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Machines and plants for the manufacture, treatment and processing of hollow glass - Safety requirements - Part 1: Gob feeder

Maschinen und Anlagen für die Herstellung, Be- und Verarbeitung von Hohlglas -Sicherheitsanforderungen - Teil 1: Tropfenspeiser

Machines et installations pour la production, le façonnage et la transformation du verre creux - Exigences de sécurité - Partie 1: Mécanisme d'alimentation en paraisons

Ta slovenski standard je istoveten z: EN 13042-1:2007/FprA1

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Equipment for the glass and ceramics industries

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Machines and plants for the manufacture, treatment and processing of hollow glass - Safety requirements - Part 1: Gob feeder

Machines et installations pour la production, le façonnage et la transformation du verre creux - Exigences de sécurité - Partie 1: Mécanisme d'alimentation en paraisons Maschinen und Anlagen für die Herstellung, Be- und Verarbeitung von Hohlglas - Sicherheitsanforderungen -Teil 1: Tropfenspeiser

This draft amendment is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 151.

This draft amendment A1, if approved, will modify the European Standard EN 13042-1:2007. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

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

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Foreword

This document (EN 13042-1:2007/FprA1:2009) 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 document is currently submitted to the Unique Acceptance Procedure.

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).

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

1 Modification to the Foreword

Replace the 4th paragraph with the following:

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

2 Modification to the Scope

Replace 1.2 with the following:

"1.2 This European Standard deals with the significant hazards, hazardous situations and events relevant to gob feeders, when they are used as intended and under the conditions of misuse which are reasonably fore-seeable by the manufacturer (see Clause 4). Noise is not a significant hazard for this type of machine. This European Standard specifies the appropriate technical measures to eliminate or reduce risks arising from the significant hazards during commissioning, operation and maintenance."

3 Modifications to Clause 2

Delete the following references:

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

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

EN 1050:1996, Safety of machinery — Principles for risk assessment".

Add the following references:

"EN ISO 11201:1995, Acoustics — Noise emitted by machinery and equipment — Measurement of emission sound pressure levels at a work station and at other specified positions — Engineering method in an essentially free field over a reflecting plane (ISO 11201:1995)

EN ISO 11202:1995, Acoustics — Noise emitted by machinery and equipment — Measurement of emission sound pressure levels at a work station and at other specified positions — Survey method in situ (ISO 11202:1995)

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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 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)

EN ISO 4871:1996, Acoustics — Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996)".

4 Modifications to Clause 5

In 5.1, replace the 3rd paragraph with the following:

"For applications of a B-level standard such as EN 953, EN 982, EN 983, EN 1037, EN 60204-1 and EN ISO 13850, the manufacturer shall carry out an adequate risk assessment for the requirements thereof where choice is necessary. This specific risk assessment is part of the general risk assessment relating to the hazards not covered by this European Standard."

Replace the text of 5.2.2 with the following:

"The gob feeder shall be fitted with a device which maintains a stop command in accordance with EN 1037:1995, 6.3.2, until the device is reset manually (e. g. by a latching-in stop control device). The related part of the control system shall present at least a performance level c in accordance with EN ISO 13849-1:2008 (see also 7.2.7).

NOTE See also 5.10."

Replace the text of 5.3 with the following:

"Gob feeders shall have emergency-stop equipment in accordance with EN ISO 13850:2008. Easily and quickly accessible emergency-stop devices shall be installed as a minimum at manual control stations and at locations reachable from inside all danger zones. The emergency-stop equipment shall stop all movements with exception of the removal of the shears out of the glass flow to prevent uncontrolled deviation of the flow of glass. The stop function shall be in accordance with EN 60204-1:2006, 9.2.2, category 0 or 1. The movement of the rotating tube may be excepted from stopping if a dedicated emergency stop can be triggered by an emergency-stop equipment, with a control device close to the drive of the tube. Provisions shall be made for the connection of the emergency-stop control from the receiving glass-forming machine (see 7.2.5).

NOTE Glass flow see 5.14."

Replace the text of 5.6 with the following:

"Hazardous transmissions parts and other moving parts with the exception of the shears shall be safeguarded in accordance with EN 953 and EN 294:1992, Table 4, preferably with fixed guards (see EN 953:1997, 3.2). If moveable guards are used, the part of the control system related to the interlocking of these guards shall present a performance level of at least c in accordance with EN ISO 13849-1:2008.

If fixed guards are used, their fixing systems shall remain attached to the guards or to the machinery when the guards are removed."

Replace 5.9 to 5.11 with the following: "

5.9 Electrical equipment

All electrical equipment shall conform to the requirements of EN 60204-1 in particular with regard to the protection against electrical shock (see EN 60204-1:2006, 6).

5.10 Energy supply disconnecting devices

Lockable energy supply disconnecting devices shall be provided, e.g. a master switch in accordance with EN 60204-1:2006, 5.3, an isolation valve and provisions for dissipation of pressure in accordance with EN 982:1996, 5.1.6, and EN 983 as relevant.

5.11 Gob-loading interruption

The shear mechanism shall be interlocked for the purpose of interrupting automatically the delivery of glass to the forming machine, e. g. by insertion of a chute under the shear, should there be any irregularity in the operation of the cutting action of the shear. The related part of the control system shall present a performance level of at least c in accordance with EN ISO 13849-1:2008

Manual controls (actuators) shall be provided to allow the delivery of glass to the forming machine to be interrupted. The related part of the control system shall present a performance level of at least c in accordance with EN ISO 13849-1:2008. The actuators shall be installed at the operator's station for the gob feeder, and provisions shall be made for the connection of these actuators to the associated glass-forming machine such that they perform their intended function (see also 7.2.5).

NOTE 1 Glass flow see 5.14.

NOTE 2 Power failure see 5.15."

Add a new subclause 5.17 as follows: "

5.17 Noise

5.17.1 Information on noise emission

Information on noise emission shall be given by the manufacturer in the instruction handbook, see 7.2.1.

5.17.2 A-weighted emission sound pressure level determination

A-weighted emission sound pressure levels shall be determined in accordance with one of the basic standards

- EN ISO 11201 (grade 2: engineering);
- EN ISO 11202 (grade 3: survey);
- EN ISO 11204 (grade 2: engineering).

Preferably a grade-2 method shall be used. If this is not possible, a grade-3 method can be applied, but the reason shall be explained. The method recommended for machines for gob feeder is EN ISO 11204.

The workstation and the position of the microphone are in a distance of 1 m from the outer machine surface at the front side and 1 m above the top of the spout casing. The machine shall be operated without cooling air, without refractory parts but with shear blades double gob and zero overlapping and the speed of 60 feeder cycles/minute.

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Operators shall be absent during the measurement."

5 Modification to Clause 6

Replace Table 2 with the following:

Safety measure	Safe system for	Method of testing (routine test)		
clause No.		Visual	Functional	Measuring
5.2	Starting and stopping equipment, stop control device	Х	x	
5.3	Emergency-stop equipment	Х	Х	
5.4	Lubricant contamination	Х		
5.5	Operation of manual controls		Х	
5.6	Guards	Х		Х
5.7	Lockout of shears	Х	Х	
5.8	Hydraulic/pneumatic system	X a	X a	X a
5.9	Electrical equipment	X b	X b	X b
5.10	Energy supply disconnecting devices	Х	Х	
5.11	Gob-loading interruption	Х	Х	
5.12	Quick release (chucks)	Х		
5.13	Refractory lifting device	Х		
5.14	Glass flow	Х	Х	
5.15	Energy availability	Х	Х	
5.16	Hot surfaces			Х
a See EN 9	82:1996, 6, and EN 983:1996, 6.			
^b See e.g. F	EN 60204-1:2006, 18.			

"Table 2 — Individual testing for requirements stated in Clause 5

6 Modifications to Clause 7

In 7.2.1, add the following new indent: "

 the declared A-weighted emission sound pressure level of the machinery in accordance with EN ISO 4871."

Add the following new paragraphs after the last indent:

"The A-weighted emission sound pressure level shall be determined according to 5.17.2.

Whenever sound-emission values are indicated, the uncertainties surrounding these values shall be specified."