



DPC: 25/30498654 DC

BSI Group Headquarters

389 Chiswick High Road London W4 4AL

Tel: +44 (0)20 8996 9000

Fax: +44 (0)20 8996 7400

www.bsigroup.com

Date: 03 July 2025

Origin: European

Latest date for receipt of comments: 26 August 2025

Project No. 2024/02258

Responsible committee: SW/136 Sports, playground and other recreational equipment

Interested committees:

Title: Draft BS EN 12572-1 Artificial climbing structures. Part 1: Safety requirements and test methods for ACS with protection points.

Please notify the secretary if you are aware of any keywords that might assist in classifying or identifying the standard or if the content of this standard

- i) has any issues related to 3rd party IPR, patent or copyright
- ii) affects other national standard(s)
- iii) requires additional national guidance or information

WARNING: THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A BRITISH STANDARD. THIS DRAFT IS NOT CURRENT BEYOND 26 August 2025

This draft is issued to allow comments from interested parties; all comments will be given consideration prior to publication. No acknowledgement will normally be sent. **See overleaf for information on the submission of comments.**

No copying is allowed, in any form, without prior written permission from BSI except as permitted under the Copyright, Designs and Patent Act 1988 or for circulation within a nominating organization for briefing purposes. Electronic circulation is limited to dissemination by e-mail within such an organization by committee members.

Further copies of this draft may be purchased from BSI Shop <http://shop.bsigroup.com> or from BSI Customer Services, Tel: +44(0) 20 8996 9001 or email cservices@bsigroup.com. British, International and foreign standards are also available from BSI Customer Services.

Information on the co-operating organizations represented on the committees referenced above may be obtained from <https://standardsdevelopment.bsigroup.com/>.

Responsible Committee Secretary: Ms Julie Horton (BSI)

Direct tel:

E-mail: julie.horton@bsigroup.com

Full document details: 25/30498654 DC

Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
------------------	------------------------

1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

English Version

Artificial climbing structures - Part 1: Safety requirements and test methods for ACS with protection points

Structures artificielles d'escalade - Partie 1 : Exigences
de sécurité et méthodes d'essai relatives aux SAE avec
points d'assurage

Künstliche Kletteranlagen - Teil 1:
Sicherheitstechnische Anforderungen und
Prüfverfahren für KKA mit Sicherungspunkten

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

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents

Page

European foreword	3
Introduction	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions.....	5
4 Safety requirements and test methods.....	7
4.1 Layout and placement of individual protection points.....	7
4.2 Design of individual top protection points.....	8
4.2.1 General.....	8
4.2.2 Dimensions.....	8
4.3 Structural integrity	9
4.3.1 General.....	9
4.3.2 Structural integrity of a protection point connection	10
4.4 Impact resistance and deflection of surface elements	10
4.5 Panel insert resistance.....	11
4.6 Proof testing	11
4.7 Falling space	11
4.8 Free space	12
4.9 Climbing surfaces.....	12
5 Marking	12
6 Instruction manual.....	12
7 Technical documentation of ACS.....	12
8 Inspection and maintenance.....	13
8.1 General.....	13
8.1.1 Instructions.....	13
8.1.2 Routine visual inspection	13
8.1.3 Operational inspection	13
8.1.4 Main inspection	13
8.2 Other inspection.....	14
Annex A (normative) Effects	15
Annex B (normative) Method of calculation of structural integrity	17
Annex C (normative) Load testing of structural integrity of protection point connections	19
Annex D (normative) Impact test of surface elements	20
Annex E (normative) Panel insert resistance test.....	23
Annex F (normative) Proof testing	25
Annex G (normative) Inspection and maintenance	28
Bibliography	30

European foreword

This document (prEN 12572-1:2025) 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 12572-1:2017.

The EN 12572 series, *Artificial climbing structures*, consists of the following parts:

- Part 1: Safety requirements and test methods for ACS with protection points
- Part 2: Safety requirements and test methods for bouldering walls
- Part 3: Safety requirements and test methods for climbing holds

EN 12572-1 includes the following significant technical changes with respect to EN 12572-1:2017:

- a) added a new Introduction;
- b) modified Figure 2a);
- c) added technical specifications in 4.2.1 concerning individual top protections;
- d) added technical documentation of ACS in Clause 7;
- e) added technical specification in the proof test in Clause 7;
- f) added Clause 8, Inspection and maintenance;
- g) added additional loads per squares meters on the climbing surface in Annex A, A.2.8;
- h) modified the Figure F1 in Annex F.

Introduction

It is recognized that safety flooring can have a positive effect on the consequences from a ground fall.
A uniform standard cannot be defined with the current state of knowledge but will be further developed.

1 Scope

This document specifies the safety requirements and test methods for artificial climbing structures with protection points (hereafter referred to as ACS).

This document is applicable for ACS in normal use for sport climbing.

This document is not applicable to ice climbing, dry tooling and playground equipment.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1991-1-3, *Eurocode 1 - Actions on structures - Part 1-3: Snow loads*

EN 1991-1-4, *Eurocode 1 - Actions on structures - Part 1-4: General actions - Wind actions*

EN 1991-1-5, *Eurocode 1 - Actions on structures - Part 1-5: Thermal actions*

EN 1998-1-1, *Eurocode 8: Design of structures for earthquake resistance - Part 1-1: General rules and seismic action*

3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp/>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

artificial climbing structure

ACS

sports equipment consisting of a purpose-built climbing structure, which exhibits various construction characteristics, and is designed for various uses in climbing objectives and is not reserved for a particular group

3.2

protection point

anchor point on the ACS designed to protect the climber

Note 1 to entry: It can be permanent (cannot be removed with tools, e.g. a glue in anchor) or non-permanent (removable with tools, e.g. a hanger).

3.3

individual protection point

intermediate protection point used to safeguard a climber in his/her progress on the ACS

3.4

individual top protection point

protection point which is fixed at the top of a climbing line and which is designed to take the impact produced by falling climber on the protection point

Note 1 to entry: It can be used for top rope or lead climbing.

3.5 autobelay

automatic operated device, usually installed on top of a route and above the user, including a self-retractable safety line, to which the user is connected, allowing climbing up without slack in the retractable safety line and in case of loading the retractable safety line by the user, the device lowers the user automatically speed regulated at a safe speed

Note 1 to entry: The device has a braking system that does not require an intervention for speed regulation by the user once the descent has commenced.

3.6 collective top protection system

protection system which is fixed at the top of a climbing line and which is designed to take the ropes of several climbers at once

Note 1 to entry: It can be used for top rope or lead climbing.

3.7 span

part of a collective top rope system measured between two consecutive supports or attachments

Note 1 to entry: See Figure F.2.

3.8 characteristic load

maximum load that can be generated in normal use

3.9 falling space

space around the ACS that can be occupied by the user during a fall

3.10 free space

space around the ground projection of the ACS that can be occupied by a climbing, a lowering, spotting or belaying user

3.11 hold

removable climbing component used for progression on an ACS or bouldering wall including bigger three-dimensional, structural attachment without additional panel insert or other means of hold fixation

3.12 volume

removable three-dimensional, structural attachment with means of hold fixation, for example panel insert or wood screws designed for temporary extension of the climbing surface

3.13 panel insert

point into which a climbing hold is attached

4 Safety requirements and test methods

4.1 Layout and placement of individual protection points

If there are individual protection points, the height of the first point shall not exceed 3,10 m.

The maximum distance x between the placement of the individual protection points (see Figure 1) from height h shall be determined as follows:

- 1 m if $h \leq 4$ m;
- 1,10 m for $h > 4$ m;
- 1,20 m for $h > 5$ m;
- 1,30 m for $h > 6$ m;
- 1,40 m for $h > 7$ m;
- 1,50 m for $h > 8$ m;
- 2,00 m for $h > 10$ m.

The maximum distance x may have a tolerance of 10 %.

h is the distance between the point and the ground measured vertically, in metres, beneath the point in all cases.

If without permanent quick draws, the maximum distance shall be measured from the lower internal radius to the lower internal radius of the protection point (see Figure 1).

If permanent quick draws are installed, the maximum distance shall be measured from lower quick draw end to lower quick draw end, this is measured from the lower internal radius to the lower internal radius. A permanent quick draw (e.g. chain secure element, Maillon Rapide) shall be disassembled from the climbing wall by means of tools (see Figure 2).

Protection points attached with bolts shall be secured, so they cannot come undone, e.g. with lock nuts.

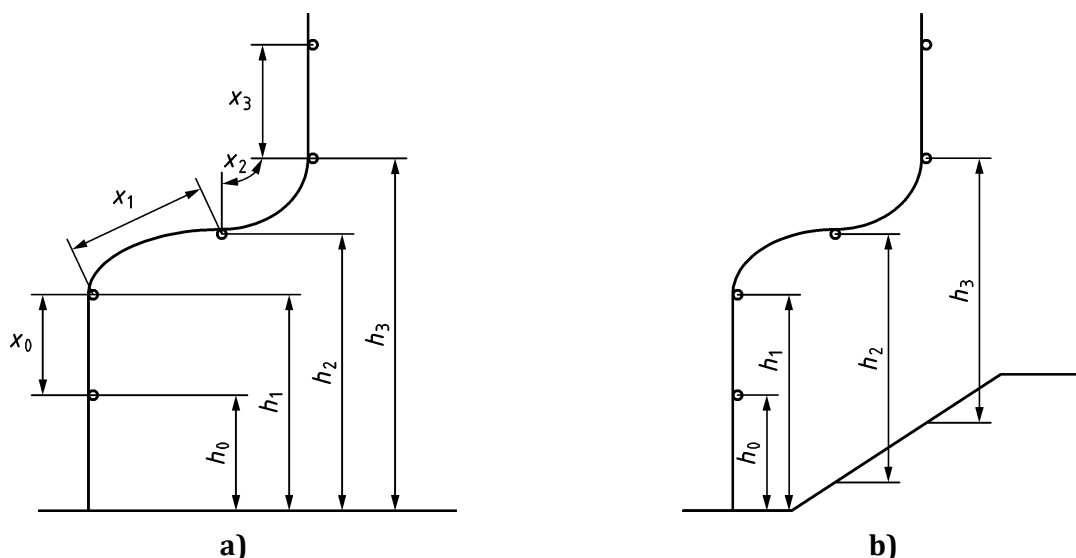


Figure 1 — Without permanent quick draws

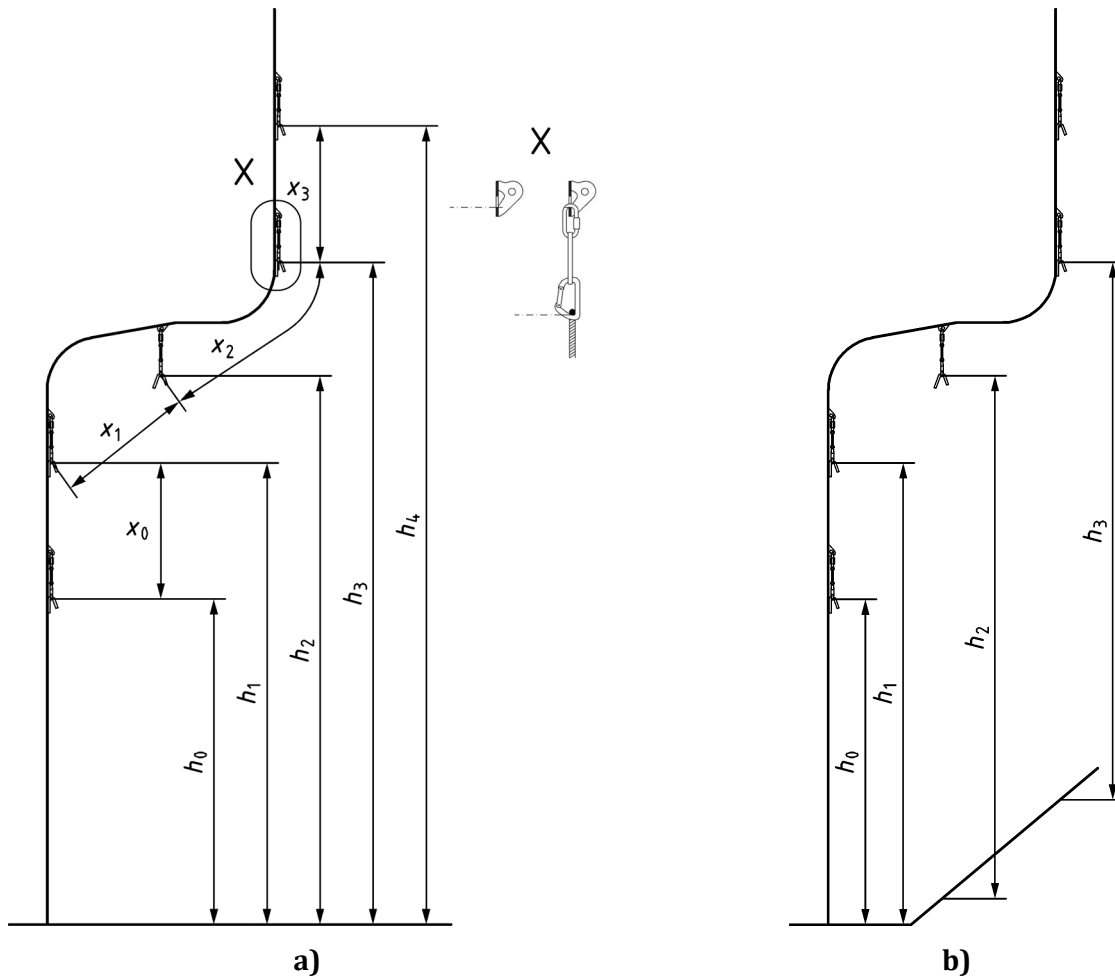


Figure 2 — With permanent quick draws

4.2 Design of individual top protection points

4.2.1 General

The rope shall not be able to escape from the top protection points at an untimely moment, e.g. single-snap-gate karabiner is not sufficient.

Individual top protection points shall be attached to the structure by two or more points of fixation. Each fixation point shall be calculated as a protection point.

Each link between the fixing points shall have a resistance greater than or equal to each of the points which it joins together; this resistance shall be verified by either calculation (see Annex A), or a document of compliance, or tests as defined in Annex C.

4.2.2 Dimensions

The minimum dimension of all protection points and stance points with the exception of individual and collective top protection systems shall be in accordance with Figure 3. Other designs meeting the requirements of Figure 3 are also permissible.

The bar or device over or through which the rope passes in either a collective top protection system or an individual top protection point shall be rounded in accordance with Figure 4.