

BUREAU OF INDIAN STANDARDS

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भारतीय मानक मसौदा

**ग्राफिक प्रौद्योगिकी — ग्राफिक प्रौद्योगिकी उपकरण
और सिस्टम के लिए सुरक्षा अपेक्षाएँ
भाग 3 बाइंडिंग और फिनिशिंग उपकरण और सिस्टम**

(ISO 12643-3 का पहला पुनरीक्षण)

Draft Indian Standard

**GRAPHIC TECHNOLOGY — SAFETY REQUIREMENTS FOR
GRAPHIC TECHNOLOGY EQUIPMENT AND SYSTEMS
PART 3 BINDING AND FINISHING EQUIPMENT AND SYSTEMS**

(First Revision of ISO 12643-3)

ICS 37.100.10

Printing Machinery Sectional
Committee, MED 25

Last date of comment is
07 December 2024

NATIONAL FOREWORD

(Adoption clause to be added later)

The Indian Standard supersedes IS/ISO 12643-3 : 2010 'Graphic Technology — Safety Requirements for Graphic Technology Equipment and Systems Part 3 Binding and Finishing Equipment and Systems.

The main changes are as follows:

- a) In **5.2**, requirements for interlocks have been included (specific clause in ISO 12643-1 has been deleted);
- b) In **5.3.4**, requirements for residual pile monitoring as a safety device on hopper feeders have been revised;

- c) In **5.4.4**, requirements on feeders and feeding sections at gathering machines have been added;
- d) In **5.4.4.4**, requirements for residual pile monitoring as a safety device on feeders at gathering machines have been revised;
- e) In **5.4.5**, the requirements on safety-related control systems for temperature control and temperature monitoring in the gluing unit at perfect binders have been revised;
- f) In **5.4.5.7**, requirements for safeguarding milling head cutters at perfect binders have been added;
- g) In **5.4.5.9**, requirements for emergency stop at perfect binders have been added;
- h) Requirements related to hazards dealt with in ISO 12643-1 have been deleted throughout the document (inclusion in the list of significant hazards);
- j) In **5.4.5**, the requirements on safety-related control systems for temperature control and temperature monitoring in the gluing section for hardcover lines have been revised;
- k) In **5.9.2**, requirements for retraction of knife and clamp at guillotine cutters have been added;
- m) In **5.9.6**; Figures 29 and 30 on guillotine cutters have been revised (30 mm added);
- n) the formula for the calculation of the minimum safety distance at guillotine cutters has been moved to **A.1** as it also refers to the new subclause **5.11**;
- p) A new subclause **5.11**, Three-knife trimmers with manual infeed, has been added;
- q) In Clause **6**, the table for the verification of the safety requirements and/or protective/risk reduction measures has been added;
- r) The list of significant hazards has been moved to Annex B;
- s) A reference to ISO 13849-2 has been added in Bibliography.

This standard is published in various parts. Other parts in this series are:

- Part 1 General requirements
- Part 2 Prepress and press equipment and systems
- Part 4 Converting Equipment and Systems
- Part 5 Manually-fed stand-alone platen presses

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain terminologies and conventions are, however, not identical to those used in Indian Standard. Attention is particularly drawn to the following:

- a) Wherever the words 'International Standard' appear, referring to this standard, they should be read as 'Indian Standard'.
- b) Comma (,) has been used as a decimal marker, while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standard for which Indian Standard also exist. The corresponding Indian Standard, which are to be substituted in their respective places, are listed below along with their degree of equivalence for the editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 13857 : 2019, Safety of machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs	IS 16814 : 2021/ ISO 13857 : 2019, Safety of Machinery Safety Distances to Prevent Hazard Zones Being Reached by Upper and Lower Limbs	<i>Identical</i>
ISO 14119 : 2013, Safety of machinery — Interlocking devices associated with guards — Principles for design and selection	IS 16812 : 2018/ ISO 14119 : 2013 Safety of Machinery — Interlocking Devices Associated with Guards — Principles for Design and Selection	<i>Identical</i>
ISO 14120 : 2015, Safety of machinery — Guards — General requirements for the design and construction of fixed and movable guards	IS 16811 : 2018/ ISO 14120 : 2015 Safety of Machinery — Guards — General Requirements for the Design and Construction of Fixed and Movable Guards	<i>Identical</i>
ISO 14123-1 : 2015, Safety of machinery — Reduction of risks to health resulting from hazardous substances emitted by machinery — Part 1: Principles and specifications for machinery manufacturers	IS 16834 (Part 1) : 2018/ ISO 14123-1 : 2015, Safety of Machinery — Reduction of Risks to Health Resulting from Hazardous Substances Emitted by Machinery — Part 1: Principles and specifications for machinery manufacturers	<i>Identical</i>
ISO 14123-2 : 2015, Safety of machinery — Reduction of risks to health resulting from hazardous substances emitted by machinery — Part 2: Methodology leading to verification procedures	IS 16834 (Part 2) : 2018/ ISO 14123-2 : 2015, Safety of machinery — Reduction of risks to health resulting from hazardous substances emitted by machinery — Part 2: Methodology leading to verification procedures	<i>Identical</i>
IEC 62061 : 2021, Safety of machinery — Functional safety of safety-related electrical, electronic and programmable electronic control systems	IS 16501 : 2023/ IEC 62061 : 2021, Safety of Machinery — Functional Safety of Safety-Related Control Systems (<i>first revision</i>)	<i>Identical</i>

The technical committee has reviewed the provisions of the following International Standard referred in this adopted standard and has decided that it is acceptable for use in conjunction with this standard:

<i>International Standard</i>	<i>Title</i>
ISO 12643-1 : 2023	Graphic technology — Safety requirements for graphic technology equipment and systems — Part 1: General requirements
ISO 13849-1 : 2023	Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*)’. The number of significant places retained in the rounded-off value should be the same as that of the specified value in this standard.

NOTE: The technical content of the document has not been enclosed as these are identical with the corresponding ISO standard. For details, please refer the corresponding **ISO 12643-3: 2023** or kindly contact:

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