
Lesnoobdelovalni stroji - Varnost - 8. del: Širokotrakovni brusilni stroji za kalibriranje in brušenje ravnih obdelovancev (ISO/DIS 19085-8:2021)

Woodworking machines - Safety - Part 8: Belt sanding and calibrating machines for straight workpieces (ISO/DIS 19085-8:2021)

Holzbearbeitungsmaschinen - Sicherheit - Teil 8: Bandschleifmaschinen zum Kalibrieren und Schleifen von geraden Werkstücken (ISO/DIS 19085-8:2021)

Machines à bois - Sécurité - Partie 8: Machines de ponçage et de calibrage à bande pour pièces droites (ISO/DIS 19085-8:2021)

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Ta slovenski standard je istoveten z: prEN ISO 19085-8

ICS:

13.110	Varnost strojev	Safety of machinery
25.080.50	Brusilni in polirni stroji	Grinding and polishing machines
79.120.10	Lesnoobdelovalni stroji	Woodworking machines

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DRAFT INTERNATIONAL STANDARD

ISO/DIS 19085-8

ISO/TC 39/SC 4

Secretariat: UNI

Voting begins on:
2021-07-06Voting terminates on:
2021-09-28

Woodworking machines — Safety —

Part 8: Belt sanding and calibrating machines for straight workpieces

*Machines à bois — Sécurité —**Partie 8: Machines de ponçage et de calibrage à bande pour pièces droites*

ICS: 13.110; 79.120.10

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Reference number
ISO/DIS 19085-8:2021(E)

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Published in Switzerland

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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).

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 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.

This document was prepared by Technical Committee ISO/TC 39, *Machine tools*, Subcommittee SC 4, *Woodworking machines*.

This second edition cancels and replaces the first edition (ISO 19085-8:2017), which has been technically revised. The main changes compared to the previous edition are as follows:

- the Scope now specifies that machines are intended for continuous production use;
- the list of significant hazards has been moved to new [Annex A](#);
- the structure has been simplified, in particular in [5.6](#);
- ...
- [Subclause 6.2](#) has been updated and a new full noise test code has been added in [Annex F](#).

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.

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

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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.

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:

- confirmed as a whole;
- confirmed with additions;
- excluded in total; or
- replaced 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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Woodworking machines — Safety —

Part 8: Belt sanding and calibrating machines for straight workpieces

1 Scope

This document gives the safety requirements and measures for wide belt calibrating and sanding machines capable of continuous production use as defined in 3.1, hereinafter referred to as “machines”.

It deals with all significant hazards, hazardous situations and events as listed in Annex A, relevant to the machines, when operated, adjusted and maintained as intended and under the conditions foreseen by the manufacturer, including reasonably foreseeable misuse. Also, transport, assembly, dismantling, disabling and scrapping phases have been taken into account.

It is also applicable to machines fitted with one or more of the following devices/additional working units, whose hazards have been dealt with:

- transversal sanding unit;
- cleaning brushing unit;
- satining roller unit;
- disk brushing unit;
- texturing brushing roller unit;
- texturing brushing belt unit;
- cutterblock unit;
- texturing band saw unit;
- spiked roller unit;
- antistatic bars unit;
- conveyor directly controlled by the machine;
- additional work piece vacuum clamping device.

NOTE 1 antistatic bar is a device that eliminates electrostatic charges on the workpiece to ease its subsequent cleaning from dust by airflow.

The machines are designed to calibrate and/or sand workpieces, in shape of panels or beams, consisting of:

- a) solid wood;
- b) material with similar physical characteristics to wood (see ISO 19085-1:2021, 3.2);
- c) gypsum boards, gypsum bounded fibreboards;
- d) composite materials with core consisting of e.g. polyurethane or mineral material;

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- e) composite boards made from the materials listed above;
- f) all materials listed above, also already lacquered.

This document does not deal with hazards related to:

- specific devices other than those listed above;
- access through in-feed and out-feed openings of machines with a work piece height capacity greater than 550 mm;
- systems for powered loading and/or unloading of the work piece to/from a single machine;

NOTE 2 Loading the machine manually includes manually placing the work piece onto a conveyor directly controlled by the machine. Unloading the machine manually includes manually removing the work piece from a conveyor directly controlled by the machine.

- interfacing of the machine with any other machine.

It is not applicable to machines intended for use in potentially explosive atmosphere and to machines manufactured prior to the date of its publication.

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 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 19085-1:2021, *Woodworking machines — Safety — Part 1: Common requirements*

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

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

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 12100:2010, in ISO 13849-1:2015, in ISO 19085-1:2021 and the following apply.

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

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

3.1 calibrating and sanding machine

machine used to calibrate and/or sand panels and/or linear work pieces, fitted with integrated feed and sanding belts positioned above and/or below the work piece level

Note 1 to entry: [Figures 1](#) and [2](#) show examples of different sanding unit positions (safeguarding devices are not illustrated). Sanding belts can rotate in both directions, against the feed or in “climb cutting”, as defined in ISO 19085-1:2021, 3.14 and 3.15.

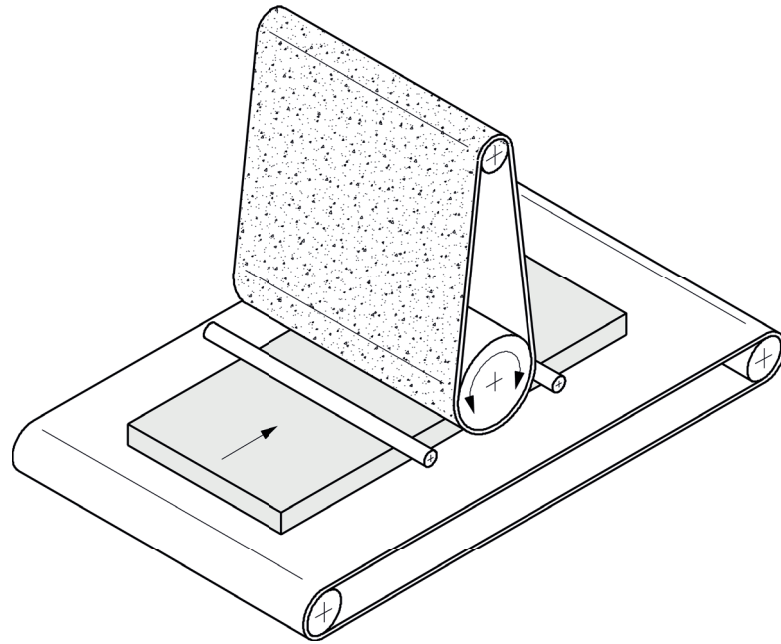


Figure 1 — Example of sanding unit positioned above the work piece level

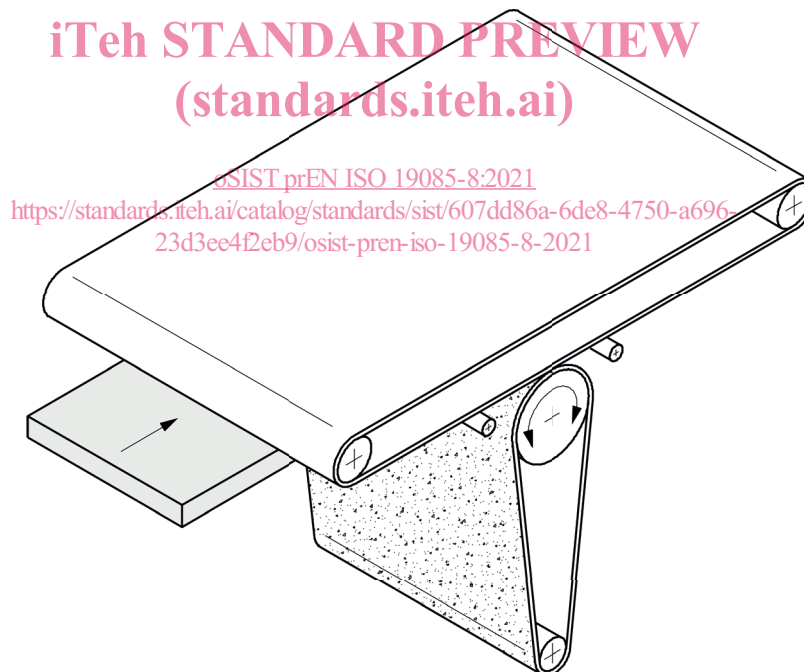


Figure 2 — Example of sanding unit positioned below the work piece level

3.2

transversal sanding unit

unit with sanding belt working perpendicularly to the panel feed direction positioned above or below the work piece level

Note 1 to entry: See [Figure 3](#) (safeguarding devices are not illustrated).