



#PlayToday

info@playaustralia.org.au
www.playaustralia.org.au

promoting the value of play

CAROUSELS

'Carousel' is the term used in Australian playground standard AS4685 to describe equipment that rotates users around a central axis in a spinning motion, including both equipment designed to sit/stand on and also rotating swings.

The main day to day risk associated with carousels is head injury arising from a user being flung out and hitting their head due to centrifugal force of the rotation. Particular attention should therefore be paid to ensuring that there are no obstacles in the falling space or impact area.

The clear impact area around most traditional carousels is a minimum of 2000mm from the side of the carousel but may be 3000mm or larger in some cases (rotating swings, flat inclined discs), or occasionally smaller for items such as sit in bowls and spin posts where an impact area of 1500mm applies.

Carousels are generally considered forced movement items and therefore under standards their impact areas should not overlap the impact areas of other items of playground equipment. The main exception to this is carousels with a diameter less than 500 mm (most typically single-user spinning poles and some smaller dish/bowl-style units) which are not considered to have forced movement and therefore may have impact areas that overlap with other equipment.

Due to centrifugal force, under playground standards carousels are assessed for entrapments at any height starting from the ground upwards, including for head and neck entrapments, hair/clothing, foot and leg and finger entrapments. These entrapments may be particularly serious as they can lead to a part of the user being trapped in place while their body is flung away from the equipment, or worse, is trapped in place while the rest of the body continues to rotate.

Particular attention should be paid to central steering wheels, including mounting posts, that remain stationary while the rest of a carousel rotates. Catch points here (such as burrs, loose screws and the like) can result in hair or even limbs wrapping the central mast causing catastrophic injury.

In the case of rotating platforms set flush with or close to the ground (such as those intended to be wheelchair accessible) particular care should be taken to ensure absolute lateral and vertical stability as there have been instances where catastrophic injury has been caused by wobble in the platform when rotating and under load, allowing children to get fingers or other parts of the body caught in the gap between the platform and the ground, or between the platform and the adjacent surface.

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