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Machines and plants for the manufacture, treatment and processing of flat glass - Safety requirements -Part 3: Cutting machines



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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<u>Käsitlussis</u>	Coores
Käsitlusala:	Scope:
This standard contains the requirements	This standard contains the requirements
for safety for the design and installation of	for safety for the design and installation of
machines with one movable bridge for	machines with one
cutting of flat glass, which operate by	movable bridge for cutting of flat glass,
scoring of the glass placed on a horizontal	which operate by scoring of the glass
support. This standard covers the	placed on a horizontal support. This
transport of the glass on the machine	standard covers the transport of the glass
0	on the machine
	0
	2

ICS 81.100

Võtmesõnad: cutting machines (tools), definition, definitions, flat glass, glass, hazards, hyalotechnics, machines, processing, production, safety, safety requirements, specification (approval), specifications, treatment

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English version

Machines and plants for the manufacture, treatment and processing of flat glass - Safety requirements - Part 3: Cutting machines

Machines et installations pour la production, le façonnage et la transformation du verre plat - Exigences de sécurité -Partie 3: Machines à découper

Maschinen und Anlagen für die Herstellung, Be- und Verarbeitung von Flachglas - Sicherheitsanforderungen -Teil 3: Schneidmaschinen

This European Standard was approved by CEN on 23 May 2003.

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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 Management Centre has the same status as the official versions.

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

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Foreword

This document (EN 13035-3:2003) has been prepared by Technical Committee CEN/TC 151 "Construction equipment and building material machines – Safety", 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 January 2004, and conflicting national standards shall be withdrawn at the latest by January 2004.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association and supports essential requirements of EC Directive(s).

Annexes A to G are normative. Annexes A, I and J are informative.

This document is one of a series concerning machinery for the treatment and processing of flat glass.

For relationship with EC Directives, see informative annex ZA, which is an integral part of this document.

This document includes a Bibliography.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

0 Introduction

This document is a type-C standard as stated in EN 1070.

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are indicated in the scope of this document.

When provisions of this type-C standard are different from those which are stated in 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.

1 Scope

1.1 This standard contains the requirements for safety for the design and installation of machines with one movable bridge for cutting of flat glass, which operate by scoring of the glass placed on a horizontal support. This standard covers the transport of the glass on the machine.

1.2 This standard deals with all significant hazards, hazardous situations and events relevant to flat glass cutting machines, when they are used as intended and under the conditions foreseeable by the manufacturer (see clause 4). This standard specifies the appropriate technical measures to eliminate or reduce risks which can arise from these significant hazards. Hazards from noise are not considered to be significant.

1.3 This standard does not apply to flat glass cutting by abrasive cutting or by the use of high pressure liquid or lasers.

1.4 This standard does not apply to loading and unloading of flat glass on to or from cutting machines and the breaking out (see prEN 13035-5 and prEN 13035-6).

1.5 This standard does not apply to conveyors (see EN 619) and fans as used as integral parts of the machinery. If there are specific risks that arise in connection with flat glass cutting machines, appropriate measures are specified.

1.6 This standard does not apply to cutting of laminated glass (see prEN 13035-7).

1.7 This standard does not apply to cutting while the glass is moving.

1.8 This document is not applicable to machinery which is manufactured before the date of publication of this document by CEN.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 292-1, Safety of machinery - Basic concepts, general principles for design - Part 1: Basic terminology, methodology.

EN 292-2, Safety of machinery - Basic concepts, general principles for design - Part 2: Technical principles and specifications.

EN 292-2:1991/A1:1995, Safety of machinery - Basic concepts, general principles for design - Part 2: Technical principles and specifications.

EN 294:1992, Safety of machinery - Safety distances to prevent danger zones being reached by the upper limbs.

EN 349:1993, Safety of machinery - Minimum gaps to avoid crushing of parts of the human body.

EN 418:1992. Safety of machinery - Emergency stop equipment, functional aspects - Principles for design.

EN 953:1997, Safety of machinery - Guards - General requirements for the design and construction of fixed and movable guards.

EN 954-1:1996, Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design.

EN 999:1998, Safety of machinery - The positioning of protective equipment in respect of approach speeds of parts of the human body.

EN 1037:1995, Safety of machinery - Prevention of unexpected start-up.

EN 1070:1998, Safety of machinery - Terminology.

EN 60204-1:1997, Safety of machinery - Electrical equipment of machines - Part 1: General requirements - (IEC 60204-1:1997 + Corrigendum 1998).

EN 61496-1, Safety of machinery - Electro-sensitive protective equipment - Part 1: General requirements and tests (IEC 61496-1:1997).

prEN 61496-2:1997, Safety of machinery - Electro-sensitive protective equipment - Part 2: Particular requirements for equipment using active opto-electronic protective devices (draft IEC 61496-2:1997).

Terms and definitions 3

For the purposes of this European Standard, the terms and definitions given in EN 1070:1998 apply. Additional terms and definitions specifically needed for this document are added below:

3.1

cutting tool

component for scoring the surface of flat glass

3.2

cutting head

mounting assembly for moving the cutting tool vertically

3.3

carriage

mounting assembly for moving the cutting head on the axis of the cutting bridge

3.4

(cutting) bridge

movable horizontal guide for the carriage

3.5

cutting table

supporting surface on which the flat glass is placed to be scored

3.6

longitudinal sides (of the table)

edges (of the table) parallel to the direction of the travel of the cutting bridge