

Training presentation

Amendment 2008 EN 1176 and EN 1177

Version 1.0

2 new parts:

- **1176-10** - Fully enclosed play equipment
- **1176-11** - Spatial network

Surface requirements only in 1176; in 1177 - only test methods.

Removal of playground users age criteria division.

Part 7 includes requirement of post-installation inspection.

There is no age criteria division.

Definition 3.24: easily accessible:

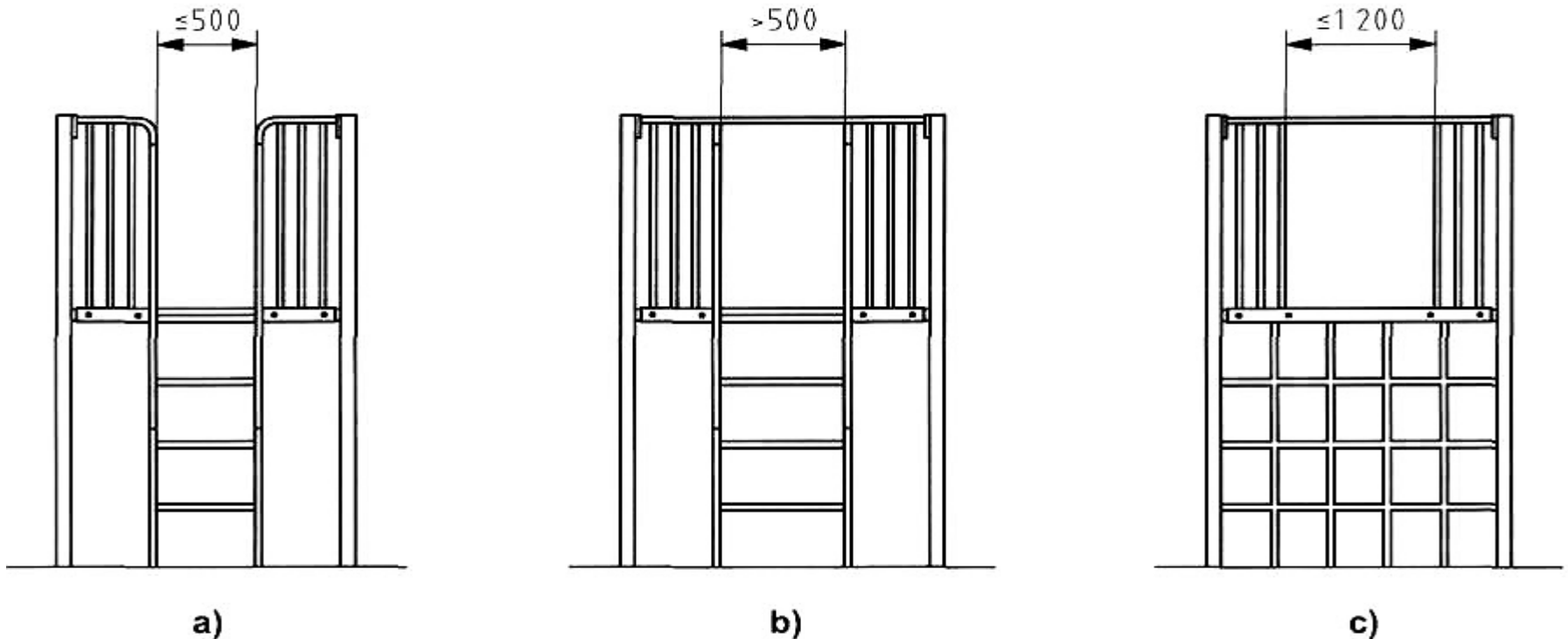
requiring only basic skills to access the equipment, allowing users to move freely and quickly onto/within the equipment

Equipment is easily accessible if:

- the lowest rung or step of the ladder is lower than 400 mm from the ground
- platform surface is lower than 600 mm from the ground.

Stairs and ramps are easily accessible.

The width of entrance and exit openings in barriers shall have a clear opening of 500 mm maximum, unless a guardrail is provided across the opening. For stairs, ramps, bridges, etc., that have additional barriers as part of their structure, the width of the exit opening in the barrier shall be no greater than the width of these elements.



Definition 3.28: steep play element:

access/egress play element of a gradient greater than 45 degrees from the horizontal; e.g. ladder.

When **easily accessible** – opening in the barrier shall be 500 mm maximum and the free height of fall of the platform shall be 2 m maximum.

When **other** - openings in the barrier provided with a guardrail shall not be greater than 1,2 m.

EN 1176-1

GLASS-REINFORCED PLASTICS

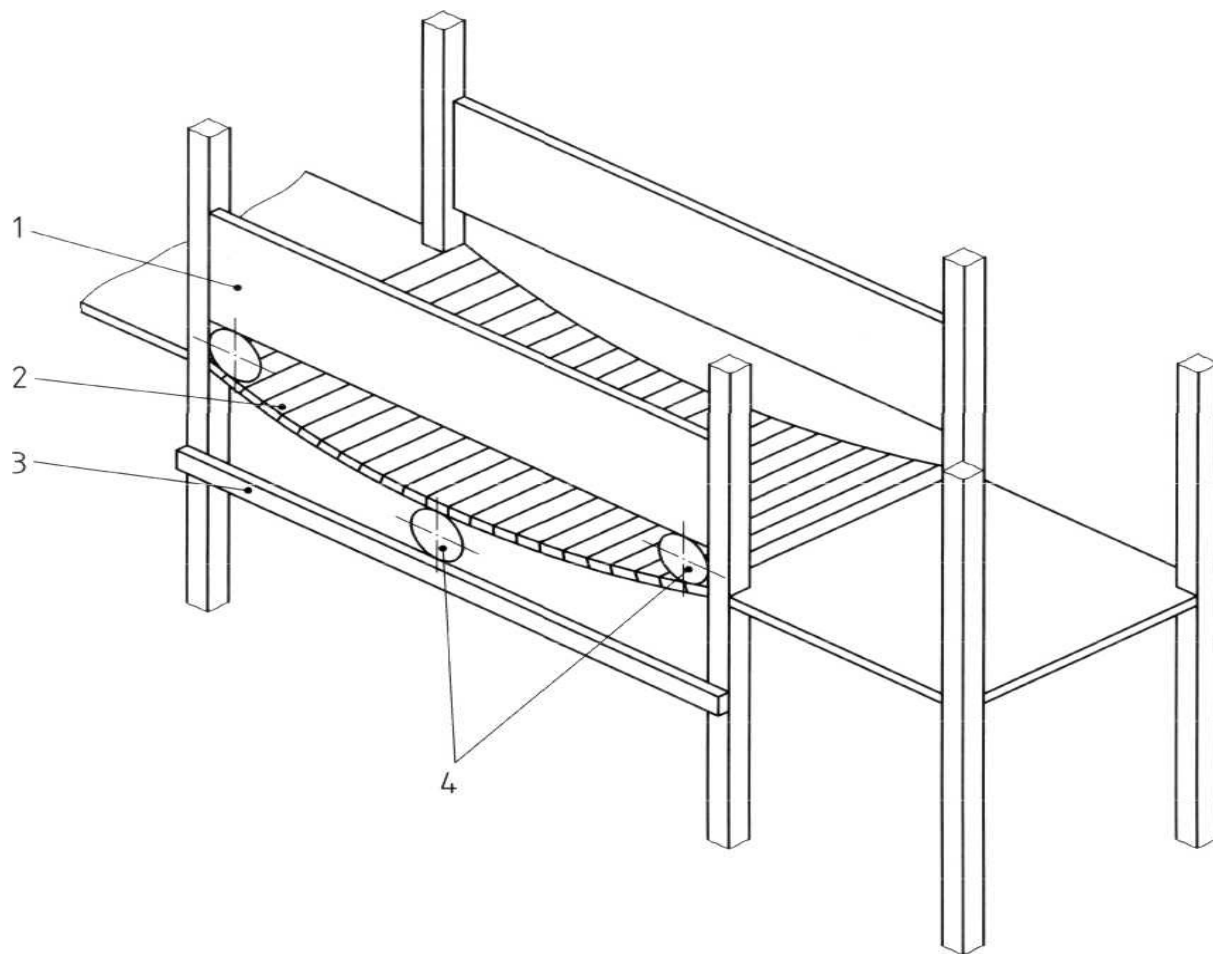
It should be possible for the operator of the playground to visually identify excessive wear of the gelcoat of **GRP (glass-reinforced plastics)** products intended for sliding before the user becomes exposed to the glass fibres.

NOTE: This can be achieved for example by the use of different coloured layers in the sliding surface.

Complicated test methods were required before.

Possibility of entrapment type **0** in suspended bridges.

The big probe should fit everywhere.



Testing of the openings type **V**:



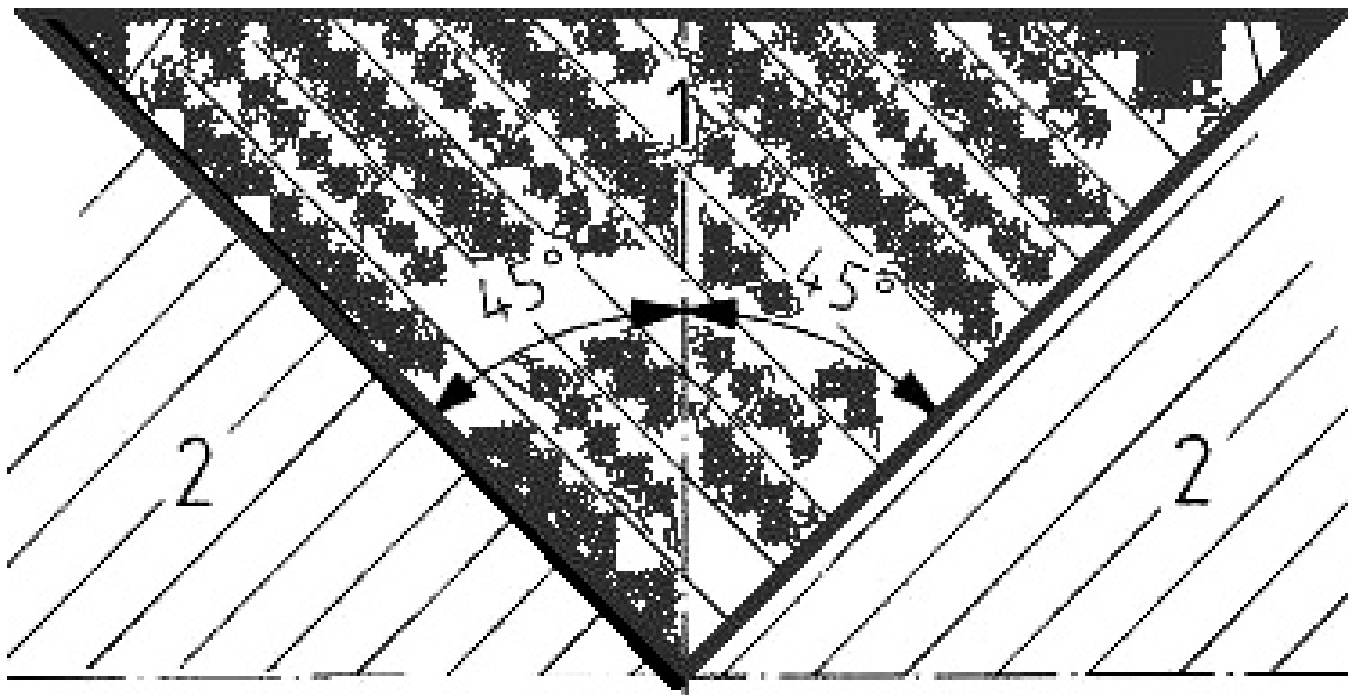
1.

2.

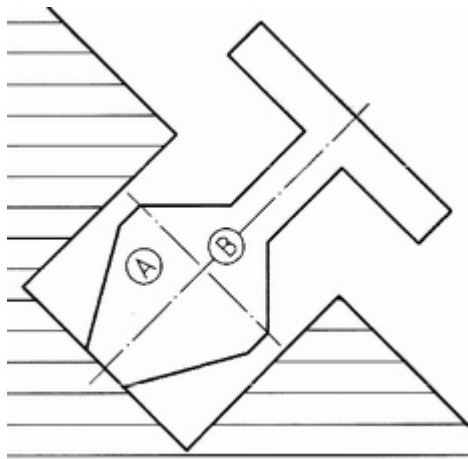


STEP 1. HORIZONTAL: „neck” cannot fit for the whole depth (45 mm), unless **STEP 2. is successful.**

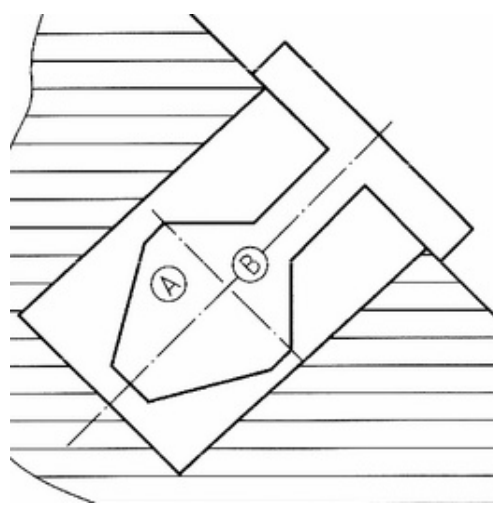
Negative result of STEP 1 obliges **different tests**
for two cases.



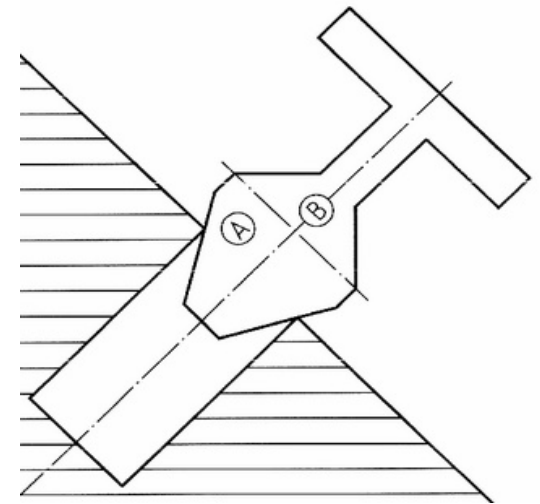
STEP 2. Case 1: to 45° from the vertical axis of the opening.



a) PASS

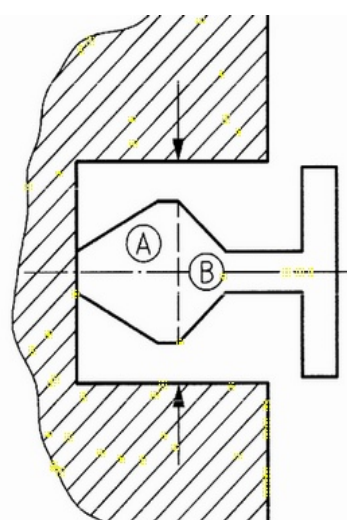


b) FAIL

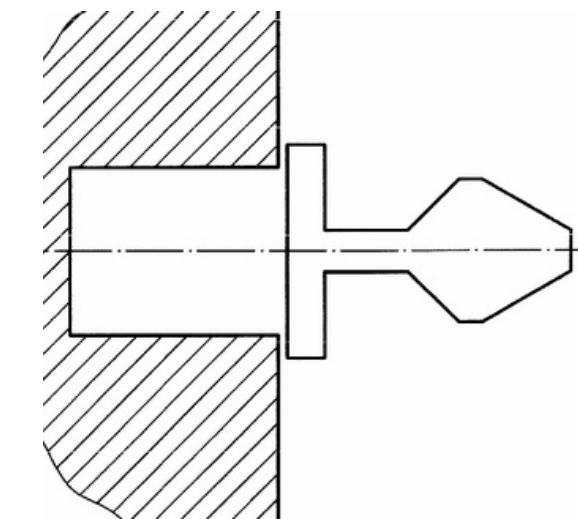
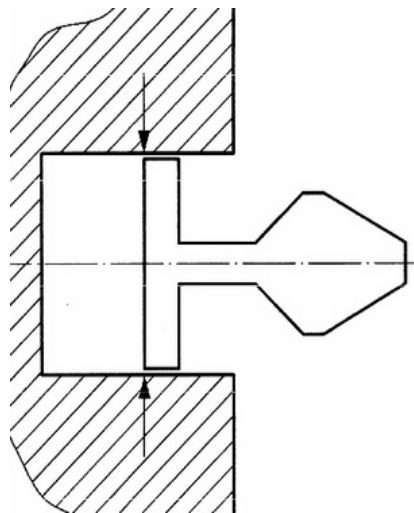


c) FAIL

STEP 2. Case 2: from 45° to 90° from the vertical axis of the opening.



a) PASS if only portion A fits. If B portion fits, shoulder section (230 mm wide) has to fit as well



b) FAIL, if portion B fits, but shoulder section does not fit

From the free fall height higher than 600 mm **impact attenuating surfaces** should be used.

Turf – up to 1 meter, under many conditions.

Concrete up to 600 mm – but without forced movement - not for rocking equipment.

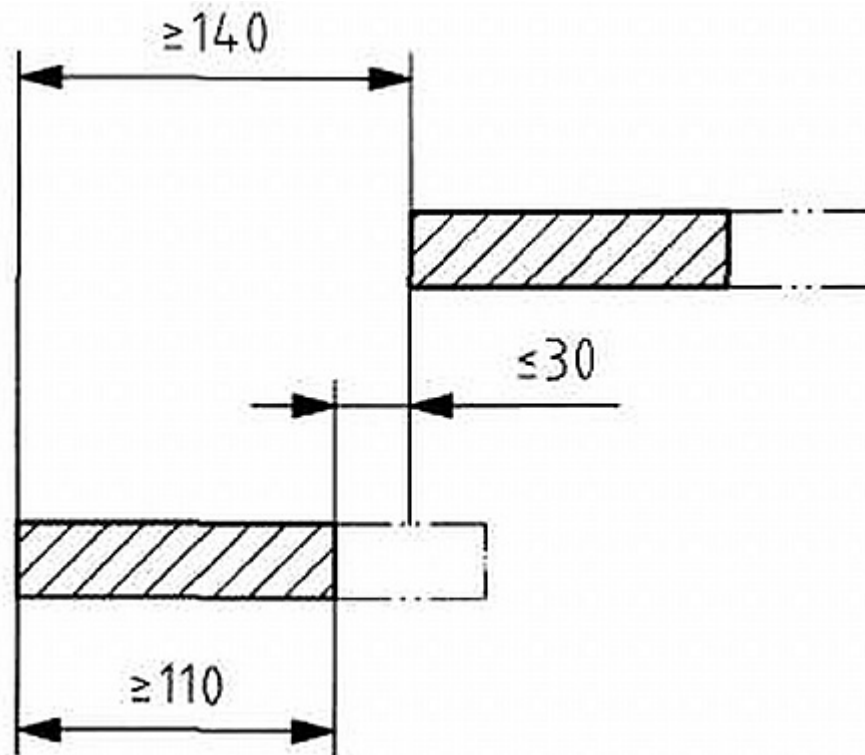
If the free height of fall between adjacent platforms is more than 1 m, the upper surface of the lower platform shall present the necessary impact attenuating properties.

We conduct testing for finger entrapment from the height of 1 m from the fall surface.



- For stairs leading to platform up to 1 m in height a guardrail may replace the barrier, providing the gap beneath the guardrail is less than 600 mm when measured from the middle of the tread.
- Guardrails and/or barriers shall be provided from the first step and shall conform to the requirements for **grasp**.
- Barriers are compulsory above 1 m height.
- Stairs with gradient greater than **45 degrees are steep play element**.

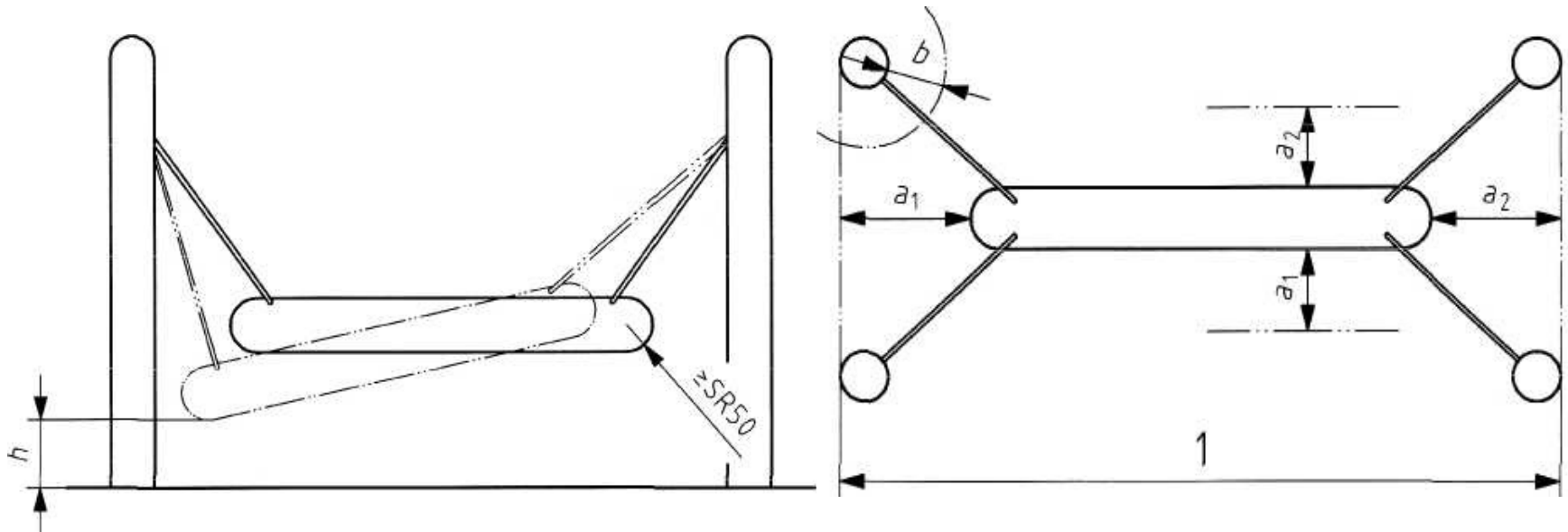
Minimum projection and depth of tread:



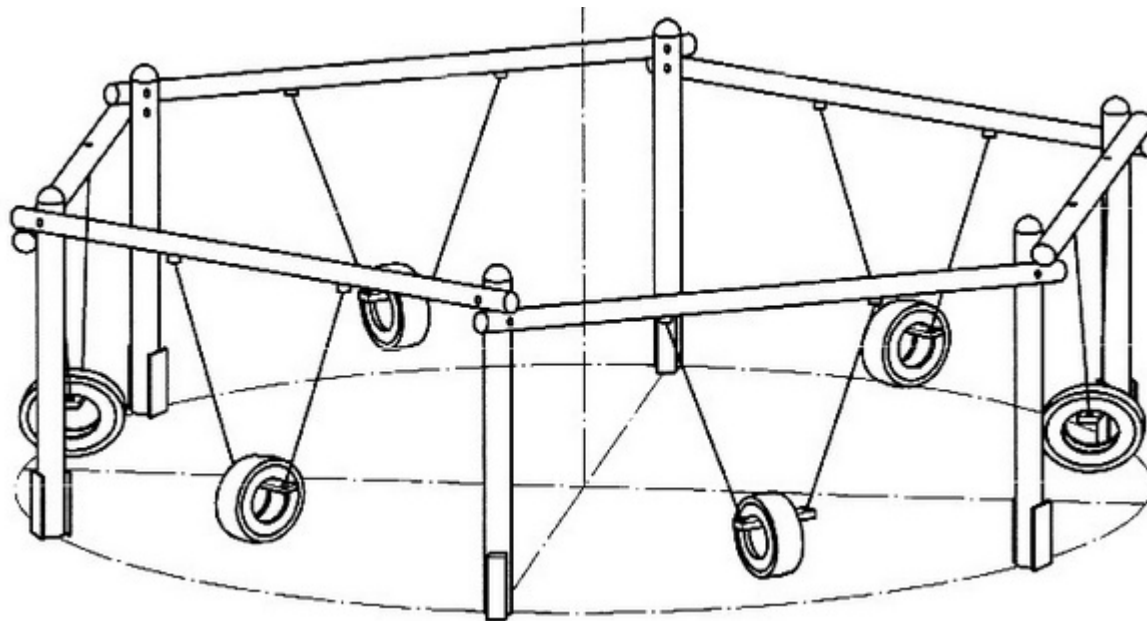
- Ramp is a platform on which a user can ascend or descend, with a constant inclination up to 38°.
- For ramps up to 1m in height a guardrail may replace the barrier, providing the gap beneath the guardrail is less than 600 mm.
- Suitable foot holds are necessary, anti-slippery surface is not enough.



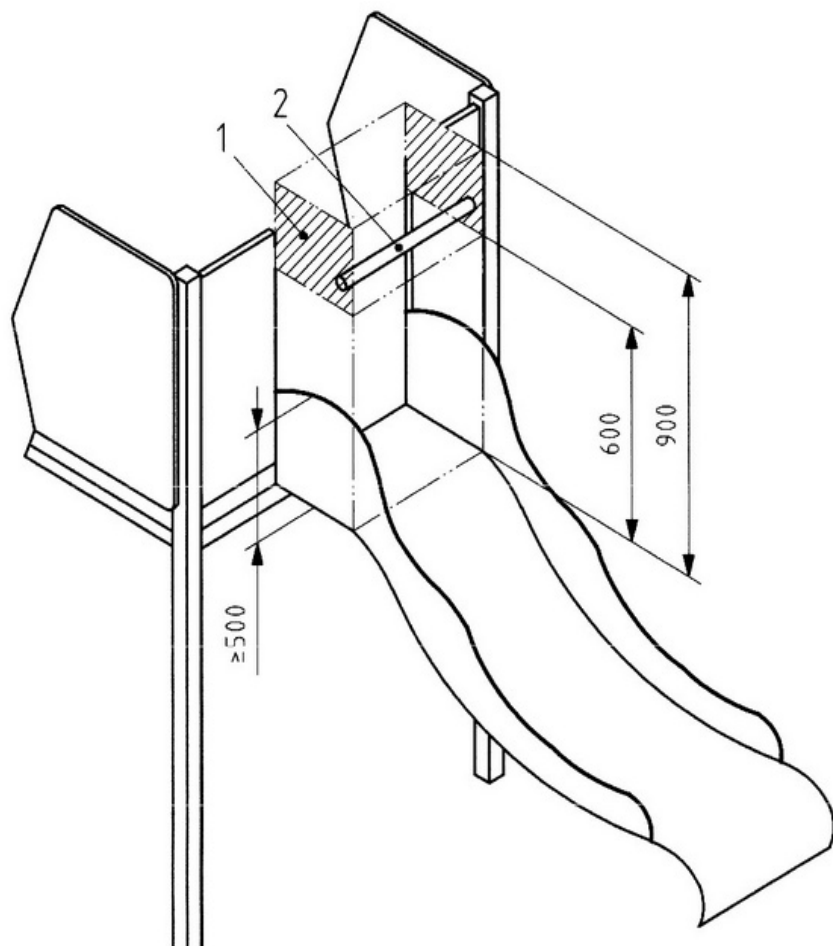
Suspended beams are deemed heavy ≥ 25 kg:
underneath ≥ 400 mm; **changes in the profile of the beam**
 $r \geq 50$ mm; **range of movements** ≤ 100 mm per side;
 distance to solid elements ≥ 230 mm.



- Cradle seats and flat seats can be mixed in the same swing bay.
- New type of swings and seats



PN-EN 1176-3 SLIDES



Access to free-standing slides without additional platforms from the height of:

- 2 m for easily accessible
- 2,5 for others.

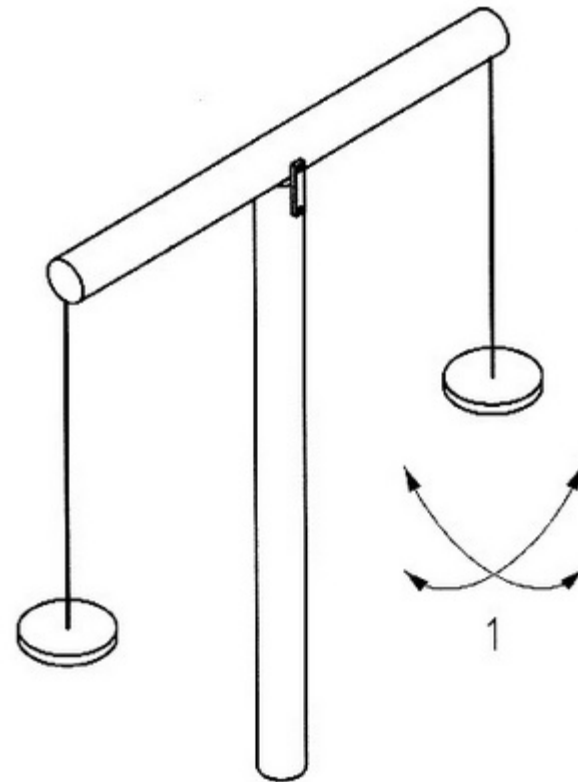
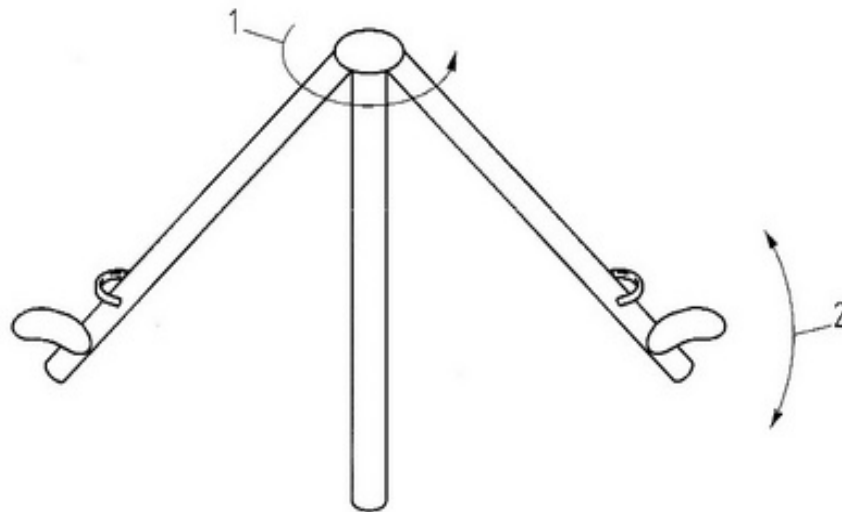
If the height is 1 m, crossbar across opening is necessary between **600-900** mm above the starting section.

Hanging type – we test, if bar can hurt an eye.



- We do not check the speed of rotation in carousels without mechanisms to raise the speed.
- In type A shock absorption elements in the front include structure as well.

2 new types: 5 i 6



We check for eye injury around hand supports
and foot rests.

- 5.3. On the completion of a new playground, a post-installation inspection should be carried out by a competent person to assess compliance with the relevant part(s) of EN 1176.
- 6.3. Specific recommendations for: glass fibre reinforced plastics and one post equipment.

8.2.4. Statute:

- without indication of the nearest phone
- general emergency number
- name and address of the playground

- For children up to 14 years old.
- Access to any point should be provided for adults .
- More than 10 meters to exit – additional evacuation routes or evacuation slides.
- 2 or more exits are required.
- Distance to exit maximum 18 m: special calculations for slides and climbing towers.
- Free fall height max. 2 m.
- If the free fall height is up to 1,5 m – the size of falling space may be reduced to 1 m.

Signage:

- age group(s) or height(s) of children
- capacity
- emergency signs
- rules of play

- All ropes shall be securely knotted.
- Strand ends cannot fray.
- Heat sealing nylon ropes – without hard edges.
- Rope climbs and walks shall be designed to prevent limbs from falling through.

Drop slides:

- starting section should be 1 m long – and separated with secured access
- inclination should be up to 75 degrees
- sides
- run out section is not compulsory in ball pools

Depth:

- up to 3 years – 450 mm
- over 3 years – 600 mm

Next to slides - depth 400 mm in 2 metres zone, separated area with a good visibility.

Standard defines additional requirements for:

- flammability
- visibility
- restrictive netting

- Detailed instructions for inspection and maintenance.
- Everyday inspection before use.
- Annual inspection is necessary and shall be carried out by a competent person.
- Inspection and maintenance procedures shall be documented and shall include details of action taken and confirmation of all remedial work carried out.

The key issue is protection against falling.

Cylindrical body with a diameter of 650 mm and a height of 1800 mm should not pass through mesh, unless the adequate surface is provided.





CONTACT

CENTER OF THE PLAYGROUNDS CONTROL

ul. Wesola 14, 05-805 Otrebusy

www.ckpz.org, e-mail: **biuro@ckpz.org**

tel. +48 22 357 0420, fax. +48 22 758 5108

Dominik Berliński

+48 508 140 692