BS EN 1953:2013

BSI Standards Publication

Atomising and spraying equipment for coating materials — Safety requirements

National foreword

This British Standard is the UK implementation of EN 1953:2013. It supersedes BS EN 1953:1998+A1:2009 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee MCE/3/8, Thermoprocessing equipment - Safety.

A list of organizations represented on this committee 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.

ISBN 978 0 580 75408 1

ICS 87.100

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 September 2013.

Amendments issued since publication

Date	Text affected

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 1953

September 2013

ICS 87.100

Supersedes EN 1953:1998+A1:2009

English Version

Atomising and spraying equipment for coating materials - Safety requirements

Equipements d'atomisation et de pulvérisation pour produits de revêtement - Exigences de sécurité

Spritz- und Sprühgeräte für Beschichtungsstoffe - Sicherheitsanforderungen

This European Standard was approved by CEN on 19 July 2013.

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Ref. No. EN 1953:2013: E

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Foreword

This document (EN 1953:2013) has been prepared by Technical Committee CEN/TC 271 “Surface treatment equipment - 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of an identical text or by endorsement, at the latest by March 2014, and conflicting national standards shall be withdrawn at the latest by March 2014.

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 1953:1998+A1:2009.

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 and informative Annex ZB, which are an integral part of this document.

Compared with EN 1953:1998+A1:2009, the following changes have been made:

— the Scope has been limited to applicators with maximum pneumatic pressure < 15 bar;

— ATEX requirements have been integrated into the standard;

— safety requirements against ejection of fluids have been detailed for handheld applicators;

— testing requirements for mechanical strength have been revised.

This document is part of a series of standards related to safety of design and construction of machinery and systems for surface coating with organic materials (paints, varnishes and similar products).

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This European Standard is a type C standard as stated in EN ISO 12100:2010.

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

When provisions of this type C standard are different from those which are stated in type A or type 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

This European Standard deals with all significant hazards, hazardous situations and events which are relevant for both manual and automatic atomising and spraying equipment for application of coating materials on workpieces.

In this standard, the term “machine” is used equivalently to “atomising and spraying equipment” and “applicator”.

Together with this standard, EN 50050, EN 50059, EN 50176, EN 50177 or EN 50348 give requirements for electrostatic applicators.

The specific significant risks related to the use of this machinery with foodstuffs and pharmaceutical products are not dealt with in this standard.

This standard is only applicable to machinery which is used as intended. It also covers hazards arising from conditions which are reasonably foreseeable by the manufacturer.

Applicators can consist of the following parts:

— atomising or spraying system;

— trigger;

— filter;

— swivel joint;

— safety and control systems;

— non-pressurised gravity or siphon feed cup.

This European Standard is not applicable to:

— applicators designed for operating pneumatic pressure above 15 bar;

— non-atomising equipment (e.g. extruding equipment, dispenser);

— fluidised bed powder coating machinery;

— equipment for the automated application of flock;

— spray guns covered by EN 50580;

— supply hoses and ducts;

— high-pressure cleaner equipped with high pressure water jet machines according to EN 1829-1;

— airbrushes for graphic and artistic works;

— machinery for the supply and circulation of coating materials under pressure according to EN 12621;

— water-jet cutters;

— automated devices like robots or reciprocators (EN ISO 10218-1).