

INTERNATIONAL STANDARD

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Technical drawings — Construction drawings — General rules for execution of production drawings for prefabricated structural components

*Dessins techniques — Dessins de construction — Règles générales pour
l'élaboration de dessins d'exécution pour des composants de structure
préfabriqués*



Reference number
ISO 7437:1990(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 7437 was prepared by Technical Committee ISO/TC 10, *Technical drawings, product definition and related documentation*.

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Technical drawings — Construction drawings — General rules for execution of production drawings for prefabricated structural components

1 Scope

This International Standard establishes general rules for the execution of production drawings for prefabricated structural components.

The documentation for such prefabricated components includes drawings, specifications and schedules. This International Standard deals only with drawings.

NOTE 1 Specifications and schedules may be prepared as separate documents, or as additional information on the drawing sheet.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard 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 128:1982, *Technical drawings — General principles of presentation*.

ISO 3766:1977, *Building and civil engineering drawings — Symbols for concrete reinforcement*.

ISO 5455:1979, *Technical drawings — Scales*.

ISO 5457:1980, *Technical drawings — Sizes and layout of drawing sheets*.

ISO 6284:1985, *Tolerances for building — Indication of tolerances on building and construction drawings*.

3 Execution of production drawings

3.1 General rules

3.1.1 Production drawings for (moulded and non-moulded) prefabricated structural components shall define the shape and composition of the components. They shall be fully dimensioned and shall provide all the information necessary for the manufacture, inspection and further handling of the components, such as

- a) designations of the components,
- b) reinforcement,
- c) surface requirements,
- d) built-in parts, holes, recesses and grooves,
- e) provisions for easy removal from the mould, and
- f) safety devices for lifting, and provisions for handling, transportation and storage.

3.1.2 The drawings shall be executed in accordance with the relevant International Standards.

3.1.3 Preferred sheet sizes shall be chosen from those given in ISO 5457.

3.1.4 The preferred scales, in accordance with ISO 5455, are the following:

- a) main views and sections: 1:50, 1:20, 1:10;
- b) details: 1:20, 1:10, 1:5, 1:2, 1:1.

3.1.5 Views and sections shall be represented in accordance with the method using reference arrows as specified in ISO 128.

3.1.6 Dimensioning from a common origin is preferred. Circular recesses and holes shall be dimensioned to their centre line, and rectangular recesses and holes to their edges.

3.1.7 General tolerances are usually given in the specifications. If it is necessary to indicate special tolerances, these shall be indicated on the relevant figures and in accordance with ISO 6284.

3.2 Designation

3.2.1 The designation of the components shall be clearly indicated on the drawing, preferably in the title block. If more than one component is shown on one drawing, the designation(s) shall be adjacent to the main figure of the relevant component.

3.2.2 When the component requires marks for orientation or location in the structure, the space for and the form of these marks shall be indicated on the drawing as shown in figure 1.

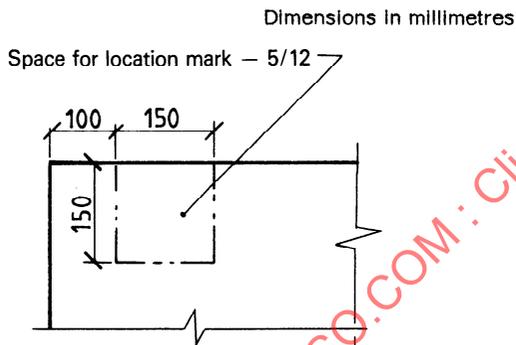


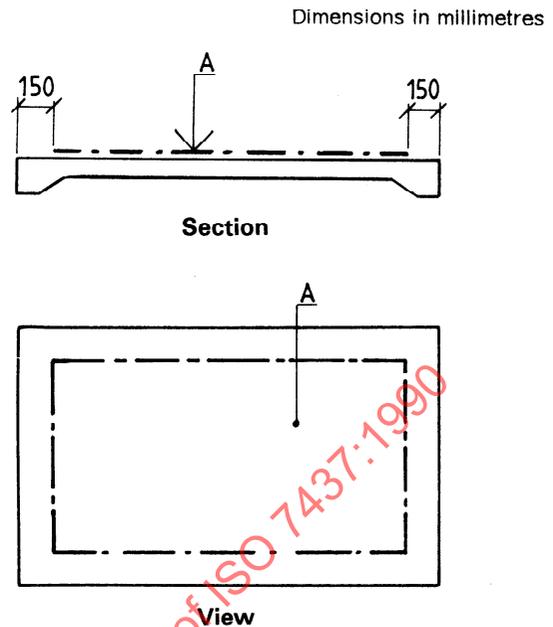
Figure 1 — Example of indication of a location mark with reference to a detail drawing

3.3 Reinforcement

Reinforcement shall be indicated in accordance with ISO 3766.

3.4 Surface requirements

Requirements for the surface finish are usually given in the specification. The boundary of surfaces which require special treatment shall be indicated on the drawing by a thick chain line as shown in figure 2.



NOTE — A is the reference to the specification.

Figure 2 — Example of indication of surface finish

3.5 Built-in parts

Built-in parts shall be precisely indicated on the drawing, if necessary by detail drawings, or by reference to a specification, a catalogue number, a type number, etc.

3.6 Provisions for easy removal from the mould

3.6.1 Provisions affecting the shape of the component shall be indicated and dimensioned on the drawing.

3.6.2 Other provisions for easy removal from the mould or for protection of the component are usually given in a specification.

3.7 Safety devices for lifting, and provisions for handling, transportation and storage

3.7.1 The positions where slings or other lifting or supporting devices may be applied directly to the component shall be shown on the drawing, for example by a simplified representation of the component in a smaller scale, as shown in figure 3. The location and extent of these positions shall be indicated by dimensions with tolerances (see 3.1.7).

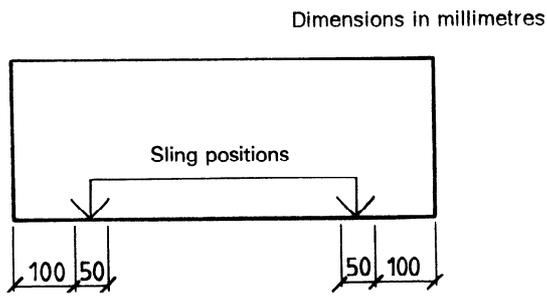


Figure 3 — Example of indication of positions for slings

3.7.2 If it is necessary to mark the lifting and supporting positions on the component, the means of marking shall be explained on the drawing or in a specification.

3.7.3 Requirements for transportation and storage shall be given in a specification.

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