



**SLOVENSKI STANDARD**  
**SIST EN 931:2000/kprA2:2009**

**01-april-2009**

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Footwear manufacturing machines - Lasting machines - Safety requirements

Maschinen zur Herstellung von Schuhen - Zwickmaschinen - Sicherheitsanforderungen

Machines pour la fabrication de chaussures - Machines à monter - Prescriptions de sécurité

**Ta slovenski standard je istoveten z: EN 931:1997/prA2**

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**ICS:**

61.060          Obuvala                                  Footwear

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
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**FINAL DRAFT**  
**EN 931:1997**

**prA2**

January 2009

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ICS 61.060

English Version

## Footwear manufacturing machines - Lasting machines - Safety requirements

Machines pour la fabrication de chaussures - Machines à monter - Prescriptions de sécurité

Maschinen zur Herstellung von Schuhen - Zwickmaschinen - Sicherheitsanforderungen

This draft amendment is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 201.

This draft amendment A2, if approved, will modify the European Standard EN 931:1997. 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

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**EN 931:1997/prA2:2009 (E)****Foreword**

This document (EN 931:1997/prA2:2009) 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 document is currently submitted to the Unique Acceptance Procedure.

The first reason for amending the published standard EN 931:1997 and EN 931:1997/A1:2004 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 1.5

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

## 4 Modification to Clause 2

*Replace the Introductory text 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."

*Replace reference EN 292-1:1991 with "EN ISO 12100-1:2003, Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)".*

*Replace reference EN 292-2:1991 with "EN ISO 12100-2:2003, Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles (ISO 12100-2:2003)".*

*Replace reference EN 418:1992 with "EN ISO 13850, Safety of machinery — Emergency stop — Principles for design (ISO 13850:2006)".*

*Replace reference prEN 547-1:1991 with "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".*

*Replace reference prEN 547-2:1991 with "EN 547-2, Safety of machinery — Human body measurements — Part 2: Principles for determining the dimensions required for access openings".*

**EN 931:1997/prA2:2009 (E)**

Replace reference EN 563:1994 with "EN ISO 13732-1:2008, Ergonomics of the thermal environment — Methods for the assessment of human responses to contact with surfaces — Part 1: Hot surfaces (ISO 13732-1:2006)".

Replace reference prEN 894-1:1992 with "EN 894-1, Safety of machinery — Ergonomics requirements for the design of displays and control actuators — Part 1: General principles for human interactions with displays and control actuators".

Replace reference prEN 953:1992 with "EN 953:1997, Safety of machinery — Guards—General requirements for the design and construction of fixed and movable guards".

Replace reference EN 954-1:1996 with "EN ISO 13849-1, Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design (ISO 13849-1:2006)".

Delete reference prEN 1005-1:1993.

Replace reference prEN 1005-2:1993 with "EN 1005-2, Safety of machinery — Human physical performance — Part 2: Manual handling of machinery and component parts of machinery".

Replace reference prEN 1005-3: 1993 with "EN 1005-3, Safety of machinery — Human physical performance — Part 3: Recommended force limits for machinery operation".

Replace "EN 1037:1995, Safety of machinery – Isolation and energy dissipation - Prevention of unexpected start-up" with "EN 1037, Safety of machinery - Prevention of unexpected start-up".

Delete reference ENV 1070:1993.

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

Delete reference EN 23740 series.

Delete reference EN ISO 4871.

Delete reference EN ISO 9614.

Delete reference EN ISO 11200 series.

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

Delete reference EN ISO 11689.

Add "EN 12545:2000, Footwear, leather and imitation leather goods manufacturing machines — Noise test code — Common requirements".

Replace reference EN 60204-1:1992 with "EN 60204-1:2006, Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1:2005 (modified))".

Add "EN 60947-4-1, Low-voltage switchgear and controlgear — Part 4-1: Contactors and motor-starters — Electromechanical contactors and motor-starters (IEC 60947-4-1:2000)".

Replace reference EN 60947-5-1:1992 with "EN 60947-5-1, Low-voltage switchgear and control gear — Part 5-1: Control circuit devices and switching elements — Electromechanical control circuit devices (IEC 60947-5-1:2003)".

Add the following reference: "EN 61310-1, Safety of machinery — Indication, marking and actuation — Part 1: Requirements for visual, acoustic and tactile signals (IEC 61310-1:2007) ".

## 5 Modification to Clause 3

*Replace the heading with the following: "Terms and definitions".*

*Replace the introductory paragraph 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 as well as the heading of Table 1 with the following: "List of significant hazards".*

*Replace the text of sub-clause 4.1 with the following text: "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.".*

*Insert the old text of sub-clause 4.1 as a first paragraph into sub-clause 4.2.*

## 7 Modification to 5.1

*Replace the existing 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 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 ISO 13850, EN 547, 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."

## 8 Modification to 5.2.1.1

*In the 1<sup>st</sup> sentence replace "which satisfies prEN 953:1992 and 4.2.2.2 of EN 292-2:1991" with "that satisfy EN 953".*

## 9 Modification to 5.2.1.2

*Add at the end of the 1<sup>st</sup> sentence the following: ", in accordance with 3.2, 3.9 and 3.10 of EN 953:1997.".*

*Delete the 2<sup>nd</sup> sentence.*

*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 931:1997/prA2:2009 (E)****10 Modification to 5.2.2.1**

*Replace "EN 60204-1:1992" with "EN 60204-1" and "EN 60947-5-1:1992" with "EN 60947-5-1".*

**11 Modification to 5.2.5.1**

*Replace "EN 563:1994" with "EN ISO 13732-1".*

**12 Modification to 5.2.6.1**

*Replace "3.8 of EN 292-2:1991, EN 982:1996 and EN 983:1996" with "4.10 of EN ISO 12100-2:2003, EN 982 and EN 983".*

**13 Modification to 5.2.6.2**

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

**14 Modification to 5.2.6.3**

*Replace the 2<sup>nd</sup> indent of the 1st paragraph with: "Shall as a minimum comply with performance level "c" as defined in EN ISO 13849-1 and Annex B".*

**15 Modification to 5.2.7**

*Replace the existing text with "The design shall be in accordance with the requirements of EN 547-1, EN 547-2, EN 894-1, EN 1005-2 and EN 1005-3.".*

**16 Modification to 5.3.1.1**

*Replace the 2<sup>nd</sup> indent with the following: "A stop and release control device in accordance with Annex A and EN ISO 13850 shall be designed and arranged in such a manner that it can be actuated by treadle and/or knee. The related parts of the control system shall comply with performance level "c" as defined in EN ISO 13849-1 and Annex B.".*



### **17 Modification to 5.3.1.2**

*Replace the existing text with the following: "A stop and release control device in accordance with Annex A and EN ISO 13850 shall be designed and arranged in such a manner that it can be actuated by treadle and/or knee. The related parts of the control system shall comply with performance level "c" as defined in EN ISO 13849-1 and with Annex B."*

### **18 Modification to 5.3.1.3**

*Replace the 2<sup>nd</sup> indent with the following: "A stop and release control device in accordance with Annex A and EN ISO 13850 shall be designed and arranged in such a manner that it can be actuated by treadle and/or knee. The related parts of the control system shall comply with performance level "c" as defined in EN ISO 13849-1 and with Annex B."*

### **19 Modification to 5.3.2.1**

*Replace the text of the 1<sup>st</sup> indent with the following: "A stop and release control device in accordance with Annex A and EN ISO 13850 shall be designed and arranged in such a manner that it can be actuated by treadle and/or knee. Only for heel seat lasting machines, this device can be replaced with push buttons on both sides. The related parts of the control system shall comply with performance level "c" as defined in EN ISO 13849-1 and with Annex B."*

### **20 Modification to 5.3.2.2**

*Replace the text of the 2<sup>nd</sup> indent with the following: "A stop and release control device in accordance with Annex A and EN ISO 13850 shall be designed and arranged in such a manner that it can be actuated by treadle and/or knee. Only for heel seat lasting machines, this device can be replaced with push buttons on both sides. The related parts of the control system shall comply with performance level "c" as defined in EN ISO 13849-1 and with Annex B."*

### **21 Modification to 5.3.2.3**

*Replace the text with the following: "A stop and release control device in accordance with Annex A and EN ISO 13850 shall be designed and arranged in such a manner that it can be actuated by treadle and/or knee. Only for heel seat lasting machines, this device can be replaced with push buttons on both sides. The related parts of the control system shall comply with performance level "c" as defined in EN ISO 13849-1 and with Annex B."*

### **22 Modification to 5.3.2.4**

*Replace the text of the 2<sup>nd</sup> indent with the following: "A stop and release control device in accordance with Annex A and EN ISO 13850 shall be designed and arranged in such a manner that it can be actuated by*