

norm**NEN-EN 1176-5**

Speeltoestellen en bodemoppervlakken van speelplaatsen - Deel 5: Aanvullende bijzondere veiligheidseisen en beproevingsmethoden voor draaitoestellen

Publicatie uitsluitend voor commentaar

Playground equipment and surfacing - Part 5: Additional specific safety requirements and test methods for carousels

juni 2017
ICS 97.200.40

Commentaar vóór 2017-07-17

Zal vervangen NEN-EN 1176-5:2008

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 1176-5

May 2017

ICS 97.200.40

Will supersede EN 1176-5:2008

English Version

Playground equipment and surfacing - Part 5: Additional specific safety requirements and test methods for carousels

Équipements et sols d'aires de jeux - Partie 5 :
Exigences de sécurité et méthodes d'essai
complémentaires spécifiques aux manèges

Spielplatzgeräte und Spielplatzböden - Teil 5:
Zusätzliche besondere sicherheitstechnische
Anforderungen und Prüfverfahren für Karussells

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 136.

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European foreword

This document (prEN 1176-5:2017) 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 document is currently submitted to the CEN Enquiry.

This document will supersede EN 1176-5:2008.

This European Standard consists of a number of parts as follows:

- EN 1176-1, *Playground equipment and surfacing — Part 1: General safety requirements and test methods*
- EN 1176-2, *Playground equipment and surfacing — Part 2: Additional specific safety requirements and test methods for swings*
- EN 1176-3, *Playground equipment and surfacing — Part 3: Additional specific safety requirements and test methods for slides*
- EN 1176-4, *Playground equipment and surfacing — Part 4: Additional specific safety requirements and test methods for cableways*
- EN 1176-5, *Playground equipment and surfacing — Part 5: Additional specific safety requirements and test methods for carousels*
- EN 1176-6, *Playground equipment and surfacing — Part 6: Additional specific safety requirements and test methods for rocking equipment*
- EN 1176-7, *Playground equipment and surfacing — Part 7: Guidance on installation, inspection, maintenance and operation*
- EN 1176-10, *Playground equipment and surfacing — Part 10: Additional specific safety requirements and test methods for fully enclosed play equipment*
- EN 1176-11, *Playground equipment and surfacing — Part 11: Additional specific safety requirements and test methods for spatial network*

This part of EN 1176 should not be used in isolation, but in conjunction with EN 1176-1, EN 1176-7 and EN 1177.

For inflatable play equipment see:

- EN 14960, *Inflatable play equipment — Safety requirements and test methods.*

The principal changes from the previous edition of this part of EN 1176 are as follows:

- The requirement for speed of rotation is now limited to those carousels that use mechanical advantage to raise speed, whereas in the previous edition the requirement was generally applicable.
- The free space/falling space for type C carousels has been increased and requirements for adequate level of impact attenuation introduced.
- Requirements have been introduced for shock absorbing properties for seats of type A carousels.

prEN 1176-5:2017 (E)**1 Scope**

This document is applicable to permanently-installed carousels that are used as playground equipment for children. Where the main play function is not only rotating, the relevant requirements in this document may be used, as appropriate.

NOTE The principal difference between rotating rocking equipment and oscillating carousel is the main play function, which in carousel is rotating and in rocking equipment is rocking.

This document is not applicable to motor-driven carousels, fairground carousels or climbing drums.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

prEN 1176-1:2016, *Playground equipment and surfacing — Part 1: General safety requirements and test methods*

prEN 1176-2:2016, *Playground equipment and surfacing — Part 2: Additional specific safety requirements and test methods for swings*

prEN 1176-3:2016, *Playground equipment and surfacing — Part 3: Additional specific safety requirements and test methods for slides*

prEN 1176-6:2016, *Playground equipment and surfacing — Part 6: Additional specific safety requirements and test methods for rocking equipment*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in prEN 1176-1 and the following apply.

**3.1
carousel**

playground equipment with main function to rotate around a central axis

Note 1 to entry: Though a term “carousel” is not technically 100 % correct, it is widely used hence this standard uses it instead of generic, but technically more accurate term “rotating equipment”.

**3.2
carousel type A**

rotating chairs

carousels without a closed rotating platform whose user stations are defined by separate seats that are rigidly connected with the central axis via the supporting structure

Note 1 to entry: see Figure 1

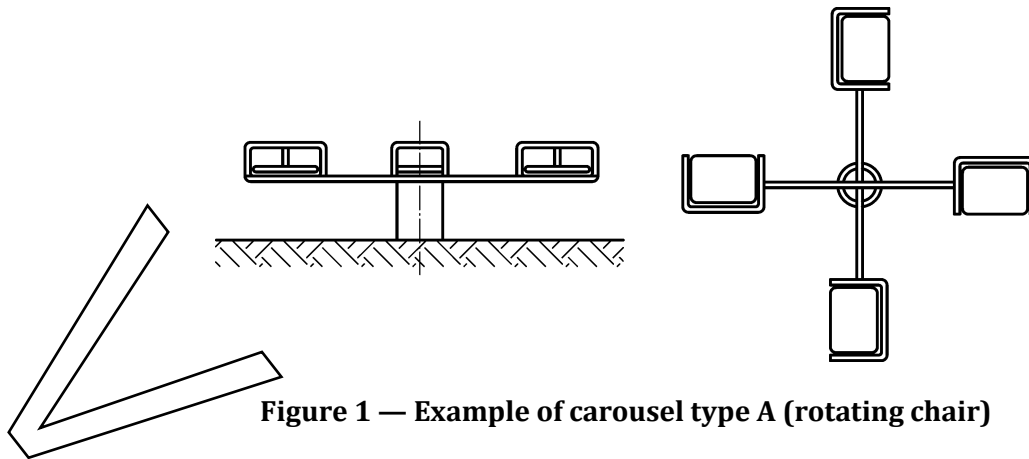


Figure 1 — Example of carousel type A (rotating chair)

3.3

carousel type B

classic carousel

carousels with a closed rotating platform $\geq \text{Ø}500$ mm whose user stations are defined by the upper side of the platform itself and/or by additional seats or handholds that are rigidly fixed on the platform and/or the central axis

Note 1 to entry: see Figure 2

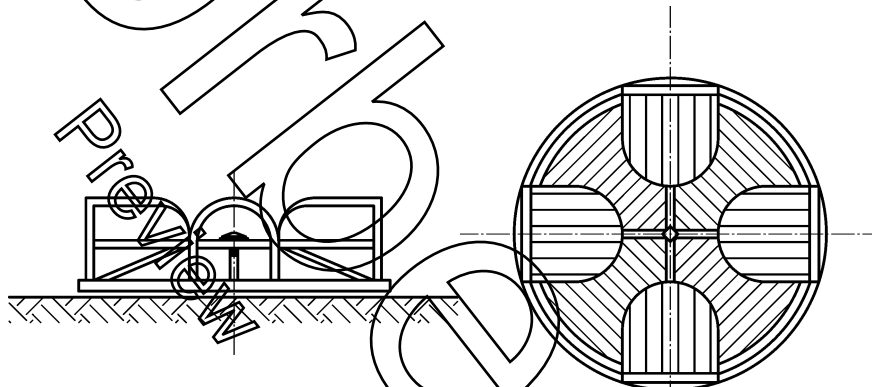


Figure 2 — Example of carousel type B (classic carousel)

3.4

carousel type C

spinning mushrooms, hanging glides

carousels whose user stations are rigidly (spinning mushrooms) or flexibly (hanging glides) fixed to the underside of the rotating supporting structure

Note 1 to entry: see Figure 3

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