Masinad ja jaamad lehtklaasi valmistamiseks ja töötlemiseks. Ohutusnõuded. Osa 11: Puurimismasinad

Machines and plants for the manufacture, treatment and processing of flat glass - Safety requirements - Part 11: Drilling machines

EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 13035-11:2006 sisaldab Euroopa standardi EN 13035-11:2006 ingliskeelset teksti. Käesolev dokument on jõustatud 30.08.2006 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 13035-11:2006 consists of the English text of the European standard EN 13035-11:2006. This document is endorsed on 30.08.2006 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This European Standard contains the requirements for stationary machines for the drilling of flat glass, using a powered rotating tool. Stationary machines are classified into: a) manual; b) semi-automatic; c) automatic single-head or multi-head; d) fully automatic.	**Scope:** This European Standard contains the requirements for stationary machines for the drilling of flat glass, using a powered rotating tool. Stationary machines are classified into: a) manual; b) semi-automatic; c) automatic single-head or multi-head; d) fully automatic.

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Võtmesõnad: accident prevention, hyalotechnics, machines, plant, safety engineering

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English Version

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Maschinen und Anlagen zur Herstellung, Be- und Verarbeitung von Flachglas - Sicherheitsanforderungen - Teil 11: Bohrmaschinen

This European Standard was approved by CEN on 24 May 2006.

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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 Central Secretariat has the same status as the official versions.

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Foreword

This document (EN 13035-11:2006) 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 December 2006, and conflicting national standards shall be withdrawn at the latest by December 2006.

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 EU Directive(s).

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

It is one of a series concerning machinery for the treatment and processing of flat glass (see 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

This European Standard is a type C standard as stated in EN ISO 12100-1.

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

When provisions of this type C standard are different from those 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 European Standard contains the requirements for stationary machines for the drilling of flat glass, using a powered rotating tool. Stationary machines are classified into:

a) manual;

b) semi-automatic;

c) automatic single-head or multi-head;

d) fully automatic.

1.2 This European Standard deals with the significant hazards, hazardous situations and events relevant to drilling machines for flat glass when they are used as intended and under the conditions foreseeable by the manufacturer (see Clause 4). This European Standard specifies the appropriate technical measures to eliminate or reduce risks arising from the significant hazards during commissioning, the operation and maintenance.

1.3 This European Standard does not address the safety requirements for conveyor belts, rollers (see EN 619) or other means of transporting the glass to and from the drilling machine (see e.g. EN 13035-5).

1.4 This European Standard is not applicable to drilling machines which are manufactured before the date of publication of this European Standard by CEN.

2 Normative references

The following referenced documents are indispensable for the application 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 294:1992, *Safety of machinery — Safety distance to prevent danger zones being reached by the upper limbs*

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 983:1996, *Safety of machinery — Safety requirements for fluid power systems and their components — Pneumatics*

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 1050:1996, *Safety of machinery — Principles for risk assessment*

EN 1088:1995, *Safety of machinery — Interlocking devices associated with guards — Principles for design and selection*

EN 60204-1:1997, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1:1997)*

EN 60825-1:1994, *Safety of laser products — Part 1: Equipment classification, requirements and user's guide (IEC 60825-1:1993)*

EN 61310-1:1995, *Safety of machinery — Indication, marking and actuation — Part 1: Requirements for visual, auditory and tactile signals (IEC 61310-1:1995)*

EN ISO 3744:1995, *Acoustics — Determination of sound power levels of noise sources using sound pressure — Engineering method in an essentially free field over a reflecting plane (ISO 3744:1994)*

EN ISO 3746:1995, *Acoustics — Determination of sound power levels of noise sources using sound pressure — Survey method using an enveloping measurement surface over a reflecting plane (ISO 3746:1995)*

EN ISO 11204:1995, *Acoustics — Noise emitted by machinery and equipment — Measurement of emission sound pressure levels at a work station and at other specified positions — Method requiring environmental corrections (ISO 11204:1995)*

EN ISO 11688-1:1998, *Acoustics — Recommended practice for the design of low-noise machinery and equipment — Part 1: Planning (ISO/TR 11688-1:1995)*

EN ISO 12100-1:2003, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)*

EN ISO 12100-2:2003, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles (ISO 12100-2:2003)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100-1:2003 and the following apply.

3.1
manual machine
machine where the tool is applied to the workpiece by the direction of the operator

3.2
semi-automatic machine
machine where the workpiece is loaded and unloaded by the operator and some of the intermediate machining operations are under the control and guidance of the operator.

NOTE During the machining operations, the operator does not come into contact with the workpiece

3.3
automatic machine
machine where the workpiece is loaded and unloaded by the operator, but all the intermediate machining operations are carried out without operator intervention

3.4
fully automatic machine
machine where the workpiece is presented to and removed from the tools automatically and all the intermediate machining operations are carried out without intervention of the operator