

**Tööpingid. Ohutus. Statsionaarsed
lihvimismasinad KONSOLIDEERITUD TEKST**

Machine tools - Safety - Stationary grinding machines
CONSOLIDATED TEXT

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13218:2002+A1:2008 sisaldab Euroopa standardi EN 13218:2002+A1:2008 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 18.08.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 30.07.2008.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13218:2002+A1:2008 consists of the English text of the European standard EN 13218:2002+A1:2008.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 18.08.2008 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 30.07.2008.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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Võtmesõnad: grinding machines (tools), mainte, metal working, metalworking, occupational safety, operating stations, protection against danger, protection devices, safety, safety requirements, set up, stationary, transport, working places, workplace safety

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English Version

Machine tools - Safety - Stationary grinding machines

Machines-outils - Sécurité - Machines à meuler fixes

Werkzeugmaschinen - Sicherheit - Ortsfeste
Schleifmaschinen

This European Standard was approved by CEN on 26 August 2001 and includes Amendment 1 approved by CEN on 29 June 2008.

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Foreword

This document (EN 13218:2002+A1:2008) has been prepared by Technical Committee CEN/TC 143 "Machine tools - Safety", the secretariat of which is held by SNV.

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of an identical text or by endorsement, at the latest by January 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

This document includes Amendment 1, approved by CEN on 2008-06-29.

This document supersedes EN 13218:2002.

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

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 EC Directive(s).

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

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 has been prepared to be a harmonised standard to provide one means of conforming with the essential safety requirements of the Machinery Directive and associated EFTA regulations. This standard is a type C standard as stated in **EN ISO 12100-1:2003**.

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

1 Scope

This standard specifies the technical safety requirements and/or protective measures to be adopted by persons undertaking the design, construction and supply (including installation and dismantling, arrangements for transport and maintenance) of stationary grinding machines as defined in 3.1 and 3.2 and intended to be used for the grinding of workpieces of cold metal.

This standard deals with the significant hazards as listed in 4.

This standard does not apply to honing, polishing and belt grinding machines.

This standard applies to machines which are manufactured after the date of issue of this standard.

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 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).

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

EN 287-1, *Approval testing of welders – Fusion welding – Part 1: Steels*

EN 287-2, *Approval testing of welders – Fusion welding – Part 2: Aluminium and aluminium alloys*

EN 288-1, *Specification and qualification of welding procedures for metallic materials – Part 1: General rules for fusion welding*

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EN 294, *Safety of machinery – Safety distances to prevent danger zones being reached by the upper limbs*

EN 349, *Safety of machinery – Minimum gaps to avoid crushing of parts of the human body*

EN 418, *Safety of machinery – Emergency stop equipment, functional aspects – Principles for design*

EN 547-1, *Safety of machinery - Human body measurements – Part 1: Principles for determining the dimensions required for openings for whole body access into machinery*

EN 547-2, *Safety of machinery - Human body measurements – Part 2: Principles for determining the dimensions required for access openings*

EN 614-1, *Safety of machinery - Ergonomic design principles – Part 1: Terminology and general principles*

EN 626-1, *Safety of machinery - Reduction of risks to health from hazardous substances emitted by machinery – Part 1: Principles and specifications for machinery manufacturers*

EN 729-1, *Quality requirements for welding – Fusion welding of metallic materials – Part 1: Guidelines for selection and use*

EN 953, *Safety of machinery – Guards – General requirements for the design and construction of fixed and movable guards*

EN 954-1, *Safety of machinery – Safety related parts of control systems – Part 1: General principles for design*

EN 982, *Safety of machinery – Safety requirements for fluid power systems and their components – Hydraulics*

EN 983, *Safety of machinery – Safety requirements for fluid power systems and their components – Pneumatics*

EN 1033, *Hand arm vibration – Laboratory measurement of vibration at the grip surface of hand guided machinery – General*

EN 1037, *Safety of machinery – Prevention of unexpected start-up*

EN 1050:1996, *Safety of machinery – Principles for risk assessment*

EN 1070, *Safety of machinery – Terminology*

EN 1088:1995, *Safety of machinery – Interlocking devices associated with guards – Principles for design and selection*

EN 1127-1:1997, *Explosive atmospheres – Explosion prevention and protection – Part 1: Basic concepts and methodology*

EN 1837, *Safety of machinery - Integral lighting of machines*

EN 10025, *Hot rolled products of non-alloy structured steels - Technical delivery conditions*

EN 10130:1991+A1, *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 12413, *Safety requirements for bonded abrasive products*

EN 13236, *Safety requirements for superabrasives*

EN 13478, *Safety of machinery – Fire prevention and protection*

EN 22553, *Welded, brazed and soldered joints – Symbolic representation on drawings (ISO 2553:1992)*

EN 25817:1992, *Arc welded joints in steel – Guidance on quality levels for imperfections (ISO 5817:1992)*

- ENV 26385, *Ergonomic principles for the design of work systems (ISO 6385:1981)*
- EN 50081-2, *Electromagnetic compatibility – Generic emission standard – Part 2: Industrial environment*
- EN 50082-2, *Electromagnetic compatibility – Generic immunity standard – Part 2: Industrial environment*
- EN 60204-1:1997, *Safety of machinery – Electrical equipment of machines – Part 1: General requirements (IEC 60204 1:1997)*
- EN 61310-2, *Safety of machinery – Indication, marking and actuation – Part 2: Requirements for marking (IEC 61310 2:1995)*
- EN ISO 3744, *Acoustics – Determination of sound power levels of noise sources using sound pressure – Engineering method in an essentially free field over a reflecting plane (ISO 3744:1994)*
- EN ISO 3746, *Acoustics – Determination of sound power levels of noise sources using sound pressure – Survey method using an enveloping measurement surface over a reflecting plane (ISO 3746:1995)*
- EN ISO 4871, *Acoustics – Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996)*
- EN ISO 11201, *Acoustics – Noise emitted by machinery and equipment – Measurements of emission sound pressure levels at a work station and at other specified positions – Engineering method in an essentially free field over a reflecting plane (ISO 11201:1995)*
- EN ISO 11202, *Acoustics – Noise emitted by machinery and equipment – Measurements of emission sound pressure levels at a work station and at other specified positions – Survey method in situ (ISO 11202:1995)*
- EN ISO 11204, *Acoustics – Noise emitted by machinery and equipment – Measurements of emission sound pressure levels at a work station and at other specified positions – Method requiring environmental corrections (ISO 11204:1995)*
- EN ISO 11688-1, *Acoustics – Recommended practice for the design of low noise machinery and equipment – Part 1: Planning (ISO/TR 11688 1:1995)*
- _{A1} EN ISO 12100-1:2003, *Safety of machinery – Basic concepts, general principles for design – Part 1: Basic terminology, methodology (ISO 12100-1:2003)* ■_{A1}
- _{A1} EN ISO 12100-2:2003, *Safety of machinery – Basic concepts, general principles for design – Part 2: Technical principles (ISO 12100-2:2003)* ■_{A1}
- ISO 230-5, *Test code for machine tools – Part 5: Determination of the noise emission*
- ISO 666, *Machine tools – Mounting of plain grinding wheels by means of hub flanges*
- ISO 1052, *Steels for general engineering purposes*
- ISO 1083, *Spheroidal graphite cast iron – Classification*
- ISO 3522, *Cast aluminium alloys – Chemical composition and mechanical properties*
- ISO 3574, *Cold reduced carbon steel sheet of commercial and drawing qualities*
- ISO 4997, *Cold reduced steel sheet of structural quality*
- ISO 6316, *Hot rolled steel strip of structural quality*
- ISO 6361-2, *Wrought aluminium and aluminium alloy sheets, strips and plates – Part 2: Mechanical properties*