
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

<https://standards.iteh.ai>
Document Preview

ISO 19085-8:2017

<https://standards.iteh.ai/catalog/standards/iso/e0aa7d4c-ac06-441b-b50d-1911393dab08/iso-19085-8-2017>



iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

ISO 19085-8:2017

<https://standards.iteh.ai/catalog/standards/iso/e0aa7d4c-ac06-441b-b50d-1911393dab08/iso-19085-8-2017>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2017, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	2
3 Terms and definitions	2
4 List of significant hazards	7
5 Safety requirements and measures for controls	9
5.1 Safety and reliability of control systems	9
5.2 Control devices	9
5.3 Start	9
5.4 Safe stops	10
5.4.1 General	10
5.4.2 Normal stop	10
5.4.3 Operational stop	10
5.4.4 Emergency stop	10
5.5 Braking function of tool spindles	10
5.6 Mode selection	10
5.7 Spindle speed changing	10
5.7.1 Spindle speed changing by changing belts on the pulleys	10
5.7.2 Spindle speed changing by incremental speed change motor	11
5.7.3 Infinitely variable speed frequency inverter	11
5.8 Failure of any power supply	11
5.9 Manual reset control	11
5.10 Enabling control	11
5.11 Machine moving parts speed monitoring	11
5.12 Time delay	11
6 Safety requirements and measures for protection against mechanical hazards	12
6.1 Stability	12
6.1.1 Stationary machines	12
6.1.2 Displaceable machines	12
6.2 Risk of break-up during operation	12
6.3 Tool holder and tool design	12
6.4 Braking	12
6.4.1 Braking of tool spindles	12
6.4.2 Maximum run-down time	12
6.4.3 Brake release	12
6.5 Safeguards	12
6.5.1 Fixed guards	12
6.5.2 Interlocking moveable guards	13
6.5.3 Hold-to-run control	13
6.5.4 Two-hand control	13
6.5.5 Electro-sensitive protective equipment (ESPE)	13
6.5.6 Pressure sensitive protecting device (PSPE)	13
6.6 Prevention of access to moving parts	13
6.6.1 General	13
6.6.2 Guarding of tools	13
6.6.3 Guarding of drives	14
6.6.4 Guarding of shearing and/or crushing zones	14
6.7 Impact hazard	15
6.8 Clamping devices	15
6.9 Measures against ejection	15
6.9.1 General	15

6.9.2	Guards material and characteristics	15
6.9.3	Anti-kickback devices	16
6.9.4	Adjustment of machine work height	17
6.10	Work piece support and guides	17
7	Safety requirements and measures for protection against other hazards	18
7.1	Fire	18
7.2	Noise	18
7.2.1	Noise reduction at the design stage	18
7.2.2	Noise emission measurement	19
7.3	Emission of chips and dust	19
7.4	Electricity	19
7.4.1	General	19
7.4.2	Displaceable machines	19
7.5	Ergonomics and handling	19
7.6	Lighting	19
7.7	Pneumatics	19
7.8	Hydraulics	19
7.9	Electromagnetic compatibility	20
7.10	Laser	20
7.11	Static electricity	20
7.12	Errors of fitting	20
7.13	Isolation	20
7.14	Maintenance	20
8	Information for use	20
8.1	Warning devices	20
8.2	Markings	20
8.2.1	General	20
8.2.2	Additional markings	20
8.3	Instruction handbook	20
8.3.1	General	20
8.3.2	Additional information	21
Annex A (informative) Performance level required		22
Annex B (normative) Test for braking function		23
Annex C (normative) Stability test for displaceable machines		24
Annex D (normative) Impact test for guards		25
Annex E (normative) Noise emission measurement for machines not in ISO 7960:1995		26
Annex F (normative) Anti-kickback test		27
Annex G (normative) Test for anti-kickback devices of finger type		28
Bibliography		29

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.

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

This document is intended to be used in conjunction with ISO 19085-1:2017, 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.