
Lesnoobdelovalni stroji - Varnost - 6. del: Enovretenski vertikalni rezkalni stroji (toupie) (ISO/DIS 19085-6:2026)

Woodworking machines - Safety - Part 6: Single spindle vertical moulding machines (toupie) (ISO/DIS 19085-6:2026)

Holzbearbeitungsmaschinen - Sicherheit - Teil 6: Einspindeligen senkrechte Tischfräsmaschinen (ISO/DIS 19085-6:2026)

Machines à bois - Sécurité - Partie 6: Toupies monobroches à arbre vertical (ISO/DIS 19085-6:2026)

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79.120.10	Lesnoobdelovalni stroji	Woodworking machines

oSIST prEN ISO 19085-6:2026**en,fr,de**

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DRAFT International Standard

ISO/DIS 19085-6

Woodworking machines — Safety —

Part 6: Single spindle vertical moulding machines (toupie)

Machines à bois — Sécurité —

Partie 6: Toupies monobroches à arbre vertical

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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.

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

This third edition cancels and replaces the second edition (ISO 19085-6:2024), which has been technically revised. The main changes are as follows:

- the way of reference from this document to ISO DIS 19085-1:2025 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 of International Standards 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.

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 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), 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 6: Single spindle vertical moulding machines (toupie)

1 Scope

This document specifies the safety requirements and measures for single spindle vertical moulding machine (defined in [3.1](#)), designed to cut solid wood and material with similar physical characteristics to wood, capable of continuous production use, and hereinafter referred to also as “machine”.

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 additional working units, whose hazards have been dealt with:

- a) device to adjust the arbor vertically;
- b) device to tilt the arbor;
- c) device to fit a manually operated tenoning sliding table;
- d) glass bead saw unit;
- e) adjustable table insert;
- f) device for changing the direction of rotation of the spindle;
- g) device for fixing shank mounted tools on the arbor;
- h) interchangeable arbor;
- i) quick tool or arbor change system;
- j) demountable power feed unit;
- k) support for the demountable power feed unit with power-driven adjustments.

This document does not apply to

- machines equipped with outboard bearings,
- machines equipped with powered movements of a front extension table or a tenoning sliding table or both.

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

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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*

EN 847-2:2017, *Tools for woodworking — Safety requirements — Part 2: Requirements for shanks of shank mounted milling tools*

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

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

single spindle vertical moulding machine

hand-fed machine fitted with a single vertical arbor, which is fixed in position during the cutting operation, and a horizontal table, which is fixed in total or in part during the cutting operation

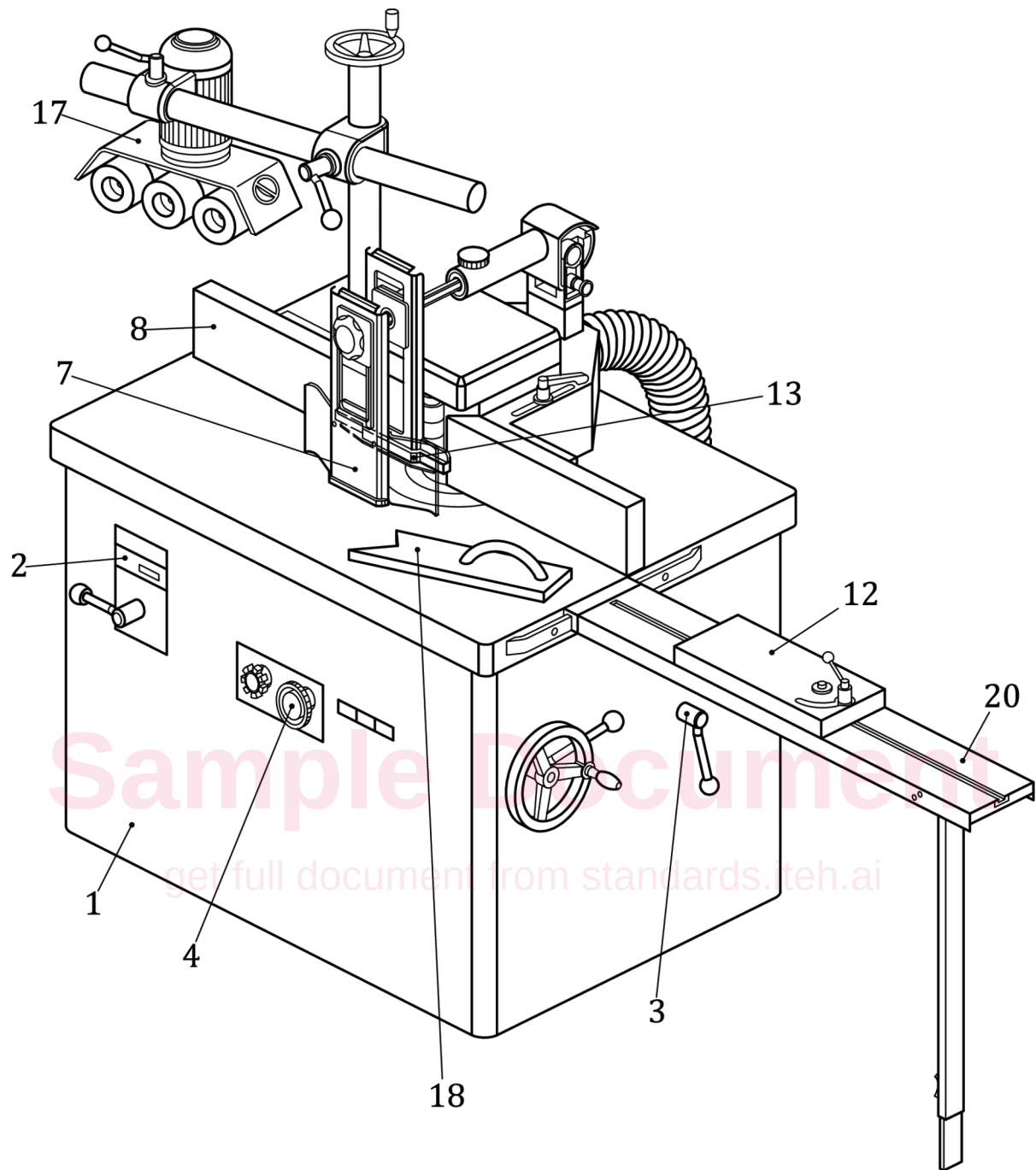
Note 1 to entry: The arbor passes through the table and its drive is situated beneath the table.

Note 2 to entry: The main parts of the machine and their terminology are shown in [Figure 1](#).

Note 3 to entry: These machines are also known as shapers in the USA and toupie in Europe.

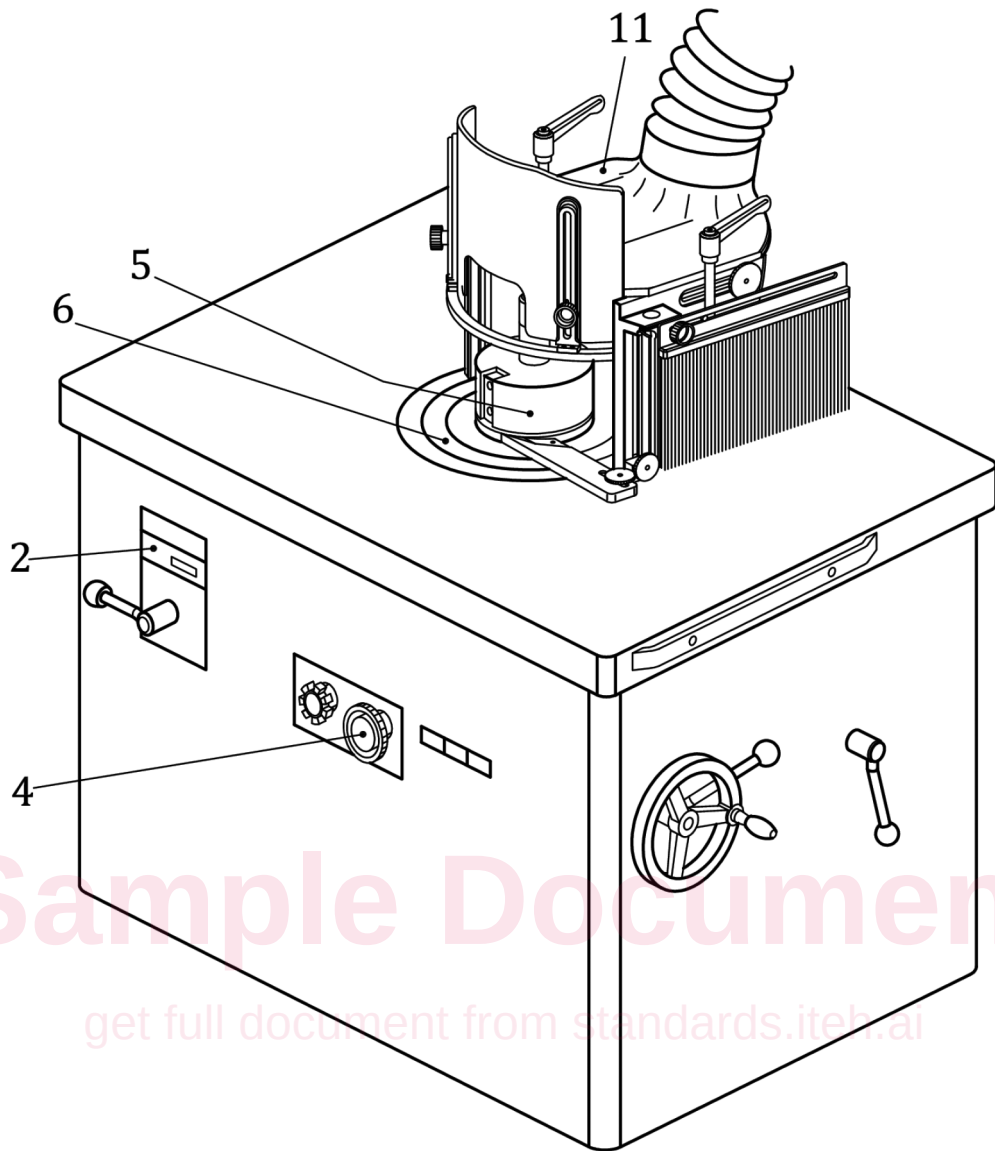
Note 4 to entry: The arbor can be tiltable and can be interchangeable.

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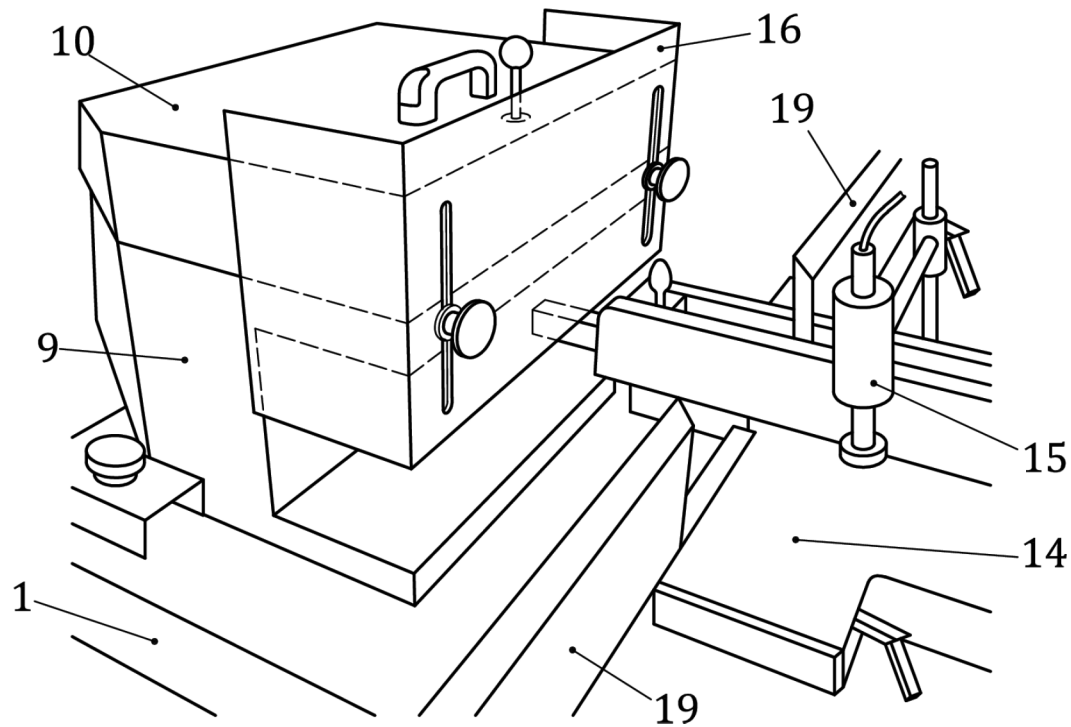
a) Example of a single spindle vertical moulding machine equipped for straight work

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b) Example of a single spindle vertical moulding machine equipped for curved work

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c) Example of a tool safeguard for tenoning with fixed and adjustable guards mounted on the machine and on the sliding table

Key

- | | |
|----|---|
| 1 | main frame |
| 2 | speed indicator |
| 3 | spindle lock |
| 4 | start and stop controls |
| 5 | tool |
| 6 | table rings |
| 7 | fence pressure pad |
| 8 | fence plates connected to straight work guard |
| 9 | enclosure |
| 10 | hinged cover |
| 11 | curved work guard |
| 12 | adjustable end stop |
| 13 | table pressure pad |
| 14 | sliding table |
| 15 | workpiece clamping device |
| 16 | adjustable guard |
| 17 | de-mountable power feed unit |
| 18 | push stick |
| 19 | guards fixed to the sliding table |
| 20 | extension table |

Figure 1 — Single spindle vertical moulding machine terminology

3.2

straight work

profiling or grooving of a workpiece with one face in contact with the table and a second with the fence, and where the work starts at one end of the workpiece and continues through to the other end

Note 1 to entry: See [Figures 1 a\)](#) and [2](#).