INTERNATIONAL STANDARD

ISO 11084-1

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Graphic technology — Register systems for photographic materials, foils and paper —

Part 1: Three-pin systems

Technologie graphique — Systèmes de positionnement pour matériaux photographiques, feuilles et papier —

Partie 1: Systèmes à trois broches

Reference number
ISO 11084-1:1993(E)

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.

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.

International Standard ISO 11084-1 was prepared by Technical Committee ISO/TC 130, *Graphic technology*.

ISO 11084 consists of the following parts, under the general title *Graphic technology — Register systems for photographic materials, foils and paper*.

— *Part 1: Three-pin systems*

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Introduction

It is intended to develop International Standards to reduce the variety of register systems in graphic technology to achieve greater economy in the use of consumable materials and processing equipment.

ISO 11084 relates to photographic materials, foils and paper, and other non-metallic materials. Metallic printing plates, forms etc. have different mechanical properties, and will be the subject of a future International Standard.

This part of ISO 11084 covers the three-pin system, giving central alignment of the punched material. Future parts are planned to cover two-pin systems, giving edge alignment, and two- and three-pin systems, which allow a smaller margin and thereby reduce material wastage.

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Graphic technology — Register systems for photographic materials, foils and paper —

Part 1:
Three-pin systems

1 Scope

This part of ISO 11084 specifies the positions and dimensions for the pins and holes of three-pin register systems to achieve accurate positioning of originals, separations and printing plates on press and prepress equipment.

This part of ISO 11084 is applicable to

— punched materials, e.g. photographic materials, foils and papers;

— machines and devices for punching the above materials;

— machines and devices using register systems.

It is not applicable to punched metallic materials.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 11084. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 11084 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 286-1:1988, *ISO system of limits and fits — Part 1: Bases of tolerances, deviations and fits.*

ISO 286-2:1988, *ISO system of limits and fits — Part 2: Tables of standard tolerance grades and limit deviations for holes and shafts.*

3 Definitions

For the purposes of this part of ISO 11084, the following definitions apply.

3.1 register system: An arrangement of pins and holes to achieve accurate positioning of originals, separations and printing plates on press and prepress equipment.

3.2 register: The accuracy by which the required position of the reproducible details in a sequence of operations is achieved, e.g. the overprinting of the single separated colours in colour printing.

3.3 register hole: A hole in the material designed to receive the register pin.

3.4 register pin: A stud, the longitudinal axis of which is normal to the surface, which receives the material to be registered and which, by means of the register holes, holds this material in a specified position.

3.5 register pin carrier: A base to which one or more register pins are fixed.

NOTE 1 Register pins may be fixed on a bar holding all the pins for the system, may be fixed on an individual basis or may be integral parts of the printing equipment.

4 Requirements

4.1 Arrangement of register holes and pins

The register system specified in this part of ISO 11084 is a three-pin system with a centre register

hole and one or more pairs of register holes arranged symmetrically about it along a centreline.

The dimensions between the centres of the register pin pairs and register hole pairs for punched materials of up to 500 mm width is shown in figure 1. For larger sizes, the dimensions between centres shall be further increased in increments of 200 mm.

Punching shall be effected at the margin of the material. The distance of the punching centreline from the edge of the material is not specified in this part of ISO 11084.

4.2 Register holes

4.2.1 Centre register hole

The centre register hole (see figure 2) serves to position the punched material in the direction of the punching centreline. It shall be arranged perpendicular to the punching centreline.

NOTE 2 A rectangular hole of 5 mm × 10 mm would meet the requirements of figure 2.

4.2.2 Pairs of register holes

The pairs of register holes (see figure 3) serve to position the punched material perpendicular to the punching centreline. They shall be arranged in the direction of the punching centreline.

NOTE 3 A rectangular hole of 5 mm × 10 mm would meet the requirements of figure 3.

4.3 Register pin

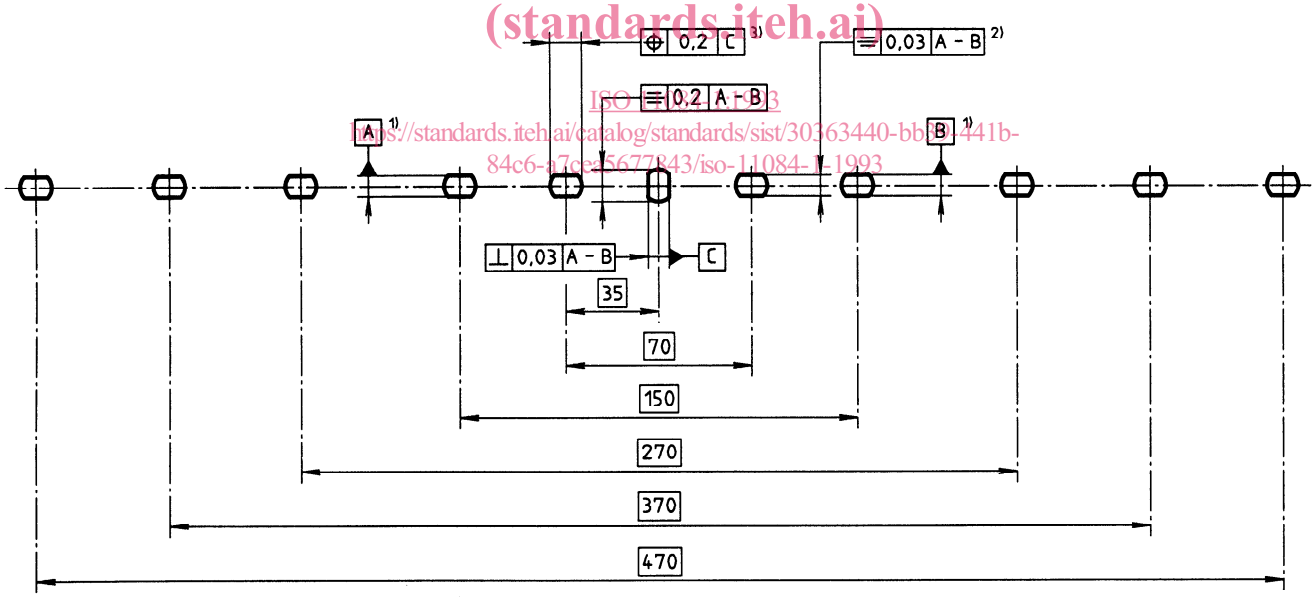
The cross-section of the base of a register pin shall take either of the forms shown in figure 4. For ease of use the pins may be rounded or tapered at the top. The height of the register pin is not specified in this part of ISO 11084.

NOTE 4 A rectangular pin could meet the requirements of figure 4.

4.4 Register pin carrier

The thickness of the material of the register pin carrier is not specified in this part of ISO 11084.

Dimensions in millimetres



1) The holes used for references A and B shall be selected as a function of the particular application.
2) This tolerance is only relevant where more than one register hole pair is used and then applies to all holes except reference holes A, B and C.
3) This tolerance applies for all holes except reference hole C.

Figure 1 — Arrangement register holes and register pins

Dimensions in millimetres

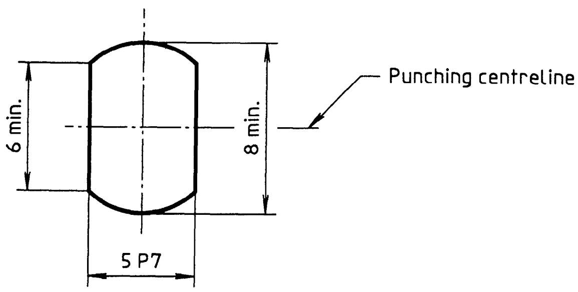


Figure 2 — Centre register hole

Dimensions in millimetres

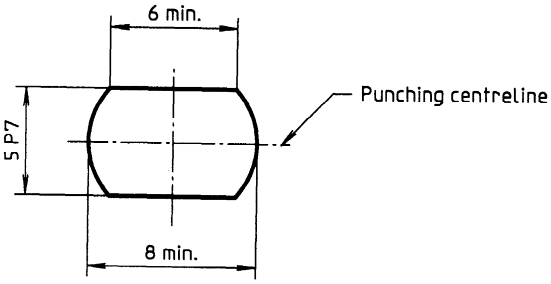


Figure 3 — Register hole

Dimensions in millimetres

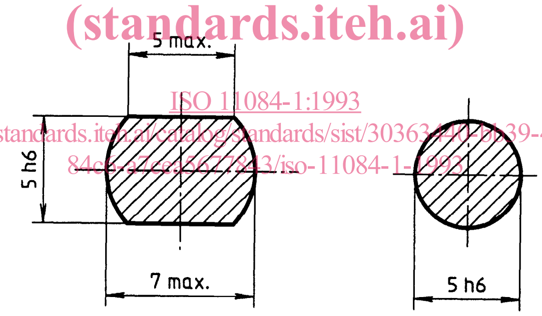


Figure 4 — Register pins

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Descriptors: graphic technology, photographic materials, register systems, equipment, specifications.

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