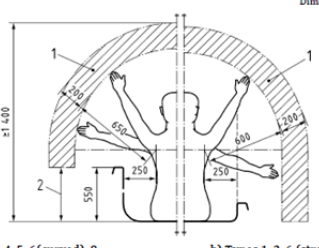


Clause	Test Method & Test Requirement	Rating
8	Additional safety requirements for Types 1 to 10	
8.3	<p>Clearance zones</p> <p>Clearance zones are related: — to the axis of the body of the user and not the axis of the slide proper; — to the foreseeable positions of the user on the slide proper and the final part, referring to the dimensions and points of origin given in Figure 16.</p> <p>Technically unavoidable components (e.g. parts of existing buildings) are accepted in the extended clearance zone, provided they are protected by a suitable guard. Integral or applied, smooth and free of irregularities, with edges rounded to a radius ≥ 100 mm (see Figure 8 entrance of a tube).</p> <p>Designated clearance zones for a particular slide shall be indicated by the manufacturer in the slide manual.</p>  <p>Figure 16 — Clearance dimensions</p> <p>Wherever a ride enhancement device is foreseen the vertical dimensions of Figure 16 shall be increased by the height of the device. For slides of Type 1.1 depending on the design of the pool, on one side of the slide the clearance zone may be 0 mm without any gap along the complete slide, if the slide is positioned directly beside a wall and the side of the slide proper is protected by a side with a height ≥ 600 mm.</p>	Pass

5. Refer to EN 17232:2020 Water play equipment and features – Safety requirements, test methods and operational requirements (only test clause 4.4, 4.5, 4.8 & 4.16)

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;



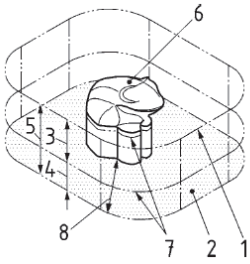
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- c) toys according to EN 71 series;
- d) water slides according to EN 1069 series;
- e) climbing/bouldering walls used in the swimming pool surround according to EN 17164;
- f) water equipment/features (e.g. ornamental fountains) not intended for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

Sample size/weight:	Weight: 205kg (Claimed by Client) 3-14 YEARS	Total number of users:	2-3
Age range:		Number of tested samples:	1

Clause	Test Method & Test Requirement	Rating
4	Safety requirements	
4.4	Spaces	
4.4.1	<p>General Falling spaces and impact areas shall be implemented in accordance with EN 1176 (all parts) unless otherwise stated in this document. The manufacturer/supplier shall state the dimensions of the minimum space, the minimum zone for use and the falling space of the equipment (see Figure 1).</p>  <p>Key 1 falling space 2 impact area 3 fall height to water surface (FHW) 4 water depth (WD) 5 total fall height (TFH, see 4.4.2) 6 water play equipment/feature 7 water level 8 extent of the impact area (X, see 4.4.2.2)</p>	Pass
4.4.2	<p>Impact area</p> <p>4.4.2.1 General The impact area includes surfaces of the water play equipment/feature and the surfaces below the water play equipment/feature if they can be hit by the user. If a play equipment/feature has more than one elevated playing surface, the impact area is defined from the edge of every single elevated playing surface into the direction(s) of possible falling. The impact area of water play equipment/features where jumping off/diving is possible shall not overlap with other impact areas. The impact area shall be free from protrusions.</p> <p>4.4.2.2 Dimension of impact area The extent of the impact area is calculated as the distance from any point on an elevated surface where the user can fall from to the furthest point(s) which the user can reach into the direction(s) of possible falling.</p>	Pass (excluding 4.4.2.3.2 Water depth)



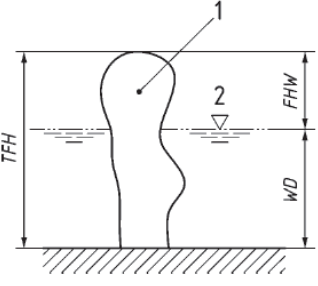
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Clause	Test Method & Test Requirement	Rating
	<p>The extent, X , of the impact area depends on the total fall height ((T F H)) and shall be calculated as follows: TFH≤600mmthenXtobedefinedbymanufacturer (1) 600mm<TFH≤1500mmthenX=1500mm; (2) If TFH>1500mmthenX=3/2TFH+500mm (3) where X is the extent of the impact area (see Figure 1 and Figure 2); TFH is the total fall height.</p> <p>Key X extent of the impact area TFH total fall height</p> <p>a X to be defined by the manufacturer/supplier</p> <p>Figure 2 — Extent of the impact area</p> <p>4.4.2.3 Impact attenuation 4.4.2.3.1 General For water play equipment/features, with a total fall height (TFH) ≤ 600 mm or not climbable according to 4.3, there is no impact attenuation requirement (water depth or impact attenuating surfacing). For a total fall height ((T F H) > 600 ~mm) > 600 mm, the impact attenuation requirements shall be fulfilled either by water depth (see 4.4.2.3.2) or by specific impact attenuating surfacing (see 4.4.2.3.3). 4.4.2.3.2 Water depth 4.4.2.3.2.1 Water play equipment/feature for diving If the water play equipment/feature is designed for or encourages diving into the water (e.g. cableway, swing, or swing rope), the pool water depths and the safety-relevant dimensions shall be designed in accordance with EN 13451-10. 4.4.2.3.2.2 Water play equipment/feature with a total fall height ((T F H) > 600 ~mm) not for diving For water play equipment/features with a total fall height ((T F H) > 600 ~mm) not for diving, the minimum water depth shall be as follows (see Figure 3): - if 0 mm < FHW < 900 mm ,then WD ≥ 1,5 × FHW NOTE 1 For a FHW ≤ 240 mm ,the TFH will always result in ≤ 600 mm - if 900 mm ≤ FHW ≤ 3000 mm ,then WD ≥ 0,65 × FHW + 1350 mm ; - if FHW > 3000 mm than WD ≥ 3500 mm NOTE 2 Water play equipment/features are usually installed in children's pools with a water depth < 800 mm. depth < 800 mm</p>	



Clause	Test Method & Test Requirement	Rating
	 <p>Key</p> <p>1 water play equipment/feature 2 water level WD water depth FHW fall height to water surface TFH total fall height</p> <p>Figure 3 — Fall height to the water surface</p> <p>4.4.2.3.3 Impact attenuation surfacing requirements For water play equipment/features with a total fall height (TFH) > 600 mm and if the requirements for the impact area cannot be fulfilled by the water depth (see 4.4.2.3.2), the impact attenuating surfacing shall comply with the following requirements:</p> <ul style="list-style-type: none"> • impact attenuation according to EN 117Z, with a head injury criterion (HIC) value < 1000 ; • slip resistance according to EN 13451-1; • for spray parks only, a drainage system shall be designed not to retain water and to accommodate the total water capacity of the facility, avoiding ponding; • the material shall be easy to clean and shall not affect the quality of the water used for the water play equipment/feature; • the material and the surface shall be designed to not support the growth of microorganisms. 	
4.4.3	<p>Falling space The falling space is defined horizontally by the impact area(s) and vertically by the total fall height(s) (TFH). The falling space shall be free of obstacles (e.g. swimming pool wall). The water play equipment/feature itself is not considered as an obstacle.</p>	Pass
4.5	<p>Handrails, barriers, safety barriers The requirements of EN 13451-1:2011+A1:2016, 4.3, apply, where requirements for grip, grasp and finger hold are defined.</p>	Pass
4.8	<p>Edges and corners The requirements of EN 13451-1:2011+A1:2016, 4.6, apply.</p>	Pass
4.16	<p>Forced movement The water play equipment/feature providing forced movement to the user shall also be in accordance with EN 1176-2, EN 1176-4, EN 1176-5 and EN 1176-6.</p>	Pass



Sample Reference Photos

	
<p>Received Sample</p>	<p>view side</p>
	<p>/</p>
<p>/view side</p>	<p>/</p>

SGS authenticate the photo on original report only

Remark:

- As requested by client, specific tests was not conducted according to EN 1176-1:2017+A1:2023, EN 1176-3:2017, EN 1176-10:2023, details see report content.
- The test in accordance with EN 1069-1-2017+A1-2019, EN 17232:2020 was requested by the client.

Result/Rating/Record Key(s)

- Result/Rating Keys: P = Pass = Meet; F = Fail = Not Meet; NA = Not applicable = Not suitable; NR = NC = Test not conduct/requested per client request; C = Claimed; R = Recorded; D = Data only

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5. Test location:
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*** End of Report ***



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