



**SLOVENSKI STANDARD**  
**SIST EN 12268:2003+A1:2010**

**01-oktober-2010**

**Nadomešča:**  
**SIST EN 12268:2003**

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**Stroji za predelavo hrane - Tračne žage - Varnostne in higienske zahteve (vključno z dopolnilom A1)**

Food processing machinery - Band saw machines - Safety and hygiene requirements

Nahrungsmittelmaschinen - Bandsägemaschinen - Sicherheits- und Hygieneanforderungen

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Machines pour les produits alimentaires - Scies à ruban - Prescriptions relatives à la sécurité et à l'hygiène

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**Ta slovenski standard je istoveten z: EN 12268:2003+A1:2010**

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**ICS:**

67.260

Tovarne in oprema za  
živilsko industrijo

Plants and equipment for the  
food industry

**SIST EN 12268:2003+A1:2010**

**en,fr,de**

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EUROPEAN STANDARD

**EN 12268:2003+A1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2010

ICS 67.260

Supersedes EN 12268:2003

English Version

## Food processing machinery - Band saw machines - Safety and hygiene requirements

Machines pour les produits alimentaires - Scies à ruban -  
Prescriptions relatives à la sécurité et à l'hygiène

Nahrungsmittelmachines - Bandsägemachines -  
Sicherheits- und Hygieneanforderungen

This European Standard was approved by CEN on 9 January 2003 and includes Amendment 1 approved by CEN on 9 April 2010.

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

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## Foreword

This document (EN 12268:2003+A1:2010) has been prepared by Technical Committee CEN/TC 153 "Machinery intended for use with foodstuffs and feed", the secretariat of which is held by DIN.

It has been prepared by Working Group 2 "Meat Processing Machinery" of CEN/TC 153.

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of an identical text or by endorsement, at the latest by November 2010, and conflicting national standards shall be withdrawn at the latest by November 2010.

This document includes Amendment 1, approved by CEN on 2010-04-09.

This document supersedes EN 12268:2003.

The start and finish of text introduced or altered by amendment is indicated in the text by tags  $\boxed{A_1}$   $\boxed{A_1}$ .

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 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).

$\boxed{A_1}$  For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.  $\boxed{A_1}$

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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** 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. **A1**

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## 1 Scope

This European Standard specifies requirements for the design and manufacturing of band saw machines (see Figures 1 to 5).

The machines covered by this European Standard are used to cut bone and meat.

The band saw machines covered by this European Standard do not include band saw machines for processing wood and similar materials and the requirements of EN 1807 do not apply.

Band saw machines for domestic use are not included in this European Standard.

This European Standard only applies to machines which are manufactured after the date of issue of this European Standard.

This European Standard covers the following types of machines:

Band saw machines which are placed on the floor and can be wheel-mounted (see Figure 6).

— Type A

Band saw machine with a feed table and a fixed product pusher

Cutting height SH < 250 mm

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Ⓐ

— Band saw machines designed as table-top machines with and without base

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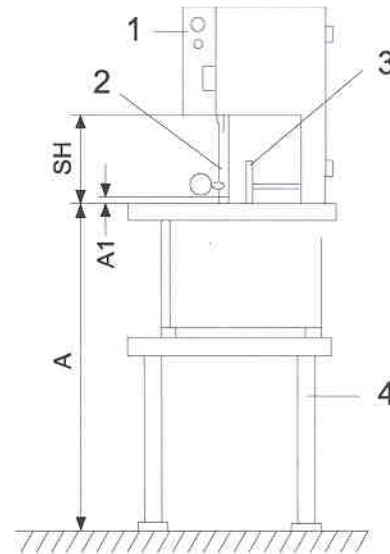
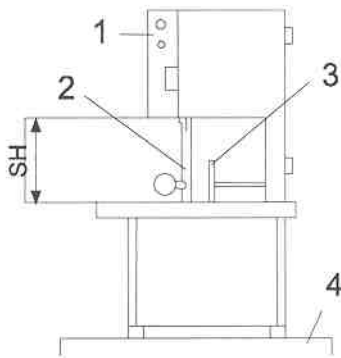
— Band saw machines designed as floor-type machines

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— Band saw machines integrated in a cutting line Ⓐ

Location: Table (see Figure 1) or base (see Figure 2). Distance A from the floor to the top surface of the feed table is between 800 mm and 1050 mm.

## EN 12268:2003+A1:2010 (E)



## Key

- 1 ON / OFF switch
- 2 Product pusher
- 3 Portioning plate
- 4 Table

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- 1 ON / OFF switch
- 2 Product pusher
- 3 Portioning plate
- 4 Base

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**Figure 1 — Type A, Band saw machine with product pusher - Location: table top**

**Figure 2 — Type A, Band saw machine with product pusher - Location: base**

— Type B

Band saw machine with a feed table, a protective rail and a cutting height  $250 \text{ mm} \leq SH < 420 \text{ mm}$ .

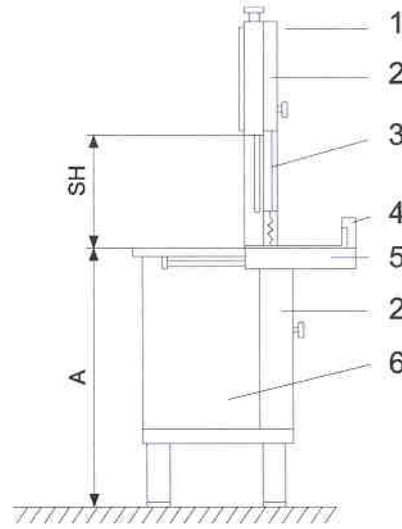
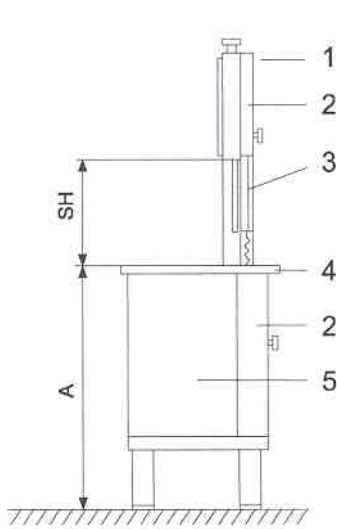
Distance A from the floor to the top surface of the feed table is between 800 mm and 1050 mm. Location: floor (see Figure 3)

— Type C

Band saw machine with a sliding feed table, a protective rail and a cutting height  $250 \text{ mm} \leq SH < 420 \text{ mm}$ .

Distance A from the floor to the top surface of the sliding feed table is between 800 mm and 1050 mm. Location: floor (see Figure 4).



**Key**

- 1 ON / OFF switch
- 2 Door
- 3 Protective rail / Product pusher
- 4 Feed table
- 5 Machine rack

- 1 ON / OFF switch
- 2 Door
- 3 Protective rail / Product pusher
- 4 Finger protection bar
- 5 Sliding feed table
- 6 Machine rack

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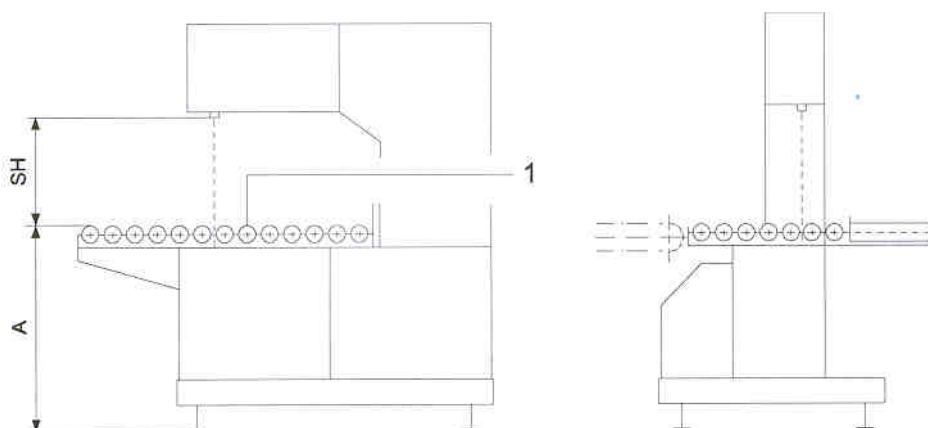
**Figure 3 — Type B, Band saw machine with protective rail and fixed feed table****Figure 4 — Type C Band saw machine with rail and feed sliding table**

## — Type D

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Band saw machine with feed and removal unit (e.g. roller conveyor, conveyor belt); integrated in a cutting plant, cutting height SH < 550mm.

Distance A from the floor to the feed surface is between 800 mm and 1050 mm. Location: floor (see Figure 5).



SH &lt; 550 mm

**Key**

- 1 Roller conveyor or transport conveyor

**Figure 5 — Type D, Band saw machine with feed and removal unit**

**EN 12268:2003+A1:2010 (E)**

Band saw machines consist of a machine casing, a fixed feed table or a sliding feed table, a roller conveyor or conveyor belt, a product pusher, a height-adjustable protective rail, a top and a bottom wheel, a saw blade, an upper and lower blade guide, a blade tensioning device, a drive and electrical components, depending on machine type. The requirements for automatic loading/unloading systems, conveyors, etc. do not fall within the scope of this European Standard.

**A1** This European Standard deals with all significant hazards, hazardous situations and events relevant to band saw machines, when they are used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer (see Clause 4).

This European Standard deals with the hazards which can arise during commissioning, operation, cleaning, use, maintenance and decommissioning of the machine. **A1**

On floor-type band saw machines, the product to be cut is placed by hand onto the fixed feed table or sliding feed table and pushed against the cutting zone of the saw blade by means of the product pusher or the rear table wall on the sliding feed table or by means of the roller conveyor or conveyor belt and sawed.

**2 Normative references**

**A1** 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.

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

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

EN 1005-1, *Safety of machinery — Human physical performance — Part 1: Terms and definitions*

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

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

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

EN 1672-2:2005, *Food processing machinery — Basic concepts — Part 2: Hygiene requirements*

EN 60204-1:2006, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1: 2005, modified)*

EN 60529, *Degrees of protection provided by enclosures (IP code) (IEC 60529:1989)*

EN ISO 3744, *Acoustics — Determination of sound power levels of noise sources using sound pressure — Engineering method in an essentially free field over a reflecting plane (ISO 3744:1994)*

EN ISO 4871, *Acoustics — Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996)*

EN ISO 11204:1995, *Acoustics — Noise emitted by machinery and equipment — Measurement of emission sound pressure levels at a work station and at other specified positions — Method requiring environmental corrections (ISO 11204:1995)*

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

EN ISO 12100-1: 2003, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)*

EN ISO 12100-2:2003, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles and specifications (ISO 12100-2:2003)*

EN ISO 13849-1:2008, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design (ISO 13849-1:2006)*

EN ISO 13857:2008, *Safety of machinery — Safety distances to prevent hazard zones being reached by the upper and lower limbs (ISO 13857:2008)* <sup>(A1)</sup>

### 3 Terms and definitions

<sup>(A1)</sup> For the purposes of this document, the terms and definitions given in EN ISO 12100-1:2003 and the following apply. <sup>(A1)</sup>

#### 3.1

##### **portioning plate**

plate parallel to the saw blade and adjustable to the required slice thickness

#### 3.2

##### **bottom wheel**

wheel below the table for driving the saw blade

#### 3.3

##### **blade guide**

component for guiding the saw blade

#### 3.4

##### **blade tensioning device**

component for tensioning and releasing the tension of a saw blade

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#### 3.5

##### **finger protection bar**

device on the table rear wall to prevent fingers from reaching the cutting zone

#### 3.6

##### **product pusher**

movable device for manually pushing the product towards the cutting zone

#### 3.7

##### **last slice device**

plate for feeding the last part of the product

#### 3.8

##### **saw blade**

cutting tool in the form of a continuous toothed band

#### 3.9

##### **protective rail**

device for covering the unused portion of the saw blade above the cutting zone

#### 3.10

##### **cutting height**

thickness of product that can be processed by the machines

**EN 12268:2003+A1:2010 (E)****3.11****table rear wall**

device on the sliding feed table to hold the product and to push it towards the cutting zone

**3.12****top wheel**

pulley wheel for reversing the saw blade above the table

**3.13****cutting line**

unit for automatic product processing with roller conveyors or conveyor belts

**3.14****feed table**

table surface for manual product supply

**3.15****sliding feed table**

movable table surface with table rear wall for product supply

**4 List of hazards****4.1 General**

This clause and annex C contains the hazards and hazardous situations, as far as they are dealt with in this European Standard, identified by a risk assessment significant for meat band-saws and which require action to eliminate or reduce risk.

Before using this standard it is important to carry out a risk assessment of the meat band-saw to check that it has the hazards identified in this clause.

**4.1.1 Mechanical hazards**

Band saw machines type A to D (see Figure 6)

**4.1.2 Area of saw blade**

## — Zone 1

Saw blade outside of the cutting zone

Hazard of cutting or severing fingers.

## — Zone 2

Saw blade at cutting zone

Hazard of cutting or severing fingers.