
International Standard



8048

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Technical drawings — Construction drawings — Representation of views, sections and cuts

Dessins techniques — Dessins de construction — Représentation des vues, des sections et des coupes

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Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 8048 was prepared by Technical Committee ISO/TC 10, *Technical drawings*.

Technical drawings — Construction drawings — Representation of views, sections and cuts

1 Scope and field of application

This International Standard lays down general rules for marking, designation, placing and orientation of views, sections and cuts, and the position of text in relation to figures on construction drawings.

For all general rules, reference is made to ISO 128. As regards relative positions of views, the method using reference arrows according to ISO 128 is used.

2 References

ISO 128, *Technical drawings — General principles of presentation*.

ISO 1046, *Architectural and building drawings — Vocabulary*.

ISO 3098/1, *Technical drawings — Lettering — Part 1: Currently used characters*.

ISO 4069, *Building and civil engineering drawings — Representation of areas on sections and views — General principles*.

ISO/TR 7084, *Technical drawings — Coding and referencing systems for building and civil engineering drawings and associated documents*.

3 Marking of views, sections and cuts

The direction of a view shall be marked with an arrow near the reference figure (see figures 1, 5 and 6).

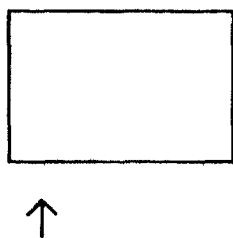


Figure 1

The position and direction of viewing of a section or cut shall be marked with a cutting plane (see ISO 128, type H) and arrows near the reference figure (see figures 2, 3 and 5). The direction of view should be chosen to suit the needs of each individual project and of the information to be conveyed.

The cutting plane shall be drawn to a suitable length for legibility (see figure 2).

If the cutting plane is not straight, the plane shall be drawn to its full length (see figure 3).

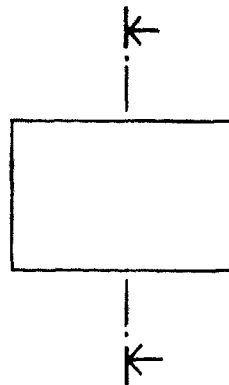


Figure 2

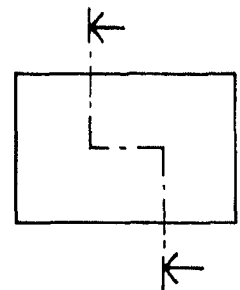


Figure 3

The location of a detail, showing a part of the same view, section or cut as the main figure, shall be marked on it with a thin line circle (ISO 128, type B) (see figure 4).

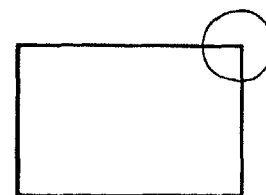


Figure 4

4 Designation

For identification, location and reference between various parts of the documentation for a project, denominations or designations of the documented parts shall be used.

Designations of views, sections, cuts and details shall be used in order, as shown in figure 5:

- a) capital letters;
- b) numerals;
- c) lower-case letters.

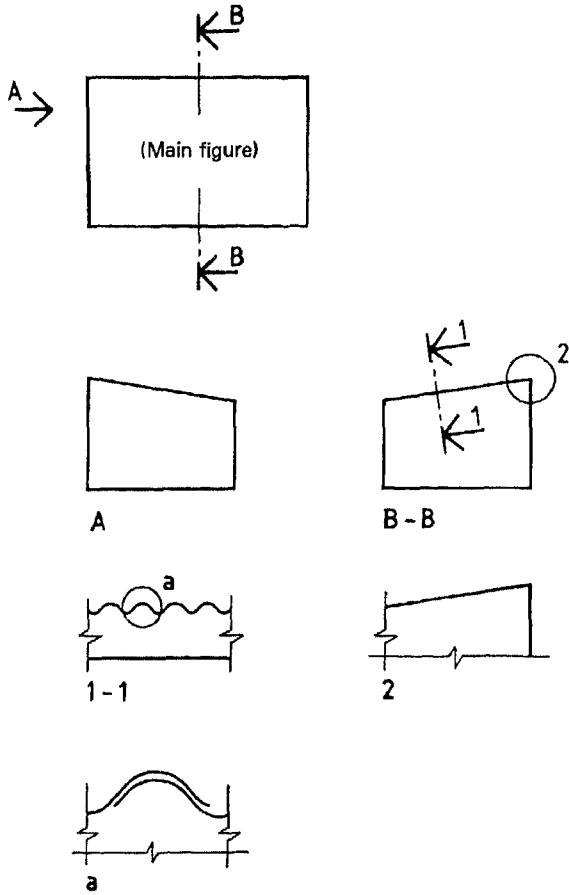


Figure 5

The designation can be supplemented by a drawing number, which is then placed after the designation, for example B-B/24, including section B-B on drawing 24, and 2/45, indicating section 2 on drawing 45.

Designations shall be chosen so that a systematic and well-arranged disposition of figures on the drawing is obtained (see figure 6).

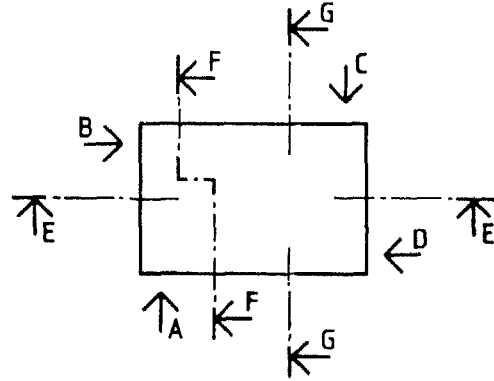


Figure 6

Identical details shall be given the same designation, irrespective of their sight directions in the main figure (see figure 7).

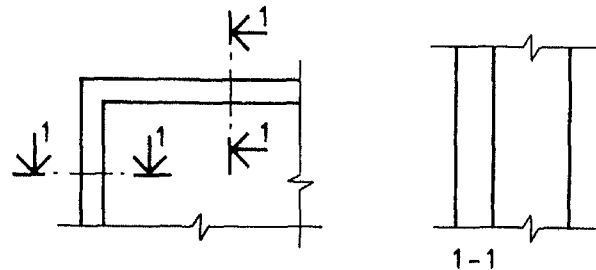


Figure 7

5 Position and orientation

Figures shall be placed in their order of designation (see figures 5 and 8). If possible they shall be given the same orientation as the main figures.

Figures of details can also be grouped so that they give a compressed picture of an object or a part of it (see figure 9).

If possible, plans for one and the same project shall be orientated in the same way on all the drawings.

If possible, all other horizontal sections and cuts shall be orientated in the same way as the main plans of the building.

Vertical sections and cuts shall be drawn upright, if possible.

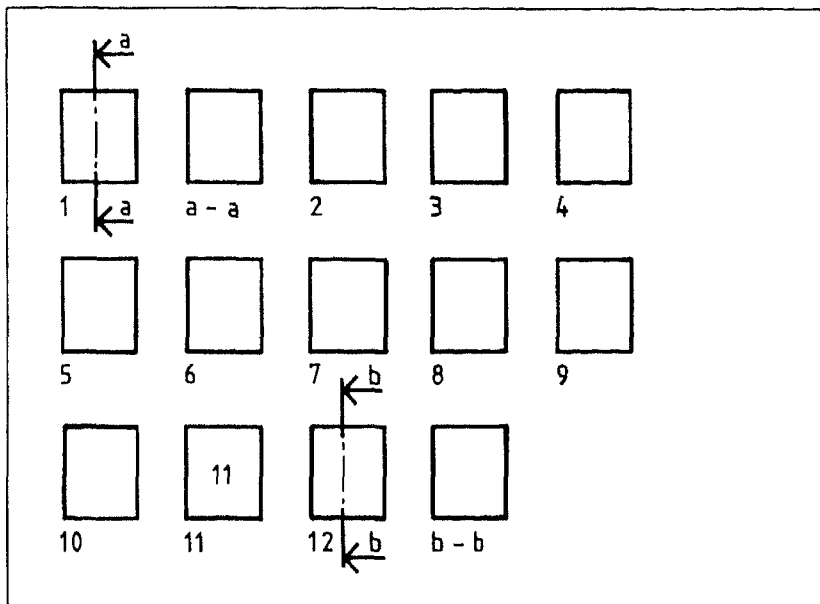


Figure 8

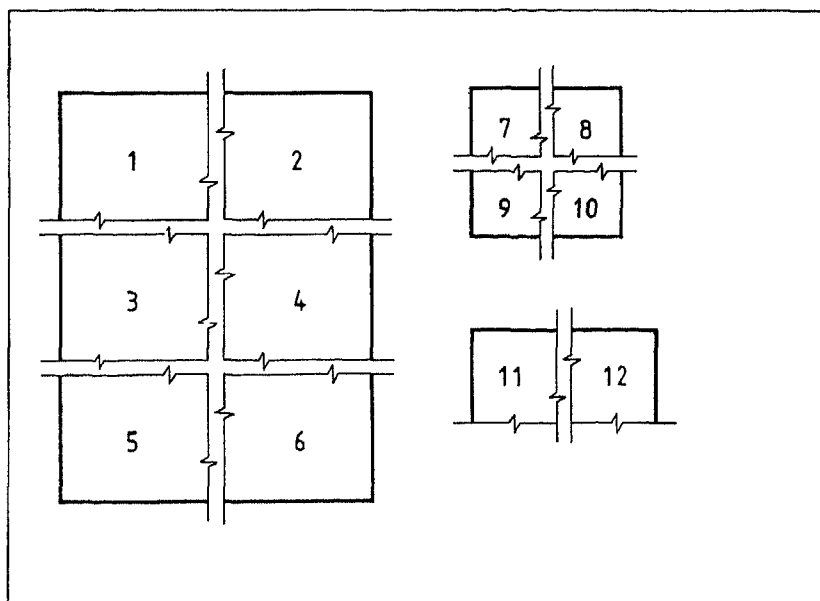


Figure 9

6 Position of text in relation to figures

Text shall be written either below or to the right side of the figure or immediately next to the element to which it refers.

Descriptive text and titles shall be written so that they can be read from below the drawing.

Text in connection with dimension and leader lines shall be written parallel to and slightly (≈ 1 mm) above these lines.

Designation of parts of a building shall normally be written so that they can be read from below the drawing, irrespective of the orientation of the part on the drawing.

Titles common to groups of figures shall be placed to the left and above the group of figures (see figure 10).

A title referring to only one figure shall be placed below the figure and with the same edge to the left (see figures 10 and 11).

Designations used for identification and referencing shall be separately and clearly identifiable. This can be accomplished, for example, by using bigger or thicker signs, underlining or enclosing in circles.

Text, referring to a figure as a whole shall be placed below the figure title and with the same edge to the left (see figure 10).

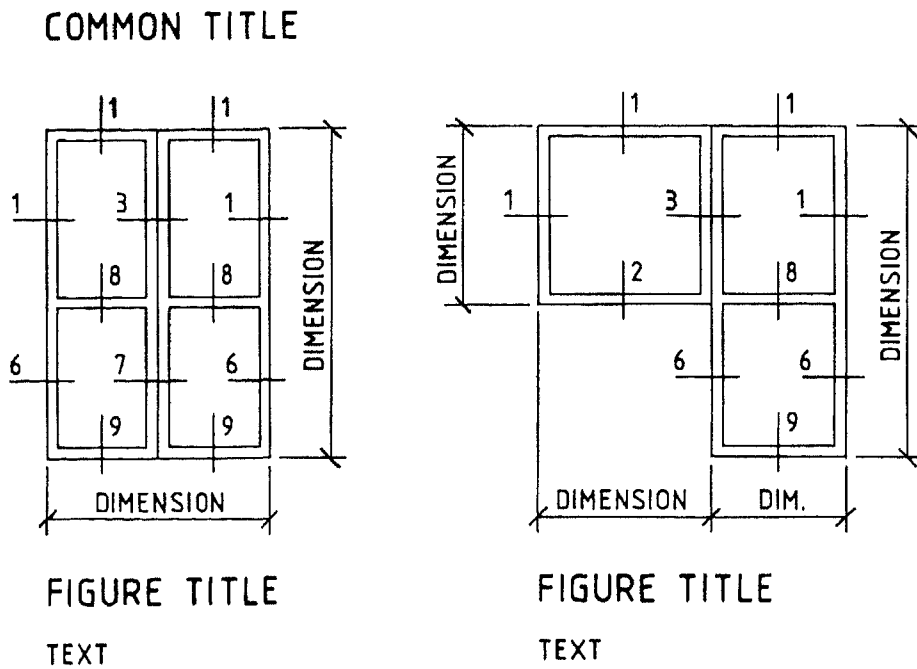


Figure 10

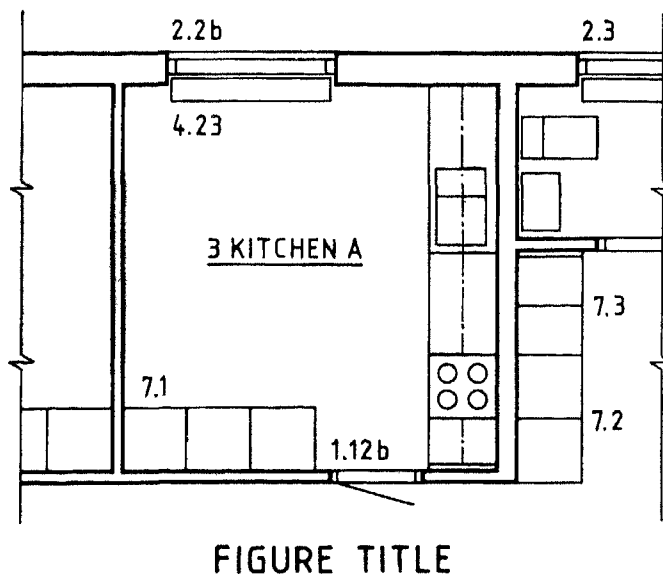


Figure 11

Text referring to a part of a figure shall normally be linked by a leader line (see figure 12). If the text consists of more than one line, all the text shall be placed above the relevant line.

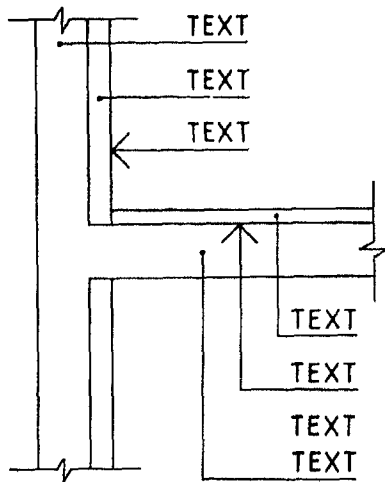


Figure 12

A leader line that ends between outlines of a figure shall end with a dot.

A leader line that ends at outlines of a figure shall end with an arrow.

A leader line that ends on lines representing closely grouped conduits or pipes shall terminate with an oblique stroke (see figure 13).

Texts shall be grouped.

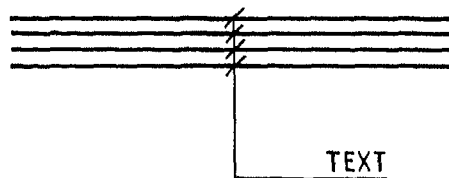


Figure 13