

# Gymnastic equipment — Balancing beams — Functional and safety requirements, test methods

The European Standard EN 12432:1998 has the status of a  
British Standard

ICS 97.220.30

## National foreword

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The UK participation in its preparation was entrusted to Technical Committee SW/14, Gymnasium and sports equipment, which has the responsibility to:

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- present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
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### Summary of pages

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English version

## Gymnastic equipment — Balancing beams — Functional and safety requirements, test methods

Matériel de gymnastique — Poutres — Exigences fonctionnelles et de sécurité, méthodes d'essai

Turngeräte — Schwebebalken — Funktionelle und sicherheitstechnische Anforderungen, Prüfverfahren

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Comité Européen de Normalisation  
Europäisches Komitee für Normung

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## Foreword

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of an identical text or by endorsement, at the latest by February 1999, and conflicting national standards shall be withdrawn at the latest by February 1999.

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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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## 1 Scope

This standard specifies functional requirements (see clause 3) and specific safety requirements for free-standing balancing beams in addition to the general safety requirements in EN 913 (see clause 4).

## 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.

EN 913:1996, *Gymnastic equipment — General safety requirements and test methods*.

## 3 Requirements

### 3.1 Height

When measured from the top surface of the beam to the floor the maximum height of the beam in the installed position shall be not greater than 1 500 mm.

Adjustable height balancing beams shall have a minimum adjustable range of 500 mm.

### 3.2 Deflection

When tested in accordance with 5.1 the centre of the balancing beam shall not deflect by more than 10 mm and after removal of the test load shall return to its original position.

## 4 Safety requirements

### 4.1 General

Balancing beams shall comply with the requirements of EN 913, except insofar as they are modified by this European Standard.

### 4.2 Stability

When tested in accordance with 5.2.1 the balancing beam shall not move more than 5 mm sideways and the legs on the opposite side shall not lift from the floor by more than 1 mm.

When tested in accordance with 5.2.2 the balancing beam shall not be pulled over.

### 4.3 Strength

When tested in accordance with EN 913:1996, annex B, with the load applied in the centre of the balancing beam, the equipment shall not collapse or fracture, or show any permanent deformation.

### 4.4 Legs of base

The legs of the base shall not protrude beyond the end of the balancing beam.

The base shall be not more than 60 mm above the floor level.

## 5 Test methods

### 5.1 Determination of deflection

Place the balancing beam in its in-use position at its maximum height. Measure the distance from the floor to the top surface of the balancing beam to the nearest 1 mm. Gently apply a force of 1 350 N in the middle of the balancing beam and measure the distance from the floor to the top surface of the balancing beam to the nearest millimetre. Remove the force and remeasure the distance from the floor to the top surface of the balancing beam.

Record the deflection under load and any residual deflection after removal of the load.

### 5.2 Determination of stability

**5.2.1** Place the balancing beam in its in-use position at its maximum height. Block the apparatus legs on one side to prevent sliding. Apply a force of 250 N sideways in the centre of the balancing beam perpendicular to the balancing beam and parallel to the floor towards the side of the apparatus with the blocking.

Measure and record whether the apparatus moves more than 5 mm sideways and whether the legs on the opposite side have lifted by more than 1 mm from the floor.

**5.2.2** Using the arrangement described in 5.2.1 apply a force of 350 N. Record whether the apparatus falls over.

## 6 Instructions for use

An information booklet shall be provided by the manufacturers containing the following:

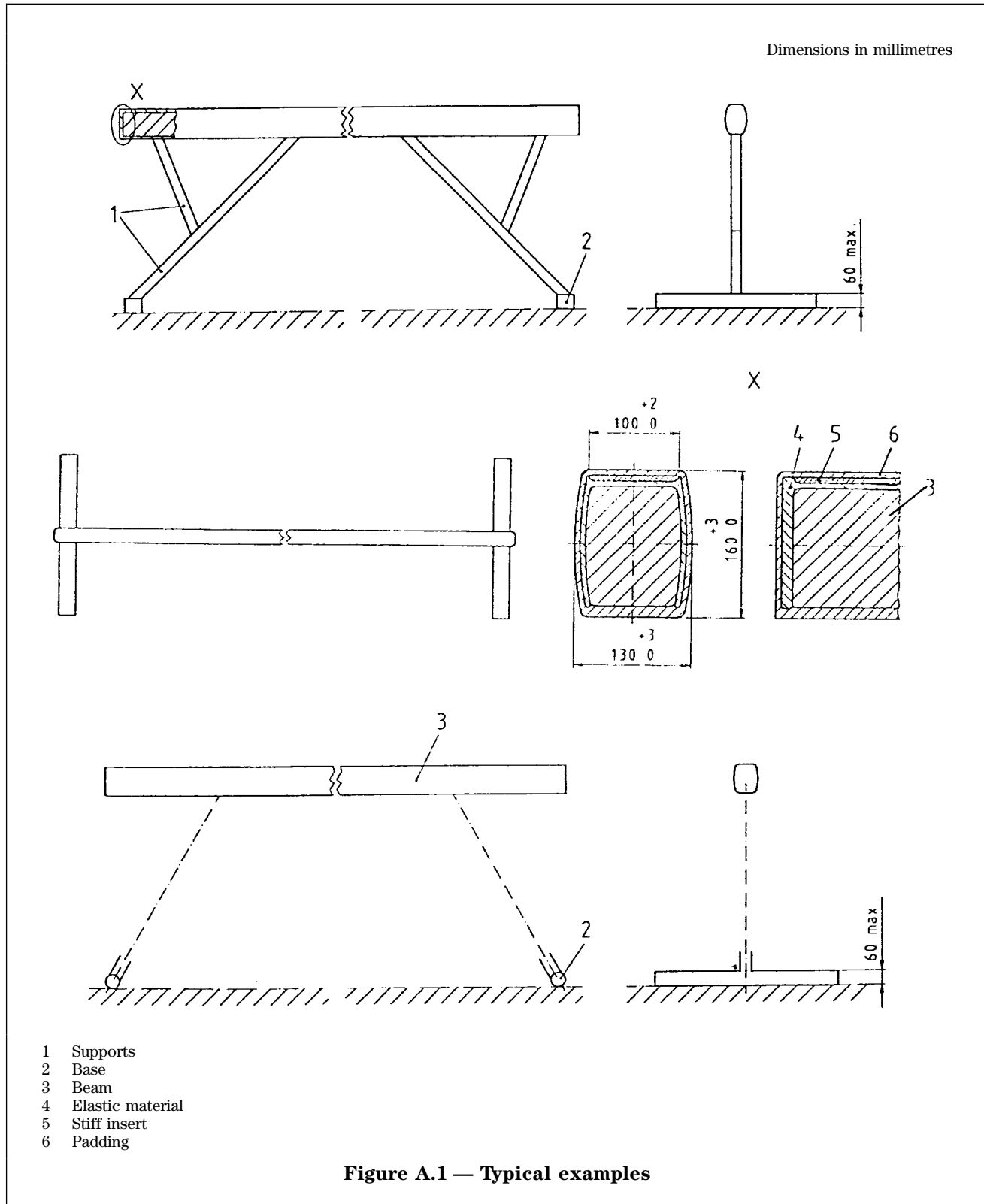
- a) installation details;
- b) assembly details covering method of adjustment;
- c) equipment space;
- d) a warning that the base or any protruding part of the framework outside the profile of the beam should be protected by appropriate use of padding or mats, when in use;
- e) maintenance details;
- f) a warning notice that the equipment should be used under controlled supervision;
- g) a statement advising purchasers/installers/users that the colour of the beam should contrast with the floor and other nearby equipment (e.g. mats).

## 7 Marking

Marking shall comply with EN 913.

Annex A (informative)

Typical examples of balancing beams





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