

# Parkour Standard

AS EN 16899:2020

*A brief overview*

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# Parkour

**AS EN 16899:2020**

Sports and recreational equipment – Parkour equipment –  
Safety requirements and test methods



## Parkour

Parkour is a non-competitive sport of training where the participant moves freely over and through any terrain using only the abilities of their body.

The inherent nature of parkour lends itself to a far greater level of risk tolerance than many other forms of recreational equipment.

The risk tolerance could be likened to that applied to skate parks.



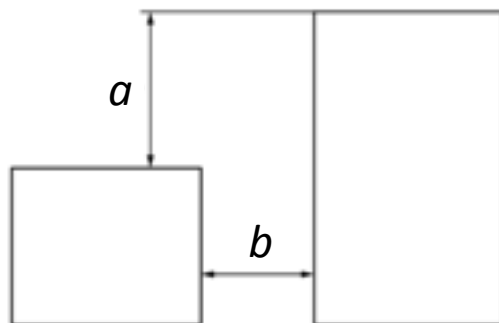
# Parkour

## Accessibility

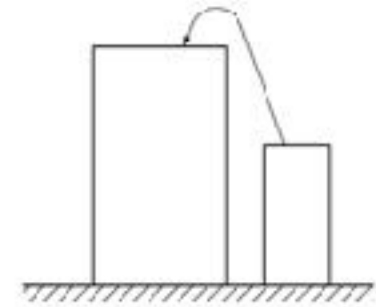
Due to the potential for access by children, parkour equipment shall be designed to make access difficult for young children.

Step distance is measured as a combination of vertical and horizontal dimensions.

*Note: Parkour should be separated from children's play equipment.*



$$\text{Step} = a + b$$



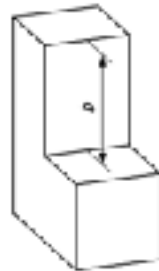
## Step requirements

- Landings less than 1.0 m in height should not have steps or very easy means of access.
- Rails above 1.0 m must have at least one step that is a minimum of 0.7 m.
- Landings between 1.0 m and 1.5 m in height require at least one step that is a minimum of 0.7 m.
- Landings between 1.5 m and 3.0 m require at least one step that is a minimum of 1.0 m.

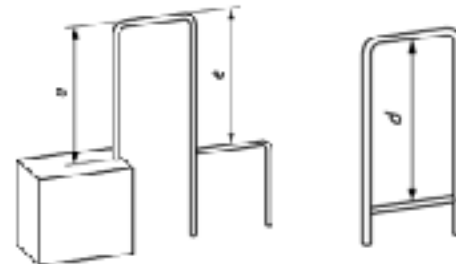
# Parkour

## Maximum fall heights onto adjacent landings or rails

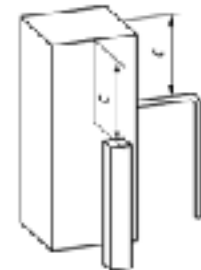
Maximum 1.6 m from landing to landing (greater than 0.5 m x 0.5 m).



Maximum 1.6 m from rail to rail, or rail to small landing.



Maximum 1.2 m from landing to rail or small landing (less than 0.5 m x 0.5 m).



# Parkour

## Surfacing requirements

Fall heights up to 1.6 m do not have a requirement for impact attenuated surfacing.

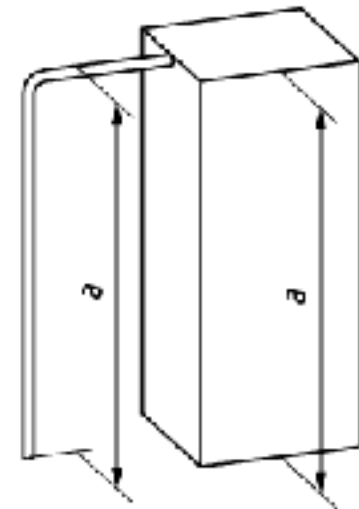
Where the Free Height of Fall (FHoF) is greater than 1.6 m, impact attenuated surfacing is required.

The required critical fall height (CFH) of the surfacing is 2/3 of the free height of fall.

For example:	FHoF = 2.1 m	CFH = 1.4 m
	FHoF = 3.0m	CHF = 2.0 m

The maximum FHoF is 3.0m.

(This applies to any part of the equipment as all items are deemed to be accessible.)



# Parkour

## Extent of Falling Space (fall-zone)

The extent of the falling space around the equipment is as follows:

- Fall heights of up to 1.5 m require a falling space of 1.5 m.
- Fall heights between 1.5 m and 3.0 m require a falling space calculated as  $\frac{2}{3}$  of the fall height + 0.5 m.

Objects within the falling space shall be limited to landings, bars and rails.

## Accessible Surfaces and Edges

Surfaces & accessible materials – Surfaces should be slip resistant, without being abrasive.

Protrusions – Protruding bolt threads, etc. should be covered (e.g. with dome nuts).

Exposed edges – Exposed edges should have a radius of at least 3mm or a chamfer of at least 3mm x 3mm.



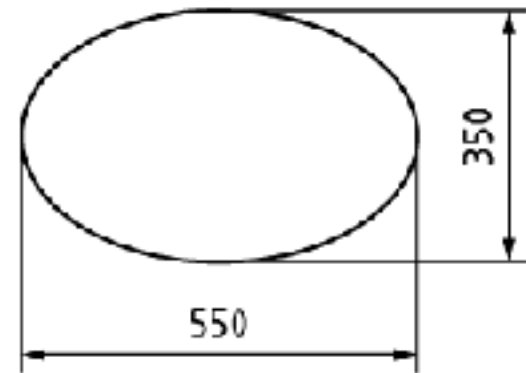
# Parkour

## Entrapments

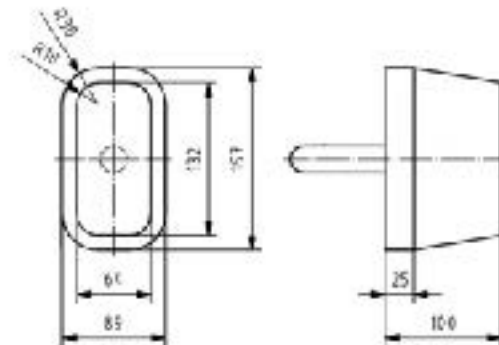
### Completely bound openings

Completely bound openings with a lower edge more than 600mm above the impact area need to meet the following size requirements:

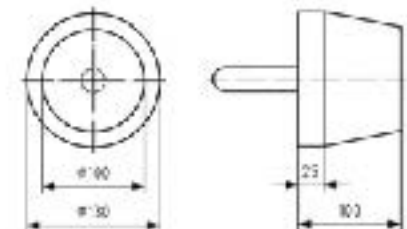
Any openings that allow the passage of the torso probe (89 mm x 157 mm) or the small head probe (130 mm diameter), need to be large enough to allow passage of the Body Clearance probe (550 mm x 350mm oval).



Body Clearance Probe



Torso Probe



Small Head Probe

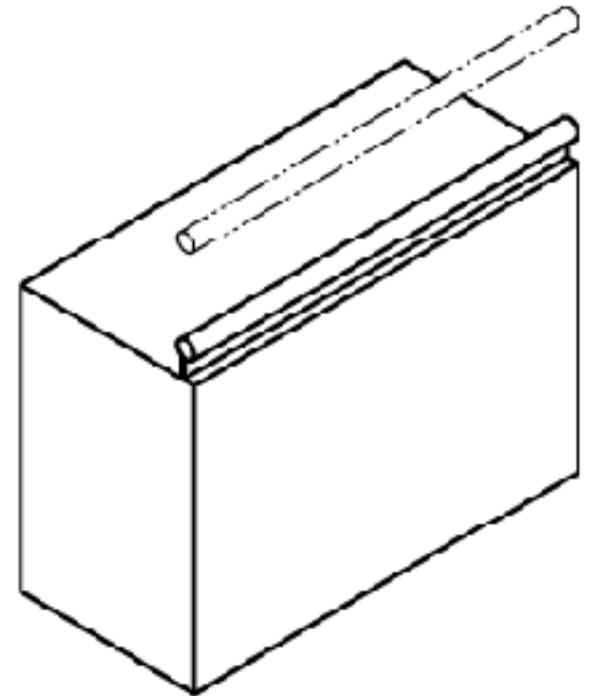
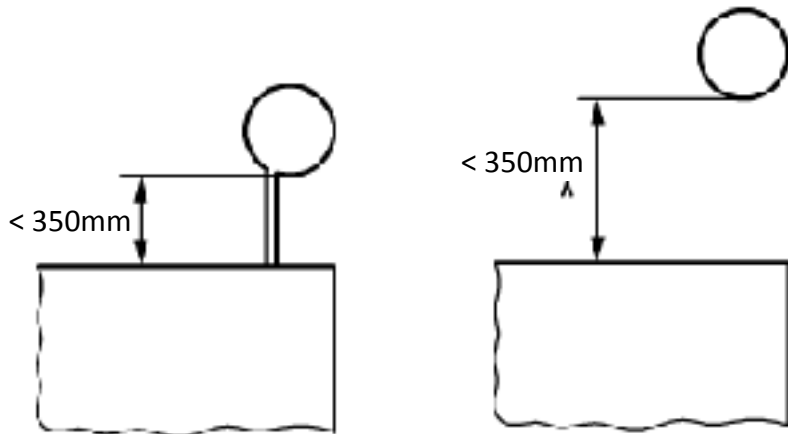


# Parkour

## Entrapments

### Openings between a rail and the surface of a landing

Openings between a rail and the surface of a landing must either be filled, or large enough to allow passage of the 'body clearance probe', measuring 350 mm x 550 mm.



# Parkour

## Entrapments

### Partially bound or V-shaped openings

Partially bound openings that are more than 600 mm above the impact surface and greater than 45 mm in depth should comply with one of the following:

- the width of the opening should be less than 45 mm (to prevent possible insertion of the neck); or
- the width of the opening should be greater than 155 mm if the depth of the opening is less than 265 mm on both sides; or
- the width of the opening should be greater than 230 mm if the depth of the opening is greater than 265 mm.

V-shaped openings should not converge downwardly at an angle of less than 60°.



Pass



Fail



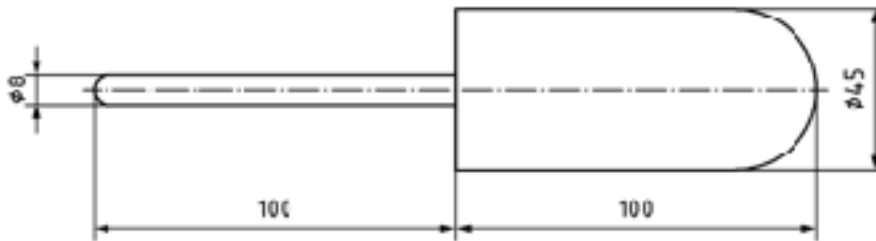
Fail

# Parkour

## Entrapments

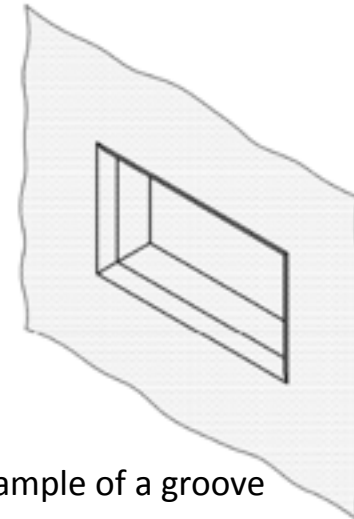
### Finger entrapment

Openings that allow passage of the 45 mm diameter probe must not allow passage of the 8 mm probe.



### Grooves

Grooves shall be  $\geq 45$ mm in width and depth.



Example of a groove