



**SLOVENSKI STANDARD**  
**SIST EN 13114:2003/kFprA1:2009**  
**01-junij-2009**

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Tannery machines - Rotating process vessels - Safety requirements

Gerberei-Maschinen - Rotierende Bearbeitungsgefäße - Sicherheitsanforderungen

Machines de tannerie - Tonneaux tournants - Prescriptions de sécurité

**Ta slovenski standard je istoveten z: EN 13114:2002/FprA1**

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**ICS:**

59.140.40	Stroji in oprema za proizvodnjo usnja in krzna	Machines and equipment for leather and fur production
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**SIST EN 13114:2003/kFprA1:2009**      **en,fr**



EUROPEAN STANDARD  
NORME EUROPÉENNE  
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**FINAL DRAFT**  
**EN 13114:2002**

**FprA1**

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ICS 59.140.40

English Version

## Tannery machines - Rotating process vessels - Safety requirements

Machines de tannerie - Tonneaux tournants - Prescriptions de sécurité

Gerberei-Maschinen - Rotierende Bearbeitungsgefäße - Sicherheitsanforderungen

This draft amendment is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 200.

This draft amendment A1, if approved, will modify the European Standard EN 13114:2002. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment was established by CEN 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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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**Management Centre: Avenue Marnix 17, B-1000 Brussels**

**EN 13114:2002/FprA1:2009 (E)****Foreword**

This document (EN 13114:2002/FprA1:2009) has been prepared by Technical Committee CEN/TC 200 “Tannery machinery - Safety”, the secretariat of which is held by UNI.

This document is currently submitted to the Unique Acceptance Procedure.

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 Annexes ZA and ZB, which are integral parts of this document.

The first reason for amending the published standard EN 13114:2002 is the revision of the EU-Machinery Directive 98/37/EC into 2006/42/EC, requiring the adaptation of published European Standards cited in the Official Journal of the European Communities under that Directive.

Additionally at this occasion the normative references have been updated, while also some other limited rather editorial improvements and corrections have been made.

## 1 Modification to the Foreword

*Replace the existing 4<sup>th</sup> paragraph with the following: "For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document."*

## 2 Modification to the Introduction

*Replace the complete text with the following:*

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

The machinery concerned and the extent to which hazards, hazardous situations and hazardous 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 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."

## 3 Modification to Clause 1, Scope

1.5:

*Replace the text with the following: "This document is not applicable to the rotating vessels which are manufactured before the date of its publication as EN."*

## 4 Modification to Clause 2, Normative references

**Introductory text:** *Replace the first paragraph with the following: "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."*

*Delete all full stops at the end of reference titles.*

**EN 292-1:** *Delete this item and add the following: "EN ISO 12100-1:2003, Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)".*

**EN 292-2:** *Delete this item and add the following: "EN ISO 12100-2:2003, Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles (ISO 12100-2:2003)".*

**EN 418:** *Delete this item and add the following: "EN ISO 13850:2008, Safety of machinery — Emergency stop — Principles for design (ISO 13850:2006)".*

**EN 954-1:** *Delete this item and add the following: "EN ISO 13849-1:2008, Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design (ISO 13849-1:2006)".*

**prEN 1005-3:** *Replace this item with the following: "EN 1005-3:2002, Safety of machinery — Human physical performance — Part 3: Recommended force limits for machinery operation".*

**EN 1037:** *Replace "EN 1037" with "EN 1037:1995".*

*Delete reference to EN 1070.*

**EN 13114:2002/FprA1:2009 (E)**

**prEN 1760-2:** Replace this item with the following: "EN 1760-2:2001, *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 ISO 3743-1:** Replace "EN ISO 3743-1" with "EN ISO 3743-1:1995".

**EN ISO 3743-2:** Replace "EN ISO 3743-2" with "EN ISO 3743-2:1996".

**EN ISO 3744:** Replace "EN ISO 3744" with "EN ISO 3744:1995".

**EN ISO 3746:** Replace "EN ISO 3746" with "EN ISO 3746:1995".

**EN ISO 3747:** Replace "EN ISO 3747" with "EN ISO 3747:2000".

**EN ISO 4871:** Replace "EN ISO 4871" with "EN ISO 4871:1996".

Replace the reference EN ISO 9614 the following:

"EN ISO 9614-1:1995, *Acoustics — Determination of sound power levels of noise sources using sound intensity — Part 1: Measurements at discrete points (ISO 9614-1:1993)*

EN ISO 9614-2:1996, *Acoustics — Determination of sound power levels of noise sources using sound intensity — Part 2: Measurement by scanning (ISO 9614-2:1996)*

EN ISO 9614-3:2002, *Acoustics — Determination of sound power levels of noise sources using sound intensity — Part 3: Precision method for measurement by scanning (ISO 9614-3:2002)*".

**EN ISO 11201:** Replace "EN ISO 11201" with "EN ISO 11201:1995".

**EN ISO 11202:** Replace "EN ISO 11202" with "EN ISO 11202:1995".

**EN ISO 11203:** Replace "EN ISO 11203" with "EN ISO 11203:1995".

**EN ISO 11204:** Replace "EN ISO 11204" with "EN ISO 11204:1995".

**EN ISO 11688-1:** Replace "EN ISO 11688-1" with "EN ISO 11688-1:1998".

**EN ISO 11688-2:** Replace "EN ISO 11688-2" with "EN ISO 11688-2:2000".

Add reference to EN ISO 14121-1: "EN ISO 14121-1:2007, *Safety of machinery — Risk assessment — Part 1: Principles (ISO 14121-1:2007)*".

**EN 61496-1:1997:** Replace this item with "EN 61496-1:2004, *Safety of machinery — Electro-sensitive protective equipment — Part 1: General requirements and tests (IEC 61496-1:2004, modified)*".

**prEN 61496-2:1997:** Replace this item with the following: "CLC/TS 61496-2:2006, *Safety of machinery — Electro-sensitive protective equipment — Particular requirements for equipment using active optoelectronic protective devices (AOPDs) (IEC 61496-2:2006)*".

**EN 60204-1:1997:** Replace this item with the following: "EN 60204-1:2006, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1:2005, modified)*".

## **5 Modification to Clause 3, Terms and definitions**

*Introductory paragraph:* replace the text with the following: "For the purposes of this document, the terms and definitions given in EN ISO 12100-1:2003 and the following apply."

## 6 Modification to Clause 4, List of hazards

*Replace the heading of this clause with: "List of significant hazards" and add the following table title: "Table 1 - List of significant hazards".*

*Introductory paragraphs: replace the text with the following:*

"This clause contains all the significant hazards, hazardous situations and events, as far as they are dealt with in this document, identified by risk assessment as significant for this type of machinery and which require action to eliminate or reduce the risk.

The significant hazards at rotating vessels are outlined in 4.1 to 4.9.

The danger zones which give rise to mechanical hazards are illustrated in Figures 1, 2 and 3. The figures are informative only."

## 7 Modification to Clause 5, Safety requirements and/or measures

*Delete the NOTE and the introductory text (hanging paragraphs).*

### 5.1:

*Replace the text with the following:*

"Machinery shall comply with the safety requirements and/or protective measures of this clause.

In addition, the machine shall be designed according to the principles of EN ISO 12100-2 for relevant but not significant hazards which are not dealt with by this document.

For hazards which are to be reduced by the application of a type B-standard such as EN 294, EN 953, EN ISO 13850, EN 60204-1 etc., the manufacturer shall carry out a risk assessment to establish the requirements of the B-standards which are to be applied."

### 5.2.1.1:

*Replace the following text in the 1<sup>st</sup> indent "EN 953 and 4.2.2.2 of EN 292-2:1991/A1:1995" with: "EN 953 and 5.3.2.2 of EN ISO 12100-2:2003".*

*Replace the following text in the 2<sup>nd</sup> indent "EN 953, EN 1088 and 4.2.2.3 of EN 292-2:1991/A1:1995" with: "EN 953, EN 1088 and 5.3.2.3 of EN ISO 12100-2:2003".*

### 5.2.1.2:

*Replace the following text in the 1<sup>st</sup> indent "EN 953 and 4.2.2.2 of EN 292-2:1991/A1:1995" with: "EN 953 and 5.3.2.2 of EN ISO 12100-2:2003".*

*Replace the following text in the 2<sup>nd</sup> indent "EN 953, 4.2.2.1 of EN 292-2:1991/A1:1995" with: "EN 953, 5.3.2.3 of EN ISO 12100-2:2003".*

*Add a second paragraph as follows: "Fixing systems of fixed guards and fixed covers shall remain attached to these parts or to the machine when the parts are removed."*

**EN 13114:2002/FprA1:2009 (E)****5.2.1.4:**

*Replace the text of the 1<sup>st</sup> paragraph with: "Where the above measures cannot be applied the following protective devices shall be provided which will shutdown the hazardous motion before the danger point is reached."*

*Replace the text in the 2<sup>nd</sup> paragraph with the following:*

"Suitable protective devices are:

- movable interlocking guards which satisfy EN 953, EN 1088, 5.3.2.3 of EN ISO 12100-2:2003 and the distances given in the appropriate table (1 or 3) of EN 294:1992;
- trip devices, such as:
  - electrosensitive protective devices satisfying EN 61496-1, CLC/TS 61496-2 and EN 999;
  - pressure sensitive protective device satisfying EN 1760-2 type 3.1 or 3.2."

**5.2.2:**

*Replace in the 2<sup>nd</sup> paragraph "see 7.1.5.d" with: "see 7.3.5 d)".*

*Replace in the last paragraph "7.2.b" into: "7.4".*

**5.2.6.1:**

*Replace the 2<sup>nd</sup> sentence of the 1<sup>st</sup> paragraph with: "In the case of presence of toxic vapours, safety related parts of the vessels control system shall as a minimum comply with performance level "d" as defined in EN ISO 13849-1 which consists of:"*

**5.2.7.3:**

*In the 1<sup>st</sup> sentence, replace "(see 3.7.10 and 1.2.5 of annex A of EN 292-2:1991/A1:1995)" with "(see EN ISO 12100-2)".*

**5.2.7.4:**

*Replace the text of the 2<sup>nd</sup> indent with:*

"shall as a minimum comply with performance level "d" as defined in EN ISO 13849-1."

**5.2.8.1:**

*In the 1<sup>st</sup> paragraph, replace "EN 418" with "EN ISO 13850".*

*In the 2<sup>nd</sup> paragraph, replace "9.2.3., 9.2.5.4 and 10.7 of EN 60204-1:1992" with "EN 60204-1".*

**5.2.10.2:**

*In list a), replace "4.4.2.1 of prEN 1005-3:1998" with "EN 1005-3".*

**5.2.10.3:**

*In list a), replace "4.4.2.1 of prEN 1005-3:1998" with "EN 1005-3:2002".*



**5.3.1.1.1:**

*Replace the text in the 4<sup>th</sup> paragraph with:* "The parts of the control system related to the stopping system shall as a minimum comply with performance level "d" as defined in EN ISO 13849-1."

**5.3.1.1.2:**

*Replace the text in the 1<sup>st</sup> paragraph with:* "The electrosensitive protective devices of type 2 shall satisfy EN 61496-1, CLC/TS 61496-2, EN 999 and the related parts of the control system shall as a minimum comply with performance level "d" as defined in EN ISO 13849-1."

**5.3.1.4.2:**

*Replace:* "prEN 1760-2:1996 and with a control system of at least category 2 of EN 954-1" *with* "EN 1760-2 and with the related parts of the control system presenting a performance level at least "d" defined in accordance with EN 13849-1".

**5.3.2.3:**

*Replace* "4.2.2.1 of EN 292-2:1991/A1:1995" *with* "EN ISO 12100-2".

**5.3.2.4.2:**

*Replace:* "prEN 1760-2 and with a control system of at least category 2 of EN 954-1" *with* "EN 1760-2 and with the related parts of the control system as a minimum complying with performance level "d" as defined in EN 13849-1".

**5.4.1:**

*In the 1<sup>st</sup> indent, replace:* "4.2.2.1 of EN 292-2:1991/A1:1995" *with:* "EN ISO 12100-2".

**5.4.2:**

*In the indent, replace:* "4.2.2.1 of EN 292-2:1991/A1:1995" *with:* "5.3.3.1 of EN ISO 12100-2:2003".

## **8 Modification to Clause 6, Verification of the safety requirements and/or measures**

### **Introductory paragraph:**

*Replace in the 1<sup>st</sup> indent of the 1<sup>st</sup> paragraph the text in brackets with* "in particular EN ISO 12100-1, EN ISO 12100-2, EN 294, EN ISO 13849-1 and EN 60204-1".

*Replace the text of the 2<sup>nd</sup> indent with* "the performance level of all safety related parts of the control system is correct;"

*Replace the 2<sup>nd</sup> paragraph with the following:* "The verification of compliance with the requirements in Clause 5 shall be done in accordance with the methods described in Table 2. The criteria for acceptance can be found in Clause 5 and/or in the table."

*Delete the 3<sup>rd</sup> paragraph.*

### **Table 2:**

*Replace the table with a new Table 2 and title as follows:* "