

SLOVENSKI STANDARD SIST EN 957-1:2005 01-november-2005

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Stationary training equipment - Part 1: General safety requirements and test methods

Stationäre Trainingsgeräte - Teil 1: Allgemeine sicherheitstechnische Anforderungen und Prüfverfahren

# **iTeh STANDARD PREVIEW**

Appareils d'entraînement fixes (Partie 1. Exigences génerales de sécurité et méthodes d'essai

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ICS: 97.220.30

SIST EN 957-1:2005

en,fr,de

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# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

## EN 957-1

August 2005

ICS 97.220.30

Supersedes EN 957-1:1996 + A1:1998

**English Version** 

# Stationary training equipment - Part 1: General safety requirements and test methods

Appareils d'entraînement fixes - Partie 1 : Exigences générales de sécurité et méthodes d'essai Stationäre Trainingsgeräte - Teil 1: Allgemeine sicherheitstechnische Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 27 June 2005.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, 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

This European Standard (EN 957-1:2005) 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 February 2006, and conflicting national standards shall be withdrawn at the latest by February 2006.

This European Standard supersedes EN 957-1:1996 + A1:1998.

This standard EN 957 "Stationary training equipment" consists of the following parts:

- Part 1: General safety requirements and test methods
- Part 2: Strength training equipment, additional specific safety requirements and test methods
- Part 4: Strength training benches, additional specific safety requirements and test methods
- Part 5: Pedal crank training equipment, additional specific safety requirements and test methods
- Part 6: Treadmills, additional specific safety requirements and test methods
- Part 7: Rowing machines, additional specific safety requirements and test methods
- Part 8: Steppers, stairclimbers and climbers Additional specific safety requirements and test methods (standards.iteh.ai)
- Part 9: Elliptical trainers, additional specific safety requirements and test methods
- Part 10: Exercise bicycles with a fixed wheel of without freewheel, additional specific safety requirements and test methods ds.iteh.ai/catalog/standards/sist/d39f4efd-e6f1-467e-be21a2e4ad3920ad/sist-en-957-1-2005

Part 3 has been amalgamated with part 2 after CEN Enquiry.

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

## Introduction

This part of EN 957 (hereinafter called the General Standard) specifies safety requirements that are generally applicable to stationary training equipment. For specific types of equipment these requirements are supplemented or modified by the requirements of specific standards which have been issued as additional parts of this European Standard.

Where specific standards exist, this general standard should not be used alone. Special care is required in applying this general standard alone to equipment for which no specific standard has yet been published.

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#### 1 Scope

This European Standard specifies general safety requirements for stationary training equipment during use unless modified in the other parts of this European Standard.

It also specifies a classification system (see Clause 4).

This European Standard is applicable to all stationary training equipment as defined in 3.1. This includes equipment for use in training areas of organizations such as sport associations, educational establishments, hotels, sport halls, clubs, rehabilitation centres and studios (classes S and I) where access and control is specifically regulated by the owner (person who has the legal responsibility), equipment for domestic use (class H) and other types of equipment including motor driven equipment as defined in 3.1.

If a user has special needs (medical rehabilitation, disability) it is essential that the owner (the person with legal responsibility) conducts a specific risk assessment to determine safe use and if necessary to insure trained staff are available to supervise the activity.

The requirements of a specific standard take priority over the corresponding requirements of this general European Standard.

This European Standard does not apply to stationary training equipment intended for use by children.

NOTE 1 In the event that the stationary training equipment is intended for medical purposes, attention is drawn to the requirements of Council Directive of 14 June 1993 on the approximation of the laws of the Member States relating to medical devices 93/42/EEC in addition to the requirements of this European Standard.

NOTE 2 In the event that the stationary training equipment is designed to be accessible to people with disability, attention is drawn to any relevant national guidelines (see bibliography).

#### SIST EN 957-1:2005

## 2 Normative references is.iteh.ai/catalog/standards/sist/d39f4efd-e6f1-467e-be21-

a2e4ad3920ad/sist-en-957-1-2005

The following referenced documents are indispensable for the application of this European Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 60335-1, Household and similar electrical appliances — Safety — Part 1: General requirements

EN 60601-1, Medical electrical equipment — Part 1: General requirements for safety (IEC 60601-1:1988)

EN ISO 6508-1, Metallic materials — Rockwell hardness test — Part 1: Test method (scales A, B, C, D, E, F, G, H, K, N, T) (ISO 6508-1:1999)

EN ISO 12100-1, Safety of machinery - Basic concepts, general principles for design - Part 1: Basic terminology, methodology (ISO 12100-1:2003)

ISO 8793, Steel wire ropes — Ferrule-secured eye terminations

#### 3 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply.

3.1

#### stationary training equipment (hereinafter referred to as training equipment)

equipment that is not moved as a unit during use which either stands on the floor or is attached to a wall, ceiling or other fixed structure

NOTE Training equipment can be used for example for the following:

- a) physical culture, body building or body styling;
- b) health fitness training;
- c) physical education;
- d) training specific to competition and related sports activities;
- e) preventive treatment and rehabilitation.

#### 3.2

#### training area

area in which the user and equipment can move when the equipment is used

NOTE The training area can be utilized to deny third party access to dangerous parts of the equipment.

#### 3.3

#### accessible hand and foot area (hereinafter referred to as accessible area)

area accessible to user or to third parties when the equipment is in normal use, during setting up, grasping, adjusting the equipment or the position of the body for exercise 957-1-2005

#### 3.4

reverse force

yielding force (eccentric force) when e.g. lowering load

3.5

#### range of movement

space in which the user or part of the user is moving according to the instructions given in the user's manual

#### 3.6

#### dynamic direction

direction in which the force is applied during a normal exercise as described in the user's manual

#### 3.7

#### bodymass

this value is 100 kg or the maximum specified user weight as described in the user's manual whichever is greater

#### 3.8

intrinsic loading loading due to user's bodymass

#### 3.9

#### extrinsic loading

loads additional to the user's bodymass

#### 3.10

#### maximum specified load

maximum load specified by the manufacturer

#### 3.11

#### ergometer

any piece of training equipment that measures the input of power in Watts with a specific accuracy as defined in the specific part of the standard

NOTE This term can only be used for training equipment, which fulfills this condition.

#### 3.12

#### speed dependent training equipment

training equipment where the braking torque cannot be adjusted and is proportional to the pedal speed, e.g. fan driven bike

#### 3.13

#### speed independent training equipment

training equipment where the braking torque can be adjusted by other means than speed

#### 3.14

#### power driven training equipment

training equipment which is driven by external power (e.g. electric motors and pneumatic pistons)

## 4 Classification **iTeh STANDARD PREVIEW**

#### 4.1 General

Equipment shall be classified in accordance with accuracy and usage class as described in 4.2 to 4.4. https://standards.iteh.ai/catalog/standards/sist/d39f4efd-e6f1-467e-be21-

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If the intended use of an equipment is for more classes it shall fulfill the requirements of each intended class.

#### 4.2 Types

The type numbers used in the specific parts are taken from the part numbers.

EXAMPLE: Type 2: strength training equipment as defined in EN 957-2.

#### 4.3 Accuracy classes

- 4.3.1 Class A: high accuracy.
- 4.3.2 Class B: medium accuracy.
- **4.3.3** Class C: minimum accuracy.
- NOTE Accuracy classes are shown in the additional specific parts of the standard.