

# 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 <b>A1</b> List of significant hazards <b>A1</b> .....	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 <b>A1</b> Verification of safety requirements and/or protective measures <b>A1</b> .....	46
7 Information for use .....	56
<b>A1</b> 7.1 General.....	56
7.2 Signal and warning devices.....	56
<b>A1</b> 7.3 <b>A1</b> Instruction handbook (operating manual).....	56
<b>A1</b> 7.4 <b>A1</b> Declared noise emission values.....	57
<b>A1</b> 7.5 <b>A1</b> <b>A1</b> Marking <b>A1</b> .....	58

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