



BSI Standards Publication

**Surface treatment equipment
— Noise test code for
surface treatment equipment
including its ancillary handling
equipment — Accuracy grades
2 and 3**

National foreword

This British Standard is the UK implementation of EN 14462:2015. It supersedes BS EN 14462:2005+A1:2009 which is withdrawn.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.

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

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English Version

Surface treatment equipment - Noise test code for surface treatment equipment including its ancillary handling equipment - Accuracy grades 2 and 3

Équipements de traitement de surface - Code d'essai acoustique pour équipements de traitement de surface, y compris les équipements de manutention auxiliaires - Classes de précision 2 et 3

Oberflächenbehandlungsgeräte - Geräuschmessverfahren für Oberflächenbehandlungsgeräte - einschließlich ihrer Be- und Entladeeinrichtungen - Genauigkeitsklassen 2 und 3

This European Standard was approved by CEN on 29 November 2014.

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Foreword

This document (EN 14462:2015) 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of an identical text or by endorsement, at the latest by August 2015 and conflicting national standards shall be withdrawn at the latest by August 2015.

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 14462:2005+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 2006/42/EC, see informative Annex ZA, which is an integral part of this document.

This document includes the following significant technical changes with respect to EN 14462:2005+A1:2009:

- integration of dry ice blasting equipment in A.1.2;
- integration of automatic electrostatic application equipment for flammable flock material (EN 50223) in A.3.1.

It augments the “C”-type safety standards prepared by CEN/TC 271. Its purpose is to provide a means of determination, declaration and verification of noise emission for the equipment within the scope of this document. The determination of noise emission values is a prerequisite for a manufacturer to assess the noise reduction obtained at the design stage.

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, 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 noise test code gives assistance to carry out noise emission measurements and to determine values for noise declaration purposes under the Machinery Directive 2006/42/EC and provides the means for their verification. Annex D with Figure D.1 and Figure D.2 provides an overview on the noise determination procedure.

Noise emission characteristics include both emission sound pressure levels at workstations and sound power levels. The determination of these characteristics is necessary for

- manufacturers to declare the noise emitted,
- comparing the noise emitted by machines,
- purposes of noise control at the source during the design stage,
- estimation of noise exposure at the workstation(s).

Noise testing of the machinery can be done at the manufacturer's site, at the place of mounting or at any other adequate location.

1 Scope

This European Standard specifies standardized conditions for the determination, declaration and verification of airborne noise emission of the following surface treatment equipment:

- machinery for cleaning and pre-treatment of industrial item surfaces (see EN 12921-1, EN 12921-2, EN 12921-3, EN 12921-4);
- phosphating machinery;
- plating machinery;
- plasma surface treatment machinery;
- machinery for the supply and/or circulation of coating materials under pressure (see EN 12621, EN 12757-1);
- atomizing and spraying equipment for coating materials (see EN 1953, EN 50050-1, EN 50050-2, EN 50050-3, EN 50059, EN 50176, EN 50177, EN 50348);
- coating plants (see EN 12215, EN 12581, EN 12981, EN 13355, EN 50223);
- dryers, ovens and evaporating equipment (see EN 1539);
- thermal cleaning plants (incinerators) for exhaust gas from surface treatment plants (see EN 12753);
- dry-ice blasting equipment.

For the above surface treatment machinery, this European Standard gives provisions for the determination of

- emission sound pressure levels at workstations and/or other specified positions and
- sound power levels.

This European Standard specifies noise emission measurement methods, mounting and operating conditions that shall be used for the test. The use of this document ensures the reproducibility of the determination of the noise emission characteristics within specified limits determined by the grade of accuracy of the basic noise emission measurement method used (see Clause 4 and Clause 5). Noise emission measurement methods allowed by this document are engineering methods (grade 2) and survey methods (grade 3).

This European Standard does not apply to machines not explicitly listed in the scope:

- printing, paper converting and paper making machinery and auxiliary equipment (see EN 13023);
- abrasive blasting machinery see EN 1265.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1539, *Dryers and ovens, in which flammable substances are released — Safety requirements*