

**TOIDUTÖÖTLEMISMASINAD. LINTSAAGIMISMASINAD.
OHUTUS- JA HÜGIEENINÕUDED**

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

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

See Eesti standard EVS-EN 12268:2014 sisaldab Euroopa standardi EN 12268:2014 ingliskeelset teksti.	This Estonian standard EVS-EN 12268:2014 consists of the English text of the European standard EN 12268:2014.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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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

Nahrungsmittelmaschinen - Bandsägemaschinen -
Sicherheits- und Hygieneanforderungen

This European Standard was approved by CEN on 13 September 2014.

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Foreword

This document (EN 12268:2014) 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.

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of an identical text or by endorsement, at the latest by May 2015 and conflicting national standards shall be withdrawn at the latest by May 2015.

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 supersedes EN 12268:2003+A1:2010.

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 2006/42/EC.

For relationship with EU Directive 2006/42/EC, see informative Annex ZA, which is an integral part of this document.

Significant changes:

The significant changes with respect to the previous edition EN 12268:2003+A1:2010 are listed below:

- Clause 1: clarification of the scope; new clause to describe the machine types; displacement of requirements in the appropriate clauses;
- Clause 2: normative references updated;
- Clause 3: terms partly revised (e.g. fixed feed table); consistent use throughout the standard;
- Clause 4: new presentation in a table;
- Clause 5: new 5.2 according to the danger zones; more specific requirements to product pusher, protective rail and blade guide;
- Clause 6: verification list updated;
- Clause 7: completion of 7.2 with all information referred to in Clause 5, now including operator training; 7.3 now contains the marking;
- annexes: old Annex C "Common hazard" deleted and shifted into appropriate clauses;
- figures partly renewed.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

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.

1 Scope

1.1 General

This European Standard specifies requirements for the design and manufacturing of band saw machines as described in 1.2 (see Figures 1 to 5).

The machines covered by this European Standard are used to cut:

- bones;
- fresh or deep frozen meat with or without bones;
- fresh or deep frozen fish, natural or in fillets;
- deep frozen block food products;
- fresh or deep frozen vegetables;
- other products such as pork fat or similar products.

The band saw machines covered by this European Standard do not include band saw machines for processing wood and similar materials which are covered by the EN 1807 series.

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

This European Standard is not applicable to band saw machines which were manufactured before its date of publication as EN.

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 all the lifetime of the machine, including the phases of transport, assembly, commissioning, operation, cleaning, use, maintenance, decommissioning, dismantling, disabling and scrapping of the machine.

This European Standard covers the following types of machines:

- band saw machines designed as table-top machines with and without base;
- band saw machines designed as floor-type machines with and without castors.

1.2 Description of various machine types

1.2.1 General

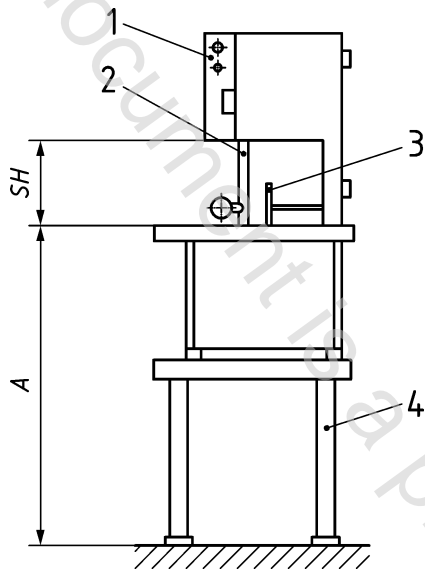
Band saw machines consist of a machine casing, a fixed feed table or a sliding feed table, a roller conveyor or conveyor belt, a product pusher, a height-adjustable protective rail, a top and a bottom wheel, a saw blade, an upper and lower blade guide, a blade tensioning device, a drive and electrical components, depending on machine type. This standard does not deal with machinery with automatic loading/unloading systems (e.g. automatic conveyors).

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.

1.2.2 Type A

Band saw machine with a fixed feed table and a non-detachable, movable product pusher:

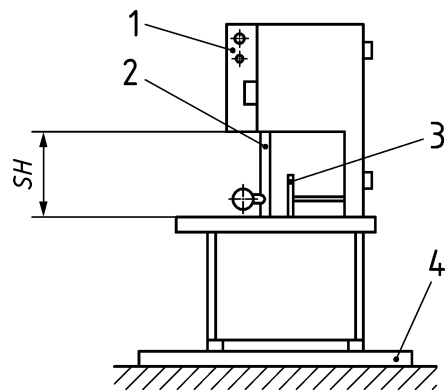
Maximum cutting height $SH \leq 250$ mm.



Key

- 1 ON-/OFF-switch
- 2 product pusher
- 3 portioning plate
- 4 table

Figure 1 — Band saw machine type A with product pusher – Location: table top



Key

- 1 ON-/OFF-switch
- 2 product pusher
- 3 portioning plate
- 4 base

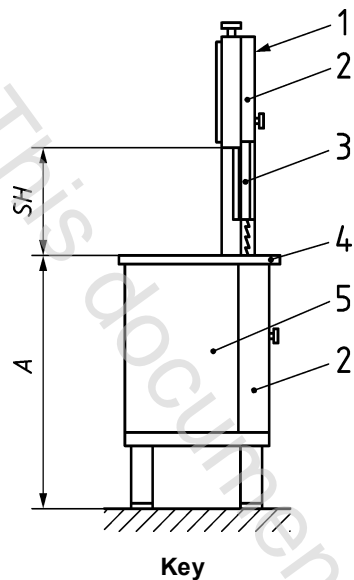
Figure 2 — Band saw machine type A with product pusher – Location: base

1.2.3 Type B

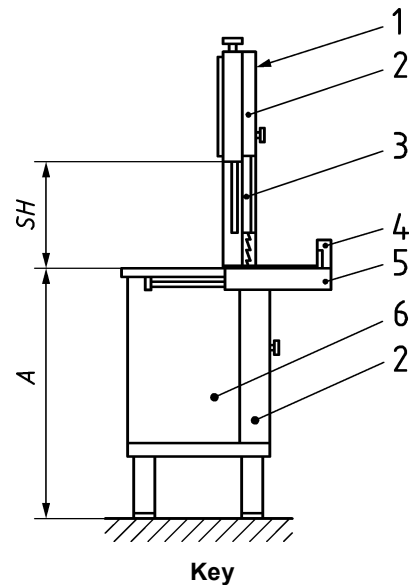
Band saw machine with a fixed feed table, a protective rail and a maximum cutting height < 420 mm.

1.2.4 Type C

Band saw machine with a sliding feed table, a protective rail and a maximum cutting height ≤ 420 mm.



- 1 ON-/OFF-switch
- 2 door
- 3 protective rail
- 4 fixed feed table
- 5 machine rack



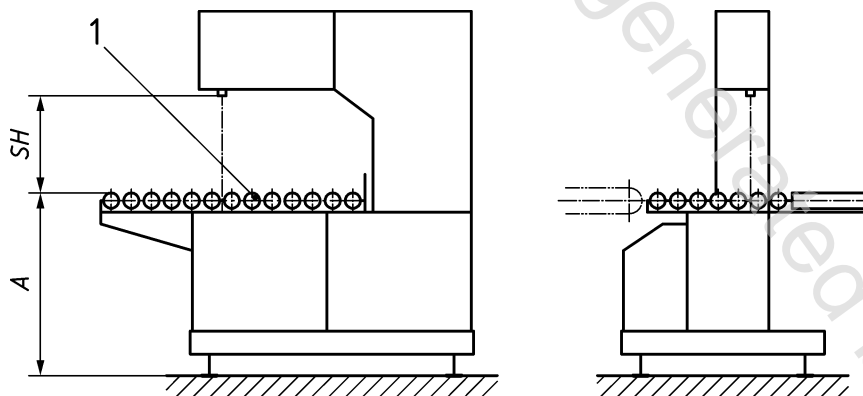
- 1 ON-/OFF-switch
- 2 door
- 3 protective rail
- 4 finger protection bar
- 5 sliding feed table
- 6 machine rack

Figure 3 — Band saw machine type B with fixed feed table and protective rail

Figure 4 — Band saw machine type C with sliding feed table and protective rail

1.2.5 Type D

Band saw machine with non-automatic feed and removal unit (e.g. roller conveyor, conveyor belt); maximum cutting height $SH \leq 550$ mm.



Key

- 1 roller conveyor or transport conveyor

Figure 5 — Band saw machine type D with feed and removal unit

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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, *Safety of machinery — Ergonomic design principles — Part 1: Terminology and general principles*

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

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 1672-2:2005+A1:2009, *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)*

EN ISO 3744, *Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Engineering methods for an essentially free field over a reflecting plane (ISO 3744)*

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

EN ISO 11204:2010, *Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions applying accurate environmental corrections (ISO 11204:2010)*

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

EN ISO 12100:2010, *Safety of machinery — General principles for design — Risk assessment and risk reduction (ISO 12100:2010)*

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 14119:2013, *Safety of machinery — Interlocking devices associated with guards — Principles for design and selection (ISO 14119:2013)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100:2010 and the following apply.

3.1

portioning plate

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