



# SLOVENSKI STANDARD SIST EN ISO 28927-9:2010

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Hand-held portable power tools - Test methods for evaluation of vibration emission - Part 9: Scaling hammers and needle scalers (ISO 28927-9:2009)

## iTeh STANDARD PREVIEW

Handgehaltene motorbetriebene Maschinen - Messverfahren zur Ermittlung der Schwingungsemission - Teil 9: Abklopfer und Nadelentrostler (ISO 28927-9:2009)

SIST EN ISO 28927-9:2010

Machines à moteur portatives - Méthodes d'essai pour l'évaluation de l'émission de vibrations - Partie 9: Marteaux dérouilleurs et marteaux à aiguilles (ISO 28927-9:2009)

Ta slovenski standard je istoveten z: EN ISO 28927-9:2009

### ICS:

13.160	Vpliv vibracij in udarcev na ljudi	Vibration and shock with respect to human beings
25.140.01	Ü[ } æ[ ]!; å[æ] æ[ ] [ z] [	Hand-held tools in general

SIST EN ISO 28927-9:2010 en,fr

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 28927-9**

December 2009

ICS 13.160; 25.140.10

Supersedes EN ISO 8662-14:1996

English Version

**Hand-held portable power tools - Test methods for evaluation of  
vibration emission - Part 9: Scaling hammers and needle scalers  
(ISO 28927-9:2009)**

Machines à moteur portatives - Méthodes d'essai pour  
l'évaluation de l'émission de vibrations - Partie 9: Marteaux  
dériveurs et marteaux à aiguilles (ISO 28927-9:2009)

Handgehaltene motorbetriebene Maschinen -  
Messverfahren zur Ermittlung der Schwingungsemission -  
Teil 9: Abklopfer und Nadelentrostler (ISO 28927-9:2009)

This European Standard was approved by CEN on 14 December 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.

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## Foreword

This document (EN ISO 28927-9:2009) has been prepared by Technical Committee ISO/TC 118 "Compressors and pneumatic tools, machines and equipment" in collaboration with Technical Committee CEN/TC 231 "Mechanical vibration and shock" 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 June 2010, and conflicting national standards shall be withdrawn at the latest by June 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 ISO 8662-14:1996.

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 Directives.

For relationship with EU Directives, see informative Annex ZA and ZB, which are integral parts of this document.

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.

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### Endorsement notice

The text of ISO 28927-9:2009 has been approved by CEN as a EN ISO 28927-9:2009 without any modification.

## Annex ZA (informative)

### Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC, amended by Directive 98/79/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive 98/37/EC, Machinery, amended by Directive 98/79/EC.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive, except ER 1.7.4 d) and 2.2, and associated EFTA regulations.

**WARNING — Other requirements and other EU Directives may be applicable to the products falling within the scope of this standard.**

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## **Annex ZB (informative)**

### **Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC**

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide one means of conforming to Essential Requirements of the New Approach Directive 2006/42/EC on machinery.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirement of that Directive, except ER 2.2.1.1, and associated EFTA regulations.

**WARNING — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.**

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# INTERNATIONAL STANDARD

**ISO**  
**28927-9**

First edition  
2009-12-15

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## Hand-held portable power tools — Test methods for evaluation of vibration emission —

### Part 9: Scaling hammers and needle scalers

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**  
*Machines à moteur portatives — Méthodes d'essai pour l'évaluation de  
l'émission de vibrations —  
Partie 9: Marteaux dérouilleurs et marteaux à aiguilles*

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Reference number  
ISO 28927-9:2009(E)

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## ISO 28927-9:2009(E)

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 28927-9 was prepared by Technical Committee ISO/TC 118, *Compressors and pneumatic tools, machines and equipment*, Subcommittee SC 3, *Pneumatic tools and machines*.

This first edition of ISO 28927-9, together with ISO 29827-11, cancels and replaces ISO 8662-14:1996, of which it constitutes a technical revision. The most important changes are

- vibration measurement in three axes and at both hand positions,
- new transducer positions,
- *stone working tools* become *stone hammers* and the subject of a separate Part 11, and
- reference to energy absorbers deleted and all tools now tested on a mild steel plate or concrete block.

ISO 28927 consists of the following parts, under the general title *Hand-held portable power tools — Test methods for evaluation of vibration emission*:

- *Part 1: Angle and vertical grinders*<sup>1)</sup>
- *Part 2: Wrenches, nutrunners and screwdrivers*<sup>2)</sup>
- *Part 3: Polishers and rotary, orbital and random orbital sanders*<sup>3)</sup>
- *Part 4: Straight grinders*<sup>4)</sup>

1) Together with Part 4, replaces ISO 8662-4, *Hand-held portable power tools — Measurement of vibrations at the handle — Part 4: Grinders*.

2) Replaces ISO 8662-7, *Hand-held portable power tools — Measurement of vibrations at the handle — Part 7: Wrenches, screwdrivers nut runners with impact, impulse and ratcheting action*. All screwdrivers and nutrunners except for one-shot tools now covered.

3) Replaces ISO 8662-8, *Hand-held portable power tools — Measurement of vibrations at the handle — Part 8: Polishers and rotary, orbital and random orbital sanders*.

4) Together with Part 1, replaces ISO 8662-4, *Hand-held portable power tools — Measurement of vibrations at the handle — Part 4: Grinders*.