

DIN EN 13418:2013-08 (E)

Plastics and rubber machines - Winding machines for film or sheet - Safety requirements

Contents

Page

Foreword	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	8
4 List of significant hazards	13
5 Safety requirements and/or protective measures	15
5.1 General	15
5.2 General safety requirements and/or protective measures	15
5.2.1 Protection of danger points/areas	15
5.2.2 Safety distances to prevent danger points/areas being reached	16
5.2.3 Basic safeguard requirements	16
5.2.4 Drive and power transmission systems	16
5.2.5 Cutting devices	16
5.2.6 Area guarding	17
5.2.7 Electrical equipment	17
5.2.8 Control systems - Safe design measures	17
5.2.9 Safety-related parts of the control system	17
5.2.10 Precautions in view of emergency situations	18
5.2.11 Unexpected start-up	18
5.2.12 Pneumatic systems and their components	18
5.2.13 Hydraulic systems and their components	18
5.2.14 Electrostatic discharge	18
5.2.15 Ergonomics	19
5.2.16 Noise	19
5.3 Specific safety requirements and/or protective measures in normal operating mode	20
5.4 Start-up procedure and manual intervention	39
5.4.1 Start-up procedure	39
5.4.2 Manual intervention	40
6 Verification of the safety requirements and/or protective measures	42
7 Information for use	51
7.1 Minimum marking on the machine	51
7.2 Instruction manual	51
Annex A (normative) Noise test code	53
A.1 Introduction	53
A.2 Determination of the A-weighted emission sound pressure level at the workstation	53
A.2.1 Basic standards	53
A.2.2 Measurement uncertainty	54
A.3 Determination of the A-weighted sound power level	54
A.3.1 Basic standards	54
A.3.2 Measurement uncertainty	54

A.4	Mounting and operating conditions	54
A.4.1	General	54
A.4.2	Mounting conditions	55
A.4.3	Operating conditions	55
A.5	Information to be recorded and reported	55
A.6	Declaration and verification of noise emission values	56
Annex B (informative)	Example of area guarding using a combination of distance guarding in conjunction with sensitive protective equipment (SPE)	57
Annex C (informative)	Example of a safety concept and procedures for a centre turret winder	59
Annex ZA (informative)	Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC	63
Bibliography		64