

**Spectator facilities - Part 1: General characteristics for
spectator viewing area**

This document is a preview generated by EVS

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 13200-1:2012 sisaldab Euroopa standardi EN 13200-1:2012 ingliskeelset teksti.	This Estonian standard EVS-EN 13200-1:2012 consists of the English text of the European standard EN 13200-1:2012.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 29.08.2012.	Date of Availability of the European standard is 29.08.2012.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 91.040.10, 97.200.10, 97.220.10

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:
Aru 10, 10317 Tallinn, Eesti; www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:
Aru 10, 10317 Tallinn, Estonia; www.evs.ee; phone 605 5050; e-mail info@evs.ee

English Version

Spectator facilities - Part 1: General characteristics for spectator viewing area

Installations pour spectateurs - Partie 1: Caractéristiques générales des espaces d'observation pour spectateurs

Zuschaueranlagen - Teil 1: Allgemeine Merkmale für Zuschauerplätze

This European Standard was approved by CEN on 13 July 2012.

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Materials and technical installations	7
4.1 General.....	7
4.2 Structures, finishes and furniture	7
4.3 Electrical installations	7
4.4 Spectator control devices	8
4.5 Public address announcements.....	9
4.5.1 General.....	9
4.5.2 Public address announcement and systems.....	9
4.6 Auxiliary power	9
4.7 Scoreboards and videoscreens	10
4.8 Orientation system	10
5 Viewing area	10
5.1 General requirements.....	10
5.2 Requirements for seating places	11
5.2.1 General.....	11
5.2.2 Seating places with individual seats	11
5.2.3 Seating places with benches	14
5.2.4 Seating places provided by steps.....	16
5.3 Requirements for standing places.....	16
5.3.1 Standing places provided by steps	16
5.3.2 Standing places provided by slope	17
5.4 Places for spectators with special needs	18
6 Determination of design capacity for viewing area.....	19
6.1 Standing places	19
6.2 Seating places.....	19
7 Flow capacity of Exit from Viewing Area	20
8 Loads and other dynamic actions.....	20
9 Sightline	20
Annex A (informative) Example of Spectator Facility	23
Annex B (informative) Largest distance of vision.....	25
Annex C (informative) Classification of sports areas and criteria for the determination of groups	27
Annex D (informative) Roof coverings of stands	30
Annex E (informative) Flow capacity from exit from viewing area.....	31
Bibliography	32

Foreword

This document (EN 13200-1:2012) has been prepared by Technical Committee CEN/TC 315 "Spectator facilities", the secretariat of which is held by UNI.

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 February 2013, and conflicting national standards shall be withdrawn at the latest by February 2013.

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

This document supersedes EN 13200-1:2003.

The significant changes with respect to this previous version (EN 13200-1:2003) are:

- a) quality of figures improved;
- b) new Clause 4 "Materials and technical installations" introduced;
- c) requirements added in Clause 5 in order to cover places for spectators with special needs.

The European Standard EN 13200, "Spectator facilities" is divided into seven parts:

- EN 13200-1, *Spectator facilities — Part 1: General characteristics for spectator viewing area* (the present document);
- CEN/TR 13200-2:2005, *Spectator facilities — Layout criteria of service area — Part 2: Characteristics and national situations*;
- EN 13200-3, *Spectator facilities — Part 3: Separating elements — Requirements*;
- EN 13200-4, *Spectator facilities — Part 4: Seats — Product Characteristics*;
- EN 13200-5, *Spectator facilities — Part 5: Telescopic stands*;
- EN 13200-6, *Spectator facilities — Part 6 : Demountable (temporary) stands*;
- prEN 13200-7, *Spectator facilities — Part 7: Entry and exit elements and routes*.

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.

Introduction

This European Standard has been prepared in order to specify the general design criteria for spectator facilities, with the purpose of enabling their functionality. Within this European Standard, minimum and recommended values for dimensions are occasionally presented.

Attention is drawn to the fact that in certain countries additional/different requirements may be applicable due to existing national regulations or equivalent.

In certain countries, the minimum number of spectators is related to the application of this standard.

This document is a preview generated by EVS

1 Scope

This European Standard specifies design and management requirements for spectator facilities at permanent or temporary entertainment venues including sport stadia, sport halls, indoor and outdoor facilities for the purpose of enabling their functionality.

This European Standard is not applicable to other permanent venues such as theatres, cinemas, opera houses, auditoriums, lecture halls and similar places where persons congregate.

NOTE Provisions for media facilities are not included in this standard.

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.

EN 1991-1-1, *Eurocode 1: Actions on structures — Part 1-1: General actions — Densities, self-weight, imposed loads for buildings*

3 Terms and definitions

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

3.1

spectator facility

area of congregation comprising an activity area, a viewing area and a service area

Note 1 to entry: A spectator facility includes all the spaces where the public assembles, indoors or outdoors, permanently or temporarily, views sports, entertainment or miscellaneous events (see Annex A).

3.2

activity area

area where the event takes place

3.3

viewing area

area from which the spectators view the event

Note 1 to entry: The viewing area includes stands for spectators seated, standing and with special needs, passageways and gangways necessary for circulation, vomitories for entry and exit.

3.4

service area

area where publically accessible utilities are found

Note 1 to entry: The service area includes toilets, first aid, cafeterias, souvenirs shop, including passages, concourses, ramps and stairs between the viewing area and the external area (see Annex A).

3.5

place

space in the viewing area needed for a safe and good view of the event taking place, which is for a spectator who is sitting or standing or a wheelchair-user