

STN	Vybavenie plaveckých bazénov Časť 3: Ďalšie špecifické bezpečnostné požiadavky a skúšobné metódy na zariadenia na prívod a odtok vody a zábavné vodné atrakcie inštalované v bazénoch pre verejnosť	STN EN 13451-3 94 0402
------------	--	--

Swimming pool equipment - Part 3: Additional specific safety requirements and test methods for inlets and outlets and water/air based water leisure features installed in pools for public use

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 09/22

Obsahuje: EN 13451-3:2022

Oznámením tejto normy sa ruší
STN EN 13451-3+A3 (94 0402) z júla 2016

135530

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 13451-3

June 2022

ICS 97.220.10

Supersedes EN 13451-3:2011+A3:2016

English Version

**Swimming pool equipment - Part 3: Additional specific
safety requirements and test methods for inlets and
outlets and water/air based water leisure features
installed in pools for public use**

Équipement de piscine - Partie 3: Exigences de sécurité
et méthodes d'essai complémentaires spécifiques aux
pièces d'aspiration et de refoulement et aux
équipements de loisirs aquatiques disposant
d'introduction et d'extraction d'eau/d'air, installés
dans les piscines destinées à un usage public

Schwimmbadgeräte - Teil 3: Zusätzliche besondere
sicherheitstechnische Anforderungen und
Prüfverfahren für Ein- und Ausläufe sowie Wasser-
Luftattraktionen

This European Standard was approved by CEN on 19 July 2020.

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 CEN-CENELEC 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN 13451-3:2022 (E)**Contents**

Page

European foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Safety requirements.....	7
5 Test methods	16
6 Documentation.....	27
Annex A (informative) Calculation of water speed at the design stage	28
A.1 General.....	28
A.2 Calculation methods.....	28
A.3 Test methods	29
A.3.1 Test equipment.....	29
A.3.2 Test procedure	29
A.3.3 Analysis.....	29
A.4 Design stage	29
A.4.1 General.....	29
A.4.2 Calculation	29
A.4.3 Measurement.....	30
A.5 Suction points in operation	30
A.5.1 General.....	30
A.5.2 Calculation	30
A.5.3 Measurement.....	30
Annex B (normative) Entrapment of hair in slits	31
B.1 Testing equipment.....	31
B.2 Test method	31
B.3 Evaluation	31
Bibliography.....	32

European foreword

This document (EN 13451-3:2022) 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 December 2022, and conflicting national standards shall be withdrawn at the latest by December 2022.

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.

This document supersedes EN 13451-3:2011+A3:2016.

The series EN 13451 *Swimming pool equipment* consists of:

- *Part 1: General safety requirements and test methods for equipment installed in pools for public use;*
- *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 installed in pools for public use;*
- *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.*

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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.

EN 13451-3:2022 (E)**1 Scope**

This document specifies safety requirements and test methods for inlets and outlets for water/air and water-/air-based leisure features involving water movement, in addition to the general safety requirements of EN 13451-1.

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

This part of EN 13451 is applicable to swimming pool equipment installed in pools for public use designed for:

- the introduction and/or extraction of water for treatment or leisure purposes;
- the introduction of air for leisure purposes;
- water leisure features involving the movement of water.

NOTE The above items are identified with the general term devices.

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 1069-1, *Water slides — Part 1: Safety requirements and test methods*

EN 13451-1:2011+A1:2016, *Swimming pool equipment - Part 1: General safety requirements and test methods*

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

koniec náhľadu – text ďalej pokračuje v platenej verzii STN