
Lesnoobdelovalni stroji - Varnost - 9. del: Krožne žage (s podajalno mizo in brez nje) (ISO/DIS 19085-9:2026)

Woodworking machines - Safety - Part 9: Circular saw benches (with and without sliding table) (ISO/DIS 19085-9:2026)

Holzbearbeitungsmaschinen - Sicherheit - Teil 9: Tischkreissägemaschinen (mit und ohne Schiebetisch) (ISO/DIS 19085-9:2026)

Machines à bois - Sécurité - Partie 9: Scies circulaires à table de menuisier (avec et sans table mobile) (ISO/DIS 19085-9:2026)

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25.080.60	Strojne žage	Sawing machines
79.120.10	Lesnoobdelovalni stroji	Woodworking machines

oSIST prEN ISO 19085-9:2026

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DRAFT International Standard

ISO/DIS 19085-9

Woodworking machines — Safety — Part 9: Circular saw benches (with and without sliding table)

Machines à bois — Sécurité —

Partie 9: Scies circulaires à table de menuisier (avec et sans table mobile)

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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 document 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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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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 document is intended to be used in conjunction with ISO DIS 19085-1:2025.

This third edition cancels and replaces the second edition (ISO 19085-9:2024), which has been technically revised. The main changes are as follows:

- the way of reference from this document to ISO 19085-1:2026 has been simplified, as well as its explanation in Introduction, and aligned to ISO drafting rules;
- the verification methods at the end of each subclause have been deleted, since self-evident;
- [4.2](#), [7.2](#), [7.3](#) have been rearranged, to follow the new subdivision in ISO DIS 19085-1:2025;
- [5.4](#), [5.9](#) have been simplified in structure, for easier reading.

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.

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Introduction

The ISO 19085 series provides technical safety requirements for the design and construction of woodworking machinery, as well as for the content of the relevant instruction handbook. It concerns designers, manufacturers, suppliers and importers of the machines specified in the Scope.

This document is a type-C standard as defined in ISO 12100:2010.

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 (e.g. regulators, accident prevention organisations, market surveillance)

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 in 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 (as defined in ISO 12100:2010), 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.

In this document, a subclause can refer to the same subclause of ISO DIS 19085-1:2025 or give specific requirements or both.

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Woodworking machines — Safety —

Part 9: Circular saw benches (with and without sliding table)

1 Scope

This document specifies the safety requirements and measures for circular saw benches with or without sliding table or demountable power feed unit or both and capable of continuous production use, also known as “table saws” (in the USA), hereinafter referred to also as “machines”.

The machines are designed to cut solid wood and material with similar physical characteristics to wood (see ISO DIS 19085-1:2025, 3.2).

This document deals with all significant hazards, hazardous situations or hazardous events, listed in [Annex A](#), relevant to the machine when it is used as intended and under conditions of misuse which are reasonably foreseeable.

This document is also applicable to the other life cycle phases of the machines: transport, assembly, adjustment, maintenance, disabling, dismantling and scrapping.

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

- a) device for the main saw blade and scoring saw blade to be raised and lowered through the table;
- b) device to tilt the main saw blade and scoring saw blade for angled cutting in one direction from the vertical position only;
- c) device for scoring;
- d) device for grooving with milling tool with a width not exceeding 20 mm in one pass;
- e) demountable power feed unit;
- f) additional manually operated sliding table;
- g) powered workpiece clamping device.

This document does not apply to:

- machines intended for outdoor use on building sites;
NOTE Building site saws (contractor saws) are covered by the requirements of ISO 19085-10.
- handheld woodworking machines including any adaptation permitting their use in a different mode, i.e. bench mounting;
- machines intended for use in a potentially explosive atmosphere;
- machines manufactured prior to the publication of this document.

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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 13857:2019, *Safety of machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs*

ISO/DIS 19085-1:2025, *Woodworking machines — Safety — Part 1: Common requirements*

IEC 60947-5-1:2024, *Low-voltage switchgear and controlgear – Part 5-1: Control circuit devices and switching elements - Electromechanical control circuit devices*

EN 847-1:2017, *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, ISO 13849-1:2023, ISO DIS 19085-1:2025 and the following apply.

ISO and IEC maintain terminology 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 circular saw bench table saw

hand-fed machine fitted with a single main circular saw blade which is fixed in position during the cutting operation and a horizontal table fixed during operation all around the saw blade

Note 1 to entry: The main parts and their terminology are shown in [Figure 1](#).

Note 2 to entry: The main saw blade is mounted on a spindle below the table.

Note 3 to entry: Circular saw benches are mainly used for ripping, cross cutting, dimensioning and grooving.

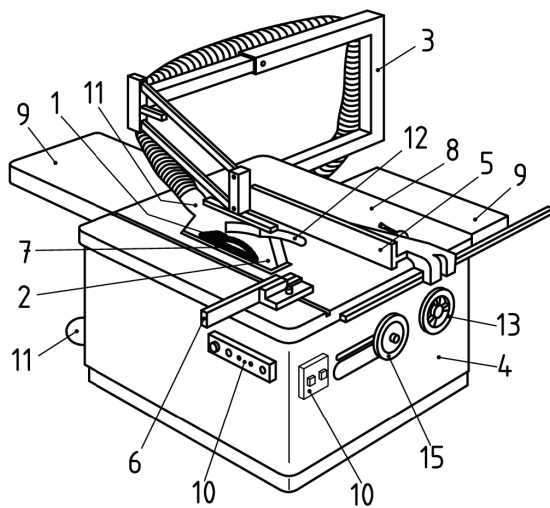
3.2 grooving

making of a cut in the surface of the workpiece not deep enough to pass through, using the saw blade or a milling tool

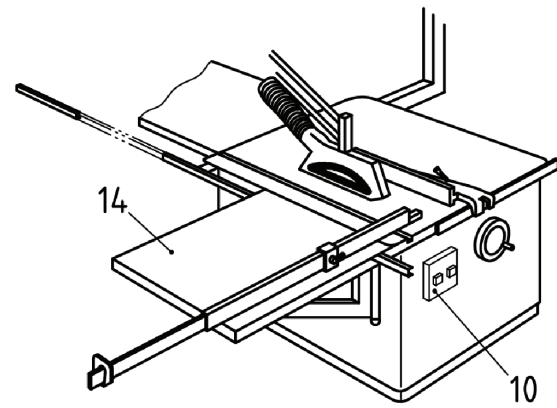
3.3 initiation control

control which, after actuation, enables the provision of power to specific machine actuators, for example, by a programmable logic control

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a) Saw bench



b) Saw bench with sliding table

Key

- | | |
|----|--------------------------------|
| 1 | ripping knife |
| 2 | saw blade guard |
| 3 | saw blade guard support |
| 4 | fixed guard beneath table |
| 5 | rip fence |
| 6 | cross-cut fence |
| 7 | table insert |
| 8 | machine table |
| 9 | extension table |
| 10 | controls |
| 11 | chips and dust outlet |
| 12 | push stick in holding position |
| 13 | cutting height adjustment |
| 14 | sliding table |
| 15 | inclination adjustment |

Figure 1 — Examples of a circular saw bench

4 Safety requirements and measures for controls

4.1 Safety and reliability of control systems

ISO DIS 19085-1:2025, 4.1, shall apply.

[Annex B, Table B.1](#) summarizes the performance levels required (PL_r) in [Clauses 4](#) and [5](#) for all safety functions.

4.2 Control devices

4.2.1 General

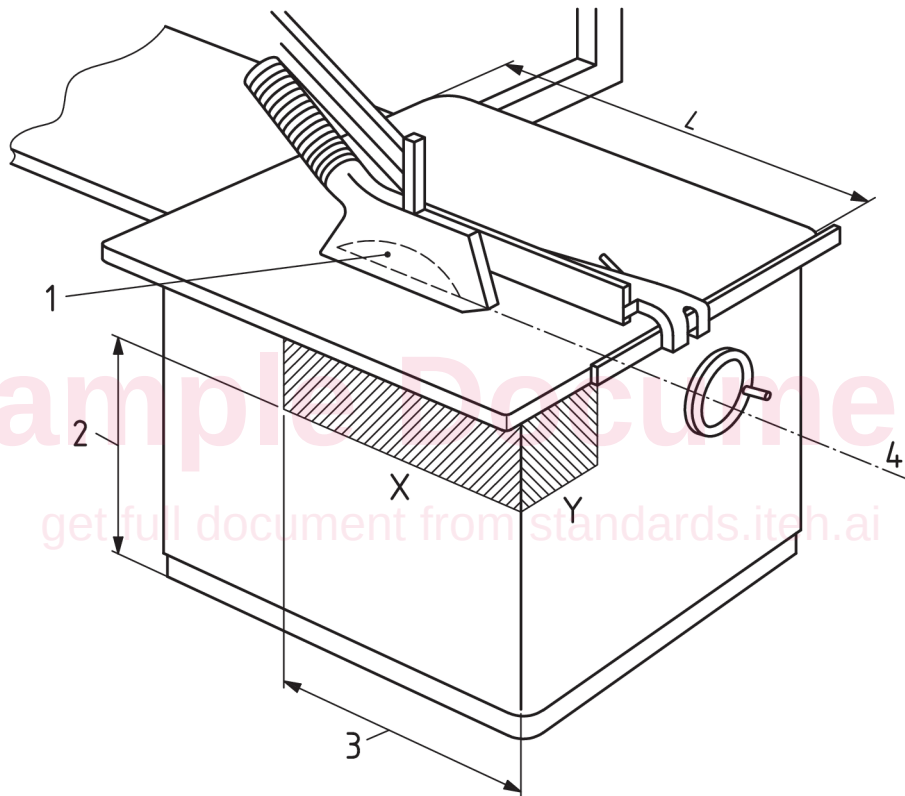
ISO DIS 19085-1:2025, 4.2.1, shall apply.

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The electrical control devices, except the main switch, shall be located:

- a) for machines designed to be used without a sliding table, either
 - 1) in the shaded area marked X or in the shaded area marked Y in [Figure 2](#), or
 - 2) on a movable control panel;
- b) for machines equipped with a sliding table or where provision is made for the use of a sliding table, either
 - 1) in the shaded area marked Y in [Figure 2](#), or
 - 2) on a movable control panel.

A normal stop control device shall be located adjacent to each start control device.



Key

X	left side controls area
Y	front side controls area (on the left of cutting line)
1	saw blade
2	≥ 600 mm
3	$\leq \frac{1}{2} L$
4	cutting line
L	length of machine table

Figure 2 — Position of control devices

The shaded areas X and Y are located below the table at a distance of at least 50 mm from the table top and more than 600 mm above the floor (see [Figure 2](#) Key 1), and:

- on the left side of the machine (area X) and extending not more than half of the table length, L (see [Figure 2](#) Key 2);

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- on the front side of the machine (area Y) on the left of the cutting line.

The movable control panel fixed to the machine shall be located so that:

- its front face is at a distance from the front edge of the table not exceeding 700 mm;
- its upper edge is at a distance from the floor level not exceeding 1 800 mm.

4.2.2 Hand-held control set

Hand-held control set is not relevant to this machine.

4.2.3 Reset device

Reset device is not relevant to this machine.

4.3 Start

4.3.1 Direct start

ISO DIS 19085-1:2025, 4.3.1, shall apply.

The scoring saw blade, if provided, drive shall not be capable of being started before the main saw blade drive.

The safety related parts of the control system (SRP/CS) for interlocking between the scoring saw blade drive and the main saw blade drive shall achieve $PL_r = c$.

4.3.2 Start via control power-on

Start via control power-on is not relevant to this machine.

4.4 Safe stops

4.4.1 Stop function

ISO DIS 19085-1:2025, 4.4.1, shall apply.

Any stop of the main saw blade shall also stop the scoring saw blade (if provided).

4.4.2 Normal stop

ISO DIS 19085-1:2025, 4.4.2, shall apply.

4.4.3 Operational stop

Operational stop is not relevant to this machine.

4.4.4 Emergency stop

ISO DIS 19085-1:2025, 4.4.4, shall apply.

As an exception, the drive of the scoring saw blade (if provided) may not be considered as a second actuator for the purpose of the requirement in ISO 19085-1:2026, 4.4.4, 1st paragraph.

NOTE an emergency stop would not lower the risk in this case.