

PUIDUTÖÖTLEMISMASINAD. OHUTUS. OSA 1: ÜHTSED  
NÕUDED

Woodworking machines - Safety - Part 1: Common  
requirements (ISO 19085-1:2017)

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 19085-1:2017 sisaldab Euroopa standardi EN ISO 19085-1:2017 ja selle paranduse AC:2018 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 19085-1:2017 consists of the English text of the European standard EN ISO 19085-1:2017 and its corrigendum AC:2018.
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.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 23.08.2017.	Date of Availability of the European standard is 23.08.2017.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile [standardiosakond@evs.ee](mailto:standardiosakond@evs.ee).

ICS 13.110, 79.120.10

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EUROPEAN STANDARD

EN ISO 19085-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2017

ICS 13.110; 79.120.10

AC Supersedes EN 691-1:2012 AC

English Version

## Woodworking machines - Safety - Part 1: Common requirements (ISO 19085-1:2017)

Machines à bois - Sécurité - Partie 1: Exigences communes (ISO 19085-1:2017)

Holzbearbeitungsmaschinen - Sicherheit - Teil 1: Gemeinsame Anforderungen (ISO 19085-1:2017)

This European Standard was approved by CEN on 12 September 2016.

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This document consolidates EN ISO 19085-1:2017 and the corrigendum EN ISO 19085-1:2017/AC:2018.



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

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## European foreword

This document (EN ISO 19085-1:2017) has been prepared by Technical Committee ISO/TC 39 “Machine tools” in collaboration with Technical Committee CEN/TC 142 “Woodworking machines - 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 2018, and conflicting national standards shall be withdrawn at the latest by February 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

Ⓐ This document supersedes EN 691-1:2012. Ⓐ

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, which is an integral part of this document.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

This document includes the corrigendum EN ISO 19085-1:2017/AC:2018 which corrects the title page and the European foreword.

### Endorsement notice

The text of ISO 19085-1:2017 has been approved by CEN as EN ISO 19085-1:2017 without any modification.

## Annex ZA (informative)

### Relationship between this European Standard and the essential requirements of Directive 2006/42/EC aimed to be covered

This European standard has been prepared under a Commission's standardisation request "M/396 Mandate to CEN and CENELEC for standardisation in the field of machinery" to provide one voluntary means of conforming to essential requirements of Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery.

Once this standard is cited in the Official Journal of the European Union under that Directive 2006/42/EC, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding essential requirements of that Directive 2006/42/EC, and associated EFTA regulations.

**Table ZA.1 — Correspondence between this European Standard and Article(s) of Directive 2006/42/EC**

Essential Requirements of Directive 2006/42/EC	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
		To confer a presumption of conformity with the relevant essential requirements of Directive 2006/42/EC, this standard (providing common requirements for a whole machine family) has to be applied together with one of those standards as specified in the scope (providing specific requirements for a particular category of machinery within this family), once this standard is cited in the Official Journal of the European Communities under Directive 2006/42/EC.

This part of EN ISO 19085 is intended to be used in conjunction with the other parts of EN ISO 19085, applicable to specific machine types, as stated in the Scope. This means that the requirements of this part alone may not be enough to fulfil the Essential Requirements of the Machinery Directive 2006/42.

**WARNING 1** — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

**WARNING 2** — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

The committee responsible for this document is ISO/TC 39, *Machine tools*, Subcommittee SC 4, *Woodworking machines*.

A list of all parts in the ISO 19085 series can be found on the ISO website.



## Introduction

The ISO 19085 series of International Standards provides technical safety requirements for the design and construction of woodworking machinery. It concerns designers, manufacturers, suppliers and importers of the machines specified in the Scope. It also includes a list of informative items that the manufacturer will need to give to the user.

This document is a type-C standard as stated in ISO 12100.

The machinery concerned and the extent to which hazards, hazardous situations or hazardous events are covered are indicated in the Scope of this document.

When requirements of this type-C standard are different from those which are stated in type-A or type-B standards, the requirements of this type-C standard take precedence over the requirements of the other standards for machines that have been designed and built according to the requirements of this type-C standard.

The full set of requirements for a particular type of woodworking machine are those given in the part of ISO 19085 applicable to that type, together with the relevant requirements from this document, to the extent specified in the Scope of the applicable part of ISO 19085.

For woodworking machines not covered by an applicable part, this document can be used as a guide. However, the designer will then need to perform a full risk assessment according to ISO 12100 and design the means for reducing the risks arising from relevant hazards.

As far as possible, in parts of ISO 19085 other than this document, safety requirements have been treated by way of reference to the relevant sections of this document, to avoid repetition and reduce their length. The other parts contain replacements and additions to the common requirements given in this document.

NOTE Requirements for tools are given in EN 847-1:2013 and EN 847-2:2013.

# Woodworking machines — Safety —

## Part 1: Common requirements

### 1 Scope

This document gives the safety requirements and measures to reduce risks related to woodworking machines arising during operation, adjustment, maintenance, transport, assembly, dismantling, disabling and scrapping and which are common to machines used in the woodworking industry. It is applicable to woodworking, stationary and displaceable machines when they are used as intended and under the conditions foreseen by the manufacturer.

NOTE 1 For relevant but not significant hazards, e.g. sharp edges of the machine frame, see ISO 12100:2010.

It is intended to be used in conjunction with the other parts of ISO 19085, applicable to specific machine types.

It is not applicable to machines intended for use in potential explosive atmospheres or to machines manufactured prior to the date of its publication.

NOTE 2 Machines for capturing and extracting dust are covered by EN 12779 and EN 16770.

### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 3746:2010, *Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Survey method using an enveloping measurement surface over a reflecting plane*

ISO 4413:2010, *Hydraulic fluid power — General rules and safety requirements for systems and their components*

ISO 4414:2010, *Pneumatic fluid power — General rules and safety requirements for systems and their components*

ISO 7960:1995, *Airborne noise emitted by machine tools — Operating conditions for woodworking machines*

ISO 9614-1:1993, *Acoustics — Determination of sound power levels of noise sources using sound intensity — Part 1: Measurement at discrete points*

ISO 9614-2:1996, *Acoustics — Determination of sound power levels of noise sources using sound intensity — Part 2: Measurement by scanning*

ISO 11201:2010, *Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions in an essentially free field over a reflecting plane with negligible environmental corrections*

ISO 11202:2010, *Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions applying approximate environmental corrections*

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

ISO 13849-1:2015, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design*

ISO 13850:2015, *Safety of machinery — Emergency stop function — Principles for design*

ISO 13851:2002, *Safety of machinery — Two-hand control devices — Functional aspects and design principles*

ISO 13855:2010, *Safety of machinery — Positioning of safeguards with respect to the approach speeds of parts of the human body*

ISO 13856-1:2013, *Safety of machinery — Pressure-sensitive protective devices — Part 1: General principles for design and testing of pressure-sensitive mats and pressure-sensitive floors*

ISO 13856-2:2013, *Safety of machinery — Pressure-sensitive protective devices — Part 2: General principles for design and testing of pressure-sensitive edges and pressure-sensitive bars*

ISO 13856-3:2013, *Safety of machinery — Pressure-sensitive protective devices — Part 3: General principles for design and testing of pressure-sensitive bumpers, plates, wires and similar devices*

ISO 14118:2000, *Safety of machinery — Prevention of unexpected start-up*

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

ISO 14120:2015, *Safety of machinery — Guards — General requirements for the design and construction of fixed and movable guards*

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

IEC 60204-1:2005, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements*

IEC 60529:2013, *Degrees of protection provided by enclosures (IP Code)*

IEC 60825-1:2014, *Safety of laser products — Part 1: Equipment classification and requirements*

IEC 61310-1:2007, *Safety of machinery — Indication, marking and actuation — Part 1: Requirements for visual, acoustic and tactile signals*

IEC 61439-1:2011, *Low-voltage switchgear and controlgear assemblies — Part 1: General rules*

IEC 61496-1:2012, *Safety of machinery — Electro-sensitive protective equipment — Part 1: General requirements and tests. Corrected by Cor. 1:2015.*

IEC 61496-2:2013, *Safety of machinery — Electro-sensitive protective equipment — Part 2: Particular requirements for equipment using active opto-electronic protective devices (AOPDs)*

IEC 61496-3:2008, *Safety of machinery — Electro-sensitive protective equipment — Part 3: Particular requirements for Active Opto-electronic Protective Devices responsive to Diffuse Reflection (AOPDDR)*

IEC 61800-5-2:2007, *Adjustable speed electrical power drive systems — Part 5-2: Safety requirements — Functional*

IEC 62477-1:2016, *Safety requirements for power electronic converter systems and equipment — Part 1: General*

EN 847-1:2013, *Tools for woodworking — Safety requirements — Part 1: Milling tools, circular saw blades*

EN 847-2:2013, *Tools for woodworking — Safety requirements — Part 2: Requirements for the shank of shank mounted milling tools*

EN 847-3:2013, *Tools for woodworking — Safety requirements — Part 3: Clamping devices*

EN 50370-1:2005, *Electromagnetic compatibility (EMC) — Product family standard for machine tools — Part 1: Emission*

EN 50370-2:2003, *Electromagnetic compatibility (EMC) — Product family standard for machine tools — Part 2: Immunity*

EN 50525-2-21:2011, *Electric cables — Low voltage energy cables of rated voltages up to and including 450/750 V (U0/U) — Part 2-21: Cables for general applications — Flexible cables with crosslinked elastomeric insulation*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 12100:2010, ISO 13849-1:2015 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <http://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

#### 3.1

##### **woodworking machine**

machine designed to machine and/or process wood and material with similar physical characteristics to wood

#### 3.2

##### **material with similar physical characteristics to wood**

wood-based material such as chipboard, fibreboard and plywood, including when covered with plastic or light alloy laminates/edges, as well as cork, bone, rigid rubber or plastics

Note 1 to entry: Examples for plastics are thermoplastic materials and thermoplastic resins, thermosetting resins, expanded plastic materials, polyurethane, phenol and polyvinylchloride (PVC).

#### 3.3

##### **easily machinable material**

material, which, upon unexpected contact with a running tool, will not mechanically generate sparks and will not result in a damage of the tool

EXAMPLE Material with similar physical characteristics to wood or light alloy.

#### 3.4

##### **stationary machine**

machine designed to be located on or fixed to the floor or other parts of the structure of the premises

#### 3.5

##### **displaceable machine**

machine, stationary during use and equipped with a device, e.g. wheels, which allows it to be moved between locations

#### 3.6

##### **drive**

##### **machine actuator**

power mechanism used to effect motion on the machine