



# SLOVENSKI STANDARD

## SIST EN 930:2000/A1:2005

01-marec-2005

Ghfc 1'nU]nXYUj c`cVi h j Y'hf`nXY\_cj`n'i gb'U]b'b'Y[ c j ]\`ja ]HJW^E Ghfc 1'nU[ fcVc  
cVXYUj cZVfi yYb'Yz`cy Yb'Y]b'fcV`Yb'Y'E J UfbcgfbY'nU hYj Y

Footwear, leather and imitation leather goods manufacturing machines - Roughing, scouring, polishing and trimming machines - Safety requirements

Maschinen zur Herstellung von Schuhen, Leder- und Kunstlederwaren - Aufrau-, Ausglas - Polier- und Kantenbearbeitungsmaschinen - Sicherheitsanforderungen

Machines pour la fabrication de chaussures et d'articles en cuir et matériaux similaires - Machines a carder, a verrer, a polir et a fraiser - Prescriptions de sécurité

Ta slovenski standard je istoveten z: EN 930:1997/A1:2004

### ICS:

59.140.40	Stroji in oprema za proizvodnjo usnja in krzna	Machines and equipment for leather and fur production
61.060	Obuvala	Footwear

SIST EN 930:2000/A1:2005

en

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ICS 59.140.40; 61.060

English version

Footwear, leather and imitation leather goods manufacturing  
machines - Roughing, scouring, polishing and trimming  
machines - Safety requirements

Machines pour la fabrication de chaussures et articles en  
cuir et similicuir - Machines à carder, verrer, polir et fraiser -  
Exigences de sécurité

Schuhmaschinenwaren, Leder- und  
Kunstlederwarenmaschinen - Aufrauh-, Ausglas- und  
Kantenbearbeitungsmaschinen - Sicherheitsanforderungen

This amendment A1 modifies the European Standard EN 930:1997; it was approved by CEN on 16 August 2004.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This amendment 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

## Foreword

This document (EN 930:1997/A1:2004) 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 Amendment to the European Standard EN 930:1997 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2005, and conflicting national standards shall be withdrawn at the latest by April 2005.

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 Annex ZA of EN 930:1997.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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## Annex E (normative)

### Noise Test Code for roughing and scouring machines

#### E.1 Scope

This noise test code complements EN 12545 for the determination and declaration of the noise emission from roughing and scouring machines. EN 12545 and this Annex shall always be used jointly.

#### E.2 Normative references

See EN 12545:2000, Clause 2.

#### E.3 Definitions

##### E.3.1 Test Tool

An abrasive band or pad, for roughing and scouring footwear components, mounted on a wheel or on a belt, of specified material, dimensions and form.

##### E.3.2 Test Workpiece

For shoe upper roughing and scouring machines, a shoe upper, together with insole, of resin finish, full grain bovine upper leather having a thickness of  $1,5 \text{ mm} \pm 0,2 \text{ mm}$  and a circumference of  $630 \text{ mm} \pm 10 \text{ mm}$ .

For component roughing or scouring machines, a component of synthetic leather having a thickness of  $4 \text{ mm} \pm 0,2 \text{ mm}$ , of hardness 80 shore (A). It shall have dimensions of  $280 \text{ mm} \times 280 \text{ mm}$  and 4 corners of length  $30 \text{ mm}$  set at  $45^\circ$ .

##### E.3.3 Test cycle

For roughing or scouring: a specified number of roughing or scouring operations; and a specified time period.

#### E.4 Description of machinery family

As defined in 3.1 and 3.2.

#### E.5 Determination of the 'A'-weighted sound power level

##### E.5.1 General

See EN 12545:2000, Clause 5.

## E.5.2 Measurement procedure

The machine shall be operated three times through its test cycle. The arithmetic mean of the three values of the A-weighted sound power level in dB shall be calculated, recorded and reported.

Where any microphone position is obstructed by the standing operator, that position shall be excluded from the test.

## E.6 Determination of A-weighted emission sound pressure level at the workstation

### E.6.1 General

See EN 12545:2000, Clause 6 and the following.

### E.6.2 Position of microphone

The microphone shall be located adjacent to the operator in a position as defined below, with an operator standing at the workstation on the centre line of the machine. The microphone's position is defined as follows relative to a reference point on the ground plane on which the operator stands.

The reference point shall be at a horizontal distance of  $0,4 \text{ m} \pm 0,05 \text{ m}$  in front of the roughing or scouring band measured in a direction parallel to the centre line of the machine and displaced a distance of  $0,20 \text{ m} \pm 0,02 \text{ m}$  to the right of the centre line.

The microphone shall be located directly above this reference point at a height of  $1,60 \text{ m} \pm 0,05 \text{ m}$ .

### E.6.3 Measurement procedure

The machine shall be operated three times through its test cycle. The arithmetic mean of the three values of the A-weighted time averaged sound pressure level in dB shall be calculated, recorded and reported.

## E.7 Mounting conditions

See EN 12545:2000, Clause 7.

## E.8 Operating conditions

**E.8.1** Automatic component roughing machines shall be set to run at 13 m/s or 4000 rpm and shall use 36 grain emery paper of dimensions 1300 mm x 150 mm.

**E.8.2** For automatic component roughing, the workpiece feed rate shall be  $10 \text{ m/min} \pm 1\%$ ; the band/pad pressure setting shall be that recommended by the manufacturer. The feeding shall be linear, a single component at a time, with a minimum of 30 workpieces roughed/scoured during the test cycle which shall extend over 1 minute or 20 components, whichever is the greater.

**E.8.3** For automatic shoe scouring machines, the workpiece scouring rate shall be 15 s/workpiece. The feeding shall be linear, a single component at a time, with a minimum of 20 workpieces scoured during the test cycle, which shall extend over 5 minutes or 20 workpieces, whichever is the greater.

**E.8.4** Manual roughing and scouring machines shall be set to run at 4000 rpm. The abrasive used shall be 2000 mm x 300 mm emery tape (36 grain).

**E.8.5** For manual roughing (see Figure 3 of this document) the test cycle shall consist of 30 toe roughing operations over a noise measurement time period of 3 minutes. Each toe roughing operation shall be of at least 2 seconds duration. Test workpieces from the same batch shall be used throughout the test cycle. Details of the shoe upper construction shall be recorded and reported.

**E.8.6** For manual scouring machines the test cycle shall consist of 15 scouring operations over a noise measurement time period of 3 minutes. Each scouring operation shall be of at least 6 seconds duration. Test workpieces from the same batch shall be used throughout the test cycle. Details of the shoe upper construction shall be recorded and reported.

**E.8.7** If resilient mounts are fitted, that fact shall be recorded and reported. All measurements shall be carried out with the extraction system switched off, and this fact shall be reported.

**E.8.8** The machine under test shall be switched on and left to idle for a period of at least 30 minutes before the test commences.

**E.8.9** If the specified values given in this noise test code are not fulfilled, these deviations shall be recorded and reported. Other parameters which are not specified in this noise test code shall be recorded and reported.

## **E.9 Measurement uncertainty**

See EN 12545:2000, Clause 9.

## **E.10 Information to be recorded**

See EN 12545:2000, Clause 10.

## **E.11 Information to be reported**

See EN 12545:2000, Clause 11. It is recommended that the type of mountings, conditions of test, material scoured or roughed and noise data obtained be entered on a Data Sheet, an example of which is given in Figure E.1.

## **E.12 Declaration and verification of noise emission values**

See EN 12545:2000, Clause 12.

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Manufacturer/Supplier's Name and Address:

Machine Model

Serial Number

Type of Machine

Workpiece (description)

Test cycle (time, feed conditions

(for component roughing and scouring))

Speed (rpm) (band or cutter)

Abrasive type

Resilient mountings fitted      Yes      ☐      No      ☐

Extraction system switched off      Yes      ☐      No      ☐

A-weighted emission sound pressure level at workstation

Basic standard used <https://standards.iteh.ai/catalog/standards/sist/91454bd3-c005-4633-b44b-fab8f665a10b/sist-en-930-2000-a1-2005>

$L_{pA}$ , in dB	1	<input type="text"/>	2	<input type="text"/>	3	<input type="text"/>	Arithmetic Mean	<input type="text"/>
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A-weighted sound power level

Basic standard used .....

$L_{WA}$ , in dB	1	<input type="text"/>	2	<input type="text"/>	3	<input type="text"/>	Arithmetic Mean	<input type="text"/>
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Are there any deviations from EN 12545:2000 and/or from the basic standard(s) used?

No

Yes

If yes, describe .....

Figure E.1 — Example of data sheet for scouring and roughing machines reporting



## Annex F (normative)

### Noise test code for trimming machines

#### F.1 Scope

This noise test code complements EN 12545 for the determination and declaration of the noise emission from trimming machines. EN 12545 and this Annex shall always be used jointly.

#### F.2 Normative references

See EN 12545:2000, Clause 2.

#### F.3 Definitions

##### F.3.1 Test Cutting Tool

A tool of specified material, dimensions and form for trimming the edges of material from footwear components on a trimming machine of the type for which the noise test code is being produced.

##### F.3.2 Test Workpieces

Sole: An imitation leather sole, the sole pair to have a total thickness of  $6 \text{ mm} \pm 0,2 \text{ mm}$ .

Heel: A cellulose material compound heel, the heel pair to have a total thickness of  $30 \text{ mm} \pm 1 \text{ mm}$ .

Sole with heel: An imitation leather sole of which the sole pair shall have a thickness of  $5 \text{ mm} \pm 0,2 \text{ mm}$  together with a cellulosic material compound heel of  $20 \text{ mm} \pm 1 \text{ mm}$  thickness.

##### F.3.3 Test Cycle

A specified number of trimming operations.

#### F.4 Description of the machinery family

As defined in 3.4.

#### F.5 Determination of A-weighted sound power level

##### F.5.1 General

See EN 12545:2000, Clause 5.