SLOVENSKI STANDARD
SIST EN 930:2000

01-april-2000

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

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Maschinen zur Herstellung von Schuhen, Leder- und Kunstlederwaren - Aufrauh-, 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**

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 **en**

EUROPEAN STANDARD

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EN 930

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English version

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart,36 B-1050 Brussels

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Foreword

This European Standard 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of an identical text or by endorsement, at the latest by February 1998 , and conflicting national standards shall be withdrawn at the latest by February 1998.

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 EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this standard.

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

0 Introduction

The extent to which hazards are covered is indicated in the scope of this standard. In addition machinery should comply as appropriate with EN 292-2:1991 for hazards which are not covered by this standard.

This standard contains safety requirements for roughing, scouring, polishing and trimming machinery. It is aimed at designers, manufacturers and importers.

1 Scope

1.1 This standard applies to the following machines which are intended to work material for the manufacture of footwear:

- automatic and manual roughing, scouring and polishing machines

- automatic and manual edge contour trimming machines

1.2 This standard does not apply to modular shoe repair machines.

1.3 This standard specifies safety requirements for design, construction and operation.

It takes account of intended use, foreseeable misuse, component and system failure.

1.4 This standard covers all hazards relevant to the footwear, leather and imitation leather goods manufacturing industries.

The use of machines within the scope of this standard in different industries may give rise to hazards which were not taken into account at the time of its preparation.

1.5 This standard applies to machines manufactured after its date of issue.

2 Normative references

This European standard incorporates by dated or undated reference provisions from other publications.

These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated reference, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 292-1:1991 Safety of machinery; basic concepts; general principles for design - Part 1: Basic terminology, methodology

EN 292-2:1991 Safety of machinery; basic concepts; general principles for design - Part 2: Technical principles and specifications

EN 294:1992 Safety of machinery - Safety distances to prevent danger zones being reached by the upper limbs

EN 349:1992 Safety of machinery - Minimum distances to avoid crushing of parts of the human body

EN 418:1992 Safety of machinery - Emergency stop equipment; functional aspects - Principles for design

prEN 547-2:199l Safety of machinery - Human body dimensions - Part 2: Principles for determining the dimensions required for access openings

prEN 574:1995 Safety of machinery - Two-hand control devices

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

prEN 894-1:1992 Safety of machinery - Ergonomic requirements and data for the design of displays and control actuators - Part l: Human interaction with displays and control actuators

prEN 953:1992 Safety of machinery - General requirements for the design and the construction of guards (fixed, movable)

EN 954-1:1996 Safety-related parts of control systems - Part 1: General principles for the design

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

prEN 999:1993 Safety of machinery - Hand/arm speed - Approach speed of parts of the body for the positioning of safety devices

prEN 1005-1:1993 Safety of machinery - Human physical performance - Part 1: Terms and definitions

prEN 1005-2:1993 Safety of machinery - Human physical performance -
Part 2: Manual handling of heavy weights associated with machinery

prEN 1005-3:1993 Safety of machinery - Human physical performance - Part 3: Recommended force limits for machinery operation

EN 1037:1995 Safety of machinery - Isolation and energy dissipation - Prevention of unexpected start-up

ENV 1070:1993 Safety of machinery - Terminology

EN 1088:1995 Safety of machinery - Interlocking devices with or without guard locking - General principles and provisions for design

prEN 1093-1:1993 Safety of machinery - Evaluation of the emission of airbone hazardous substances - Part 1: Selection of the test method

prEN 1127-l:1993 Safety of machinery - Fire and explosions - Part 1: Explosion prevention and protection

EN 23740 series [1] Acoustics - Determination of sound power levels of noise sources

EN ISO 4871 [1] Acoustics - Declaration and Verification of noise emission values of machinery and equipment (ISO 4871:1996)

EN ISO 9614 [1] Acoustics - Determination of sound power level of noise sources using sound intensity

EN ISO 11200 series [1] Acoustics - Noise emitted by machinery and equipment - Guidelines for the use of basic standards for the determination of emission sound pressure levels at the work station and at other specified positions (ISO 11200:1995)

EN ISO 11689 [1] Acoustics - Systematic collection and comparison of noise emission data for machinery and equipment (ISO 11689:1996)

1) These standards are in progress in IS0 (revision of IS0 6081 in the case of the EN ISO 11200 series, revision of the IS0 3740 series, revision of IS0 4871, publication of IS0 9614 and 11689 pending).

prEN 50100-1:1993 Safety of machinery - Electrosensitive protective devices - Part 1: Specification for general requirements

prEN 50100-2:1993 Safety of machinery - Electrosensitive protective devices - Part 2: Particular requirements for an active optoelectronic protective device

EN 60204-1:1992 Safety of machinery - Electrical equipment of machines - Part 1: General requirements

EN 60947-5-1:1992 Control circuit devices and switching elements; Electro-mechanical control circuit devices

3 Definitions

For the purposes of this European Standard the definitions given in ENV 1070:1993 as well as the following definitions are applicable.

3.1 roughing machine

A machine which transmits energy from a prime mover to a tool for the purpose of roughing surfaces of material used in the manufacture of footwear, leather and imitation leather goods and other related components prior to cementing.

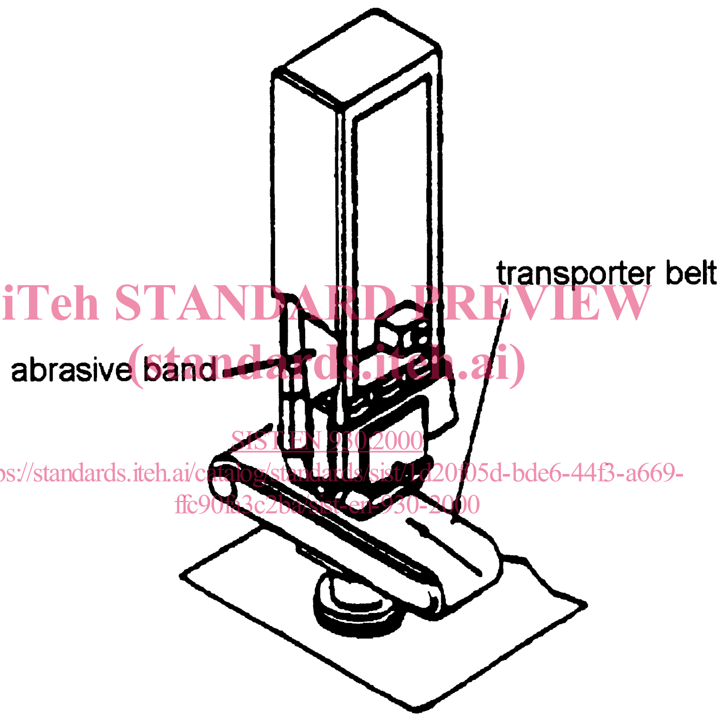

Figure 1: Roughing machine

3.2 scouring machine

A machine which transmits energy from a prime mover to a tool for the purpose of removing layers of material used in the manufacture of footwear, leather and imitation leather goods and other related components to obtain a semi-finished surface.

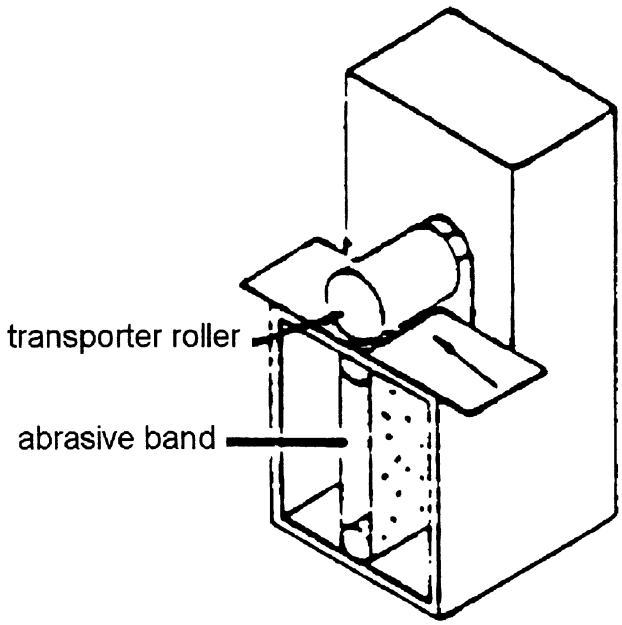

Figure 2: Scouring machine

3.3 polishing and/or buffing machine

A machine which transmits energy from a prime mover to a tool for the purpose of removing or applying layers of material used in the manufacture of footwear, leather and imitation leather goods and other related components to obtain a finished surface.

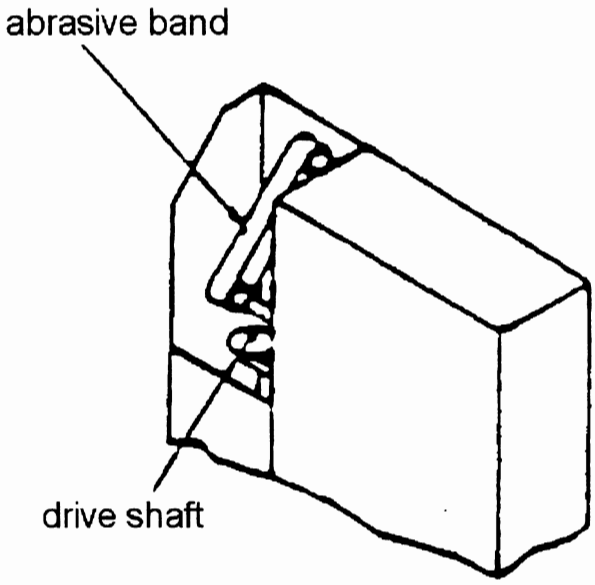

Figure 3: Polishing and/or buffing machine

3.4 trimming machine

A machine which transmits energy from a prime mover to a rotary tool for the purpose of trimming the edges of material used in the manufacture of footwear, leather and imitation leather goods and other related components

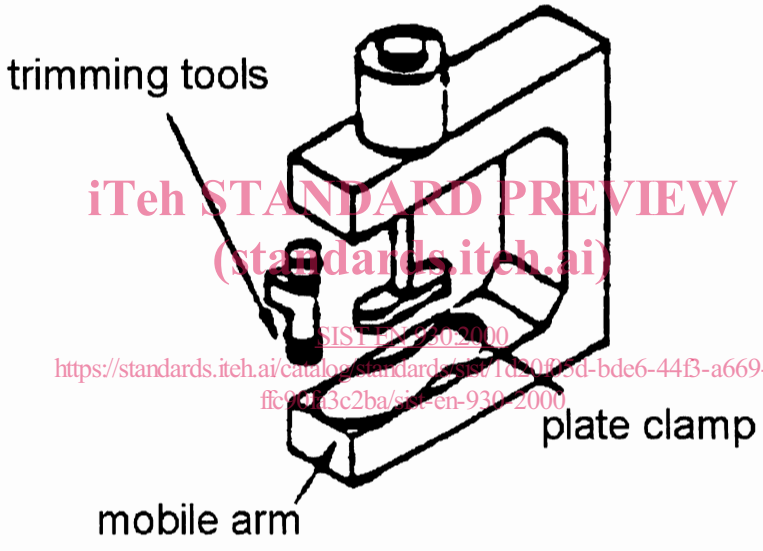

Figure 4: Trimming machine

3.5 tool

The part of the machine which acts directly on the material to be worked and which carries out the roughing, scouring, trimming or polishing action. It includes those tools defined in 3.5.1 to 3.5.7.

3.5.1 abrasive wheel

A wheel, cylinder, disc or cone which consists of abrasive particles held together by mineral, metallic or organic bonds whether natural or artificial.

3.5.2 abrasive disc

A disc of metal, wood. cloth, felt, rubber or paper having any surface consisting wholly or partly of abrasive material.

3.5.3 abrasive band

A continuous band of cloth, felt, rubber, paper or similar material the outside surface of which consists wholly or partly of abrasive material.

3.5.4 abrasive steel tool

A tool with a rotating surface to which removable tips are fitted. These tips have an abrasive action.

3.5.5 rotary cutter

A tool, with a rotating surface, which has multiple cutting edges.

3.5.6 rotary polishing brush or mop

A device used to polish or brighten the surface.

3.5.7 metal rotary brush

A device made of metal wire used for roughing the surface of the material being worked.

3.6 material feeding and handling device

3.6.1 transporter roller(s)

A cylindrical device for feeding the material to be worked.

3.6.2 transporter belt

A movable band-shaped device for feeding the material to be worked to the operating area and then removing it.

3.6.3 carriage

A mechanical feed device with or without clamps which has a reciprocating motion along guides.

3.6.4 mobile arm

A handling device which may be adjusted to various positions in the operating area.

3.7 clamp, plate clamp

A device for holding the lasted shoe and/or components.

3.8 working area

The zone of a machine which includes:

a) the tool, where roughing, scouring, polishing and trimming take place;
b) the loading area where loading takes place;
c) the operator's standing area.

3.9 stop and release control

Device which stops the machine at any point in its cycle and returns the machine to rest.