DIN EN ISO 19085-9:2025-12 (E)

Woodworking machines - Safety - Part 9: Circular saw benches (with and without sliding table) (ISO 19085-9:2024)

Contents

Page

Foreword ..... **v**

Introduction ..... **vi**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **2**

4 Safety requirements and measures for controls **3**

4.1 Safety and reliability of control systems 3
4.2 Control devices 3
4.3 Start 4
4.3.1 Direct start 4
4.3.2 Start via control power-on 5
4.4 Safe stops 5
4.4.1 General 5
4.4.2 Normal stop 5
4.4.3 Operational stop 5
4.4.4 Emergency stop 5
4.5 Braking function of tools 5
4.6 Mode selection 5
4.7 Tool speed changing 5
4.7.1 Speed changing by shifting the belts on the pulleys 5
4.7.2 Speed changing by incremental speed change motor 5
4.7.3 Infinitely variable speed by frequency inverter 5
4.8 Failure of any power supply 5
4.9 Manual reset control 5
4.10 Standstill detection and monitoring 6
4.11 Machine moving parts speed monitoring 6
4.12 Time delay 6
4.13 Teleservice 6
4.14 Power-operated adjustment of the saw blades and the rip fence 6
4.14.1 Risk of contact between the saw blades and the rip fence 6
4.14.2 Crushing hazard for the body 6
4.14.3 Crushing and shearing hazard for the arm, hand or finger 7

5 Safety requirements and measures for protection against mechanical hazards **7**

5.1 Stability 7
5.2 Risk of break-up during operation 7
5.3 Tool and tool fixing design 8
5.3.1 General 8
5.3.2 Spindle locking 8
5.3.3 Circular saw blade fixing device 8
5.3.4 Flange dimension for circular saw blades 8
5.3.5 Fixing device for milling tools 8
5.4 Braking 8
5.4.1 Braking of tools 8
5.4.2 Maximum run-down time 8
5.4.3 Brake release 8
5.5 Safeguards 8
5.5.1 Fixed guards 8

5.5.2 Interlocking movable guards 9
5.5.3 Hold-to-run control 9
5.5.4 Two-hand control 9
5.5.5 Electro-sensitive protective equipment (ESPE) 9
5.5.6 Pressure-sensitive protective equipment (PSPE) 9
5.5.7 Enabling control 9
5.6 Prevention of access to hazardous moving parts 9
5.6.1 Access to the saw blade part above the machine table 9
5.6.2 Access to the saw blade part below the machine table 14
5.6.3 Guarding of drives 15
5.7 Impact hazard 15
5.8 Clamping devices 15
5.9 Measures against ejection 15
5.9.1 General 15
5.9.2 Guards materials and characteristics 15
5.9.3 Anti-kickback devices 16
5.10 Workpiece supports and guides 19
5.10.1 Rip fence 19
5.10.2 Cross-cut fence 21
5.10.3 Machine table 21
5.10.4 Extension table 22
5.11 Safety appliances 22
6 Safety requirements and measures for protection against other hazards 23
6.1 Fire 23
6.2 Noise 23
6.2.1 Noise reduction at the design stage 23
6.2.2 Noise emission measurement and declaration 23
6.3 Emission of chips and dust 23
6.4 Electricity 24
6.5 Ergonomics and handling 24
6.6 Lighting 24
6.7 Pneumatics 24
6.8 Hydraulics 24
6.9 Electromagnetic compatibility 24
6.10 Laser 24
6.11 Static electricity 24
6.12 Errors of fitting 25
6.13 Isolation 25
6.14 Maintenance 25
6.15 Relevant but not significant hazards 25
7 Information for use 25
7.1 Warning devices 25
7.2 Marking 25
7.2.1 General 25
7.2.2 Additional markings 25
7.3 Instruction handbook 26
7.3.1 General 26
7.3.2 Additional information 26
Annex A (informative) **List of significant hazards 28**
Annex B (informative) **Performance level required 30**
Annex C (normative) **Stability test 31**
Annex D (normative) **Test for braking function 32**
Annex E (normative) **Impact test for guards 33**
Annex F (normative) **Noise test code 34**
Annex G (normative) **Riving knife rigidity test 37**
Annex H (normative) **Minimum dimensions of machine table, extension table and table insert 39**
Annex I (normative) **Saw blade guard rigidity test 40**
Bibliography 43