

**ASME Y14.1M-2012**  
[Revision of ASME Y14.1M-2005 (R2010)]

# Metric Drawing Sheet Size and Format

**Engineering Drawing and Related  
Documentation Practices**

**AN AMERICAN NATIONAL STANDARD**



**The American Society of  
Mechanical Engineers**

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# FOREWORD

This Standard establishes a series of recommended metric drawing sizes and the basic format for engineering drawings. It provides a basis for uniformity in engineering drawing size and format that industry and government can utilize. It is not the intent of this Standard to prevent individual organizations from designing specific formats that meet their individual needs, but rather to provide common engineering delineation standards to aid the interchange of drawings between industry, government, and other users.

This Standard is a revision of ASME Y14.1M-2005, Metric Drawing Sheet Size and Format. It has been prepared in alignment with the United States Omnibus Trade and Competitiveness Act of 1988, Section 5164, Metric Usage.

This Standard utilizes International Standard ISO 5457 as the basis for recommended metric engineering drawing size and format.

This Standard has been developed to lend itself with the least amount of variation from the presently recognized International Standard, and has been structured to support the United States Department of Defense (DoD) metrication policy and objectives.

Work on the revision of this Standard began in October 2010 in Tucson, Arizona by the members of Subcommittee 1.

The following is a summary of the significant changes that were incorporated into this revision:

- (a) Added ASME Y14 Series Conventions section.
- (b) Revised various definitions to match those listed in ASME Y14.100.
- (c) Added definition for *field of drawing* and updated Figs. 4-1 and 4-2.
- (d) Clarified para. 4.2 (formerly para. 2.2) regarding how the lengths of elongated sheets are determined.
- (e) Expanded zoning practices to address continuous and repetitive zoning methods.
- (f) Microfilming practices are now listed as optional.
- (g) Introduced (design activity identification) DAI, replacing CAGE Code.
- (h) Addressed revision status of sheet block for multiple-sheet drawings with maintained at the same revision level.
- (i) Made the location of the angle of projection block optional (within or adjacent to the title block).
- (j) Changed reference to ASME Y14.5 in Fig. 10-1.

Where this Standard is specified as a requirement in a document, its defined requirements are assumed to be consistent with the needs of the user. Therefore, each user provides appropriate interpretations, as the need arises, consistent with the environment in which it is applied.

The successful revision of this Standard is attributed to the subcommittee members and their respective companies, and the Department and Agencies of the U.S. Government.

Suggestions for the improvement of this Standard are welcome. They should be sent to The American Society of Mechanical Engineers, Attn: Secretary, Y14 Standards Committee, Two Park Avenue, New York, NY 10016-5990.

This revision was approved by American National Standard Institute (ANSI) as an American National Standard on December 19, 2012.



# ASME Y14 Committee Engineering Drawing and Related Documentation Practices

(The following is the roster of the Committee at the time of approval of this Standard.)

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**General.** ASME Standards are developed and maintained with the intent to represent the consensus of concerned interests. As such, users of this Standard may interact with the Committee by requesting interpretations, proposing revisions, and attending Committee meetings. Correspondence should be addressed to:

Secretary, Y14 Standards Committee  
The American Society of Mechanical Engineers  
Two Park Avenue  
New York, NY 10016-5990  
<http://go.asme.org/inquiry>

**Proposing Revisions.** Revisions are made periodically to the Standard to incorporate changes that appear necessary or desirable, as demonstrated by the experience gained from the application of the Standard. Approved revisions will be published periodically.

The Committee welcomes proposals for revisions to this Standard. Such proposals should be as specific as possible, citing the paragraph number(s), the proposed wording, and a detailed description of the reasons for the proposal, including any pertinent documentation.

**Attending Committee Meetings.** The Y14 Standards Committee regularly holds meetings that are open to the public. Persons wishing to attend any meeting should contact the Secretary of the Y14 Standards Committee.



# ENGINEERING DRAWING AND RELATED DOCUMENTATION PRACTICES

## METRIC DRAWING SHEET SIZE AND FORMAT

### 1 GENERAL

#### 1.1 Scope

This Standard defines metric sheet sizes and formats for engineering drawings. Decimal inch sheet sizes and format are defined in ASME Y14.1. For engineering drawing preparation and practices, see ASME Y14.100.

#### 1.2 Purpose

Standardization of drawing sheet sizes and the uniform location of format features on drawing forms provides definite advantages in readability, handling, filing, and reproduction. In using drawing sheets made by other organizations, an advantage is gained when like items of information are in the same location on all drawing sheets, and when uniformity of form and language is applied in making information entries. Revision information and dates are of particular importance to users of drawings and should be located and expressed uniformly on all engineering drawings.

The widespread use and exchange of reduced-size copies of drawing sheets both within and between organizations emphasizes the importance of standardization of drawing sheet size and format.

#### 1.3 ASME Y14 Series Conventions

The following conventions are guidance used in this and other ASME Y14 series standards.

##### 1.3.1 Mandatory, Nonmandatory, Guidance, and Optional Words

(a) The word “shall” establishes a mandatory requirement.

(b) The word “will” establishes an intended, mandatory requirement.

(c) The words “should” and “may” establish a non-mandatory practice.

(d) The words “typical,” “example,” “for reference,” or the Latin abbreviation “e.g.” indicate suggestions given for guidance only.

(e) When the text of this Standard has an “or” statement, it indicates that there are two or more options on how to comply with the stated requirement.

**1.3.2 Cross-Reference of Standards.** Cross-reference of standards in text with or without a date following the standard identity is interpreted as follows:

(a) Reference to other ASME Y14 series standards in the text without a date following the standard identity indicates the issue of the standard as identified in the Reference section shall be used to meet the requirement.

(b) Reference to other ASME Y14 series standards in the text with a date following the standard identity indicates that only that issue of the standard shall be used to meet the requirement.

**1.3.3 Invocation of Referenced Standards.** The following examples define the invocation of a standard when specified in the References section and referenced in the text of this Standard:

(a) When the text states “dimensioning and tolerancing shall be in accordance with ASME Y14.5-2009,” with no limitations to a specific subject or area of the Standard, the entire text of ASME Y14.5-2009 is invoked.

(b) When the text states “assign part or identifying numbers in accordance with ASME Y14.100-20XX,” only the paragraph requirements on part or identifying number assignment in ASME Y14.100-20XX are invoked.

(c) When the text states “for gaging principles, see ASME Y14.43,” the text provides a cross-reference of where to find guidance for dimensioning and tolerancing for gages and fixtures, and no portion of ASME Y14.43 is invoked.

**1.3.4 Parentheses Following a Definition.** When a definition is followed by a standard referenced in parentheses, the standard referenced in parentheses is the controlling standard for the definition.

**1.3.5 Notes.** Notes depicted in this Standard in ALL UPPERCASE letters are intended to reflect actual drawing entries. Notes depicted in initial Uppercase or lowercase letters are to be considered supporting data to the contents of this Standard and are not intended for literal entry on drawings. A statement requiring the addition of a note with the qualifier “such as” is a requirement to add a note, and the content of the text is allowed to vary to suit the application.

**1.3.6 Acronyms and Abbreviations.** Acronyms and abbreviations are spelled out the first time used in this

