Irish Standard
I.S. EN 201:2009

Plastics and rubber machines - Injection moulding machines - Safety requirements

I.S. EN 201:2009

Incorporating amendments/corrigenda issued since publication:

This document replaces:	*This document is based on:*	*Published:*
EN 201:1997	EN 201:2009 EN 201:1997	21 October, 2009 23 December, 1997

This document was published
under the authority of the NSAI
and comes into effect on:
10 November, 2009

ICS number:
25.120.2
83.200

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

I.S. EN 201:2009

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 201

October 2009

ICS 25.120.20; 83.200

Supersedes EN 201:1997

English Version

Plastics and rubber machines - Injection moulding machines - Safety requirements

Machines pour les matières plastiques et le caoutchouc - Machines de moulage par injection - Prescriptions de sécurité

Kunststoff- und Gummimaschinen - Spritzgießmaschinen - Sicherheitsanforderungen

This European Standard was approved by CEN on 12 September 2009.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

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 CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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.

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 201:2009: E

Contents

Page

Foreword

This document (EN 201:2009) has been prepared by Technical Committee CEN/TC 145 “Plastics and rubber machines”, the secretariat of which is held by UNI.

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 April 2010, and conflicting national standards shall be withdrawn at the latest by April 2010.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 201:1997.

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 Annexes ZA and ZB, which are integral parts of this document.

A transition period of one year is permitted following the publication of this document during which the manufacturer may choose to apply either version of the standard.

In addition to EN 201:1997, requirements for machines with electrical axes, machines with L-type configuration, cellular foam injection moulding machines, machines with fluid injectors, and machines safeguarded by light curtains or two-hand control devices are included.

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 the United Kingdom.

Introduction

This document is a type C standard as stated in EN ISO 12100.

The machinery concerned and the extent to which hazards, hazardous situations and hazardous 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 and 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 in accordance with the provisions of this type C standard.

1 Scope

This European Standard specifies the essential safety requirements for injection moulding machines for the processing of plastics and/or rubber.

All hazards listed in Clause 4 are covered by this standard.

The following machines are not covered:

— machines on which the clamping unit can only be operated by the physical force of the operator;

— injection moulding machines with pneumatic drives for the platen movement;

— injection moulding machines with vertical platen movements driven by an electrical axis;

— blow moulding machines associated with an injection process (EN 422);

— machines for reaction injection moulding (RIM) (EN 1612-1);

— presses (EN 289);

— footwear moulding machines covered by EN 1845.

The safety requirements for the interaction between injection moulding machines and ancillary equipment are specified.

This standard covers magnetic clamping systems only if:

— machines have horizontal clamping units; and

— the mould area is protected by guards; and

— such systems are delivered at the same time as the injection moulding machine by the machine manufacturer.

This standard does not cover requirements for the design of an exhaust system.

This standard is not applicable to injection moulding machines which are manufactured before the date of its publication as an EN.

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 amendment) applies.

EN 349:1993+A1:2008, *Safety of machinery — Minimum gaps to avoid crushing of parts of the human body*

EN 574:1996+A1:2008, *Safety of machinery — Two-hand control devices — Functional aspects — Principles for design*

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