment. Therefore, it was decided to recommend the use of the fitness equipment for youths and adults or users with an overall height greater than 1 400 mm and to specify safety requirements on this basis. This is necessary in order to produce a clear differentiation from playground equipment in accordance with the EN 1176 series. However, relevant requirements of this series have been taken into account wherever it was useful and possible.

The requirements in this document assume that all users of the fitness equipment are aware of the limits of their physical capacity and are able to use the equipment unassisted. Provided that the equipment is used as intended, i.e. in accordance with the exercise instructions attached to each individual piece of equipment, it is assumed that single or multiple body parts are moved and are not incorrectly strained.

As long as there is human interaction with moving equipment there is a residual risk that cannot be further mitigated in order to maintain the function. However, a slightly incorrect execution is considered not to cause severe health consequences for the user. In the case of improper use, bruises, sprains and occasional bone fractures caused (e.g. by falls) might have to be accepted.

In correspondence with the available opportunities, introductory courses can be offered at regular intervals, in which trained experts explain the individual pieces of equipment, their handling and their possible effects on the body and mind.

The design of outdoor fitness equipment is subject to constant development. Therefore, the design of particular types of equipment might not be specified in this document, however the general requirements of this document apply to all equipment.

Outdoor fitness equipment can contribute to social sustainability for healthier cities and communities according to Goal 11 "Sustainable cities and communities" and Goal 3 "Good health and wellbeing" in order to achieve Sustainable Development Goals, Agenda 2030. The principle of this work is recognized and supported as outdoor fitness areas are places where people meet and connect together for a stronger community.

1 Scope

This document specifies general safety requirements for the manufacture, installation, inspection and maintenance of permanently installed, freely accessible outdoor fitness equipment. This document does not cover electrically driven equipment, functional training facilities (typically with unrestrained weights) nor military style obstacle courses with restricted access.

The equipment is intended for youths and adults or users having an overall height greater than 1 400 mm to promote fitness by using the equipment to exercise. Equipment covered by this document is not playground equipment for children (EN 1176 series [1]), indoor stationary training equipment (EN ISO 20957 series [2], EN 957-6) or free access multi-sports equipment (EN 15312 [3]) even if it meets the requirements of each of these standards.

NOTE In this document "permanently installed outdoor fitness equipment" is simply called "fitness equipment".

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 335:2013, Durability of wood and wood-based products. Use classes: definitions, application to solid wood and wood-based products

EN 350:2016, Durability of wood and wood-based products. Testing and classification of the durability to biological agents of wood and wood-based materials

EN 351-1:2023, Durability of wood and wood-based products — Preservative-treated solid wood — Part 1: Classification of preservative penetration and retention

EN 636:2012+A1:2015, Plywood — Specifications

EN 818-2:1996+A1:2008, Short link chain for lifting purposes. Safety. Part 2: Medium tolerance chain for chain slings. Grade 8

EN 818-3:1999+A1:2008, Short link chain for lifting purposes. Safety. Part 3: Medium tolerance chain for chain slings. Grade 4

EN 1176-1:2017+A1:2023, Playground equipment and surfacing — Part 1: General safety requirements and test methods

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:

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

3.1

fitness equipment

permanently installed, freely accessible equipment upon or with which the intended users, unsupervised and without outside help, can operate with the aim of maintaining or improving their physical and mental abilities

Note 1 to entry: Some examples of this type of equipment can be referred to as outdoor gym equipment, street workout, calisthenics equipment or fitness trails.

3.2

user station

location of a piece of fitness equipment which the user can occupy while standing, sitting, lying or hanging

Note 1 to entry: See Figure 1.

3.3

movement space

space around the fitness equipment necessary for safe use

Note 1 to entry: See Figure 1.

3.4

area of movement

training space

base area of movement space

Note 1 to entry: See Figure 1.

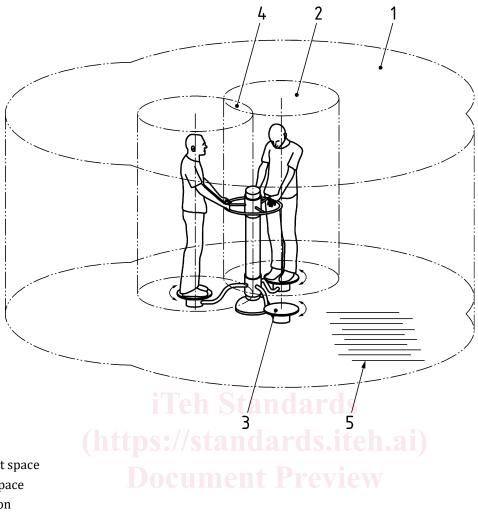
3.5

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space in, above or around the fitness equipment which the users of the equipment need to perform their exercises

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https://s Note 1 to entry: See Figure 1.ndards/sist/773d1708-7e6c-4ab5-8215-bfa2768dc4f8/osist-pren-16630-2025



Key

- 1 movement space
- 2 training space
- 3 user station
- 4 overlapping training space (4.3.15.2) oSIST prEN 16630:2025

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Figure 1 — Spaces and area

3.6

damping

combined effect of the supporting component(s) that moderates the speed at which the equipment can move and the reduction of shock effects at the outer positions of the equipment

[SOURCE: EN 1176-6:2017+AC:2019, 3.11]

3.7

free height of fall

greatest vertical distance between the user station and the horizontal surface lying directly underneath

3.8

grasp

holding of the hand round part of the circumference of a support

Note 1 to entry: See Figure 2.

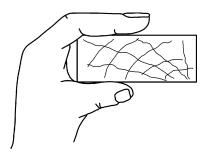


Figure 2 — Grasp

[SOURCE: EN 1176-1:2017+A1:2023, 3.17]

3.9

grip holding of the hand round the entire circumference of a support

Note 1 to entry: See Figure 3.

[SOURCE: EN 1176-1:2017+A1:2023, 3.16]

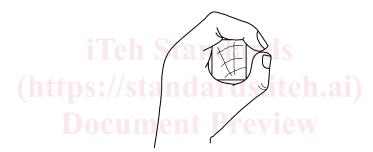


Figure 3 — Grip

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3.10

body support

surface of the user station where the user stands, sits, lies or hangs

3.11

tread surface

area accommodating one foot or both feet and moved by or with the user

3.12

constrained posture

physiologically unfavourable posture from which the users cannot free themselves without either outside help or without extreme difficultly or painful discomfort

Note 1 to entry: Examples are the squat (joints involved: ankle joint, knee joint, hip joint) and the push-up (joints involved: wrist joint, elbow joint, shoulder joint).

Note 2 to entry: Most movements in everyday life and sports are multi-joint and require the use of the entire body. In strength training on equipment, there are only a limited number of multi-joint exercises (leg press, chest press, lat pulldown, rowing, shoulder press). Most equipment are single-joint (e.g. leg extension, abduction equipment, biceps curl).

3.13

competent person

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

Note 1 to entry: Levels of knowledge to be competent for different tasks are given in e.g. CEN/TR 17207:2018 [4], 5.1, accredited person certification schemes and national specifications.

Note 2 to entry: A competent person might be the operator, inspector, employee of the manufacturer or else.

3.14

barrier

device discouraging climbing and intended to prevent the user from falling and from passing beneath

3.15

platform

raised surface large enough for one or more users to walk without the need of hand support

4 Safety requirements

4.1 General

Typically, fitness equipment is not intended for installation in the immediate vicinity of children's playgrounds in accordance with the EN 1176 series. If installed in connection with playground equipment, on playgrounds or similar installations, they should be separated from general playing activities by an appropriate distance, fencing or other structural measures.

NOTE More information about positioning and separation of areas can be found in CEN/TR 16879 [5].

4.2 Materials

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4.2.1 General

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Materials shall be selected and treated in such a way that the stability of the equipment manufactured from them is not affected before the next operational inspection and routine maintenance.

Materials should be manufactured in a professional manner.

NOTE The conditions relating to certain materials in this document do not imply that other equivalent materials are unsuitable in the manufacture of fitness equipment.

The selection of materials and their use shall be in accordance with the appropriate European Standards.

Special attention shall be given to surface coatings to avoid the risk of toxicity.

In the choice of a material or substance for fitness equipment, consideration shall be given to the eventual disposal of the material or substance in regard to any possible environmental toxic risks.

4.2.2 Flammability

To prevent fire and similar dangers, materials known to produce surface flash shall not be used.

4.2.3 Electricity

Electric parts are covered by IEC standards, national legislation and CE marking. When these are followed, the equipment can be tested as if not having electric components.

NOTE Electric parts are parts which are not driving the equipment.