

Product information and design reasoning for :-

Revolve inclusive roundabout

Product Number

IP01



Relative Information

Revolve inclusive roundabout. This rotating bowl shaped roundabout can be used for gentle spinning as well as very fast dynamic play. Not only does the Revolve spin, it also rocks. This combined movement, coupled with the support and security offered by the deep bowl makes the Revolve very accessible to children of all abilities.



The wide rim allows for ease of transfer in and out of the bowl. It also increases the play value as children can sit on the rim and use it to propel themselves around.

Materials

All products are designed to have the minimum amount of components for ease of assembly and to prolong the working life of the equipment

Steel is widely used throughout the range for its structural properties and manufacturing flexibility. Moulded plastics and HDPE are also used in the skills /science products to offer a more tactile surface.

Our standard warranty on steel and structural elements is 10yrs with a 3yr warranty available for moving /wearing parts.

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Classification compliance as per BS EN 1176 2008

BS EN 1176 part 5 Additional specific safety requirements and test methods for carousels

Definition

3.1

Carousel

playground equipment intended for more than one user, that rotates around a central vertical axis without oscillation

As the unit **does** oscillate , it cannot be classed as a carousel. In its design however all recommendations of BS EN 1176 part 5 that can be adhered to have been and are listed below. All of the normal fabrication and construction requirements of BS EN 1176 have been taken into account as a matter of course.

Classification

3.6

Carousel type E

giant revolving disks

giant revolving disks are carousels having an inclined axis (as specified in 4.5) whose user stations are not clearly definable (see Figure 5)

The nearest definition available is for a type E but due to the domed interior and the variable inclination of the supporting component, it is clearly not a type E.

Speed

4.6 Speed of rotation

Carousels that use a mechanical advantage to raise the speed, e.g. pedal or hand wheel driven, should be so designed that the maximum speed at the periphery, under normal conditions or reasonably foreseeable conditions of use, is not more than 5 m/s.

Due to the movement in both planes it is not foreseeable under normal usage that the unit can be sufficiently maintained at a constant speed faster than 5m/s

Ground clearance

5.5.3 Underside

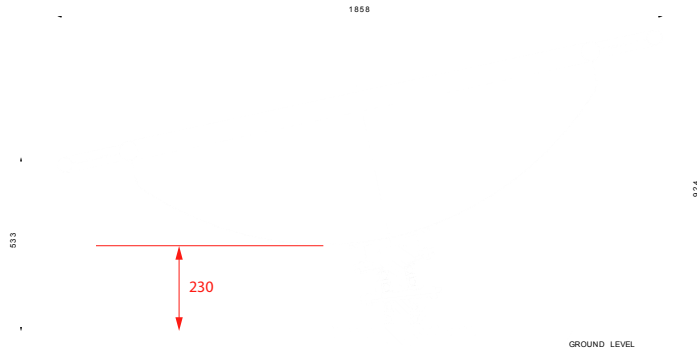
The underside of a giant revolving disk shall be a continuous smooth surface with no radial variations to the ground clearance.

The unit is not defined as a giant revolving dish ,and the underside due to its construction is domed, it can not fore-fill the above criteria.



Due to a lack of classification, it cannot maintain the ground clearances specified. The logical approach with the lowest risk is to maintain a distance of 230mm at the lowest point obtainable on the underside of the dish

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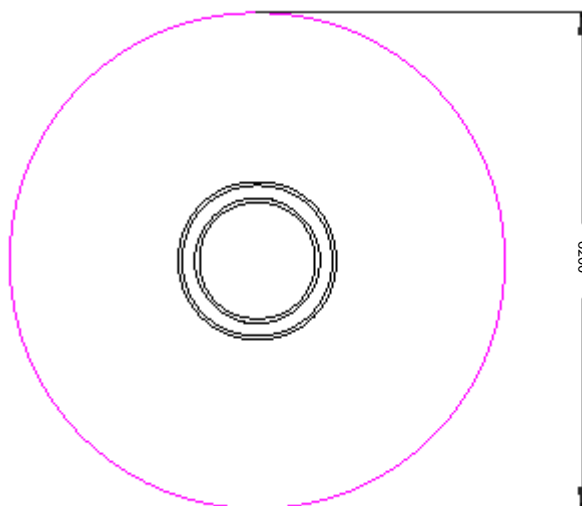


Surfacing

As the foreseeable speed attained and the lack of inertia created in one plane, it has been designed to have 2m of surfacing outside its furthest perimeter taking the oscillation of the unit into consideration, as per :-

4.3 Free space/falling space

Unless otherwise specified, the free space/falling space shall be as follows:
c) to the side of the carousel, at least 2 000 mm;



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Risk assessment

The equipment has been designed to minimise the risks where possible by either designing the risk out or by the incorporating of the standards where possible to reduce the risk, in doing so creating a piece of equipment with a low risk rating.

As per the standards

: - the aim is first and foremost to prevent accidents with a disabling or fatal consequence, and secondly to lessen serious consequences caused by the occasional mishap that inevitably will occur in children's pursuit of expanding their level of competence, be it socially, intellectually or physically.



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