

Machines and plants for the manufacture, treatment and processing of hollow glass — Safety requirements —

Part 3: IS Machines

ICS 81.100

National foreword

This British Standard is the UK implementation of EN 13042-3:2007+A1:2009. It supersedes BS EN 13042-3:2007 which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to CEN text carry the number of the CEN amendment. For example, text altered by CEN amendment A1 is indicated by A1 A1.

The UK participation in its preparation was entrusted by Technical Committee MCE/3, Safeguarding of machinery, to Subcommittee MCE/3/13, Glass manufacturing machines — Safety.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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English Version

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machines**

Machines et installations pour la production, le façonnage
et la transformation du verre creux - Exigences de sécurité
- Partie 3: Machines IS

Maschinen und Anlagen für die Herstellung, Be- und
Verarbeitung von Hohlglas - Sicherheitsanforderungen -
Teil 3: IS-Maschinen

This European Standard was approved by CEN on 15 December 2006 and includes Amendment 1 approved by CEN on 19 June 2009.

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Foreword

This document (EN 13042-3:2007+A1:2009) 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of an identical text or by endorsement, at the latest by January 2010, and conflicting national standards shall be withdrawn at the latest by January 2010.

This document includes Amendment 1, approved by CEN on 2009-06-19.

This document supersedes EN 13042-3:2007.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **A1** **A1**.

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).

A1 For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document. **A1**

This document is one of a series concerning machinery for the manufacture, treatment and processing of hollow 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, Bulgaria, 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 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.

IS glass container manufacturing machines within the meaning of this European Standard are machines with several individual manufacturing sections (Individual Sections = IS) in which the distribution of gobs, the forming process and the removal of the formed glass container take place automatically. Each manufacturing section is controlled individually, synchronously with the feeding of the glass gob, by an electrical linkage. Each section can be isolated individually from the gob distributor and shut down.

The types of processes performed on the IS machine – see also 3.3 –, the operation names of each part of the process and the names of specific parts of a section are shown in Annex B (informative) and Annex C (informative).

A1 When compiling this European Standard it was assumed that due to the heat of the processed material and the need for the use of auxiliary aids, such as tongs, during work in the danger zone of the closing mould, there is typically no significant risk from the closing movement of the mould parts during the normal shaping process of hot glass. **A1**

1 Scope

1.1 This European Standard applies to the design and installation of IS machines including the gob distributor and machine conveyor.

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

1.3 This European Standard does not deal with gob feeders (see EN 13042-1) and handling machines for feeding (see EN 13042-2) which are self-standing machines used for the delivery of portions of melted glass to hollow-glass-forming machines such as glass presses (see EN 13042-5).

1.4 This European Standard is not applicable to IS 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 distances to prevent danger zones being reached by the upper limbs*

 deleted text 

EN 894-3:2000, *Safety of machinery — Ergonomics requirements for the design of displays and control actuators — Part 3: Control actuators*

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

 deleted text 

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*

 deleted text 

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

 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 3747:2000, *Acoustics — Determination of sound power levels of noise sources using sound pressure — Comparison method for use in situ (ISO 3747:2000)* 

EN ISO 11204:1995, *Acoustics — Noise emitted by machinery and equipment — Measurement of emission sound pressure levels at the 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)*

 EN ISO 13849-1:2008, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design (ISO 13849-1:2006)* 

 EN ISO 13850:2008, *Safety of machinery — Emergency stop — Principles for design (ISO 13850:2006)* 