



SLOVENSKI STANDARD

SIST EN 13451-4:2002

01-september-2002

Oprema za plavalne bazene - 4. del: Dodatne posebne varnostne zahteve in preskusne metode za štartne bloke

Swimming pool equipment - Part 4: Additional specific safety requirements and test methods for starting platforms

Schwimmbadgeräte - Teil 4: Zusätzliche besondere sicherheitstechnische Anforderungen und Prüfverfahren für Startblöcke

Equipement de piscine - Partie 4: Exigences de sécurité et méthodes d'essai complémentaires spécifiques aux plots départ

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Ta slovenski standard je istoveten z: **EN 13451-4:2001**

ICS:

97.220.10 Športni objekti Sports facilities

SIST EN 13451-4:2002 en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 13451-4

February 2001

ICS 97.220.10

English version

Swimming pool equipment - Part 4: Additional specific safety requirements and test methods for starting platforms

Équipement de piscine - Partie 4: Exigences de sécurité et méthodes d'essai complémentaires spécifiques aux plots départ

Schwimmbadgeräte - Teil 4: Zusätzliche besondere sicherheitstechnische Anforderungen und Prüfverfahren für Startblöcke

This European Standard was approved by CEN on 13 January 2001.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

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This European Standard has been prepared by Technical Committee CEN/TC 136 "Sports, playground and other recreational 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 August 2001, and conflicting national standards shall be withdrawn at the latest by August 2001.

The European Standard EN 13451 "Swimming pool equipment" consists of

- 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 equipment for water treatment purposes
- 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 8: Additional specific safety requirements and test methods for leisure water features
- Part 9: Safety signs
- 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

Annex A is informative.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This part of EN 13451 specifies safety requirements for starting platforms in addition to the general safety requirements of EN 13451-1:2001.

The requirements of this specific standard take priority over those in EN 13451-1:2001.

This part of EN 13451:2001 is applicable to manufactured starting platforms for use in competition and training.

2 Normative references

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies (including amendments).

EN 13451-1:2001

Swimming pool equipment – Part 1: General safety requirements and test methods

3 Terms and definitions

For the purposes of this standard the terms and definitions of EN 13451-1:2001 and the following apply:

3.1 starting platform: A raised platform, located on the pool edge, for elevated entry into the water from a stationary start in a racing dive.

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4 Safety requirements

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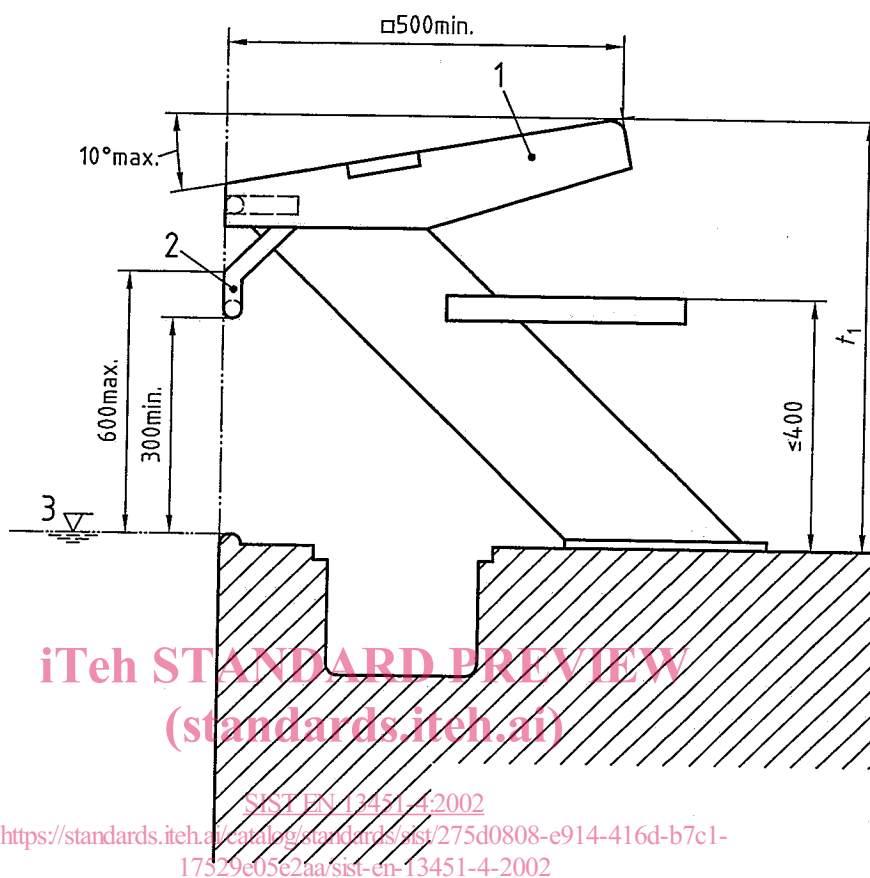
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4.1 Design and manufacture

4.1.1 Dimensions

The dimensions indicated in the figures 1 and 2 shall be complied with. The design of the equipment doesn't need to comply with the examples given.

If the height of the starting platform t_1 is ≥ 500 mm, a step shall be provided at a height ≤ 400 mm.

**Key**

- 1 Top platform
- 2 Backstroke swimmer handgrips
- 3 Water level

Figure 1: Starting platform

NOTE: Dimensional requirements for competitive use, stipulated by the governing body FINA (Fédération Internationale de Natation Amateur), are given in annex A for information.

4.1.2 Top platform

The dimension of the top platform shall be $\geq 500 \text{ mm} \times 500 \text{ mm}$.

The top platform shall be constructed so as to permit grasping at the front for a length $\geq 400 \text{ mm}$ and at both sides for a length $\geq 100 \text{ mm}$ (see figure 2).

In the zones designed to be grasped, the dimension between the top of the platform and the top of the recess shall be between 30 mm and 40 mm.

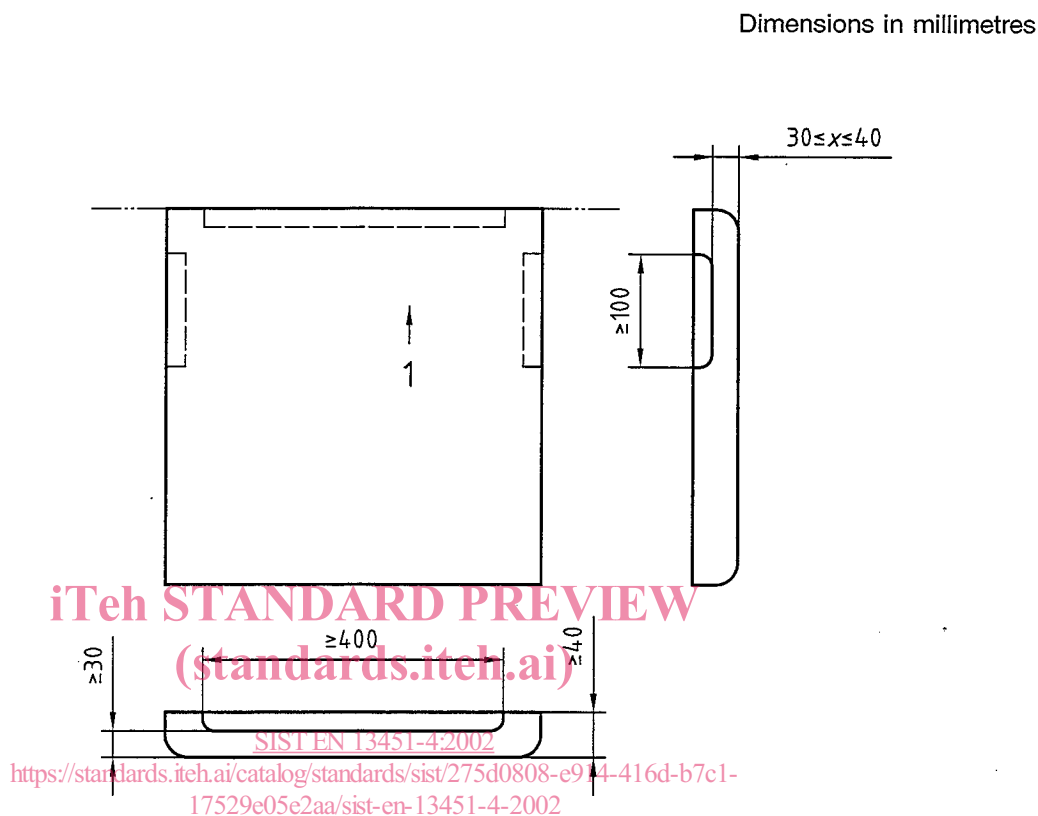
The top platform shall be horizontal or have a maximum slope of 10° in the direction of start.

The front edge shall be installed in the same plane as the pool wall.

4.1.3 Handgrips

Handgrips for backstroke starts shall be placed within 300 mm to 600 mm above the water surface both horizontally and vertically, in the same plane as the pool wall.

Cross section can be round, oval, a rounded rectangular or elliptical; the dimension shall be between 25 mm and 40 mm.



Key

1 Direction of start

Figure 2: Grasping zones

4.2 Structural integrity

The starting platform shall be firm and give no springing effect.

Starting platforms shall be designed to withstand:

- a vertical load as stated in annex A of EN 13451-1 : 2001;
- a horizontal load, applied at 90° on the front edge of the platform in the opposite direction of start, equivalent to 100 % of the vertical load stated in annex A of EN 13451-1 : 2001.
- a horizontal load, applied at 90° on the upper part of backstroke handgrips in direction of start, equivalent to 100 % of the vertical load stated in annex A of EN 13451-1 : 2001.

Backstroke handgrips shall be designed to withstand a horizontal pulling force in direction of starting equivalent to the load specified in b), applied in the position of maximum leverage.

Removable starting platforms shall be fitted with devices for securing them. The fixing method and its fixing devices shall comply with the requirements of the manufacturer/supplier and shall be tamper proof.

4.3 Slip resistance

The surface of the top platform and of the intermediate step shall comply with the requirements of rating group 24° of table 1 of EN 13451-1 : 2001.

The slip resistant surface on the top platform shall extend over the front edge of the platform itself, where the user's toes grasp.

5 Test methods

The requirements of clause 4 shall be verified by the most appropriate method:
measurement, visual examination or practical tests.

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