

**Käeshoitavad mitteelektrilised jõuseadised.
Ohutusnõuded. Osa 7: Peenestid
KONSOLIDEERITUD TEXT**

Hand-held non-electric power tools - Safety
requirements - Part 7: Grinders CONSOLIDATED
TEXT

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 792-7:2002+A1:2008 sisaldab Euroopa standardi EN 792-7:2001+A1:2008 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 27.10.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 10.09.2008.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 792-7:2002+A1:2008 consists of the English text of the European standard EN 792-7:2001+A1:2008.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 27.10.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 10.09.2008.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:
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English Version

Hand-held non-electric power tools - Safety requirements - Part 7: Grinders

Machines portatives à moteur non électrique - Prescriptions
de sécurité - Partie 7: Meuleuses

Handgehaltene nicht-elektrisch betriebene Maschinen -
Sicherheitsanforderungen - Teil 7: Schleifmaschinen für
Schleifkörper

This European Standard was approved by CEN on 3 November 2001 and includes Amendment 1 approved by CEN on 23 July 2008.

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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.

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Foreword

This document (EN 792-7:2001+A1:2008) has been prepared by Technical Committee CEN/TC 255 "Hand-held non-electric power tools - Safety", the secretariat of which is held by SIS.

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 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

This document includes Amendment 1, approved by CEN on 2008-07-23.

This document supersedes A1 EN 792-7:2001 A1.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1.

This European Standard 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).

A1 For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document. A1

The "European Committee of Manufacturers of Compressors, Vacuum Pumps and Pneumatic Tools", PNEUROP, has given substantial contributions to this standard.

The standard has been created in close co-operation with CENELEC/TC 61F with the aim of achieving requirements for mechanical safety in the EN 50144 series, which are similar for hand-held electric and non-electric power tools.

NOTE Other technical committees in CEN dealing with hand-held power tools have been asked to follow the safety requirements as in EN 792.

The annexes to this part of the standard are:

Annex A (informative) Examples of grinders covered by this standard

Annex B (informative) Symbols for labels and signs

Annex C (informative) List of abrasive products for hand-held grinders

Annex D (normative) Design, material and thickness of guards

Annex E (informative) Example of calculating procedure of clamping force

Annex F (informative) Example of flanges

A1 Annexes ZA and ZB A1 (informative) Relationship of this European Standard with EC Directives.

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 United Kingdom.

Introduction

This European standard is a type C standard as stated in EN 1070.

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are 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 B standards, the provisions of this type C standard take precedence over the provisions of other standards, for machines that have been designed and built according to the provisions of this type C standard.

EN 792 consists of a number of independent parts for individual types of hand-held non-electric power tools.

Other European Standards deal with safety rules for hand-held power tools used in e.g. the following fields:

- agriculture and forestry such as chain saws, hedge-trimmers, brush cutters, grass trimmers;
- construction and building such as cutting-off power tools, concrete vibrators;
- food industry, such as fowl secateurs, sheep shears.

Endeavours have been made to achieve co-ordination with the relevant Technical Committees so that the safety requirements are compatible.

This standard is divided in the following Parts:

- Part 1: Assembly power tools for non-threaded mechanical fasteners (former Part 14)
- Part 2: Cutting-off and crimping power tools (former Part 15)
- Part 3: Drills and tappers
- Part 4: Non rotary percussive power tools
- Part 5: Rotary, percussive power drills
- Part 6: Assembly power tools for threaded fasteners
- Part 7: Grinders
- Part 8: Sanders and polishers
- Part 9: Die grinders
- Part 10: Compression power tools
- Part 11: Nibblers and shears
- Part 12: Small circular, small oscillating and reciprocating saws
- Part 13: Fastener driving tools

Certain Parts of EN 792 cover hand-held non-electric power tools, driven by internal combustion engines powered by gaseous or liquid fuel. In these parts, the safety aspects relating to internal combustion engines are found in a normative annex.

The Parts are type C standards and refer to pertinent European Standards of type A and B where such standards are applicable.

1 Scope

This European Standard applies to hand-held non-electric power tools driven by rotary or linear motors, powered by compressed air or hydraulic fluid and intended to be used by one operator and supported by:

- the operator's hand or hands;
- a harness;
- a suspension, e.g. a balancer.

This European Standard applies to hand-held non-electric power tools intended for grinding and cutting-off, with bonded, coated and super abrasive products for use on all kinds of materials.

This European Standard lists the significant hazards caused by such power tools and specifies safety requirements valid for different aspects of safety during their foreseeable lifetime.

This part of the standard covers power tools used with:

- abrasive products with a peripheral operating speed less than or equal to 80 m/s;
- cutting-off wheels with a peripheral operating speed less than or equal to 100 m/s;
- abrasive products with outside nominal diameter less than or equal to 230 mm;
- cutting-off wheels with outside nominal diameter less than or equal to 300 mm;
- wire brushes.

This Part of the standard does not apply to:

- die grinders with collets which are treated in EN 792-9;
- polishers and sanders which are treated in EN 792-8;
- cutting-off machines used for construction, rescue purposes which are driven by an internal combustion engine which are treated in EN 1454.

There are no grinders covered by this Part of this European Standard driven by internal combustion engines.

Typical abrasive products used together with hand-held grinders are listed in annex C.

Special requirements and modifications on a hand-held power tool for the purpose of mounting it in a fixture are not covered by this part.

NOTE At the date of publication no grinders driven by internal combustion engines are known.

2 Normative references

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 the publications referred to in this European Standard are valid only when they are incorporated in this standard by amendment or revision. For undated references the latest edition of the publication referred to, applies (including amendments).

EN 292-1:1991, *Safety of machinery - Basic concepts, general principles for design – Part 1: Basic terminology, methodology.*

EN 292-2:1991, *Safety of machinery - Basic concepts, general principles for design – Part 2: Technical principles and specifications.*

EN 563, *Safety of machinery - Temperatures of touchable surfaces - Ergonomics data to establish temperature limit values for hot surfaces.*

CR 1030-1, *Hand-arm vibrations - Guidelines for vibration hazards reduction – Part 1: Engineering methods by design of machinery.*

EN 1127-1, *Explosive atmospheres – Explosion prevention and protection – Part 1: Basic concepts and methodology.*

EN 10111, *Continuously hot-rolled low carbon sheet and strip for cold bending - Technical delivery conditions.*

EN 10130, *Cold rolled low carbon steel flat products for cold forming - Technical delivery conditions.*

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

EN 28662-1, *Hand-held portable power tools - Measurement of vibration at the handle – Part 1: General (ISO 8662-1:1998).*

EN ISO 4871, *Acoustics - Declaration and verification of noise emission values of machinery and equipment.*

EN ISO 8662-4, *Hand-held portable power tools - Measurement of vibration at the handle – Part 4: Grinders.*

EN ISO 11688-1, *Acoustics - Recommended practice for the design of low-noise machinery and equipment – Part 1: Planning (ISO/TR 11688-1:1995).*

EN ISO 11688-2, *Acoustics - Recommended practice for the design of low-noise machinery and equipment – Part 2: Introduction to the physics of low-noise design (ISO/TR 11688-2:1998).*

EN ISO 14163, *Acoustics - Guidelines for noise control by silencers (ISO 14163:1998).*

EN ISO 15744:2008, *Hand-held non-electric power tools – Noise measurement code – Engineering method (grade 2) (ISO 15744:2002).*

ISO 525, *Bonded abrasive products - General requirements.*