

SVENSK STANDARD

SS-EN 16899:2016



Fastställt/Approved: 2016-11-29
Publicerad/Published: 2016-12-05
Utgåva/Edition: 1
Språk/Language: engelska/English
ICS: 97.220.10

Sport- och fritidsutrustning – Utrustning för parkour – Säkerhetskrav och provningsmetoder

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



Standarder får världen att fungera

SIS (Swedish Standards Institute) är en fristående ideell förening med medlemmar från både privat och offentlig sektor. Vi är en del av det europeiska och globala nätverk som utarbetar internationella standarder. Standarder är dokumenterad kunskap utvecklad av framstående aktörer inom industri, näringsliv och samhälle och befrämjar handel över gränser, bidrar till att processer och produkter blir säkrare samt effektiviserar din verksamhet.

Delta och påverka

Som medlem i SIS har du möjlighet att påverka framtida standarder inom ditt område på nationell, europeisk och global nivå. Du får samtidigt tillgång till tidig information om utvecklingen inom din bransch.

Ta del av det färdiga arbetet

Vi erbjuder våra kunder allt som rör standarder och deras tillämpning. Hos oss kan du köpa alla publikationer du behöver – allt från enskilda standarder, tekniska rapporter och standardpaket till handböcker och onlinetjänster. Genom vår webbtjänst e-nav får du tillgång till ett lättnavigerat bibliotek där alla standarder som är aktuella för ditt företag finns tillgängliga. Standarder och handböcker är källor till kunskap. Vi säljer dem.

Utveckla din kompetens och lyckas bättre i ditt arbete

Hos SIS kan du gå öppna eller företagsinterna utbildningar kring innehåll och tillämpning av standarder. Genom vår närhet till den internationella utvecklingen och ISO får du rätt kunskap i rätt tid, direkt från källan. Med vår kunskap om standarders möjligheter hjälper vi våra kunder att skapa verklig nytta och lönsamhet i sina verksamheter.

Vill du veta mer om SIS eller hur standarder kan effektivisera din verksamhet är du välkommen in på www.sis.se eller ta kontakt med oss på tel 08-555 523 00.



Standards make the world go round

SIS (Swedish Standards Institute) is an independent non-profit organisation with members from both the private and public sectors. We are part of the European and global network that draws up international standards. Standards consist of documented knowledge developed by prominent actors within the industry, business world and society. They promote cross-border trade, they help to make processes and products safer and they streamline your organisation.

Take part and have influence

As a member of SIS you will have the possibility to participate in standardization activities on national, European and global level. The membership in SIS will give you the opportunity to influence future standards and gain access to early stage information about developments within your field.

Get to know the finished work

We offer our customers everything in connection with standards and their application. You can purchase all the publications you need from us - everything from individual standards, technical reports and standard packages through to manuals and online services. Our web service e-nav gives you access to an easy-to-navigate library where all standards that are relevant to your company are available. Standards and manuals are sources of knowledge. We sell them.

Increase understanding and improve perception

With SIS you can undergo either shared or in-house training in the content and application of standards. Thanks to our proximity to international development and ISO you receive the right knowledge at the right time, direct from the source. With our knowledge about the potential of standards, we assist our customers in creating tangible benefit and profitability in their organisations.

If you want to know more about SIS, or how standards can streamline your organisation, please visit www.sis.se or contact us on phone +46 (0)8-555 523 00



Europastandarden EN 16899:2016 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN 16899:2016.

The European Standard EN 16899:2016 has the status of a Swedish Standard. This document contains the official English version of EN 16899:2016.

© Copyright/Upphovsrätten till denna produkt tillhör SIS, Swedish Standards Institute, Stockholm, Sverige. Användningen av denna produkt regleras av slutanvändarlicensen som återfinns i denna produkt, se standardens sista sidor.

© Copyright SIS, Swedish Standards Institute, Stockholm, Sweden. All rights reserved. The use of this product is governed by the end-user licence for this product. You will find the licence in the end of this document.

Uppllysningar om sakinnehållet i standarden lämnas av SIS, Swedish Standards Institute, telefon 08-555 520 00. Standarder kan beställas hos SIS Förlag AB som även lämnar allmänna upplysningar om svensk och utländsk standard.

Information about the content of the standard is available from the Swedish Standards Institute (SIS), telephone +46 8 555 520 00. Standards may be ordered from SIS Förlag AB, who can also provide general information about Swedish and foreign standards.

Denna standard är framtagen av kommittén för Lekredskap, SIS/TK 379.

Har du synpunkter på innehållet i den här standarden, vill du delta i ett kommande revideringsarbete eller vara med och ta fram andra standarder inom området? Gå in på www.sis.se - där hittar du mer information.

EUROPEAN STANDARD

EN 16899

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2016

ICS 97.220.10

English Version

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

Equipements de sports et de loisirs - Equipements de
parkour - Exigences de sécurité et méthodes d'essai

Sport- und Freizeitanlagen - Parkoureinrichtungen -
Sicherheitstechnische Anforderungen und
Prüfverfahren

This European Standard was approved by CEN on 17 September 2016.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists 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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Content

Page

European foreword..... 5

Introduction 6

1 Scope..... 8

2 Normative references..... 8

3 Terms and definitions 8

4 Materials and structural integrity..... 12

4.1 Requirements for materials..... 12

4.1.1 General..... 12

4.1.2 Concrete..... 12

4.1.3 Wood..... 12

4.1.4 Metals 13

4.1.5 Rubbers and synthetics..... 13

4.2 Requirements for structural integrity and loading..... 13

4.3 Requirements for foundations and groundwork 15

5 Safety requirements..... 15

5.1 Sporting ability..... 15

5.2 Access restrictions..... 15

5.3 Accessible surfaces, profiles and edge chamfers..... 17

5.4 Parkour bars and rails 18

5.5 Enclosed passage ways..... 19

5.6 Protection against injuries during movement and falling 19

5.7 Clearances..... 19

5.8 Entrapment 20

5.8.1 Entrapment of hair and clothing 20

5.8.2 Entrapment of the head and neck..... 20

5.8.3 Completely bound openings..... 20

5.8.4 Partially bound and V-shaped openings..... 21

5.8.5 Body and finger clearances 21

5.9 Separation from other facilities and activities..... 21

6 Dimensions..... 21

6.1 Landings 21

6.2 Impact attenuating surface (IAS) and critical fall height..... 22

6.3 Maximum height of any element or part of equipment..... 22

6.4 Maximum free height of fall..... 22

6.5 Extent of the falling space 23

7 Installation, inspection and maintenance..... 24

7.1 Installation 24

7.1.1 General..... 24

7.1.2 Information sign/board..... 25

7.1.3 Level mark..... 25

7.2 Inspection 25

7.2.1 General..... 25

7.2.2 Inspection of impact attenuating surfacing..... 25

7.2.3 Inspection schedule..... 25

7.2.4 Frequency of inspections 26

7.3	Maintenance	26
7.3.1	General	26
7.3.2	Routine maintenance	26
7.3.3	Corrective maintenance	27
8	Operation.....	27
8.1	General	27
8.2	Specific requirements	27
8.2.1	Personnel.....	27
8.2.2	Documentation	28
8.2.3	Procedures	28
8.2.4	Personnel and public safety.....	29
8.2.5	Equipment alterations	29
8.2.6	Supervised settings.....	29
9	Labelling/marking	29
10	Information to be provided by the manufacturer/supplier	29
10.1	General product information	29
10.2	Pre-information	30
10.3	Installation information.....	30
Annex A (normative) Method of determining structural integrity.....		32
A.1	General principle	32
A.2	User load	33
A.3	Safety factors	33
A.4	Self-weight.....	33
A.5	Physical testing.....	33
A.6	Horizontal stability.....	33
Annex B (normative) Number of users on the equipment.....		34
B.1	General	34
B.2	Number of users on a point.....	34
B.3	Number of users on line type elements.....	34
B.4	Number of users on an area	34
Annex C (normative) Impact test method.....		35
C.1	Principle.....	35
C.2	Apparatus	35
C.3	Procedure	36
Annex D (normative) Assessment of surface area of a landing.....		37
D.1	Principle.....	37
D.2	Apparatus	37
D.3	Procedure.....	38
Annex E (normative) Test method for entrapment.....		40
E.1	General	40
E.2	Head and neck entrapment.....	40

SS-EN 16899:2016 (E)

E.3 Body and finger clearances 46
Bibliography 48

European foreword

This document (EN 16899:2016) 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 European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2017, and conflicting national standards shall be withdrawn at the latest by May 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

SS-EN 16899:2016 (E)**Introduction**

This document is primarily intended for manufacturers of parkour equipment, operators and designers of parkour parks and supervisors of parkour lessons who are appropriately qualified and experienced and have sufficient knowledge on parkour as sports.

It is not expected that every scenario has been addressed. Where new designs or concepts are delivered, a risk-benefit assessment should be completed by a competent person.

The design and layout of parkour facilities requires a good understanding of the sport and the interrelationship of equipment and “flow” routes. To ensure the safety of equipment it is recommended that design advice is obtained from a competent person and that appropriate risk-benefit assessments are carried out.

NOTE National federations/governing bodies, if exist, can provide advice on suitable competent persons.

Compliance with this European Standard cannot confer immunity from legal obligations.

Parkour as sports

Parkour, also known as “freerunning” and “Art du Déplacement”, is the non-competitive sport of training to move freely over and through any terrain using only the abilities of the body, principally through running, jumping, climbing and quadrupedal movement. In practice, it focuses on developing the fundamental attributes required for such movement, which include functional strength and fitness, balance, spatial awareness, agility, coordination, precision, control and creative vision.

It is a sport that encourages self-improvement on all levels, revealing one’s physical and mental limits, while simultaneously offering ways to overcome them. It is a method of training one’s body and mind in order to be as completely functional, effective and liberated as possible in any environment.

The sport aims to build confidence, determination, self-discipline and self-reliance, and responsibility for one’s actions. It encourages humility, respect for others and for one’s environment, self-expression and community spirit, and emphasizes the importance of discovery and safety at all times.

Founding of parkour

The sport, originally termed l’Art du Déplacement, was founded in France in the 1980s by a group of nine young men who called themselves “The Yamakasi”. “Yamakasi” is a Lingala word loosely meaning “strong man, strong spirit”, and summed up the core aim of the sport: to be a strong individual: physically, mentally and ethically.

The Yamakasi founders are Yann Hnautra, Chau Belle, David Belle, Laurent Piemontesi, Sebastien Foucan, Guylain N’Guba Boyeke, Charles Perriere, Malik Diouf and Williams Belle.

The term “parkour” was first introduced by David Belle in 1998. “Parkour” derives from the French word “parcours” meaning “route” or “course”.

The term “freerunning” was coined by Guillaume Pelletier, a representative of a group of French practitioners involved in the production of the 2003 Channel 4 documentary, Jump London, to communicate this new sport to an English-speaking audience.

Grounds for requirements of this European Standard

According to national product safety laws, products complying with standards are assumed to be safe. However operators, manufacturers, designers and the working group of this European Standard need to make observations and implement necessary changes to products as well as to the future revisions of this standard in order to provide safe environments for users.

This European Standard covers the design of equipment for the practice and development of the principle techniques/movements of the sport of parkour by those new to parkour and by experienced practitioners, known as traceurs (or freerunners).

Parkour facilities can comprise a combination of items of equipment permitting flowing movement of the user. Equipment is usually installed permanently, but for temporary use, equipment may also be portable.

The use of facilities as parkour equipment is connected with sporting risks. Sporting skills and the use of appropriate equipment can reduce the risk of accident, but it is important to recognize that traceurs and/or users are not required to wear personal protective equipment. Because parkour movements are self-controlled, it is expected that injuries resulting from falls/misjudgement can occur, just like in any sport.

It is not the intention of this European Standard to specify every possible shape and construction of facilities for traceurs and/or users. Parkour is a new, developing sport and the standard does not specify requirements that affect the design of the overall parkour facility.

It is also anticipated that sites might be used by/for non-parkour activities.