

<b>STN</b>	<b>Stacionárne tréningové zariadenia Časť 8: Šliapacie a stúpacie zariadenia a simulátory výstupu do schodov Ďalšie špecifické bezpečnostné požiadavky a skúšobné metódy (ISO 20957-8: 2017)</b>	<b>STN EN ISO 20957-8</b>  94 0201
------------	--	--

Stationary training equipment - Part 8: Steppers, stairclimbers and climbers - Additional specific safety requirements and test methods (ISO 20957-8:2017)

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. 05/18

Obsahuje: EN ISO 20957-8:2017, ISO 20957-8:2017

Oznámením tejto normy sa ruší  
STN EN 957-8 (94 0201) z júla 2002

**126611**

EUROPEAN STANDARD

**EN ISO 20957-8**

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2017

ICS 97.220.30

Supersedes EN 957-8:1998

English Version

**Stationary training equipment - Part 8: Steppers,  
stairclimbers and climbers - Additional specific safety  
requirements and test methods (ISO 20957-8:2017)**

Équipement d'entraînement fixe - Partie 8: Monte-  
escaliers, escalators et simulateurs d'escalade -  
Exigences spécifiques de sécurité et méthodes d'essai  
supplémentaires (ISO 20957-8:2017)

Stationäre Trainingsgeräte - Teil 8: Stepper,  
Treppensteiggeräte und Climber - Zusätzliche  
besondere sicherheitstechnische Anforderungen und  
Prüfverfahren (ISO 20957-8:2017)

This European Standard was approved by CEN on 9 October 2017.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, 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 ISO 20957-8:2017 (E)**

<b>Contents</b>	<b>Page</b>
<b>European foreword.....</b>	<b>3</b>

## **European foreword**

This document (EN ISO 20957-8:2017) has been prepared by Technical Committee ISO/TC 83 "Sports and other recreational facilities and equipment" in collaboration with 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 June 2018, and conflicting national standards shall be withdrawn at the latest by June 2018.

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 957-8:1998.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### **Endorsement notice**

The text of ISO 20957-8:2017 has been approved by CEN as EN ISO 20957-8:2017 without any modification.

INTERNATIONAL  
STANDARD

ISO  
20957-8

Second edition  
2017-10

---

---

**Stationary training equipment —**  
**Part 8:**  
**Steppers, stairclimbers and climbers**  
**— Additional specific safety**  
**requirements and test methods**

*Équipement d'entraînement fixe —*

*Partie 8: Monte-escaliers, escalators et simulateurs d'escalade —*  
*Exigences spécifiques de sécurité et méthodes d'essai supplémentaires*



Reference number  
ISO 20957-8:2017(E)

© ISO 2017

## ISO 20957-8:2017(E)



### **COPYRIGHT PROTECTED DOCUMENT**

© ISO 2017, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Ch. de Blandonnet 8 • CP 401  
CH-1214 Vernier, Geneva, Switzerland  
Tel. +41 22 749 01 11  
Fax +41 22 749 09 47  
copyright@iso.org  
www.iso.org

# Contents

	Page
<b>Foreword</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Classification</b> .....	<b>6</b>
<b>5 Safety requirements</b> .....	<b>6</b>
5.1 General.....	6
5.2 External construction.....	6
5.2.1 Additional requirements for squeeze and shear points within the accessible area.....	6
5.2.2 Temperature of accessible surfaces.....	6
5.3 Intrinsic loading.....	6
5.4 Handrails/handlebars.....	6
5.5 Footplatforms and stairs.....	7
5.5.1 Footplatforms.....	7
5.5.2 Stairs.....	7
5.6 Endurance.....	7
5.7 Freewheel.....	7
5.8 Additional requirement for class A.....	7
5.9 Additional requirements for stairclimbers.....	8
5.9.1 Stepping on and stepping off.....	8
5.9.2 Manual stopping system.....	8
5.9.3 Automatic stopping system to reduce the risk of entrapment.....	8
5.10 Additional requirements for seated steppers.....	8
5.10.1 Movable handlebars.....	8
5.10.2 Non-movable handlebars.....	8
5.10.3 Seat handlebars.....	9
5.10.4 Seat backrest.....	9
5.11 Additional instructions for use.....	9
<b>6 Test methods</b> .....	<b>9</b>
6.1 General.....	9
6.1.1 Dimensional check.....	9
6.1.2 Visual examination.....	9
6.1.3 Tactile examination.....	9
6.1.4 Performance test.....	9
6.2 Testing of temperature of accessible surfaces.....	9
6.3 Testing of intrinsic loading.....	10
6.3.1 General.....	10
6.3.2 Stepper or climber with independent action.....	10
6.3.3 Stepper or climber with dependent action.....	10
6.3.4 Stairclimber.....	10
6.4 Testing of handrails/handlebars.....	11
6.5 Testing of friction.....	11
6.6 Endurance testing.....	12
6.6.1 General.....	12
6.6.2 Endurance testing for stairclimbers.....	12
6.6.3 Endurance testing for steppers.....	12
6.7 Testing of the additional requirements for class A.....	12
6.8 Testing of stepping on and stepping off.....	13
6.9 Testing of stopping system and clearance between moving stairs and floor or structure.....	13
6.10 Testing for additional requirements for seated steppers.....	14
6.10.1 Movable handlebars.....	14

**ISO 20957-8:2017(E)**

6.10.2	Non-movable handlebars .....	14
6.10.3	Seat handlebars .....	14
6.10.4	Seat backrest .....	14
<b>7</b>	<b>Test report .....</b>	<b>15</b>
	<b>Bibliography .....</b>	<b>16</b>



## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

ISO 20957-8 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 136, *Sports, playground and other recreational facilities and equipment*, in collaboration with ISO Technical Committee TC 83, *Sports and other recreational facilities and equipment*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 20957-8:2005), which has been technically revised.

The main changes compared to the previous edition are as follows:

- the Scope has been simplified;
- the formulation has been aligned to ISO 20957-1;
- [Clause 5](#) has been specified and restructured;
- [Clause 6](#) has been specified and restructured.

A list of all parts in the ISO 20957 series can be found on the ISO website.



# Stationary training equipment —

## Part 8:

# Steppers, stairclimbers and climbers — Additional specific safety requirements and test methods

## 1 Scope

This document specifies safety requirements for stepper, stairclimber and climber machines (hereafter called training equipment) performed from either a standing or sitting position. The requirements are in addition to the general safety requirements of ISO 20957-1, with which this document is intended to be read in conjunction.

This document is applicable to stationary training equipment type stepper, stairclimber and climber training equipment, within classes S and H. Additional requirements are provided for accuracy class A.

## 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.

ISO 4649:2010, *Rubber, vulcanized or thermoplastic — Determination of abrasion resistance using a rotating cylindrical drum device*

ISO 20957-1, *Stationary training equipment — Part 1: General safety requirements and test methods*

EN 71-1, *Safety of toys — Part 1: Mechanical and physical properties*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**