SLOVENSKI STANDARD
SIST EN 13451-10:2014

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Nadomešča:
SIST EN 13451-10:2004

Oprema za plavalne bazene - 10. del: Dodatne posebne varnostne zahteve in preskusne metode za odskočne ploščadi, odskočne deske in pripadajočo opremo

Swimming pool equipment - Part 10: Additional specific safety requirements and test methods for diving platforms, diving springboards and associated equipment

Schwimmbadgeräte - Teil 10: Zusätzliche besondere sicherheitstechnische Anforderungen und Prüfverfahren für Sprungplattformen, Sprungbretter und zugehörige Geräte

Équipement de piscines - Partie 10: Exigences de sécurité et méthodes d'essai complémentaires propres aux plates-formes de plongeon, plongeoirs et à l'équipement associé

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EUROPEAN STANDARD

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Équipement de piscine - Partie 10: Exigences de sécurité et méthodes d'essai complémentaires propres aux plates-formes de plongeon, plongeoirs et à l'équipement associé

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Foreword

This document (EN 13451-10:2014) 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of an identical text or by endorsement, at the latest by July 2014, and conflicting national standards shall be withdrawn at the latest by July 2014.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 13451-10:2004.

In relation to EN 13451-10:2004, the following significant changes have been made:

a) an introduction has been added;

b) the scope has been amended by referring to EN 15288-1 and EN 15288-2;

c) normative references have been updated;

d) dimensions of diving platform facilities have been revised;

e) dimensions of diving springboard facilities have been revised;

f) figures have been updated and revised;

g) Annex A “Dimensional requirements of FINA, abstract from FINA 2003-2005 Handbook” has been deleted;

h) a bibliography has been added.

EN 13451, *Swimming pool equipment* consists of the following parts:

— *Part 1: General safety requirements and test methods;*

— *Part 2: Additional specific safety requirements and test methods for ladders, stepladders and handle bends;*

— *Part 3: Additional specific safety requirements and test methods for inlets and outlets and water/air based water leisure features;*

— *Part 4: Additional specific safety requirements and test methods for starting platforms;*

— *Part 5: Additional specific safety requirements and test methods for lane lines;*

— *Part 6: Additional specific safety requirements and test methods for turning boards;*

— *Part 7: Additional specific safety requirements and test methods for water polo goals;*

— *Part 10: Additional specific safety requirements and test methods for diving platforms, diving springboards and associated equipment;*

— *Part 11: Additional specific safety requirements and test methods for moveable pool floors and moveable bulkheads.*

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

Diving is a voluntary movement into water with arms and head entering the water first or a voluntary movement into water with feet entering the water first while performing acrobatics.

There can be additional requirements for purposes such as competition swimming, and advice should be sought from the governing body of the sport in question (see [1] and [2]).

1 Scope

This part of EN 13451 specifies safety requirements for diving platforms, diving springboards and associated equipment in addition to the general safety requirements of EN 13451-1 and should be read in conjunction with it.

The requirements of this part of EN 13451 take priority over those in EN 13451-1.

This part of EN 13451 is applicable to platforms and springboards, and associated equipment for use in classified swimming pools as specified in EN 15288-1 and EN 15288-2.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 13451-1:2011, *Swimming pool equipment - Part 1: General safety requirements and test methods*

EN 13451-3, *Swimming pool equipment - Part 3: Additional specific safety requirements and test methods for inlets and outlets and water/air based water leisure features*

EN 22768-1, *General tolerances - Part 1: Tolerances for linear and angular dimensions without individual tolerance indications (ISO 2768-1)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13451-1:2011 and the following apply.

3.1
diving facility
installation designed to provide the opportunity of diving

3.2
diving platform
raised rigid horizontal platform, protruding over the water, intended for diving

3.3
diving springboard type 1
raised flexible board, installed at a height 1,0 m ≤ *h* ≤ 3,05 m above water level and protruding over the water, intended for diving

3.4
diving springboard type 2
raised flexible board, which can be permanently installed or portable, with a height < 1,0 m from water level and protruding over the water, intended for recreational diving

3.5
plummet line
vertical line extending through the centre of the front edge of a platform or springboard

3.6
water agitation device
device designed to improve visibility of the water surface by disturbance

3.7
air cushion equipment
training device, designed for introducing air from the bottom of a diving pool, in front of a diving platform and/or springboard, to reduce the effects of the impact of the diver with the pool water and make training safer

4 Safety requirements

4.1 Tolerances

Tolerances of height of the diving platform and diving springboards are $^{+0,05}_{0}$ m.

For all other tolerances, if not indicated EN 22768-1 applies.

4.2 Diving platforms

4.2.1 General

Particular attention shall be paid to avoid glare and reflecting surfaces, which can disturb the vision of the diver.

In Europe, outdoor diving facilities should face north.

4.2.2 Dimensions

The dimensions indicated in Figures 1 to 4 and Tables 1 to 2 shall be complied with. The design of the equipment does not need to comply with the examples given.

Platforms shall be horizontal.

The minimum dimensions of the platforms shall comply with Table 1.

Table 1 — Areas of use

Dimensions in metres

Height of platforms from water level	Minimum usable width	Length reserved for the diver [a]
1	0,60	0,75
3	0,60	1,25
5	1,50	1,25
7,5	1,50	1,50
10	3,00	1,50

[a] Minimum distance back from plummet.

NOTE 1 In addition to the length reserved for the diver (minimum distance back from plummet), additional space can be necessary for other purposes, as wider range of dives (e.g. dives with preliminary run), space for waiting for the dive, space for divers passing to the next platform.

If synchronized diving (more than one diver starting at a same time from the platform) is foreseen, the width of the platforms should be suitably increased. As an alternative, during synchronized diving activities only there should be the possibility to increase temporarily the distance of the safety barriers for arm movement (see [1]).

The minimum dimensions of the platform facilities shall comply with Table 2 and with Figure 1.

Table 2 — Minimum dimensions of diving platform facilities

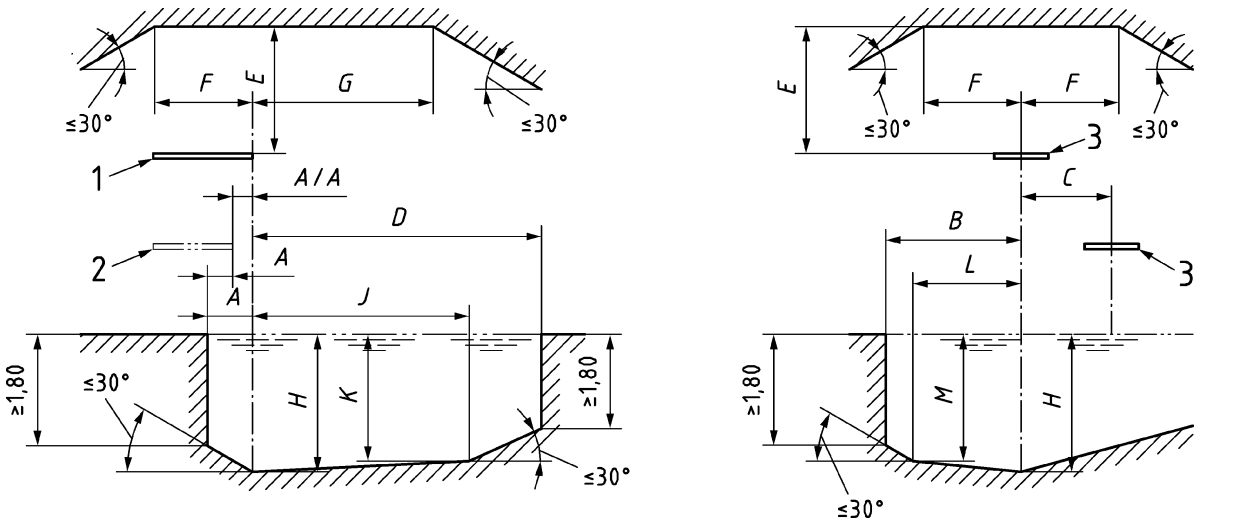
Dimensions in metres

Minimum height of platform from water level			1 m		3 m		5 m		7,5 m		10 m	
			horizontal	vertical	horizontal	vertical	horizontal	vertical	horizontal	vertical	horizontal	vertical
A	From plummet back to pool wall		0,75	—	1,25	—	1,25		1,50	—	1,50	—
A/A[a]	From plummet back to platform plummet vertically below		—	—	—	—	0,75	—	0,75	—	0,75	—
B	From plummet to pool wall at side		2,30	—	2,80	—	3,25	—	4,25	—	5,25	—
C[b]	From plummet to adjacent plummet		1,65	—	2,00	—	2,25	—	2,50	—	2,75	—
D	From plummet to pool wall ahead		8,00	—	9,50	—	10,25	—	11,00	—	13,50	—
E	From plummet, on board to ceiling		—	3,25	—	3,25	—	3,25	—	3,25	—	4,00
F	Clear overhead behind and each side of plummet		2,75	3,25	2,75	3,25	2,75	3,25	2,75	3,25	2,75	4,00
G	Clear overhead ahead of plummet		5,00	3,25	5,00	3,25	5,00	3,25	5,00	3,25	6,00	4,00
H	Depth of water at plummet		—	3,20	—	3,50	—	3,70	—	4,10	—	4,50
J/K	Distance and depth ahead of plummet		4,50	3,10	5,50	3,40	6,00	3,60	8,00	4,00	11,00	4,25
L/M	Distance and depth each side of plummet		1,40	3,10	1,80	3,40	3,00	3,60	3,75	4,00	4,50	4,25
N	Maximum slope to reduce dimensions beyond full requirements	pool depth	30°	NOTE The dimension C applies also to combinations of platform and spring board (e.g. 5 m platform combined with a 3 m spring board).								
		ceiling	30°									

[a] If a platform is vertically below another platform the dimension E shall be applied.

[b] Dimensions C apply to platforms with widths as in Table 1; if platform widths are increased then B, C, F and L shall be increased by half of the additional width(s).

Dimensions in metres



a) Longitudinal section **b) Cross section**

Key

1 platform

2 platform under platform

3 platform

Figure 1 — Diagrammatic side and front view of diving platform facilities

Intermediate heights from water level are allowed, provided the user is made aware of the actual height and the safety requirements of the next higher facility are fulfilled.

The front edge of each platform shall be vertical, or inclined up to an angle ≤ 10° to the vertical inside the plummet line. The thickness of the front edge shall be between 200 mm and 300 mm.

Special attention should be paid to drainage of water from the platform surface.