

DIN EN 12203:2010-07 (E)

Footwear, leather and imitation leather goods manufacturing machines - Shoe and leather presses - Safety requirements (includes Amendment A1:2009)

Contents	Page
Foreword.....	5
Introduction	6
1 Scope	7
2 Normative references	8
3 Terms and definitions	10
4 A1 List of significant hazards A1	13
5 Safety requirements and/or measures	35
5.1 Common requirements for all shoe and leather presses	35
5.1.1 Mechanical Equipment.....	35
5.1.2 Additional safety devices.....	37
5.1.3 Electrical equipment.....	37
5.1.4 Thermal protection	37
5.1.5 Noise control at the design stage	38
5.1.6 Fumes detrimental to health.....	38
5.1.7 Ergonomics	38
5.1.8 Pressurized fluid systems	39
5.1.9 Control systems.....	39
5.1.10 Tool setting and adjustment.....	41
5.1.11 Feeding system.....	41
5.1.12 Aids for transportation	42
5.2 Specific requirements for particular types of shoe and leather presses.....	42
5.2.1 Sole attaching presses.....	42
5.2.2 Sole and insole moulding machines.....	42
5.2.3 Back part moulding machine.....	43
5.2.4 Backer, lining and toe puff attaching machines.....	43
5.2.5 Ironing presses with rotary table	43
5.2.6 Marking, stamping, labelling and embossing machines	43
5.2.7 Stitch marking machines	43
5.2.8 Upper preforming machines.....	43
5.2.9 Automatic shoe and leather presses	44
5.2.10 Folding presses	45
5.2.11 Activating presses	45
5.2.12 Relasting and last slipping machines	45
5.2.13 Top piece attaching presses	45
5.2.14 Leather button covering machine	46
6 A1 Verification of safety requirements and/or protective measures A1	46
7 Information for use	56
A1 7.1 General.....	56
7.2 Signal and warning devices.....	56
A1 7.3 A1 Instruction handbook (operating manual).....	56
A1 7.4 A1 Declared noise emission values.....	57
A1 7.5 A1 A1 Marking A1	58

Annex A (normative) Requirements for guards	59
A.1 Fixed covers	59
A.2 Movable enclosing guards and movable covers	59
A.3 Fencing	59
A.4 A1 Fixing elements of fixed guards and covers	60
Annex B (normative) Requirements for interlocking devices Interlocking guards with and without guard locking	61
B.1 Interlocking guards without guard locking with one interlocking system and one position sensor	61
B.2 A1 Interlocking guards without guard locking, with one interlocking system and two position sensors A1	61
B.3 Interlocking guards with one interlocking system and one position sensor with guard locking	61
Annex C (normative) Requirements for trip devices	62
C.1 Mechanical trip device with one position sensor	62
C.2 Electro-sensitive protective devices (ESPD) with normal level	62
C.3 Electro-sensitive protective devices (ESPD) with high level	63
C.4 Electro-sensitive protective devices (high level) with control function	64
Annex D (normative) Requirements for two-hand control devices	65
D.1 Two-hand control devices (normal level)	65
D.2 Two-hand control devices (high level)	65
Annex E (normative) Requirements for hold-to-run control devices	68
E.1 Hold-to-run control devices (stop function)	68
E.2 Hold-to-run control devices (reverse function)	68
Annex F (normative) Requirements for pressure sensitive mats and floors	70
Annex G (normative) Requirements for safe tools	71
Annex H (normative) Requirements for stop and release control devices	72
Annex I (normative) Requirements for safety stroke devices	73
Annex J (normative) Two-fault safety of machine control system	74
Annex K (normative) Control measures for the suspension of safeguards	75
Annex L (normative) Requirements for control guards (interlocking guards with start function)	77
Annex M (normative) Temperatures of burn threshold	78
Annex N (normative) Important considerations and requirements for planning, design and construction of automatic manufacturing systems	79
N.1 Project organisation	79
N.2 Application of a safety strategy	79
N.3 Risk assessment	79
N.4 Requirements for documentation	79
N.5 Starting	79
N.6 Emergency stop	80
Annex O (normative) A1 Noise test code for shoe and leather presses	82
O.1 Scope	82
O.2 Definitions	82
O.2.1 Material	82
O.2.2 Processing temperature	82
O.2.3 Test cycle	82
O.2.4 Operator standing / sitting area (operating area)	82
O.3 Description of machinery family	82
O.4 Measurement of A-weighted sound power level	82
O.5 Measurement of A-weighted emission sound pressure level	83
O.5.1 Position of microphone for determination of A-weighted emission sound pressure level at the workstation	83
O.6 Operating conditions	83
O.7 Measurement uncertainties	83
O.8 Documentation	83
Annex ZA (informative) A1 Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC A1	85
Annex ZB (informative) A1 Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC A1	86