



SLOVENSKI STANDARD

SIST EN 17232:2020

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Vodna igralna oprema - Varnostne zahteve, preskusne metode in zahteve za obratovanje

Water play equipment and features - Safety requirements, test methods and operational requirements

Wasserspielgeräte und □merkmale - Sicherheitstechnische Anforderungen, Prüfverfahren und betriebliche Anforderungen

Équipements et éléments de jeux aquatiques - Exigences de sécurité, méthodes d'essai et exigences de fonctionnement

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ICS:

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EUROPEAN STANDARD

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Water play equipment and features - Safety requirements, test methods and operational requirements

Équipements et éléments de jeux aquatiques -
Exigences de sécurité, méthodes d'essai et exigences de
fonctionnement

Wasserspielgeräte und -merkmale -
Sicherheitstechnische Anforderungen, Prüfverfahren
und betriebliche Anforderungen

This European Standard was approved by CEN on 5 January 2020.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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EN 17232:2020 (E)**European foreword**

This document (EN 17232:2020) 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 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2020, and conflicting national standards shall be withdrawn at the latest by September 2020.

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.

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, Turkey and the United Kingdom.

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Introduction

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

- shall = requirement;
- should = recommendation;
- may = permission;
- can = possibility.

It is not the purpose of the requirements of this document to lessen the contribution that water play equipment/feature makes to the child's development and/or play, which is meaningful from an educational point of view.

Risk-taking is an essential feature of play provision and of all environments in which children legitimately spend time playing. Play provision aims to offer children the chance to encounter acceptable risks as part of a stimulating, challenging and controlled learning environment. Play provision should aim at managing the balance between the need to offer risk and the need to keep children safe from serious harm.

The principles of safety management are applicable both to workplaces in general as well as to play provision. However, the balance between safety and benefits is likely to be different in the two environments. In play provision, exposure to some degree of risk could be of benefit because it satisfies a basic human need and gives children the chance to learn about risk and consequences in a controlled environment.

The purpose of this document is to ensure a proper level of safety when playing in, on or around water play equipment/feature(s), and at the same time to promote activities and features known to benefit children because they provide valuable experiences that will enable them to cope with situations outside the water play equipment/feature(s).

Respecting the characteristics of children's play and the way children benefit from playing in a water environment with regard to development, children need to learn to cope with risk and this can lead to bumps and bruises and even occasionally a broken limb. The aim of this document is first and foremost to prevent accidents with a disabling or fatal consequence, and secondly to lessen serious consequences caused by the occasional mishap that inevitably will occur in children's pursuit of expanding their level of competence, be it socially, intellectually or physically.

Without striving for completeness, among others the following features could be considered when designing, installing and using water play equipment/feature:

- a) Water (and air) emitting - as described in EN 13451-3;
- b) Without water (or air) emitting - e.g. a playground feature installed in water play installation;
- c) Solo features - e.g. one step stone;
- d) Groups of features - e.g. a group of step stones;
- e) Normally dry features but with wetted surface by e.g. water cannons, sprays etc.;
- f) Climbable features (intended to be climbed);
- g) Non-climbable features (and not intended to be climbed) - e.g. an elevated spray park structure;
- h) Additional features not intended to be climbed but with the possibility - e.g. artificial rocks, supporting constructions;
- i) Raised and (often) combined features (spray park) with waterslides connected - e.g. a raised spray ground structure;
- j) Raised and (often) combined features (spray park) without waterslides connected - e.g. a raised spray park structure.

EN 17232:2020 (E)**1 Scope**

This document specifies safety requirements, test methods and operational requirements for installed water play equipment, features and structures:

- intended for playing, and
- in areas intended for water activities for public use (non-domestic), typically in swimming pool facilities, and
- where water is an integral part in the use of the play equipment/feature/structures.

This document also applies for spray parks.

This document does not apply to:

- a) floating leisure articles according to EN ISO 25649 series;
- b) artificial climbing walls according to EN 12572 series;
- c) toys according to EN 71 series;
- d) water slides according to EN 1069 series;
- e) climbing/bouldering walls used in the swimming pool surround according to EN 17164;
- f) water equipment/features (e.g. ornamental fountains) not intended for playing;
- g) water play equipment/features installed in swimming pools for domestic use;
- h) playground equipment according to EN 1176 series.

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 1069 (all parts), *Water slides*

EN 1176 (all parts), *Playground equipment and surfacing*

EN 1177, *Impact attenuating playground surfacing — Methods of test for determination of impact attenuation*

EN 13451 (all parts), *Swimming pool equipment*

EN 15288-1, *Swimming pools for public use — Part 1: Safety requirements for design*

EN 15288-2, *Swimming pools for public use — Part 2: Safety requirements for operation*

EN ISO 3834 (all parts), *Quality requirements for fusion welding of metallic materials (ISO 3834 (all parts))*

EN ISO 14732:2013, *Welding personnel — Qualification testing of welding operators and weld setters for mechanized and automatic welding of metallic materials (ISO 14732:2013)*

EN ISO 15607, *Specification and qualification of welding procedures for metallic materials — General rules (ISO 15607)*

HD 60364-7-702, *Low-voltage electrical installations — Part 7-702: Requirements for special installations or locations — Swimming pools and fountains (IEC 60364-7-702)*

ISO 3864-1, *Graphical symbols — Safety colours and safety signs — Part 1: Design principles for safety signs and safety markings*

ISO 3864-3, *Graphical symbols — Safety colours and safety signs — Part 3: Design principles for graphical symbols for use in safety signs*

ISO 7001, *Graphical symbols — Public information symbols*

ISO 7010, *Graphical symbols — Safety colours and safety signs — Registered safety signs*

ISO 20712-3, *Water safety signs and beach safety flags — Part 3: Guidance for use*

ISO 22727, *Graphical symbols — Creation and design of public information symbols — Requirements*

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3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 15288-1 and the following 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 <https://www.iso.org/obp>

3.1
water play equipment/feature
 equipment/feature including components and constructional elements that incorporate water as an element intended for playing

3.2
spray park
 specific barefoot recreational area installed with water play equipment/features without water retention accessible to the users

3.3
swimming pool equipment
 components installed in and around a basin, designated:

- to operate the basin and its functionally adjoining areas;
- to use it and its functionally adjoining areas

Note 1 to entry: These components can be part of the swimming pool technology (e.g. water inlets or outlets), to assist the users (e.g. ladders), for competitive and training use (e.g. starting platforms), for leisure (e.g. fountains).

[SOURCE: EN 13451-1:2011+A1:2016, 3.1]

3.4
falling space
 space in, on or around the equipment that can be passed through by a user falling from an elevated part of the water play equipment/feature

[SOURCE: EN 1176-1:2017, 3.8, modified - Specified for water play equipment/features]

3.5
elevated playing surface
 accessible area on a water play equipment/feature where the play occurs and where the user can fall or jump off

Note 1 to entry: This can e.g. be a platform, a slope, a ladder, a ramp or steps.

3.6
playing surface
 <water play equipment/features> surface within the falling space, including the water play equipment/feature, where the play occurs and which comprises at least the impact area

3.7**minimum space**

smallest space required for the safe use of the water play equipment/feature

[SOURCE: EN 13451-1:2011+A1:2016, 3.10, modified - "Installation" deleted and adapted to water play equipment/feature.]

3.8**impact area**

area that can be hit by a user after falling through the falling space

Note 1 to entry: The water surface is not considered as an impact area.

[SOURCE: EN 1176-1:2017, modified - Note 1 to entry added]

3.9**fall height to water surface****FHW**

maximum vertical distance from the elevated play surface to the underlying water surface

3.10**total fall height****TFH**

maximum vertical distance from elevated play surface to the impact area below

3.11**diving**

active movement from outside the water into the water with head and arms forward

3.12**jumping**

active movement from outside the water into the water with feet forward

3.13**handrail**

rail intended to assist the user to balance

[SOURCE: EN 1176-1:2017, 3.21]

3.14**barrier**

means of segregation to prevent movement or access

[SOURCE: EN 13451-1:2011+A1:2016, 3.14]

3.15**safety barrier**

barrier designed to prevent users from falling over, through or beneath

[SOURCE: EN 13451-1:2011+A1:2016, 3.15]

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EN 17232:2020 (E)**3.16****protrusion**

object, or a portion of an object, that stands or protrudes in/into the falling space

[SOURCE: EN 13451-1:2011+A1:2016, 3.12, modified - Specified to “falling space”.]

3.17**edge**

line being formed by two surfaces of something solid which meet one another

[SOURCE: EN 13451-1:2011+A1:2016, 3.8]

3.18**corner**

point being formed by two or more edges which meet one another

[SOURCE: EN 13451-1:2011+A1:2016, 3.9]

3.19**shearing point**

place where part of the equipment can move past a fixed or other moving part, or past a fixed area so that persons, or parts of their body, can be cut

[SOURCE: EN 1176-1:2017, 3.11]

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3.20**entrapment**

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

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Note 1 to entry: Entrapment hazards can arise from situations where the body, its parts, etc. get trapped, but also from situations where the body of the user has no complete freedom to emerge from the water, e.g. when swimming underneath a stepladder.

[SOURCE: EN 13451-1:2011+A1:2016, 3.7]

3.21**free area**

unobstructed area in front of an entrance to the swim-under area for facilitating rescue activities

3.22**forced movement**

movement of the user caused by the equipment (e.g. swinging, sliding, carousel rotation etc.) which, once started, cannot be totally controlled by the user

Note 1 to entry: Rationale — falls are not considered forced movement as they are not imposed on the user by the equipment but occur for other reasons.

[SOURCE: EN 1176-1:2017, 3.34 - modified by deleting Note 2 to entry]