

ISO 12643-2:2010-12 (E)

Graphic technology - Safety requirements for graphic technology equipment and systems - Part 2: Prepress and press equipment and systems

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
5	Equipment subject to requirements	5
5.1	General	5
5.2	Prepress equipment	5
5.3	Printing presses and coating/varnishing machines	5
6	Guarding of significant hazards	7
6.1	General	7
6.2	Guard openings	7
6.3	Guarding in-running nips	7
6.4	Interlocks	8
6.5	Hold-to-run controls	9
6.6	Automatic format-setting operations	9
6.7	Additional safeguarding methods for machine devices and components	10
7	Changing of printing plates	23
7.1	General	23
7.2	Automatic printing plate changes	23
7.3	Semi-automatic printing plate changes	23
8	Requirements for protection against other hazards	24
8.1	General	24
8.2	Protection against fire and explosion in continuous-flow devices	24
8.3	Explosion protection exceptions	26
8.4	Spillage from washing devices	26
8.5	Working platforms, access stairs, passageways and raised workplaces	27
8.6	Electrostatic toner dust	27
8.7	Washing equipment for printing plates, rollers and doctor blades	27
8.8	Alcohol dosing devices	28
8.9	Refrigerating devices in ink and dampening units	28
8.10	Powder-spraying devices	28
8.11	Hazardous emissions of sheet-fed presses	28
9	Additional requirements for functions, operations, colours and mechanical specifications of manual control devices	28
9.1	General	28
9.2	Emergency stop and ink, dampening, metering, coating or fountain rollers	29
9.3	Emergency stop on auxiliary draw nips	29
9.4	Alternative controls for stop/safe function on sheet-fed presses	29
9.5	Ready control	30
9.6	Speed limit control	30
9.7	Plate position control	30

9.8	Colours for manual control devices	30
10	Control systems for screen printing presses	30
11	Safety requirements for prepress equipment	31
11.1	Electrical equipment of prepress machinery	31
11.2	Electric/electronic control system of prepress machinery	31
11.3	Exposing equipment	31
11.4	Safeguarding the discharge of liquids	31
11.5	Safeguarding in-running nips on engraving machines	31
11.6	Safeguarding against copper swarf hazard	32
11.7	Safeguarding bending unit on printing plate bending machines	32
11.8	Safeguarding printing plate punching devices	32
12	Signals and warning devices	32
13	Control zones for web presses having multiple folders	33
14	Contents of instruction handbook	33
14.1	General	33
14.2	Sheet-fed printing press systems	34
14.3	Web-fed printing press systems	34
14.4	Screen printing presses	35
14.5	Automatic cylinder and roller washing device	35
14.6	Continuous-flow drying devices	35
14.7	Oxidizers, incinerators and thermal cleaning plants	36
14.8	Alcohol dosing devices	36
14.9	Washing equipment for printing plates	36
14.10	Prepress machinery	36
	Annex A (informative) Hazards associated with printing press systems	37
	Annex B (informative) Protection zones against explosion	40
	Annex C (informative) Emission levels of sheet-fed presses resulting from tests conducted in Europe	43
	Bibliography	49