

ISO 11148-9:2011-12 (E)

Hand-held non-electric power tools - Safety requirements - Part 9: Die grinders

Contents	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	2
3 Terms and definitions	2
3.1 General terms and definitions	2
3.2 Terms and definitions related to die grinders	4
4 Safety requirements and/or protective measures	4
4.1 General	4
4.2 Mechanical safety	4
4.3 Thermal safety	5
4.4 Noise reduction	5
4.5 Vibration	6
4.6 Materials and substances processed, used or exhausted	6
4.7 Ergonomics	7
4.8 Controls	7
5 Verification	8
5.1 General conditions for tests	8
5.2 Noise	8
5.3 Vibration	8
5.4 Unintentional start	8
5.5 Power tool construction	8
5.6 Structure of verification of safety requirements	9
6 Information for use	9
6.1 Marking, signs and written warnings	9
6.2 Instruction handbook	10
6.3 Operating instructions	16
6.4 Data	16
6.5 Maintenance instructions	17
Annex A (informative) List of significant hazards	18
Annex C (normative) Symbols for labels and signs	20
Annex D (informative) Examples of abrasive products for use with die grinders	21
Bibliography	22