AS 1100.201—1992

Australian Standard®

Technical drawing

Part 201: Mechanical engineering drawing

This Australian Standard was prepared by Committee ME/72, Technical Drawing. It was approved on behalf of the Council of Standards Australia on 25 August 1992 and published on 16 November 1992.

The following interests are represented on Committee ME/72:

Association of Consulting Engineers Australia

Australian Chamber of Commerce

Bureau of Steel Manufacturers of Australia

Confederation of Australian Industry

Department of Administrative Services

Department of Defence

Department of Employment and Technical and Further Education, South Australia

Institute of Draftsmen, Australia

Institute of Industrial Arts

Institution of Engineers, Australia

Master Builders—Construction and Housing Association Australia

N.S.W Technical and Further Education Commission

Public Works Department, N.S.W.

University of New South Wales

University of Queensland

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University of Technology, Sydney

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PREFACE

This Standard was prepared by the Standards Australia Committee on Technical Drawing to supersede AS 1100.201–1984. AS 1100.201 was a revision and amalgamation of AS 1100 Parts 9 to 11 all published in 1974 and AS 1100 Part 12 published in 1979.

AS 1100 Parts 9 to 12 ran concurrently with AS CZ1.1 of 1976 which was withdrawn in 1982. AS CZ1.1 was a revision of AS CZ1 which was first published in 1941 with further editions published in 1944, 1946, 1951, 1966 and 1973. The 1966 edition also superseded AS Z8 of 1956 (endorsement of BS 308.2—1953 without amendment).

The AS CZ1 Standards were endorsements of The Institution of Engineers, Australia publications entitled, *Engineering Drawing Practice*. The document from which these publications originated, was published by the Institution under the title, *Recommended Engineering Drawing Practice* but this was not endorsed by this Association.

This Standard is one of a series dealing with technical drawing, the other Standards in the series being as follows:

Part 101: *General principles*
Part 301: *Architectural drawing*
Part 401: *Engineering survey and engineering survey design drawing*
Part 501: *Structural engineering drawing*

In the preparation of this Standard, the committee took account of changes in Australian technical drawing practice and recommendations of the International Organization for Standardization. Also considered were the equivalent British and American Standards.

In its preparation, many changes in the layout of the text and figures have taken place resulting in greater consistency and improved ease of use of the document.

New material introduced in this edition includes the simplified representation of pipelines, centre holes, seals and a guide to general tolerancing of castings.

The section on dimensioning and tolerancing which previously was in this part of the Standard is now contained in Part 101. Reference to Part 101 is required for the source and definition of some of the contents of this part.

This Standard is in agreement with the following International Standards:

ISO	
128	*Technical drawings — General principles of presentation*
1302	*Technical drawings — Method of indicating surface texture on drawings*
2162	*Technical drawings — Representation of springs*
2203	*Technical drawings — Conventional representation of gears*
2768	*General tolerances*
2768–1	Part 1: *Tolerances for linear and angular dimensions without individual tolerance indications*
2768–2	Part 2: *Geometrical tolerances for features without individual tolerance indications*
6410	*Technical drawings — Conventional representation of threaded parts*
6411	*Technical drawings — Simplified representation of centre holes*
6412	*Technical drawings — Simplified representation of pipelines*
6412–1	Part 1: *General rules and orthogonal representation*
6412–2	Part 2: *Isometric projection*
6413	*Technical drawings — Representation of splines and serrations*
8062	*Castings — System of dimensional tolerances*
8826	*Technical drawings — Rolling bearings*
8826–1	Part 1: *General simplified representation*
9222	*Technical drawings — Seals for dynamic application*
9222–1	Part 1: *General simplified representation*
9222–2	Part 2: *Detailed simplified representation*

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE This Standard sets out requirements and recommendations for mechanical engineering drawing practice. It is complementary to AS 1100.101.

The Standard provides information on surface texture and welding, and the simplified representation of pipelines. Details are also provided on various mechanical features and parts used on mechanical drawings.

Appendices provide guidance on the tolerancing of machined components and castings.

1.2 APPLICATION The principles given in this Standard are intended for adoption by engineers, draftspersons, and workshop personnel in the preparation and interpretation of mechanical engineering drawings.

1.3 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS
1100 Technical drawing
1100.101 Part 101: General principles
1100.301 Part 301: Architectural drawing
1100.401 Part 401: Engineering survey and engineering survey design drawing
1100.501 Part 501: Structural engineering drawing

1101 Graphical symbols for general engineering
1101.1 Part 1: Hydraulic and pneumatic systems
1101.2 Part 2: Ventilation systems in ships
1101.3 Part 3: Welding and non-destructive examination
1101.4 Part 4: Machine elements
1101.5 Part 5: Piping, ducting and mechanical services for buildings
1913 Centre drills
2075 Glossary of terms and notations for gears
2536 Surface texture

ISO
6412 Technical drawings — Simplified representation of pipelines

1.4 TERMINOLOGY For the purpose of this Standard, the terminology given in AS 1100.101 applies.

1.5 ABBREVIATIONS Abbreviations for all technical drawings are given in AS 1100.101. Those related only to mechanical engineering drawing are given in Table 1.1 and are decoded in Table 1.2.

Abbreviations should be used only where brevity and conservation of space make it necessary and then only when their meanings are unquestionably clear to the intended reader. WHEN IN DOUBT SPELL IT OUT.

NOTES:

1 An abbreviation may or may not be recognized internationally.
2 The abbreviations given in Tables 1.1 and 1.2 are not exhaustive. Other abbreviations and other meanings for those given may be used, provided that —
   (a) their common usage in particular fields is clear;
   (b) the meaning is clarified on the drawing; or
   (c) the meaning is clarified in a reference document.