

KÜLGSEINTE VENTILATSIOONISÜSTEEMID. OHUTUS

Side curtain ventilation systems - Safety

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ICS 65.040.10, 91.140.30

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EUROPEAN STANDARD

EN 17088

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English Version

Side curtain ventilation systems - Safety

Systèmes de ventilation à rideau latéral - Sécurité

Lüftungssysteme mit Seitenvorhang - Sicherheit

This European Standard was approved by CEN on 30 May 2021.

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COMITÉ EUROPÉEN DE NORMALISATION
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 17088:2021) has been prepared by Technical Committee CEN/TC 422 “Side curtains ventilation systems - safety”, the secretariat of which is held by NEN.

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of an identical text or by endorsement, at the latest by January 2022, and conflicting national standards shall be withdrawn at the latest by January 2022.

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.

This document has been prepared under a standardization request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 2006/42/EC.

For relationship with EU Directive, see informative Annex ZA, which is an integral part of this document.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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, 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, Turkey and the United Kingdom.

Introduction

In 2010, there was a fatal accident when a child of a farmer was trapped by an automatic stable display. This accident happened both in the Netherlands and Belgium.

This accident triggered some Dutch experts to use the existing Dutch Technical Agreement NTA 8344:2012 "Side curtains – Safety" for the development of the first European Standard "Side systems curtains ventilation systems – Safety".

This standard is a type-C standard as specified in EN ISO 12100:2010.

The machinery concerned and the extent to which hazards are covered are indicated in the scope of this standard. These hazards are specified to the Side curtains ventilation systems.

Where provisions of this type C are different from those which are stated by type A or B standards, the provisions of this type C standard take precedence over the provisions of the other standards, for machines that have been designed and built according to the provisions of this type C standard.

In order to make the objective of this concept clear and eliminate uncertainties when reading it, the following assumptions are made:

- a) components without specific requirements are components
 - 1) designed according to the common design and calculation methods, including all failure mechanisms;
 - 2) of a solid mechanical and electrical construction;
 - 3) manufactured from sufficiently strong material with a suitable quality;
 - 4) of which general electrical hazards are dealt with by application of the standards for electrical installations, such as EN 60204-1:2018;
- b) with the exception of the following provisions, is a mechanical supply built according to the requirements of good craftsmanship and the requirements in this standard concept:
 - 1) agreements between the manufacturer and the buyer about the special conditions of use, and place where the screen is used in connection with health and safety;
 - 2) the location of the installation will be suitable for this;
 - 3) the place of installation will allow a safe use of the screen.

These assumptions do not limit the need for sufficient information in this concept standard before use.

1 Scope

1.1 General

This document specifies the standardization of side curtain ventilation systems as defined in 3.1. This document specifies the safety aspects and performance. Included are machines that operate using the potential energy stored by the earlier application of human or animal force, such as stretched springs.

This document addresses the following significant hazards associated with side curtain systems:

- crushing;
- cutting or severing;
- drawing-in or trapping;
- entanglement;
- shearing;
- suffocation;
- electrocution and shock;
- incorrect design, location or identification of control devices.

1.2 Exclusions

This document does not apply to the following, which are intended for a different use:

- doors and side curtains when used as doors which are specified in EN 13241:2003+A2:2016;
- systems inflated by air;
- screens supplied for the control of fire or smoke;
- screens that move instantaneously upon the application of human force;
- side curtains when used to control ventilation conditions in a toxic or explosive environment.

This document is not applicable to side curtain ventilation systems manufactured before the date of its publication.

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 1991-1-4:2005¹⁾, *Eurocode 1: Actions on structures - Part 1-4: General actions - Wind actions*

EN 14717:2005, *Welding and allied processes - Environmental check list*

1) As impacted by EN 1991-1-4:2005/A1:2010.

EN 60204-1:2018, *Safety of machinery - Electrical equipment of machines - Part 1: General requirements (IEC 60204-1:2016)*

EN IEC 61000-6-2:2019, *Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity standard for industrial environments (IEC 61000-6-2:2016)*

EN 61000-6-3:2007²⁾, *Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments (IEC 61000-6-3:2006)*

EN 62061:2005³⁾, *Safety of machinery - Functional safety of safety-related electrical, electronic and programmable electronic control systems (IEC 62061:2005)*

EN ISO 12100:2010, *Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100:2010)*

EN ISO 13849-1:2015, *Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design (ISO 13849-1:2015)*

EN ISO 13849-2:2012, *Safety of machinery - Safety-related parts of control systems - Part 2: Validation (ISO 13849-2:2012)*

EN ISO 13850:2015, *Safety of machinery - Emergency stop function - Principles for design (ISO 13850:2015)*

EN ISO 13857:2019, *Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2019)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100:2010 and the following apply.

ISO and IEC maintain terminological 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

side curtain ventilation systems

systems supplied for environmental control, installed on farm buildings, that use a barrier made from a flexible foil or fabric which moves via a rolling or folding action, or rigid panels that slide

3.2

automatic control

action where the screen is operated without human intervention

2) As impacted by EN 61000-6-3:2007/A1:2011.

3) As impacted by EN 62061:2005/A1:2013 and EN 62061:2005/A2:2015.