BS EN 17736:2022

BSI Standards Publication

Entertainment technology — Specifications for design and manufacture of aluminium stage decks and frames

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Veranstaltungstechnik - Anforderungen an die Bemessung und Herstellung von Podesten und Zargen aus Aluminium

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European foreword

This document (EN 17736:2022) has been prepared by Technical Committee CEN/TC 433 “Entertainment Technology - Machinery, equipment and installations”, 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of an identical text or by endorsement, at the latest by May 2023, and conflicting national standards shall be withdrawn at the latest by May 2023.

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Introduction

The object of this document is to achieve a minimum level of quality in the design and manufacture of aluminium stage decks and frames in the entertainment industry.

Entertainment technology is an interdisciplinary field with specific technology and unique safety requirements. Entertainment technology is used in places of assembly, staging and production areas for events and theatrical productions. Such locations include but are not limited to theatres, multi-purpose halls, exhibition halls, film-, television-, photography- and radio-studios as well as facilities in concert halls, museums, schools, bars, discotheques, open-air stages and other places for shows and events. In some cases, atypical non-performance places are also used.

This document has been developed based on the previous requirements of DIN 15921:2015-09.

This document has been drawn up according to past experience and risk analysis.

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1 Scope

This document specifies the requirements for the design and manufacture of aluminium decks and frames used in the entertainment industry.

This document does not apply to scaffolding used as substructures in stage and studio environments in accordance with the EN 12810 series and the EN 12811 series or fairground rides in accordance with EN 13814-1.

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 1090 (all parts), *Execution of steel structures and aluminium structures*

EN 1990, *Eurocode - Basis of structural design*

EN 1991 (all parts), *Eurocode 1: Actions on structures*

EN 1993 (all parts), *Eurocode 3: Design of steel structures*

EN 1995 (all parts), *Eurocode 5: Design of timber structures*

EN 1999 (all parts), *Eurocode 9 - Design of aluminium structures*

EN 10204, *Metallic products - Types of inspection documents*

EN 17115, *Entertainment technology - Specifications for design and manufacture of aluminium and steel trusses*

EN 17206, *Entertainment technology - Machinery for stages and other production areas - Safety requirements and inspections*

EN ISO 3834 (all parts), *Quality requirements for fusion welding of metallic materials (ISO 3834 (all parts))*

EN ISO 9606-1, *Qualification testing of welders - Fusion welding - Part 1: Steels (ISO 9606-1)*

EN ISO 9606-2, *Qualification test of welders - Fusion welding - Part 2: Aluminium and aluminium alloys (ISO 9606-2)*

EN IEC/IEEE 82079-1, *Preparation of information for use (instructions for use) of products - Part 1: Principles and general requirements*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 17115 and EN 17206 and the following apply.

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

— IEC Electropedia: available at https://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

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3.1
stage deck
frame construction predominantly made from aluminium profiles with a load bearing infill

3.2
frame
closed frame construction made of aluminium profiles; depending on model with mounting for legs and/or substructure (without load bearing infill)

3.3
substructure
structure, independently placed on the market, intended to support decks or frames

EXAMPLE scaffolding, lattice beams, truss.

3.4
plug leg
detachable straight profile generally mounted in the corners of a deck or frame and perpendicular to the said deck or frame

3.5
foldable leg
generally non-detachable straight profile with a hinging action mounted in the corners of a deck or frame

3.6
scissor leg
generally non-detachable profiles with a scissor-like action mounted on the bottom side of a deck or frame

3.7
guardrail
physical barrier to protect persons against falling off raised areas

3.8
load bearing infill
load bearing structure, for example timber, metal, polymer, attached to the frame

3.9
toeboard
board placed around the outer edges of stage decks to prevent objects from falling off the deck when required

4 List of significant hazards

Table 1 contains some examples of typical hazards associated with the application of stage decks and frames.

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