

# SLOVENSKI STANDARD

## SIST-TS CEN ISO/TS 8662-11:2004

01-september-2004

Hand-held portable power tools - Measurement of vibrations at the handle - Part 11:  
Fastener driving tools (ISO 8662-11:1999 + Amd. 1:2001)

Handgehaltene motorbetriebene Maschinen - Messung mechanischer Schwingungen am  
Handgriff - Teil 11: Eintreibger\*te (ISO 8662-11:1999 + Amd. 1:2001)

Machines a moteur portatives - Mesurage des vibrations au niveau des poignées - Partie  
11: Machines \* enfoncer les fixations (ISO 8662-11:1999 + Amd. 1:2001)

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**Ta slovenski standard je istoveten z: CEN ISO/TS 8662-11:2004**

### 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

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TECHNICAL SPECIFICATION  
SPÉCIFICATION TECHNIQUE  
TECHNISCHE SPEZIFIKATION

**CEN ISO/TS 8662-11**

April 2004

ICS 13.160; 25.140.99

English version

**Hand-held portable power tools - Measurement of vibrations at the handle - Part 11: Fastener driving tools (nailers) (ISO 8662-11:1999 including Amd. 1:2001)**

Machines à moteur portatives - Mesurage des vibrations au niveau des poignées - Partie 11: Outils pour éléments de fixation (cloueuses) (ISO 8662-11:1999, Amd. 1:2001 inclus)

Handgehaltene motorbetriebene Maschinen - Messung mechanischer Schwingungen am Handgriff - Teil 11: Eintreibgeräte (ISO 8662-11:1999, einschließlich Amd. 1:2001)

This Technical Specification (CEN/TS) was approved by CEN on 15 September 2003 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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

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## CEN ISO/TS 8662-11:2004 (E)

## Foreword

The texts of ISO 8662-11:1999 and its amendment 1:2001 from Technical Committee ISO/TC 118 "Compressors, pneumatic tools and pneumatic machines" of the International Organization for Standardization (ISO) have been taken over as a Technical Specification (CEN ISO/TS 8662-11:2004) by Technical Committee CEN/TC 231 "Mechanical vibration and shock", the secretariat of which is held by DIN.

NOTE Amendment Amd. 1:2001 consists of corrections of errors and deficiencies in ISO 8662-11:1999.

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 ZB, which is an integral part of this document.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

### Endorsement notice

The text of the International Standard ISO 8662-11:1999 and its amendment Amd. 1:2001 was approved by CEN as Technical Specification CEN ISO/TS 8662-11:2004 with the following correction:

Subclause 7.4, formula as given in Amd. 1:2001, move "-1" to subscript to read " $s_{n-1}$ ".

NOTE Normative references to International Standards are listed in annex ZA (normative).

## Annex ZA (normative)

### Normative references to international publications with their relevant European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE Where an International Publication has been modified by common modifications, indicated by (mod.), the relevant EN/HD applies.

Publication	Year	Title	EN	Year
ISO 8662-1	1988	Hand-held portable power tools – Measurement of vibrations at the handle – Part 1: General	EN 28662-1	1992

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## **ANNEX ZB**

(informative)

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

Once this standard is cited in the Official Journal of the European Communities 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 given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive 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**  
**8662-11**

First edition  
1999-06-01

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## **Hand-held portable power tools — Measurement of vibrations at the handle — Part 11: Fastener driving tools**

*Machines à moteur portatives — Mesurage des vibrations au niveau des poignées —  
Partie 11: Machines à enfoncer les fixations*

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Reference number  
ISO 8662-11:1999(E)

## ISO 8662-11:1999(E)

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## 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 3.

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.

International Standard ISO 8662-11 was prepared by Technical Committee ISO/TC 118, *Compressors, pneumatic tools and pneumatic machines*, Subcommittee SC 3, *Pneumatic tools and machines*.

ISO 8662 consists of the following parts, under the general title *Hand-held power tools — Measurement of vibrations at the handle*:

- Part 1: General
- Part 2: Chipping hammers and riveting hammers
- Part 3: Rock drills and rotary hammers
- Part 4: Grinders
- Part 5: Pavement breakers and hammers for construction work
- Part 6: Impact drills
- Part 7: Wrenches, screwdrivers and nut runners with impact, impulse or ratchet action
- Part 8: Polishers and rotary, orbital and random orbital sanders
- Part 9: Rammers
- Part 10: Nibblers and shears
- Part 11: Fastener driving tools
- Part 12: Saws and files with reciprocating action and saws with oscillating or rotating action
- Part 13: Die grinders
- Part 14: Stone-working tools and needle scalers

Annex A of this part of ISO 8662 is for information only.

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## Introduction

This part of ISO 8662 specifies a type test for the measurement of vibration (shocks) at the handles of fastener driving tools. It supplements ISO 8662-1, which gives the general specifications for measurement of vibration at the handles of hand-held portable power tools. It specifies the operation of the tool under type test and other requirements for the performance of the type test.

The principle of measurement in this part of ISO 8662 is intended to quantify vibration values for single events instead of continuous vibrations, such as vibrations from rotating and percussive tools, which is the case in most of the parts of ISO 8662. Fastener driving tools employ only a short-term operational mode, and measurements are made in order to give a value representing the vibration energy emitted during one operation. This is done by integrating the weighted acceleration from a counted number of operations during a known integration time. The result is presented as the measured vibration value normalized to one operation every three seconds.

This part of ISO 8662 is developed for type test measurements. As the effects of shock impact are not well known for the time being, results from measurements in accordance with this part of ISO 8662 are not suitable for risk assessment.

The principle of operation of these power tools is that energy is applied linearly to the loaded fastener for the purpose of driving it into a workpiece of defined material.

Influences of shock and its transmission to the hand-arm system during the use of fastener driving tools are determined by design, mass of the power tool, driving speed, handling, feed and gripping forces, density and solidity of the workpiece, as well as by the workpiece support.

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# Hand-held portable power tools — Measurement of vibrations at the handle —

## Part 11: Fastener driving tools

### 1 Scope

This part of ISO 8662 specifies a laboratory method for measuring the single-event vibration at the handle of fastener driving tools, where a single event is a mechanical shock or a series of individual shocks at intervals longer than 0,2 s. It is a type test procedure for establishing the vibration value in the handle of a hand-held power tool operating under a specified load.

NOTE Fastener driving tools are also referred to as nailers, pinners, tackers and staplers.

For fastener driving tools to which this part of ISO 8662 is applicable, the power required for operation can be supplied by pneumatic or hydraulic pressure, combustible gases in an internal combustion engine or from spring tension. The fastener driving tools may be actuated by single actuation, contact actuation or continuous actuation.

This part of ISO 8662 is applicable to fasteners comprising nails, staples, pins, corrugated fasteners, screws used as nails, dowels, sleeves, cable collars and base supports.

It is intended that the results of application of this part of ISO 8662 be used for comparing different models of the same type of power tool.

### 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 8662. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 8662 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 2787:1984, *Rotary and percussive pneumatic tools — Performance tests.*

ISO 8662-1:1988, *Hand-held portable power tools — Measurement of vibrations at the handle — Part 1: General.*

EN 792-13, *Hand-held nonelectric power tools — Safety requirements — Part 13: Fastener driving tools — Definitions, safety requirements and verifications.*

EN 12096, *Mechanical vibration — Declaration and verification of vibration emission values.*