

SVENSK STANDARD

SS-EN 13457:2004+A1:2010

Fastställt/Approved: 2010-05-10

Publicerad/Published: 2010-06-01

Utgåva/Edition: 1

Språk/Language: engelska/English

ICS: 14.490; 59.140.40; 61.060



Maskiner för tillverkning av skodon, lädervaror och imitationer av lädervaror – Kantskärnings-, spalt-, juster-, limnings- och limtorkningsmaskiner – Säkerhetskrav

Footwear, leather and imitation leather goods manufacturing machines – Splitting, skiving, cutting, cementing and cement drying machines – Safety requirements

Standarder får världen att fungera

SIS (Swedish Standards Institute) är en fristående ideell förening med medlemmar från både privat och offentlig sektor. Vi är en del av det europeiska och globala nätverk som utarbetar internationella standarder. Standarder är dokumenterad kunskap utvecklad av framstående aktörer inom industri, näringsliv och samhälle och befrämjar handel över gränser, bidrar till att processer och produkter blir säkrare samt effektiviserar din verksamhet.

Delta och påverka

Som medlem i SIS har du möjlighet att påverka framtida standarder inom ditt område på nationell, europeisk och global nivå. Du får samtidigt tillgång till tidig information om utvecklingen inom din bransch.

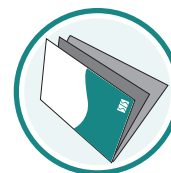
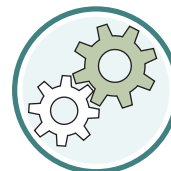
Ta del av det färdiga arbetet

Vi erbjuder våra kunder allt som rör standarder och deras tillämpning. Hos oss kan du köpa alla publikationer du behöver – allt från enskilda standarder, tekniska rapporter och standardpaket till handböcker och onlinetjänster. Genom vår webbtjänst e-nav får du tillgång till ett lättnavigerat bibliotek där alla standarder som är aktuella för ditt företag finns tillgängliga. Standarder och handböcker är källor till kunskap. Vi säljer dem.

Utveckla din kompetens och lyckas bättre i ditt arbete

Hos SIS kan du gå öppna eller företagsinterna utbildningar kring innehåll och tillämpning av standarder. Genom vår närhet till den internationella utvecklingen och ISO får du rätt kunskap i rätt tid, direkt från källan. Med vår kunskap om standarders möjligheter hjälper vi våra kunder att skapa verklig nytta och lönsamhet i sina verksamheter.

Vill du veta mer om SIS eller hur standarder kan effektivisera din verksamhet är du välkommen in på www.sis.se eller ta kontakt med oss på tel 08-555 523 00.



Standards make the world go round

SIS (Swedish Standards Institute) is an independent non-profit organisation with members from both the private and public sectors. We are part of the European and global network that draws up international standards. Standards consist of documented knowledge developed by prominent actors within the industry, business world and society. They promote cross-border trade, they help to make processes and products safer and they streamline your organisation.

Take part and have influence

As a member of SIS you will have the possibility to participate in standardization activities on national, European and global level. The membership in SIS will give you the opportunity to influence future standards and gain access to early stage information about developments within your field.

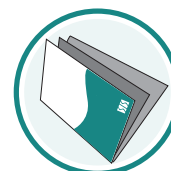
Get to know the finished work

We offer our customers everything in connection with standards and their application. You can purchase all the publications you need from us - everything from individual standards, technical reports and standard packages through to manuals and online services. Our web service e-nav gives you access to an easy-to-navigate library where all standards that are relevant to your company are available. Standards and manuals are sources of knowledge. We sell them.

Increase understanding and improve perception

With SIS you can undergo either shared or in-house training in the content and application of standards. Thanks to our proximity to international development and ISO you receive the right knowledge at the right time, direct from the source. With our knowledge about the potential of standards, we assist our customers in creating tangible benefit and profitability in their organisations.

If you want to know more about SIS, or how standards can streamline your organisation, please visit www.sis.se or contact us on phone +46 (0)8-555 523 00



Europastandarden EN 13457:2004+A1:2010 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN 13457:2004+A1:2010.

Denna standard ersätter SS-EN 13457:2004, utgåva 1.

The European Standard EN 13457:2004+A1:2010 has the status of a Swedish Standard. This document contains the official English version of EN 13457:2004+A1:2010.

This standard supersedes the Swedish Standard SS-EN 13457:2004, edition 1.

© Copyright/Upphovsrätten till denna produkt tillhör SIS, Swedish Standards Institute, Stockholm, Sverige. Användningen av denna produkt regleras av slutanvändarlicensen som återfinns i denna produkt, se standardens sista sidor.

© Copyright SIS, Swedish Standards Institute, Stockholm, Sweden. All rights reserved. The use of this product is governed by the end-user licence for this product. You will find the licence in the end of this document.

Upplysningar om sakinnehållet i standarden lämnas av SIS, Swedish Standards Institute, telefon 08-555 520 00. Standarder kan beställas hos SIS Förlag AB som även lämnar allmänna upplysningar om svensk och utländsk standard.

Information about the content of the standard is available from the Swedish Standards Institute (SIS), telephone +46 8 555 520 00. Standards may be ordered from SIS Förlag AB, who can also provide general information about Swedish and foreign standards.

Har du synpunkter på innehållet i den här standarden, vill du delta i ett kommande revideringsarbete eller vara med och ta fram andra standarder inom området? Gå in på www.sis.se - där hittar du mer information.

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 13457:2004+A1

April 2010

ICS 59.140.40; 61.060

Supersedes EN 13457:2004

English Version

**Footwear, leather and imitation leather goods manufacturing
machines - Splitting, skiving, cutting, cementing and cement
drying machines - Safety requirements**

Machines de fabrication de chaussures et d'articles en cuir
et en matériaux similaires - Machines à refendre, à parer, à
couper, à encoller et à sécher l'adhésif - Prescriptions de
sécurité

Maschinen zur Herstellung von Schuhen, Leder- und
Kunstlederwaren - Spalt-, Schärf-, Schneid-,
Klebstoffauftrag- und Klebstofftrockenmaschinen -
Sicherheitsanforderungen

This European Standard was approved by CEN on 8 August 2004 and includes Amendment 1 approved by CEN on 18 March 2010.

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, Croatia, 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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

| | page |
|---|------|
| Foreword..... | 4 |
| Introduction | 5 |
| 1 Scope | 6 |
| 2 Normative references | 6 |
| 3 Terms and definitions | 9 |
| 4 A1 List of significant hazards A1 | 10 |
| 5 Safety requirements and/ A1 or protective measures A1 | 26 |
| 5.1 General principles..... | 26 |
| 5.2 Common requirements for all machines within the scope | 26 |
| 5.2.1 Mechanical equipment | 26 |
| 5.2.2 Electrical equipment..... | 27 |
| 5.2.3 Thermal protection | 27 |
| 5.2.4 Protection against fire | 27 |
| 5.2.5 Noise control at the design state | 28 |
| 5.2.6 Fumes and dust detrimental to health..... | 28 |
| 5.2.7 Ergonomics | 28 |
| 5.2.8 Pressurized fluid systems | 29 |
| 5.2.9 Control systems..... | 29 |
| 5.2.10 Additional safety devices..... | 30 |
| 5.2.11 Aids for transportation | 30 |
| 5.3 Additional requirements for specific machines | 30 |
| 5.3.1 Splitting machines (see Figure 1) | 30 |
| 5.3.2 Skiving machines (Figure 2)..... | 31 |
| 5.3.3 Cutting machines (Figures 3 and 4)..... | 31 |
| 5.3.4 Strip cutting machines (Figure 5)..... | 31 |
| 5.3.5 Cementing machines (Figures 6, 7, 8, 9, 10 and 11)..... | 31 |
| 5.3.6 Cement drying machines (Figure 12)..... | 32 |
| 6 A1 Verification of safety requirements and/or protective measures A1 | 33 |
| 7 Information for use | 40 |
| 7.1 General..... | 40 |
| 7.2 Signal and warning devices..... | 40 |
| 7.3 Instruction handbook (operating manual) | 40 |
| 7.4 Declared noise emission values | 41 |
| 7.5 A1 Marking A1 | 41 |
| Annex A (normative) Requirements for guards..... | 43 |
| Annex B (normative) Requirements for interlocking guards | 45 |
| Annex C (normative) Requirements for trip device..... | 46 |
| Annex D (normative) Requirements for hold-to-run control device..... | 49 |
| Annex E (normative) Noise test code for splitting-, skiving-, cutting-, cementing- and cement drying machines | 51 |
| Annex F (normative) Prevention against explosions..... | 54 |
| Annex G (normative) Requirements for pressure sensitive mats and floors..... | 56 |
| Annex H (normative) Temperatures of burn threshold..... | 57 |
| Annex I (normative) Requirements for control guards (interlocking guard with start function)..... | 58 |
| Annex J (informative) Splitting machines: Safety devices for feeding and processing area..... | 59 |

| | | |
|-------------------------------|--|-----------|
| Annex ZA (informative) | Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC | 60 |
| Annex ZB (informative) | Ⓐ Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC Ⓐ | 61 |

Foreword

This document (EN 13457:2004+A1:2010) has been prepared by Technical Committee CEN/TC 201 “Leather and imitation leather goods and footwear manufacturing machinery - Safety”, the secretariat of which is held by UNI.

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 2010, and conflicting national standards shall be withdrawn at the latest by October 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 includes Amendment 1, approved by CEN on 2010-03-18.

This document supersedes EN 13457:2004.

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 EU Directives.

A1 For relationship with EU 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, Croatia, 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

A1 deleted text **A1**

This document is a type C standard as stated in **A1** EN ISO 12100 **A1**.

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

When provisions of this type C standard are different from those which are stated in type A and B standards, the provisions of this type C standard take precedence over the provisions of the other standards, for information for use and maintenance according to the provisions of this type C standard.

A1 deleted text **A1**

1 Scope

1.1 This document applies to splitting, skiving, edge trimming, strip cutting, cementing and cement drying machines used in the manufacture of footwear, leather and imitation leather goods and other related components.

1.2 This document does not apply to:

- trimming machines with rotary milling tool for the purpose of trimming edges of material, see EN 930;
- splitting and band knife machines used in tanneries, see EN 13112;
- portable machines.

1.3 This document specifies safety requirements for construction, transport, installation, adjustment, setting, teaching or process change-over, operation, cleaning, maintenance, decommissioning, dismantling and, as far as safety is concerned, disposal for machines mentioned in 1.1.

It takes account of intended use ^{A1}, foreseeable misuse ^{A1}, component and system failure.

1.4 This document deals with significant hazards relevant to the footwear, leather and imitation leather goods manufacturing industries. (For a list of hazards see Clause 4.)

The document does not deal with precise technical measures for reducing the risks of fumes and dusts detrimental to health.

The use of machines falling within the scope of this document for purposes other than those specified in 1.1, may give rise to hazards not considered during its preparation.

1.5 This document also applies to equipment for material handling and operations which are an integral part of the machine.

1.6 This document assumes the machines

- are operated by adequately trained persons
- are used with adequate workplace lighting conforming the local regulations or to EN 12464-1. ^{A1} deleted text ^{A1}

1.7 ^{A1} This document is not applicable to splitting, skiving, edge trimming, strip cutting, cementing and cement drying machines which are manufactured before the date of its publication as EN. ^{A1}

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.

^{A1} deleted text ^{A1}

^{A1} EN 349:1993 ^{A1}, *Safety of machinery — Minimum gaps to avoid crushing of parts of the human body*

^{A1} deleted text ^{A1}

^{A1} EN 547-1:1996 ^{A1}, *Safety of machinery – Human body measurements – Part 1: Principles for determining the dimensions required for openings for whole body access into machinery*

EN 547-2:1996 A1, *Safety of machinery – Human body measurements – Part 2: Principles for determining the dimensions required for access openings*

A1 deleted text A1

EN 614-1:2006 A1, *Safety of machinery – Ergonomic design principles – Part 1: Terminology and general principles*

EN 626-1:1994, *Safety of machinery – Reduction of risks to health from hazardous substances emitted by machinery – Part 1: Principles and specifications for machinery manufacturers*

EN 626-2:1996 A1, *Safety of machinery – Reduction of risk to health from hazardous substances emitted by machinery – Part 2: Methodology leading to verification procedures A1*

A1 deleted text A1

EN 894-2:1997 A1, *Safety of machinery – Ergonomics requirements for the design of displays and control actuators – Part 2: Displays*

EN 894-3:2000 A1, *Safety of machinery – Ergonomics requirements for the design of displays and control actuators – Part 3: Control actuators*

EN 953:1997, *Safety of machinery – Guards – General requirements for the design and construction of fixed and movable guards*

A1 deleted text A1

EN 982:1996, *Safety of machinery – Safety requirements for fluid power systems and their components – Hydraulics*

EN 983:1996, *Safety of machinery – Safety requirements for fluid power systems and their components – Pneumatics*

EN 999:1998 A1, *Safety of machinery – The positioning of protective equipment in respect of approach speeds of parts of the human body*

EN 1005-2:2003, *Safety of machinery – Human physical performance – Part 2: Manual handling of machinery and component parts of machinery*

EN 1005-3:2002, *Safety of machinery – Human physical performance – Part 3: Recommended force limits for machinery operation*

EN 1037:1995 A1, *Safety of machinery – Prevention of unexpected start-up*

A1 deleted text A1

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

EN 1127-1:2007 A1, *Explosive atmospheres – Explosion prevention and protection – Part 1: Basic concepts and methodology*

EN 1760-1:1997 A1, *Safety of machinery – Pressure sensitive protective devices – Part 1: General principles for the design and testing of pressure sensitive mats and pressure sensitive floors*

EN 1760-2:2001 A1, *Safety of machinery – Pressure sensitive protective devices – Part 2: General principles for the design and testing of pressure sensitive edges and pressure sensitive bars*

EN 12464-1:2002 A1, *Light and lighting – Lighting of work places – Part 1: Indoor work places*