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SIST EN ISO 19085-3:2022

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EUROPEAN STANDARD
NORME EUROPÉENNE
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December 2021

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Supersedes EN ISO 19085-3:2017

English Version

Woodworking machines - Safety - Part 3: Numerically controlled (NC/CNC) boring and routing machines (ISO 19085-3:2021)

Machines à bois - Sécurité - Partie 3: Perceuses et défonceuses à Commande Numérique (CN/CNC) (ISO 19085-3:2021)

Holzbearbeitungsmaschinen - Sicherheit - Teil 3: Numerisch gesteuerte (NC-/CNC-) Bohr- und Fräsmaschinen (ISO 19085-3:2021)

This European Standard was approved by CEN on 27 September 2021.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard 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 CEN-CENELEC Management Centre has the same status as the official versions.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword.....	3
Annex ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2006/42/EC aimed to be covered	4

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European foreword

This document (EN ISO 19085-3:2021) 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of an identical text or by endorsement, at the latest by June 2022, and conflicting national standards shall be withdrawn at the latest by June 2022.

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 ISO 19085-3:2017.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

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

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 19085-3:2021 has been approved by CEN as EN ISO 19085-3:2021 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 standardization 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, and amending Directive 95/16/EC (recast).

Once this standard is cited in the Official Journal of the European Union under that Directive, 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 and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and Annex I of Directive 2006/42/EC

The relevant Essential Requirements of Directive 2006/42/EC	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
1.1.2 Principles of safety integration		
a) fitted for its function	Clauses 4, 5, 6, 7	
c) intended use and reasonably foreseeable misuse	Clauses 4, 5, 6, 7	
d) constraints in use	6.5, 7.3	
e) equipment	5.1, 7.3	
1.1.3 Materials and products	5.2, 7.3	
1.1.4 Lighting	6.6, 7.3	
1.1.5 Design of machinery to facilitate its handling	6.5	
1.1.6 Ergonomics	6.5	
1.1.7 Operating position	4.2	
1.2.1 Safety and reliability of control systems	4.1, 6.7, 6.8	
1.2.2 Control devices	4.2, 4.3, 4.4, 4.6, 4.7, 4.13	
1.2.3 Starting	4.3, 4.13	
1.2.4 Stopping	4.4, 4.5, 4.8, 5.4	
1.2.4.1 Normal stop	4.4.2	
1.2.4.2 Operational stop	4.4.3	
1.2.4.3 Emergency stop	4.4.4	
1.2.5 Selection of control or operating mode	4.6	

1.2.6 Failure of the power supply	4.8, 6.7, 6.8	
1.3.1 Risk of loss of stability	5.1, 7.3	
1.3.2 Risk of break-up during operation	5.2, 7.3	
1.3.3 Risks due to falling or ejected objects	4.7.3, 5.2, 5.3, 5.5, 5.8, 5.9, 7.3	
1.3.6 Risks relating to variations in the operating conditions	4.7, 4.11	
1.3.7 Risks related to moving parts	5.5, 5.6, 5.7, 7.3	
1.3.8 Choice of protection against risks related to moving parts	5.6, 5.7, 5.8	
1.3.8.1 Moving transmission parts	5.6.3	
1.3.8.2 Moving parts involved in the process	5.6.2, 5.6.3, 5.6.5, 5.7	
1.3.9 Risk of uncontrolled movements	5.1	
1.4.1 General requirements	5.9	
1.4.2.1 Fixed guards	5.5.1	
1.4.2.2 Interlocking movable guards	5.5.2	
1.5.1 Electricity supply	6.4, 6.13	
1.5.2 Static electricity	6.11	
1.5.3 Energy supply other than electricity	6.7, 6.8	
1.5.4 Errors of fitting	6.12	
1.5.6 Fire	6.1	
1.5.8 Noise	6.2	
1.5.11 External radiation	6.9	
1.5.12 Laser equipment	6.10	
1.5.13 Emission of hazardous materials and substances	6.3	
1.6.1 Machinery maintenance	6.14, 7.3	
1.6.2 Access to operating position and servicing points	6.14, 7.3	
1.6.3 Isolation of energy sources	6.13, 7.3	
1.6.4 Operator intervention	6.14, 7.3	
1.6.5 Cleaning of internal parts	6.14, 7.3	
1.7.1 Information and warnings on the machinery	6.10, 7.1, 7.2	
1.7.2 Warning devices	7.1	
1.7.3 Marking of machinery	7.2	
1.7.4 Instructions	7.3	

EN ISO 19085-3:2021 (E)

2.3 Machinery for working wood and analogous materials		
a) guiding	5.10	
b) ejection	4.7.3, 5.2, 5.3, 5.5, 5.8, 5.9, 7.3	
c) brake	4.5, 5.4	

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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Woodworking machines — Safety — Part 3: Numerically controlled (NC/CNC) boring and routing machines

Machines à bois — Sécurité

Partie 3: Perceuses et défonceuses à Commande Numérique (CN/CNC)

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Contents

Page

Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	2
3 Terms and definitions	3
4 Safety requirements and measures for controls	6
4.1 Safety and reliability of control systems	6
4.2 Control devices	6
4.2.1 General	7
4.2.2 Hand-held control sets	7
4.3 Start	7
4.3.1 Direct start	7
4.3.2 Start via control power-on	7
4.4 Safe stops	8
4.4.1 General	8
4.4.2 Normal stop	8
4.4.3 Operational stop	8
4.4.4 Emergency stop	8
4.5 Braking function of tools	8
4.6 Mode selection	8
4.6.1 General	8
4.6.2 Machine setting mode [MODE 2]	8
4.6.3 Clamping device manual positioning mode [MODE 3]	9
4.6.4 Boring units positioning mode [MODE 4]	9
4.7 Tool speed changing	9
4.7.1 Speed changing by shifting the belts on the pulleys	9
4.7.2 Speed changing by incremental speed change motor	9
4.7.3 Infinitely variable speed by frequency inverter	9
4.8 Failure of any power supply	10
4.9 Manual reset control	10
4.10 Standstill detection and monitoring	10
4.11 Machine moving parts speed monitoring	10
4.12 Time delay	10
4.13 Tele-service	10
5 Safety requirements and measures for protection against mechanical hazards	10
5.1 Stability	10
5.2 Risk of break-up during operation	10
5.3 Tool and tool fixing design	11
5.3.1 General	11
5.3.2 Spindle locking	11
5.3.3 Circular saw blade fixing device	11
5.3.4 Flange dimension for circular saw blades	11
5.4 Braking	11
5.4.1 Braking of tools	11
5.4.2 Maximum run-down time	11
5.4.3 Brake release	11
5.5 Safeguards	11
5.5.1 Fixed guards	11
5.5.2 Interlocking moveable guards	12
5.5.3 Hold-to-run control	12
5.5.4 Two-hand control	12
5.5.5 Electro-sensitive protective equipment (ESPE)	12

ISO 19085-3:2021(E)

5.5.6	Pressure-sensitive protective equipment (PSPE).....	13
5.5.7	Enabling control.....	13
5.6	Prevention of access to hazardous moving parts.....	13
5.6.1	General.....	13
5.6.2	Safeguarding of all machine sides except the loading/unloading zone.....	13
5.6.3	Safeguarding of the loading/unloading zones.....	14
5.6.4	Measures against access to the rear of the machine from un/loading zone.....	24
5.6.5	Minimum clearances at the loading/unloading zone.....	27
5.7	Impact hazard.....	27
5.8	Clamping devices.....	27
5.9	Measures against ejection.....	28
5.9.1	General.....	28
5.9.2	Guards materials and characteristics.....	30
5.9.3	Curtains.....	31
5.10	Workpiece support and guides.....	32
6	Safety requirements and measures for protection against other hazards.....	32
6.1	Fire.....	32
6.2	Noise.....	32
6.2.1	Noise reduction at the design stage.....	32
6.2.2	Noise emission measurement and declaration.....	32
6.3	Emission of chips and dust.....	32
6.4	Electricity.....	32
6.5	Ergonomics and handling.....	32
6.6	Lighting.....	33
6.7	Pneumatics.....	33
6.8	Hydraulics.....	33
6.9	Electromagnetic compatibility.....	33
6.10	Laser.....	33
6.11	Static electricity.....	33
6.12	Errors of fitting.....	33
6.13	Isolation.....	33
6.14	Maintenance.....	33
6.15	Relevant but not significant hazards.....	33
7	Information for use.....	33
7.1	Warning devices.....	33
7.2	Marking.....	34
7.2.1	General.....	34
7.2.2	Additional markings.....	34
7.3	Instruction handbook.....	34
7.3.1	General.....	34
7.3.2	Additional information.....	34
	Annex A (informative) List of significant hazards.....	36
	Annex B (informative) Performance levels required.....	38
	Annex C (normative) Stability test.....	40
	Annex D (normative) Test for braking function.....	41
	Annex E (normative) Impact test for guards.....	42
	Annex F (normative) Noise test code.....	43
	Annex G (normative) Dynamic test for pressure-sensitive bumpers, edges, trip bars, trip plates.....	48
	Annex H (informative) Examples of safeguarding concepts for different machine designs.....	56
	Annex I (normative) Impact test for curtains.....	74
	Annex J (normative) Wear test for curtains.....	79
	Bibliography.....	83

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).

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).

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

For an explanation of 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 39, *Machine tools*, Subcommittee SC 4, *Woodworking machines*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 142, *Woodworking machines – Safety*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 19085-3:2017), which has been technically revised.

The main changes are as follows:

- in the Scope, machines are “intended for continuous production use”, in line with ISO 19085-1:2021;
- the list of significant hazards has been moved to [Annex A](#);
- the structure has been simplified, in line with ISO 19085-1:2021, in particular in [5.6](#);
- the machines designs covered have been clarified, and the relevant requirements have been made more explicit for each design in new [5.6.3](#), with examples figures in the new [Annex H](#);
- the requirements against access to the rear through the un/loading zone in [5.6.4](#) have been improved and moved from old subclause 6.6.2.2.3.1 to [5.6.4](#);
- [Subclause 6.2](#) has been rewritten, and a new updated full Noise Test Code has been introduced in [Annex E](#);

This document is intended to be used in conjunction with ISO 19085-1:2021, which gives requirements common to different machine types.

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

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

ISO 19085-3:2021(E)

Introduction

The ISO 19085 series 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 to be provided to the user by the manufacturer.

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

This document is of relevance, in particular, for the following stakeholder groups representing the market players with regard to machinery safety:

- machine manufacturers (small, medium and large enterprises);
- health and safety bodies (regulators, accident prevention organisations, market surveillance etc.)

Others can be affected by the level of machinery safety achieved with the means of the document by the above-mentioned stakeholder groups:

- machine users/employers (small, medium and large enterprises);
- machine users/employees (e.g. trade unions, organizations for people with special needs);
- service providers, e. g. for maintenance (small, medium and large enterprises);
- consumers (in case of machinery intended for use by consumers).

The above-mentioned stakeholder groups have been given the possibility to participate at the drafting process of this document.

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 ISO 19085-1, to the extent specified in the Scope of the applicable part of ISO 19085.

As far as possible, the safety requirements of parts of the ISO 19085 series refer to the relevant subclauses of ISO 19085-1. Each part contains replacements and additions to the common requirements given in ISO 19085-1.

[Clauses 1](#) to [3](#) are specific to each part and, therefore, replace ISO 19085-1:2021, Clauses 1 to 3.

For [Clauses 4](#) to [7](#) and the annexes, ISO 19085-1:2021, Clauses 4 to 7 and Annexes, each subclause can be:

- confirm as a whole;
- confirm with additions;
- exclude in total; or
- replace with specific text.

This is indicated by one of the following possible statements:

- “ISO 19085-1:2021, [subclause/Annex], applies”;

- “ISO 19085-1:2021, [subclause/Annex], applies with the following additions.” or “ISO 19085-1:2021, [subclause/Annex], applies with the following additions, subdivided into further specific subclauses.”;
- “ISO 19085-1:2021, [subclause/Annex], does not apply.”;
- “ISO 19085-1:2021, [subclause/Annex], is replaced by the following text.” or “ISO 19085-1:2021, [subclause/Annex], is replaced by the following text, subdivided into further specific subclauses.”.

Other subclauses and annexes specific to this document are indicated by the introductory sentence: “Subclause/Annex specific to this document.”.

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