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Second edition  
2009-12-15

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# Graphic technology — Safety requirements for graphic technology equipment and systems —

## Part 1: General requirements

*Technologie graphique — Exigences de sécurité pour les systèmes et l'équipement de technologie graphique —*

*Partie 1: Exigences générales*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 12643-1 was prepared by Technical Committee ISO/TC 130, *Graphic technology*.

This second edition of ISO 12643-1 constitutes a technical revision of the first edition (ISO 12643-1:2007). Significant changes incorporated into this second edition include, but are not limited to, the following:

- addition of prepress systems, converting equipment and systems, and stand-alone platen presses to the Scope;
- requirements for performance levels (PL) or safety integrity levels (SIL) as defined in the current version of ISO 13849-1 and IEC 62061, respectively;
- additional requirements for fixed guards;
- additional requirements for interlocking with guard locking;
- additional requirements for hydraulic, pneumatic, electric and electronic control systems.

It is the intent of ISO/TC 130 that both the first and second editions of ISO 12643-1 be applicable until 2010-12-31. ISO 12643-1:2007 is thus provisionally retained until this date.

As from 2011-01-01, ISO 12643-1:2009 will cancel and replace ISO 12643-1:2007. Accordingly, as from 2011-01-01, only ISO 12643-1:2009 will be applicable to new equipment manufactured.

ISO 12643 consists of the following parts, under the general title *Graphic technology — Safety requirements for graphic technology equipment and systems*:

- *Part 1: General requirements*
- *Part 2: Prepress and press equipment and systems*
- *Part 3: Binding and finishing equipment and systems*
- *Part 4: Converting equipment and systems*
- *Part 5: Stand-alone platen presses*

Requirements specific to printing prepress and press equipment and systems, binding and finishing equipment and systems, converting equipment and systems and stand-alone platen presses that are not included in this part of ISO 12643, are given in subsequent parts of ISO 12643 that contain additional requirements specific to that type of equipment.

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## Introduction

During the development of this part of ISO 12643, existing relevant standards of other countries were taken into consideration. An effort has been made to take into consideration the requirements of many countries, recognizing that national standards or laws may dictate national requirements. In cases where it was known that there is a national requirement that differs from this part of ISO 12643, that has been noted.

This part of ISO 12643 was developed to harmonize the requirements of the following U.S. and European safety standards:

- ANSI B65.1, *Graphic technology — Safety standard — Printing press systems*;
- ANSI B65.2, *Graphic technology — Safety requirements for binding and finishing systems and equipment*;
- ANSI B65.3, *Safety standard — Guillotine paper cutters, mill trimmers, and integral handling equipment*;
- ANSI B65.4, *Safety standard — Three-knife trimmers, including rotary, and single- and multiple-knife trimmers*;
- ANSI B65.5, *Safety standard — Stand-alone platen presses*
- EN 1010-1, *Safety of machinery — Safety requirements for the design and construction of printing and paper converting machines — Part 1: Common requirements*;
- EN 1010-2, *Safety of machinery — Safety requirements for the design and construction of printing and paper converting machines — Part 2: Printing and varnishing machines including pre-press machinery*;
- EN 1010-3, *Safety of machinery — Safety requirements for the design and construction of printing and paper converting machines — Part 3: Cutting machines*;
- EN 1010-4, *Safety of machinery — Safety requirements for the design and construction of printing and paper converting machines — Part 4: Bookbinding, paper converting and finishing machines*.