## Valukoja seadmed. Abrasiivjoaseadmete ohutusnõuded KONSOLIDEERITUD TEKST

Foundry Machinery - Safety requirements for abrasive OCCURRENCE OF THE STATE OF THE blasting equipment CONSOLIDATED TEXT



#### **EESTI STANDARDI EESSÕNA**

#### **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN
1248:2001+A1:2009 sisaldab Euroopa
standardi EN 1248:2001+A1:2009 ingliskeelset
teksti.

Standard on kinnitatud Eesti Standardikeskuse 29.05.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 08.04.2009.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 1248:2001+A1:2009 consists of the English text of the European standard EN 1248:2001+A1:2009.

This standard is ratified with the order of Estonian Centre for Standardisation dated 29.05.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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ICS 25.120.30

Võtmesõnad: fluid mechanics, foundries, foundry engineering, foundry equipment, jets, plant, safety requirements, testing

#### Standardite reprodutseerimis- ja levitamisõigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

## EUROPEAN STANDARD

### EN 1248:2001+A1

# NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

April 2009

ICS 25.120.30

Supersedes EN 1248:2001

#### **English Version**

## Foundry machinery - Safety requirements for abrasive blasting equipment

Machines de fonderie - Prescriptions de sécurité pour équipements de grenaillage Gießereimaschinen - Sicherheitsanforderungen für Strahlanlagen

This European Standard was approved by CEN on 8 March 2001 and includes Amendment 1 approved by CEN on 1 March 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.



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

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#### **Foreword**

This document (EN 1248:2001+A1:2009) has been prepared by Technical Committee CEN/TC 202 "Foundry machinery", 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 October 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

This document includes Amendment 1, approved by CEN on 2009-03-01.

This document supersedes EN 1248:2001.

The start and finish of text introduced or altered by amendment is indicated in the text by tags [A] (A)

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 EC Directive(s).

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

An assessment of the foreseeable risks arising from the use of the equipment was carried out when this standard was drafted by CEN/TC 202/WG 4, comprising experts from the following countries: France, Germany, Italy, Sweden and United Kingdom.

Annex A is normative, and Annex B is informative.

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

(A) This European Standard is a type C standard as stated in EN ISO 12100.

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

Where for clarity an example of a preventative measure is given in the text, this should not be considered as the only possible solution. Other solutions can be used as far as they fulfil correctly the criteria expressed in the requirement.

This European Standard assumes, that the equipment is operated and maintained by trained personnel. [A]

### 1 Scope

This standard specifies requirements to be met by the manufacturer of abrasive blasting equipment for the foreseeable significant hazards due to design, construction and installation, during commissioning, operation, maintenance and decommissioning of the equipment which employ either centrifugal force or compressed air as a means of accelerating abrasive to achieve the desired result.

Abrasive blasting equipment covers:

- centrifugal blasting machines;
- air blasting machines;
- loading, conveying and unloading systems for the workpieces.

See Annex A for more details.

This standard covers all foreseeable significant hazards which could be encountered during the lifetime of the machine as listed in clause 5.

This standard does not apply to:

- mobile centrifugal blasting equipment;
- mobile air blasting equipment;
- wet blasting equipment;
- the general works compressed air supply system.

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#### 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies. (41)

EN 286-1, Simple unfired pressure vessels designed to contain air or nitrogen — Part 1: Pressure vessels for general purposes

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

EN 620, Continuous handling equipment and systems — Safety and EMC requirements for fixed belt conveyors for bulk materials

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 842, Safety of machinery — Visual danger signals — General requirements, design and testing

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

EN 981, Safety of machinery — System of auditory and visual danger and information signals

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

EN 999, Safety of machinery — The positioning of protective equipment in respect of approach speeds of parts of the human body

EN 1037, Safety of machinery — Prevention of unexpected start-up

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

EN 1265, Noise test code for foundry machines and equipment

EN 60079-0, Electrical apparatus for explosive gas atmospheres — Part 0: General requirements (IEC 60079-0:2004, modified)

EN 60204-1:2006, Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1:2005, modified)

EN 60529, Degrees of protection provided by enclosures (IP-Code) (IEC 60529:1989)

EN 61310-1, Safety of machinery — Indication, marking and actuation — Part 1: Requirements for visual, auditory and tactile signals (IEC 61310-1:2007)

EN 61310-2, Safety of machinery — Indication, marking and actuation — Part 2: Requirements for marking (IEC 61310- 2:2007)

EN ISO 7731, Ergonomics — Danger signals for public and work areas — Auditory danger signals (ISO 7731:2003)

EN ISO 10218-1, Robots for industrial environments — Safety requirements — Part 1: Robot (ISO 10218-1:2006)

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 12100-1:2003, Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)

EN ISO 12100-2:2003, Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles (ISO 12100-2:2003)

EN ISO 13849-1:2006, Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design (ISO 13849-1:2006)

EN ISO 13850:2006, Safety of machinery — Emergency stop — Principles for design (ISO 13850:2006)

EN ISO 13857:2008, Safety of machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2008)

ISO 3864-1, Graphical symbols — Safety colours and safety signs — Part 1: Design principles for safety signs in workplaces and public areas

ISO 7000, Graphical symbols for use on equipment — Index and synopsis

OF COLON CONTRACTOR OF THE COLON COLON CONTRACTOR OF THE COLON COL CENELEC R044-001, February 1999, Safety of machinery — Guidance and recommendations for the avoidance of hazards due to static electricity (4)