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JIS Z 8311 : 1998
(ISO 5457 : 1980)

Technical drawings — Sizes and layout of drawing sheet

ICS 01.100.01

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Z 8311 : 1998 (ISO 5457 : 1980)

Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of International Trade and Industry through deliberations at Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently **JIS Z 8311:1995** is replaced with **JIS Z 8311:1998**.

By this revision, this Standard becomes identical with **ISO 5457:1980**, *Technical drawings — Sizes and layout of drawing sheets* which is the International Standard corresponding to this Standard.

There is an Annex shown below to this Standard. There is no International Standard corresponding to this Annex.

Annex (informative) Folding method of drawing sheet

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Technical drawings — Sizes and layout of drawing sheets

Introduction This Japanese Industrial Standard has been prepared based on the first edition issued in 1980 of **ISO 5457** without changing the technical contents. The description underlined with a dotted line in this Standard is not included in the original International Standard.

In addition, the standard folding method of drawing sheet is shown in Annex (informative reference) though it is not included in the original International Standard.

This Standard has been drafted to meet the needs of the traditional methods of reproduction and handling technical drawings as well as the more modern methods, such as microfilming, automatic trimming, etc.

Remarks: In this Standard, the figures merely illustrate the text and should not be considered design examples. For this reason the figures are simplified to show principles only. The figures are not to scale.

1 Scope This Standard specifies sizes of blanks and preprinted drawing sheets for use with all technical drawings in any field of engineering.

It also specifies the layout of technical drawings by fixing rules with regard to :

- a) position and dimension of title block ¹⁾ ;
- b) borders and frame ;
- c) centring marks ;
- d) orientation marks ;
- e) metric reference graduation ;
- f) grid reference system ;
- g) trimming marks.

In general this Standard applies to original drawings, but rules of Section 1 apply also to copies therefrom.

Remarks: The international standard corresponding to this Standard is as follows.

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

2 Normative references The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. For these normative reference, the most recent editions shall apply.

JIS Z 8312 *Technical drawings — General principles of presentation — Basic convention for lines*

¹⁾ It should be noted that this Standard does not specify the complete layout of the title block with the position of the different indications necessary for the comprehension of the drawing.

Remarks: The provisions cited from **ISO 128**, *Technical drawings — General principles of presentation* correspond to the relevant provisions in this said standard.

JIS P 0138 *Trimmed sizes of paper*

Remarks: The provision cited from **ISO 216**, *Writing paper and certain classes of printed matter — Trimmed sizes — A and B series* corresponds to the relevant provision in this said standard.

JIS Z 8313-1 *Technical drawings — Lettering — Part 1 : Currently used characters*

Remarks: This said standard corresponds to **ISO 3098-1**, *Technical drawings — Lettering — Part 1 : Currently used characters*

Section 1 Sizes and tolerances

3 Selection and designation of sizes The original drawing should be made on the smallest sheet permitting the necessary clarity and resolution.

The choice of sizes of the original drawing and its reproductions shall be made from the series shown in 3.1, 3.2 and 3.3 in that order.

Drawing sheets may be used with their longer sides positioned either horizontally (see Figs. 1 and 4) or vertically (see Figs. 2 and 3).

3.1 Sizes series A (first choice) The first choice sizes of the trimmed sheets as selected from A series, specified in **JIS P 0138**, are given in Table 1.

Informative reference A series in **JIS P 0138** is equivalent to **ISO-A series** in **ISO 216**.

Table 1

Unit: mm

Designation	Dimensions
A0	841 × 1 189
A1	594 × 841
A2	420 × 594
A3	297 × 420
A4	210 × 297

3.2 Special elongated sizes (second choice) When a sheet of greater length is needed, one of the sizes in Table 2 should be used.

These sizes are obtained by extending the shorter sides of a format of A series to lengths that are multiples of the shorter side of the chosen basic format (see Table 1).

Table 2

Unit: mm

Designation	Dimensions
A3 × 3	420 × 891
A3 × 4	420 × 1 189
A4 × 3	297 × 630
A4 × 4	297 × 841
A4 × 5	297 × 1 051

3.3 Exceptional elongated sizes (third choice) When a very large or extra elongated sheet is essential, one of the sizes in Table 3 should be used.

These sizes are obtained by extending the shorter sides of a format of A series to lengths that are multiples of the shorter side of the chosen basic format (see Table 1).

Table 3

Unit: mm

Designation	Dimensions
A0×2 ¹⁾	1 189×1 682
A0×3	1 189×2 523 ²⁾
A1×3	841×1 783
A1×4	841×2 378 ²⁾
A2×3	594×1 261
A2×4	594×1 682
A2×5	594×2 102
A3×5	420×1 486
A3×6	420×1 783
A3×7	420×2 080
A4×6	297×1 261
A4×7	297×1 471
A4×8	297×1 682
A4×9	297×1 892

Notes ¹⁾ This size is equal to 2A0 of A series.

²⁾ For practical reasons the use of these sizes is not advisable.

4 Tolerances The dimensional tolerances for the trimmed sizes are defined in JIS P 0138.

Informative reference: These tolerances are identical to those specified in ISO 216.

Section 2 : Graphical features

5 Title block

5.1 Position The position of the title block should be within the drawing space (see 6) such that the portion of the title block containing the identification of the drawing (registration number, title, origin, etc.) is situated in the bottom right-hand corner of the drawing space, both for sheets positioned horizontally, type X (see Fig. 1), or vertically, type Y (see Fig. 2).

The direction of viewing of the title block should correspond in general with that of the drawing.

Nevertheless, in order to economize on preprinted drawing sheets, it is permitted to use sheets type X in the vertical position (see Fig. 3) and sheets type Y in the horizontal position (see Fig. 4).