



SLOVENSKI STANDARD
SIST EN 914:1996
01-december-1996

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Gymnastic equipment - Parallel bars and combination asymmetric/parallel bars -
Functional and safety requirements, test methods

Turngeräte - Barren und kombinierte Stufenbarren/Barren - Funktionelle und
sicherheitstechnische Anforderungen, Prüfverfahren

Matériel de gymnastique - Barres parallèles et barres parallèles/asymétriques combinées
- Exigences fonctionnelles et de sécurité, méthodes d'essai

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Ta slovenski standard je istoveten z: EN 914:1996

ICS:

97.220.30 Oprema za dvoranske športe Indoor sports equipment

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en

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EUROPEAN STANDARD

EN 914

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 1996

ICS 97.220.30

Descriptors: sports equipment, gymnastic equipment, parallel bars, safety, accident prevention, specifications, dimensions, stability, flexibility, mechanical strength, marking

English version

**Gymnastic equipment - Parallel bars and
combination asymmetric/parallel bars - Functional
and safety requirements, test methods**

Matériel de gymnastique - Barres parallèles et
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This European Standard was approved by CEN on 1996-01-28. 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.

The European Standards exist 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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Foreword

This European Standard has been prepared by the Technical Committee CEN/TC 136 "Sports, playground and other recreational equipment", of which the secretariat 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 September 1996, and conflicting national standards shall be withdrawn at the latest by September 1996.

This European Standard is one of several standards, each of which deals with a particular type or a particular group of gymnastic equipment.

This European Standard should be read in conjunction with EN 913.

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

1 Scope

This standard specifies functional requirements (see clause 3) and specific safety requirements in addition to the general safety requirements in EN 913 (see clause 4).

This standard is applicable to 2 types of parallel bars (see table 1).

2 Normative reference

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.

EN 913

Gymnastic equipment – General safety requirements and test methods

3 Requirements

3.1 Classification

Parallel bars and combination asymmetric parallel bars shall be classified by the design (types and sizes) as shown in table 1.

Table 1: Types

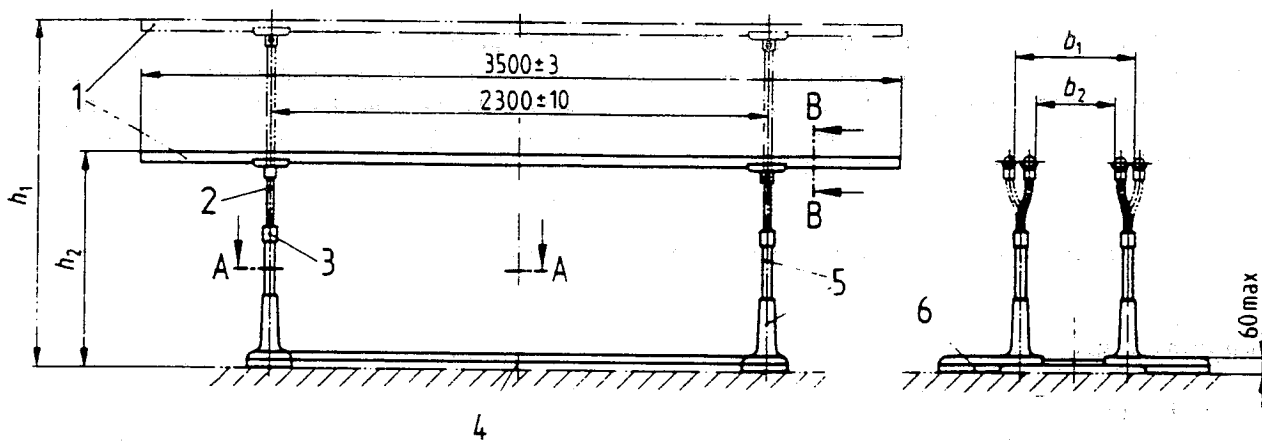
Type	Size	Description
1	1 and 2	parallel bars
2		combination asymmetric/parallel bars

3.2 Dimensions

All parallel bars and asymmetric/parallel bars shall comply with the dimensions specified in table 2 and figures 1 and 2.

An example of a suitable profile is shown in annex A.

Dimensions in millimetres



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- 1 Bar
- 2 Upright extension
- 3 Stop, lock and adjustment device
- 4 Longitudinal member
- 5 Upright
- 6 Cross member

Figure 1: Parallel bar and combination asymmetric/parallel bar (types 1 and 2).

Table 2: Dimensions

Dimensions in millimetres

Type	Size	Minimum range of adjustment		Minimum range of adjustment	
		b_1	b_2	h_1	h_2
1	1	520	to 360	1 600	to 1 000
	2	550	to 390	1 850	to 1 200
2	-	550	to 390	Low bar	
				1 850	to 1 500
				High bar	
				2 300	to 1 500

Dimensions in millimetres

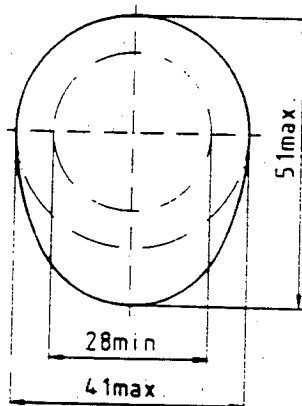


Figure 2: Profile of bars

NOTE: Any profile lying between the dimensions shown is acceptable.

4 Safety requirements

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4.1 General requirements

Parallel bars and combination asymmetric/parallel bars shall comply with the requirements of EN 913, except insofar as they are modified by this European Standard.

4.2 Clear path between uprights

The clear path between the uprights (see figure 3) shall be free from any obstructions. This shall be tested by placing the test pattern shown in figure 3 on the top of the cross member.

NOTE: The dimensions of the test pattern are given in table 3.

4.3 Stability

When tested in accordance with 5.2, equipment shall not tip in any direction when subjected to a horizontal force representing 40 % of the self weight of the equipment.

4.4 Stiffness

When tested in accordance with 5.3, the deflection of the bars shall be a minimum of 40 mm and a maximum of 100 mm when subjected to a vertical force of 1 350 N.

4.5 Residual deflection

When tested in accordance with 5.3, the bars shall not show any residual deflection when the test force of 1 350 N is lifted.

4.6 Strength

When tested in accordance with 5.4, the equipment shall show no signs of fracture, rupture or defects when subjected to a vertical force of 2 850 N.

NOTE: It is suggested that one bar be subjected to the stiffness and strength tests whilst the other is used for the endurance test.

4.7 Rigidity of framework

When tested in accordance with 5.3 and with the bars set at their maximum useful height, the bar at the supporting cup point shall not deflect by more than 20 mm in longitudinal and transverse direction when subjected to horizontal forces of 570 N in these directions.

4.8 Endurance

When tested in accordance with 5.5, bars shall show no signs of wear and tear or rupture or deformation. After testing, bars shall also meet the stiffness requirement.

5 Test methods

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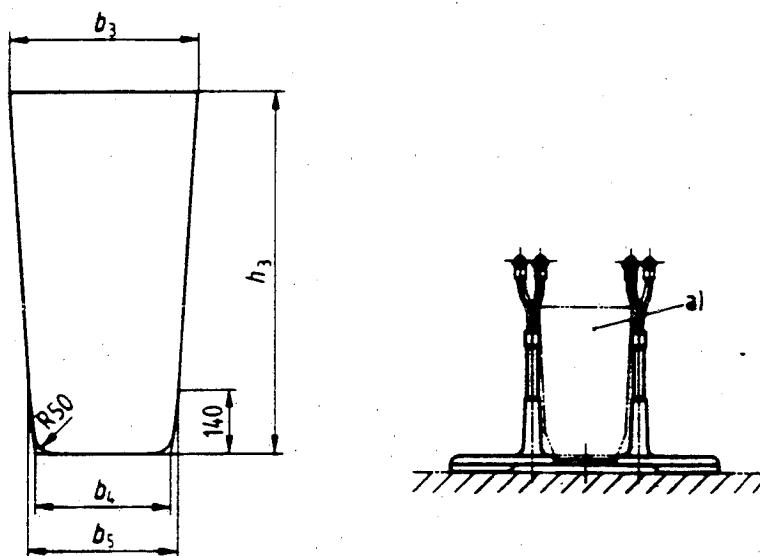
5.1 Determination of the clear path between uprights

Table 3: Minimum dimensions of test pattern

<https://standards.iteh.ai/catalog/standards/sist/31daa840-d16e-4ed8-a25a-33e1f2c12c20/sist-en-914-1996> Dimensions in millimetres

Type	Size	b_3	b_4	b_5	h_3
1	1	420	310	340	800
	2	480	310	420	1 000
2	–	480	310	420	1 000

Dimensions in millimetres



a) Clear path between uprights

Figure 3: Test pattern for determining the clear path between uprights

5.2 Determination of stability

5.2.1 Principle

A horizontal force is applied to the top of the equipment and any tipping is noted.

5.2.2 Apparatus

A strap (100 ± 1) mm wide.

5.2.3 Test temperature

Condition the equipment for a minimum of 3 h at a test temperature of (23 ± 2) °C.

5.2.4 Procedure

Carry out the test with the bars at their maximum height.

Apply a horizontal force calculated from 40 % of the self weight of the equipment with a minimum of 90 N to the highest point nearest to the plane of pivot for 1 min \pm 10 s.

Note any tipping of the equipment.

5.2.5 Expression of results

Express the level of stability by whether tipping has occurred.