

# DIN EN 861:2012-09 (E)

## Safety of woodworking machines - Surface planing and thicknessing machines (includes Amendment A2:2012)

---

<b>Contents</b>		<b>Page</b>
Foreword .....		4
Introduction .....		5
<b>1</b>	<b>Scope .....</b>	<b>6</b>
<b>2</b>	<b>Normative references .....</b>	<b>6</b>
<b>3</b>	<b>Terms and definitions .....</b>	<b>8</b>
3.1	General .....	8
3.2	Definitions .....	8
3.3	Terms .....	11
<b>4</b>	<b>List of significant hazards .....</b>	<b>13</b>
<b>5</b>	<b>Safety requirements and/or measures .....</b>	<b>17</b>
5.1	General .....	17
5.2	Controls .....	17
5.2.1	Safety and reliability of control systems .....	17
5.2.2	Position of controls .....	18
5.2.3	Starting .....	18
5.2.4	Normal stopping .....	19
5.2.5	Emergency stop .....	19
5.2.6	Failure of the power supply .....	20
5.2.7	Failure of the control circuit .....	20
5.3	Protection against mechanical hazards .....	21
5.3.1	Stability .....	21
5.3.2	Hazard of break up during operation .....	21
5.3.3	Tool holder and tool design .....	21
5.3.4	Braking .....	21
5.3.5	Devices to minimise the possibility or the effect of ejection .....	23
5.3.6	Work-piece supports and guides .....	24
5.3.7	Prevention of access to moving parts .....	28
5.3.8	Guarding of drives .....	32
5.3.9	Characteristics of ####cutterblock\$\$\$\$ guards .....	32
5.3.10	Safety appliances .....	33
5.3.11	Demountable power feed ####unit\$\$\$\$ .....	33
5.4	Protection against non-mechanical hazards .....	33
5.4.1	Fire .....	33
5.4.2	Noise .....	33
5.4.3	Emission of chips and dust .....	34
5.4.4	Electricity .....	36
5.4.5	Ergonomics and handling .....	36
5.4.6	Pneumatics .....	37
5.4.7	Hydraulics .....	37
5.4.8	Electromagnetic compatibility .....	37
5.4.9	Supply disconnection (isolation) .....	37
5.4.10	Static electricity .....	38
5.4.11	Maintenance .....	38
<b>6</b>	<b>Information for use .....</b>	<b>38</b>

6.1	General .....	38
6.2	Marking .....	39
6.3	Instruction handbook .....	39
Annex A (normative) Tests for bridge type guards for planing machines .....		43
A.1	Compression test .....	43
A.2	Shock test .....	43
A.3	Strength test for bridge type guard .....	43
Annex B (normative) Table lip resistance test .....		45
B.1	General .....	45
B.2	Work-piece .....	45
B.3	Measurements .....	47
B.4	Test .....	48
B.5	Result .....	48
Annex C (normative) Kickback test .....		50
Annex D (normative) Stability test for displaceable machines .....		51
D.1	Stability test in the surfacing mode .....	51
D.2	Stability test in the thickening mode .....	51
Annex E (normative) Impact test method for guards .....		53
E.1	General .....	53
E.2	Test method .....	53
E.2.1	Preliminary remarks .....	53
E.2.2	Testing equipment .....	53
E.2.3	Projectile for guards .....	53
E.2.4	Sampling .....	53
E.2.5	Test procedure .....	53
E.3	Results .....	54
E.4	Assessment .....	54
E.5	Test report .....	54
E.6	Test equipment for impact test .....	54
Annex F (normative) Braking tests .....		58
F.1	Conditions for all tests .....	58
F.2	<del>Un-braked</del> run-down time .....	58
F.3	Braked run-down time .....	58
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC .....		60
Bibliography .....		64