

ASME Y14.38-2007

[Revision of ASME Y14.38-1999 (R2006)]

Abbreviations and Acronyms for Use on Drawings and Related Documents

Engineering Drawing and Related Documentation Practices

AN AMERICAN NATIONAL STANDARD



**The American Society of
Mechanical Engineers**

ADOPTION NOTICE

ASME Y14.38, Abbreviations and Acronyms, was adopted on 8 November 1999 for use by the Department of Defense (DoD). Proposed changes by DoD activities must be submitted to the DoD Adopting Activity: Commander, U.S. Army Research, Development and Engineering Center (ARDEC), ATTN: AMSRD-AAR-QES-E, Picatinny Arsenal, NJ 07806-5000. Copies of this document may be purchased from The American Society of Mechanical Engineers (ASME), 22 Law Drive, P.O. Box 2900, Fairfield, NJ 07007-2900, <http://www.asme.org>.

Custodians:

Army — AR
Navy — SA
Air Force — 16

Adopting Activity:
Army — AR

(Project DRPR-0358)

Review Activities:

Army — CR, IE, MI, PT, TM2
Navy — AS, CG, CH, EC, MC, NP, TD
Air Force — 13, 99
DLA — DH
OSD — NE
NSA — NS
Other — CM, MP, DC2

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <http://assist.darc.mil>.

AMSC N/A

AREA DRPR

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

ASME Y14.38-2007

[Revision of ASME Y14.38-1999 (R2006)]

Abbreviations and Acronyms for Use on Drawings and Related Documents

Engineering Drawing and Related Documentation Practices

AN AMERICAN NATIONAL STANDARD



**The American Society of
Mechanical Engineers**

Three Park Avenue • New York, NY 10016

Date of Issuance: April 25, 2008

This Standard will be revised when the Society approves the issuance of a new edition. There will be no addenda or written interpretations of the requirements of this Standard issued to this edition.

ASME is the registered trademark of The American Society of Mechanical Engineers.

This code or standard was developed under procedures accredited as meeting the criteria for American National Standards. The Standards Committee that approved the code or standard was balanced to assure that individuals from competent and concerned interests have had an opportunity to participate. The proposed code or standard was made available for public review and comment that provides an opportunity for additional public input from industry, academia, regulatory agencies, and the public-at-large.

ASME does not “approve,” “rate,” or “endorse” any item, construction, proprietary device, or activity.

ASME does not take any position with respect to the validity of any patent rights asserted in connection with any items mentioned in this document, and does not undertake to insure anyone utilizing a standard against liability for infringement of any applicable letters patent nor assumes any such liability. Users of a code or standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, is entirely their own responsibility.

Participation by federal agency representative(s) or person(s) affiliated with industry is not to be interpreted as government or industry endorsement of this code or standard.

ASME accepts responsibility for only those interpretations of this document issued in accordance with the established ASME procedures and policies, which precludes the issuance of interpretations by individuals.

No part of this document may be reproduced in any form,
in an electronic retrieval system or otherwise,
without the prior written permission of the publisher.

The American Society of Mechanical Engineers
Three Park Avenue, New York, NY 10016-5990

Copyright © 2008 by
THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS
All rights reserved
Printed in U.S.A.

CONTENTS

Foreword	iv
Committee Roster	v
Correspondence With the Y14 Committee	vi
1 Scope and Purpose	-
2 Where and How Abbreviations Should Be Used	-
3 Basic Principles	1
4 Appendices	2
5 Words and Terms and Their Abbreviations	2
6 Cross-Reference List of Abbreviations and Their Words and Terms	2
Nonmandatory Appendices	
A Table of Elements and Their Symbols	127
B Partial List of Engineering Societies and Industrial Associations	128

FOREWORD

Subcommittee 38, Abbreviations, was formed in May 1995, and is a Subcommittee of the ASME Standards Committee Y14, Engineering Drawing and Related Documentation Practices. The Subcommittee is charged with the responsibility of compiling and maintaining a listing of abbreviations and acronyms for use on engineering drawings and related documents.

ASME Y1.1 was revised and redesignated as ASME Y14.38. This Standard is based on ASME Y1.1 and MIL-STD-12.

This revision of ASME Y14.38 incorporates the ASME Y14.38a-2002 addenda and comments received since the release of the ASME Y14.38-1999 revision. No abbreviations or acronyms were eliminated; however, one abbreviation was changed: SME was "standard military drawing," and it has changed to "standard microcircuit drawing."

The successful completion of this Standard is attributed to the subcommittee members, contributing guests, and the departments 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 Main Committee, Three Park Avenue, New York, NY 10016-5990.

This revision was approved as an American National Standard on September 12, 2007.

ASME Y14 STANDARDS COMMITTEE

Engineering Drawing and Related Documentation Practices

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

STANDARDS COMMITTEE OFFICERS

F. Bakos, Jr., *Chair*
K. E. Wiegandt, *Vice Chair*
C. J. Gomez, *Secretary*

STANDARDS COMMITTEE PERSONNEL

A. R. Anderson , Dimensional Control System, Inc.	W. A. Kaba , Spirit Aerosystems
F. Bakos, Jr. , Consultant	K. S. King , Naval Surface Warfare Center Dahlgren Division
J. V. Burleigh , Consultant	A. Krulikowski , Effective Training, Inc.
D. E. Day , TEC-EASE, Inc.	P. J. McCuiston , Ohio University
K. Dobert , UGS PLM Solutions	J. D. Meadows , James D. Meadows and Associates, Inc.
C. W. Ferguson , WM Education Services	J. M. Smith , Caterpillar, Inc.
C. J. Gomez , The American Society of Mechanical Engineers	N. H. Smith , Spirit Aerosystems
B. A. Harding , Purdue University	K. E. Wiegandt , India National Laboratories
D. H. Honsinger , Consultant	R. G. Williams , University of North Carolina
	B. A. Yliscus , The Boeing Co.

SUBCOMMITTEE 38 - ABBREVIATIONS

K. S. King , <i>Chair</i> , Naval Surface Warfare Center, Dahlgren Division	F. L. Keeney , Textron Automotive Co.
D. V. Alvarez , Boeing Defense and Space Group	G. M. Nelson , Boeing North American, Inc.
J. V. Burleigh , Consultant	N. Stern , U.S. Department of the Army, ARDEC
L. G. Davis , Modern Technologies Corp.	

CORRESPONDENCE WITH THE Y14 COMMITTEE

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
Three Park Avenue
New York, NY 10016-5990

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 or telephone conferences, which are open to the public. Persons wishing to attend any meeting or telephone conference should contact the Secretary of the Y14 Standards Committee or check the Web site at <http://www.asme.org/codes/>.

ABBREVIATIONS AND ACRONYMS FOR USE ON DRAWINGS AND RELATED DOCUMENTS

1 SCOPE AND PURPOSE

1.1 Scope

The abbreviations and acronyms, hereinafter referred to as “abbreviations,” listed in this Standard are used on engineering drawings and related documentation.

1.2 Purpose

The intent of this Standard is to allow the use of approved abbreviations in lieu of the use of complete words or terminology. Abbreviations defined by this Standard need not be additionally defined by the drawing or related document. It is not the intent of this Standard to include abbreviations defined or established in other standards such as those for scientific terms and notations. However, an exception is made for those abbreviations that have widespread use and recognition, for example, AM for amplitude modulation, and FM for frequency modulation (radio).

1.3 Abbreviations and Letter Symbols

Since abbreviations are conventional representations of words or names in a particular language, they may be different in different languages. A symbol, on the other hand, represents a quantity or a unit (in its name) and is therefore independent of language. Because of this, the use of letter symbols is preferred over abbreviations for unit or quantity terms. While letter symbols may be used wherever abbreviations were formerly used, abbreviations are never to be used whenever a mathematical operation sign is involved, such as the equality sign (=) or the division sign (/).

1.4 Abbreviation Lists Format

Abbreviations shown in the “Drawings” column provide the form for use on drawings and documents produced with upper case characters. Abbreviations in the “Text” column provide the form for documents produced with lower case characters. Where upper case abbreviations are shown in the “Text” column, they are a continuation of prior usage and are generally for major systems or are recognized as having significant applications when used in text. Bracketed modifiers may appear with certain terms indicating alternate technology-specific applications for that term.

2 WHERE AND HOW ABBREVIATIONS SHOULD BE USED

2.1 Where to Use Abbreviations

Abbreviations are to be used only when necessary to save time and space. Even though this Standard establishes abbreviations for many terms, extreme care should be exercised in their use. Since they may have to be interpreted by people of varying backgrounds, abbreviations should be used only where their meaning is unquestionably clear to the intended reader. Where there is doubt that the reader will understand the meaning, spell out the word or complete phrase where first used, followed by the abbreviation or acronym in parentheses. When in doubt, spell it out.

2.2 Duplicate Abbreviations

The same abbreviation is included in this Standard for several different terms due to established practice. Care should be exercised to assure that the proper meaning will be interpreted when using such abbreviations.

3 BASIC PRINCIPLES

3.1 Abbreviations for Acronyms

Sections 5 and 6 include some acronyms for compound terms as well as abbreviations for the acronyms. Some examples are: “radar” for “radio detection and ranging” and “rdr” for “radar”; “selsyn” for “self-synchronous” and “sels” for “selsyn.”

3.2 Punctuation

An abbreviation spelling a whole word should include a period if the abbreviation could be misinterpreted.

3.3 Spacing

Spaces shall not be inserted within an abbreviation.

3.4 Capitalization

Abbreviations included in the “Drawings” column of section 5, provide the form for use on drawings and documents produced in upper case characters. The abbreviations in the “Text” column provide the form required for lower case characters. However, these abbreviations may be capitalized when required for