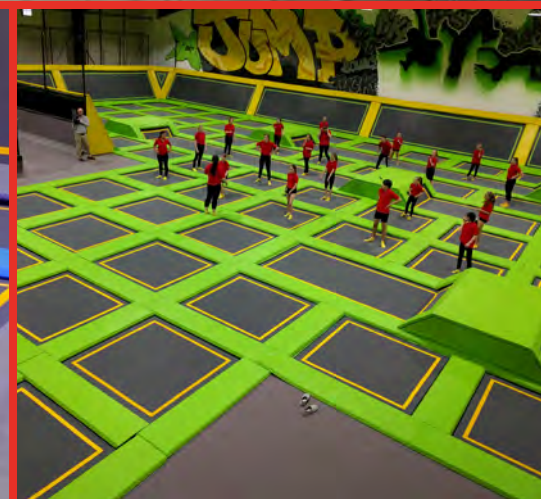


PAS 5000:2017

Specification for the construction and operation of a fixed indoor trampoline park



INTERNATIONAL
ASSOCIATION OF
TRAMPOLINE
PARKS



bsi
Documents
Document Sharing Hub

Publishing and copyright information

The BSI copyright notice displayed in this document indicates when the document was last issued.

© The British Standards Institution 2017. Published by BSI Standards Limited 2017.

ISBN 978 0 580 940125

ICS 97.220.30

No copying without BSI permission except as permitted by copyright law.

Publication history

First published March 2017

The following organizations were involved in the development of PAS 5000



Contents

Foreword	ii
1 Scope	1
2 Normative references	2
3 Terms and definitions	3
4 Construction	6
5 Operations	15
Annexes	
Annex A (normative) Human factor risk assessment	22
Bibliography	26
List of figures	
Figure 1 – Horizontal bouncing	4
Figure 2 – Vertical bouncing	5
Figure 3 – Park trampoline height	7
Figure 4 – Vertical clearance for performance trampolines for both horizontal and vertical bouncing	10
List of tables	
Table A.1 – Human factor risks	22



Foreword

This PAS (Publicly Available Specification) was sponsored by the International Association of Trampoline Parks (IATP). Its development was facilitated by BSI Standards Limited and it was published under licence from The British Standards Institution. It came into effect on 31 March 2017.

Acknowledgement is given to Peter Brown of Freedom Parks, as the technical author and the following organizations that were involved in the development of this PAS as members of the steering group:

- A&S Inman (Designs) Ltd
- Air Hop
- Air Space
- British Association of Leisure Parks, Piers and Attractions (BALPPA)
- British Gymnastics
- Continental Sports Limited
- Freedom Parks
- Fun Spot Manufacturing, LLC
- Gravity Fitness Ltd
- Health and Safety Executive (HSE)
- Independents – Chartered Insurance Brokers
- International Association of Trampoline Parks (IATP)
- Luna Trampolines Ltd
- Midlothian Council Environmental Health
- The Royal Society for the Prevention of Accidents (ROSPA)

Acknowledgement is also given to the members of a wider review panel who were consulted in the development of this PAS.

The British Standards Institution retains ownership and copyright of this PAS. BSI Standards Limited as the publisher of the PAS reserves the right to withdraw or amend this PAS on receipt of authoritative advice that it is appropriate to do so. This PAS will be reviewed at intervals not exceeding two years, and any amendments arising from the review will be published as an amended PAS and publicized in Update Standards.

This PAS is not to be regarded as a British Standard. It will be withdrawn upon publication of its content in, or as, a British Standard.

The PAS process enables a specification to be rapidly developed in order to fulfil an immediate need in industry. A PAS can be considered for further development as a British Standard, or constitute part of the UK input into the development of a European or International Standard.

Use of this document

It has been assumed in the preparation of this PAS that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

Presentational conventions

The provisions of this PAS are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is “shall”.

Commentary, explanation and general informative material is presented in italic type, and does not constitute a normative element.

Where words have alternative spellings, the preferred spelling of the Shorter Oxford English Dictionary is used (e.g. “organization” rather than “organisation”).

Requirements in this PAS are drafted in accordance with *Rules for the structure and drafting of UK standards*, subclause J.1.1, which states, “Requirements should be expressed using wording such as: ‘When tested as described in Annex A, the product shall ...’”. This means that only those products that are capable of passing the specified test will be deemed to conform to this PAS.

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a PAS cannot confer immunity from legal obligations.

Particular attention is drawn to the following specific regulations:

- Health and Safety at Work etc. Act 1974 [1]
- The Building (Amendment) Regulations 2016 [2]
- Construction (Design and Management) Regulations 2015 [3]
- The Control of Substances Hazardous to Health (Amendment) Regulations 2004 [4]
- Data Protection Act 1998 [5]
- Employers' Liability (Compulsory Insurance) Act 1969 [6]
- Equality Act 2010 [7]
- The Health and Safety (First Aid) Regulations 1981 [8]
- The National Minimum Wage (Amendment) Regulations 2016 [9]
- Occupiers' Liability Act 1957 [10]
- Occupiers' Liability act 1984 [11]
- The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR) [12]



This page is deliberately left blank.

1 Scope

This PAS specifies requirements for the construction of an indoor trampoline park. It covers indoor trampoline parks made up of interconnected trampolines being used for non-competitive leisure activities.

It also covers requirements for the day-to-day operation and maintenance of an indoor trampoline park.

This PAS does not cover:

- building regulations;
- fire regulations;
- planning regulations;
- water testing;
- food and drink provision;
- Equality Act [7] compliance;
- testing procedures; and
- non-trampoline activities.

It is intended for use by trampoline park manufacturers, installers, and operators, and might be of interest to inspectors and enforcement bodies.



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.

Standards publications

ASTM F355-16, *Standard Test Method for Impact Attenuation of Playing Surface Systems, Other Protective Sports Systems, and Materials Used for Athletics, Recreation and Play*

ASTM F2970-15, *Standard Practice for Design, Manufacture, Installation, Operation, Maintenance, Inspection and Major Modification of Trampoline Courts*

BS EN 13219, *Gymnastics equipment – Trampolines – Functional and safety requirements, test methods*

Other publications

[NR1] Fédération Internationale de Gymnastique, *Apparatus Norms*

[NR2] International Basketball Federation (FIBA), *Official Basketball Rules 2014*



3 Terms and definitions

For the purposes of this PAS, the following terms and definitions apply.

3.1 accident

event that occurs unexpectedly and unintentionally and which damages something or injures someone

[PAS 81:2011, 3.1]

3.2 activity area

defined zone within the trampoline park that contains a park trampoline

3.3 air bag

inflatable installation that, when installed in accordance with the manufacturer's or supplier's instructions, provides an area of protection capable of dissipating the kinetic energy of one or more persons falling from not more than a specified height onto any part of its surface

3.4 bed

material surface of a trampoline that a user bounces on

3.5 capacity

maximum number of users, excluding employees and spectators, for which the trampoline park or an area of the park has been designed to accommodate

NOTE *It does not assume that the entire capacity is bouncing simultaneously.*

3.6 competent person

person, trained and qualified by knowledge and practical experience, and provided with the necessary instructions to enable the required task(s) to be carried out correctly

[Adapted from: BS 9999:2008, 3.23]

3.7 containment netting

material used to contain the user and other materials to an area

NOTE *The containment netting can be manufactured from a material such as netting, PVC or impact attenuation material designed to assist in preventing users and other projectiles from passing over the top of angled trampolines.*

3.8 court monitor

employee that has responsibility for managing the users in a given area of the trampoline park

3.9 designer

person or company that designs the trampoline park equipment

3.10 dismount pit

3.10.1 dismount pit

area of soft landing onto or into which a user is supposed to, or expected to, fall at the end of an activity

NOTE *Dismount pits can be either air bag pits or foam pits.*

3.10.2 air bag pit

area filled with an air bag that is used to land on from a trampoline or a surrounding raised podium area

3.10.3 foam pit

area filled with foam cubes or logs that are used to land on from a trampoline or a surrounding raised podium area

3.11 emergency action plan (EAP)

document that gives specific instructions on the actions to be taken by all employees in the event of an emergency

[PAS 81:2011, 3.8]

3.12 fall arrest netting

material used to protect against the user experiencing an unintended fall from height

3.13 framework

structure to which trampoline components are attached

3.14 hazard

something with the potential to cause harm

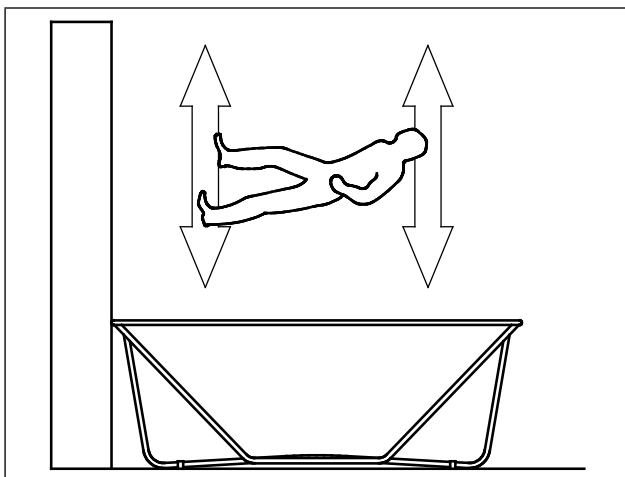
[PAS 81:2011, 3.9]

3.15 horizontal bouncing

where the users' body centre line is parallel to the trampoline bed

NOTE See Figure 1 which illustrates horizontal bouncing.

Figure 1 – Horizontal bouncing



3.16 incident

event that has the potential to cause harm

3.17 inspector

competent person (3.6) or company who inspects the trampoline park for compliance with this PAS

3.18 installer

person or company that installs the trampoline park equipment

3.19 manufacturer

person or company that fabricates the trampoline park equipment

3.20 novel activity area

zone within the trampoline park that contains devices for physical activity other than defined trampolines

3.21 operation & maintenance (O&M) manual

manual provided to the operator from the designer and/or manufacturer on how to safely use and maintain the equipment

3.22 operator

person or company that has control over all aspects of the day-to-day running of the trampoline park

3.23 padding

material used to attenuate the effect of impact with a hard surface

3.24 park trampoline

device that a user bounces on

3.25 performance trampoline

trampoline that has a higher height of rebound than a park trampoline

3.26 performance wall

vertical wall adjacent to a performance trampoline

NOTE Also known as the walk-the-wall.

3.27 redundant barrier system

material intended as a secondary containment under or behind a park trampoline that helps passively contain the user(s)

3.28 risk

chance, high or low, of somebody being harmed by the hazard, and how serious the harm could be

{Source: HSE www.hse.gov.uk/risk/faq.htm [13]}

3.29 risk assessment

overall process of risk and hazard identification, risk analysis and identification of control measures

3.30 spring

material used to provide bounce to a trampoline bed

3.31 spring protector

material used to assist in protecting the user from entrapment/contact with the springs

3.32 toddler court

area of park trampolines that are designated by the operator as an area specifically for children under 6 years of age either permanently or for specific session(s)

3.33 vertical bouncing

where a user's body centre line is perpendicular to the trampoline bed

NOTE See Figure 2 which illustrates vertical bouncing.

Figure 2 – Vertical bouncing

