ASME B18.24-2020

(Revision of ASME B18.24-2015)

Part Identifying Number (PIN) Code System Standard for B18 Fastener Products

AN AMERICAN NATIONAL STANDARD

The American Society of Mechanical Engineers

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Two Park Avenue • New York, NY • 10016 USA

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The B18 Committee Page can be found at http://go.asme.org/B18committee. There is an option available to automatically receive an e-mail notification when errata are posted to a particular code or standard. This option can be found on the appropriate Committee Page after selecting "Errata" in the "Publication Information" section.

The American Society of Mechanical Engineers
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FOREWORD

A joint government and ASME B18 meeting was held November 4, 1977 at Defense Industrial Supply Center in Philadelphia, Pennsylvania. A planning group was established to eliminate road blocks to the government acceptance and use of national voluntary standards. Designated the Ad Hoc Fastener Planning Group, the Group's first meeting was held February 2, 1978 at ASTM Headquarters in Philadelphia. At the meeting, government appendices to ASME B18 metric product standards were endorsed. In addition, an ANSI metric log was established to prevent duplicate efforts and provide the latest status of 18 metric fastener projects. The U.S. Army Armament Research Development and Engineering Center was tasked to provide government appendices for metric fastener standards on an as-needed basis.

At the ASME B18 Standards Committee meeting on December 5, 1991, based on a B18 Subcommittee 24 suggestion, the B18 Standards Committee unanimously approved a motion that Subcommittee 24 Industry/Government Liaison be reactivated and tasked by B18 to address the issue of how to best handle needed changes to the various government appendices.

At the Subcommittee 24 meeting, May 12, 1993 at ASME Headquarters in New York City, the part identifying number (PIN) code system concept for B18 product standards was agreed to. The need was expressed that a PIN code system be made available for all users, not just limited to government users. This was based on the recognition that twenty-eight B18 metric and one B18 inch (ANSI B18.2.1) standards contained government Appendices for Department of Defense (DOD) PIN acquisition usage and were not considered part of the B18 Standard. Again, the premise based on the aforementioned proposal was to provide a B18 code system for all users without exception.

Based on the B18 Standards Committee mandate, a Subcommittee 24 Task Group was formed to develop B18.24.1 (externally threaded fasteners) first, then proceed with B18.24.2 (internally threaded B18 fasteners) and B18.24.3 (nonthreaded fasteners) standards.

During the April 2003 B18 Subcommittee 24 and B18 Standards Committee meetings, it was agreed to draft a new standard, ASME B18.24, Part Identifying Number (PIN) Code System Standard for B18 Fastener Products, to replace the existing ASME B18.24.1, B18.24.2, and B18.24.3 standards. This was based on users' expressed need to reduce the 21-digit PIN code to a code with 18 digits, to accommodate the 18-digit maximum file name length constraint inherent with widely used computer aided design (CAD) software platforms. ASME B18.24-2004 was approved by the American National Standards Institute (ANSI) on April 16, 2004.

Following approval by the ASME B18 Standards Committee and after public review, ASME B18.24a-2006 was approved by the American National Standards Institute on December 7, 2006. The title of Table 1-1 was revised along with the column head under "Feature." Material was added under B18.2.6 and B18.9. "B18.16M" was revised to read "B18.16.3M." "B18.27.6" was revised to read "B27.6." "B18.27.7M" was revised to read "B27.7." "B18.27.8M" was revised to read "B27.8." Various changes were made throughout the document to incorporate required changes.

In 2013, Subcommittee 24 of the B18 Standards Committee created a Task Group to review the B18.24 document against new standards published since 2004 and revisions to existing standards. Quite a few changes were integrated into the new version including the addition of several commonly used ISO callouts for material and plating and several metric standards that had not previously existed. Several ASTM documents for material and plating were added to the B18.24 PIN system to make it more useful.

The 2015 edition was approved by ANSI as an American National Standard on June 1, 2015.

In this 2020 edition, Note (1) of Table 6-2 has been deleted and Table 6-3 has been revised to include MIL-PRF-32647, Zinc-Nickel Electroplating for Fasteners. The 2020 edition was approved by ANSI as an American National Standard on July 6, 2020.

ASME B18 COMMITTEE
Standardization of Bolts, Nuts, Rivets, Screws, Washers, and Similar Fasteners

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

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CORRESPONDENCE WITH THE B18 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 or a case, and attending Committee meetings. Correspondence should be addressed to:

Secretary, B18 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.

Proposing a Case. Cases may be issued to provide alternative rules when justified, to permit early implementation of an approved revision when the need is urgent, or to provide rules not covered by existing provisions. Cases are effective immediately upon ASME approval and shall be posted on the ASME Committee web page.

Requests for Cases shall provide a Statement of Need and Background Information. The request should identify the Standard and the paragraph, figure, or table number(s), and be written as a Question and Reply in the same format as existing Cases. Requests for Cases should also indicate the applicable edition(s) of the Standard to which the proposed Case applies.

Interpretations. Upon request, the B18 Standards Committee will render an interpretation of any requirement of the Standard. Interpretations can only be rendered in response to a written request sent to the Secretary of the B18 Standards Committee.

Requests for interpretation should preferably be submitted through the online Interpretation Submittal Form. The form is accessible at http://go.asme.org/InterpretationRequest. Upon submittal of the form, the Inquirer will receive an automatic e-mail confirming receipt.

If the Inquirer is unable to use the online form, he/she may mail the request to the Secretary of the B18 Standards Committee at the above address. The request for an interpretation should be clear and unambiguous. It is further recommended that the Inquirer submit his/her request in the following format:

Subject:	Cite the applicable paragraph number(s) and the topic of the inquiry in one or two words.
Edition:	Cite the applicable edition of the Standard for which the interpretation is being requested.
Question:	Phrase the question as a request for an interpretation of a specific requirement suitable for general understanding and use, not as a request for an approval of a proprietary design or situation. Please provide a condensed and precise question, composed in such a way that a "yes" or "no" reply is acceptable.
Proposed Reply(ies):	Provide a proposed reply(ies) in the form of "Yes" or "No," with explanation as needed. If entering replies to more than one question, please number the questions and replies.
Background Information:	Provide the Committee with any background information that will assist the Committee in understanding the inquiry. The Inquirer may also include any plans or drawings that are necessary to explain the question; however, they should not contain proprietary names or information.

Requests that are not in the format described above may be rewritten in the appropriate format by the Committee prior to being answered, which may inadvertently change the intent of the original request.

Moreover, ASME does not act as a consultant for specific engineering problems or for the general application or understanding of the Standard requirements. If, based on the inquiry information submitted, it is the opinion of the Committee that the Inquirer should seek assistance, the inquiry will be returned with the recommendation that such assistance be obtained.

ASME procedures provide for reconsideration of any interpretation when or if additional information that might affect an interpretation is available. Further, persons aggrieved by an interpretation may appeal to the cognizant ASME Committee or Subcommittee. ASME does not "approve," "certify," "rate," or "endorse" any item, construction, proprietary device, or activity.

Attending Committee Meetings. The B18 Standards Committee regularly holds meetings and/or telephone conferences that are open to the public. Persons wishing to attend any meeting and/or telephone conference should contact the Secretary of the B18 Standards Committee. Future Committee meeting dates and locations can be found on the Committee Page at http://go.asme.org/B18committee.

PART IDENTIFYING NUMBER (PIN) CODE SYSTEM STANDARD FOR B18 FASTENER PRODUCTS

1 INTRODUCTORY NOTES

1.1 Scope

1.1.1 This Standard is intended to provide all users (manufacturers, distributors, design and configuration, parts control. inventory control, test and maintenance functions) with the capability to identify externally threaded, internally threaded and nonthreaded fastener products by a preselected order of coding as specified herein.

1.1.2 The B18 PIN is a self-contained code, with distinct identification linkage to individual ASME B18 fastener product standards. The PIN code concept provides for direct traceability back to the applicable B18 product standard. In case of conflict with this document and the B18 product standard, the B18 product standard shall take precedence.

1.1.3 This Standard is not intended for use as a substitute for the correct usage of the B18 standards for fastener selection and specification. The PIN code is intended as an alternative to the plain text product callout as prescribed in the "Designation" or "Ordering" section of the source B18 product standard. The existence of a PIN code for B18 fastener description is not intended to imply that all products described are available.

1.1.4 A few B18 fasteners cannot be thoroughly identified using the 18-digit system defined in this Standard. If the user does not find the PIN needed in the body of this Standard, consult the Appendix where special PIN systems have been created to specifically identify those items. If the sought-after PIN for the desired B18 fastener is not in the Appendix, notice should be sent to the secretary of B18 so that the item can be addressed in the next revision of this Standard.

2 GENERAL GUIDANCE

2.1 Optional Coverage

Each individual ASME B18 fastener product standard provides for optional B18 PIN coverage under "Designation" or "Ordering" data.

2.2 Alpha "I" and "O"

Alpha "I" , "O", and "-" are not used in PIN field coding configuration.

2.3 Characteristics

The B18 PIN code shall identify only those characteristics specified in the B18 product standards.

2.4 Succession of B18.24.1, B18.24.2, and B18.24.3 21-Character PIN Codes

Nonmandatory Appendices A and B of this document provide instructions and resources for determining the superseding B18.24.4 18-character PIN code for any cancelled B18.24.1, B18.24.2, and B18.24.3 21-character PIN code.

2.5 Identification of Part Numbering System on Drawings

On drawings or parts lists where a column exists for identifying the manufacturer or its Commercial and Government Entity Code, indicate the CAGE Code "05047/B18.24" or "ASME B18.24". If no column exists or there is space only for the five-digit CAGE Code, then a note must indicate that the part numbers are defined in ASME B18.24.

2.6 Guidance for Using B18.24

B18.24 (this Standard) defines an 18-digit alphanumeric system for describing most ASME B18 fasteners. Those using this Standard shall refer to the specific ASME B18 standard for product details first, and only then use the appropriate descriptive number defined in this Standard for placing inquiries and orders.

This Standard can be used to describe fasteners that are not readily available from suppliers, or to create numbers in conflict with the B18 product requirements, such as selecting inappropriate or non-recommended finishes. This is why it is critical for users to review the applicable B18 standard before using B18.24 to describe a desired fastener. The product requirements cited in individual ASME B18 Standards take precedence over conflicting numbers that might be created using B18.24.