

**ASME B18.8.100M-2000**

**SPRING PINS: COILED TYPE,  
SPRING PINS: SLOTTED,  
MACHINE DOWEL PINS:  
HARDENED GROUND, AND  
GROOVED PINS (METRIC SERIES)**

**Incorporating ASME B18.8.3M, B18.8.4M, B18.8.5M, and B18.8.9M**

**AN AMERICAN NATIONAL STANDARD**



**The American Society of  
Mechanical Engineers**



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## FOREWORD

The need for a standard covering machine pins was recognized by industry as far back as March, 1926, when the Sectional Committee on the Standardization of Machine Pins was organized under the procedure of the American Standards Association (later the United States of America Standards Institute and as of October 6, 1969, the American National Standards Institute, Inc.), with the Society of Automotive Engineers and the American Society of Mechanical Engineers as joint sponsors.

For the next year or two, an effort was made via correspondence to develop a basis on which a standard for straight, taper, split, and dowel pins might be established. This correspondence developed a distinct difference of opinion on the part of the manufacturers and users of taper machine pins, which fact seemed to discourage the members of the committee from attempting standardization on any of the types of pins within its scope. The sponsor organizations made frequent efforts to revive this project through letters and the distribution of technical literature on this general subject, without avail.

In December, 1941, in its periodic review of standards projects for which the Society is sponsor, the ASME Standardization Committee decided that there was little hope for reviving this project and voted, subject to acceptance by the sponsors, to suggest to the ASA the transfer of this project to Sectional Committee B5 on the Standardization of Small Tools and Machine Tool Elements. The sponsors agreed and on July 7, 1942, the ASA sanctioned this action and Sectional Committee B43 was discharged and the project was officially transferred to Sectional Committee B5.

At its meeting in December, 1942, Sectional Committee B5 voted to enlarge its scope to include machine pins. Technical Committee No. 23 was subsequently established and charged with the responsibility for technical content of standards covering machine pins. This group held its first meeting on November 30, 1943, at which time a Subgroup on Correlation and Recommendations was appointed and it was voted to include clevis pins in addition to the other pin types already under consideration. Several drafts were prepared by the subgroup, distributed for critical comment to users, manufacturers, and general interests, and revised and resubmitted for comments. This action finally resulted in acceptance by Technical Committee 23 of a draft dated November, 1945, which was duplicated in printer's proof form, under a date of October, 1946, and distributed to the members of Sectional Committee B5 for letter ballot approval. Subsequent to the approval of the Sectional Committee, the proposal was next approved by the sponsor bodies, and presented to the American Standards Association for approval as an American Standard. This designation was granted on July 7, 1947.

Following the issuance of the standard, it became apparent that the table on cotter pins needed revision. Accordingly, in 1953 a proposed revision was submitted to the Sectional Committee. After attaining Sectional Committee and sponsor approval, this revision was approved by the American Standards Association on July 9, 1954 as ASA B5.20-1954.

In 1956 and 1957, in response to requests from industry, extensive changes were incorporated into a proposed revision. These included revisions to chamfer values and tolerances on straight pins and unhardened ground dowel pins; revisions to under head to hole, pin end dimensions, and hole sizes tolerances on clevis pins; addition of chisel point to cotter pin end styles and the incorporation of coverage on grooved pins. Following

Sectional Committee and sponsor approvals, this revision was adopted by the American Standards Association on March 25, 1958, as ASA B5.20-1958.

Late in 1961, Sectional Committee B5 suggested that Sectional Committee B18 on the standardization of bolts, nuts, rivets, screws, and similar fasteners assume jurisdiction over standards for pins. Recognizing that the bulk of the products covered in the ASA B5.20 standards were fastener rather than machine oriented, this recommendation was supported by the B18 Committee and officially endorsed by the sponsor organizations. Consequently, at the September 14, 1962 meeting of this Committee it was decreed that Subcommittee 23<sup>1</sup> should be formed to undertake a review and updating of the pin standard.

At the initial meeting of Subcommittee 23 held on June 3, 1964, it was decided to add standards for spring pins (inch series) and to establish seven subgroups, each of which would have technical responsibility for specific pin products, and to publish respective products under separate cover as projects were completed.

Over the ensuing several years, work by Subgroups 2, 3, 4, 5, and 6 culminated in the development of a proposal for revision of the standards covering taper, dowel, straight, and grooved pins and including coverage of spring pins (inch series) which was approved by letter ballot of Subcommittee 8 on February 24, 1977. Subsequent to acceptance by American National Standards Committee B18 and the sponsor organizations, this document was duly submitted to the American National Standards Institute for approval as an American National Standard. This was granted on April 5, 1978 and the standard was published under the designation ANSI B18.8.2, superseding in part the coverage provided in ASA B5.20-1958.

ASME B18.8.2 was revised and approved by ANSI on April 5, 1994.

In response to increased user demand as well as to the federally endorsed metrication program, a metric standard was developed for spring pins — coiled type, spring pins — slotted, machine dowel pins — hardened ground, and grooved pins.

In December 1988, Subcommittee 8 proposed B18.8.3M, covering spring pins, coiled type, metric series for B18 Main Committee approval.

In May 1993, Subcommittee 8 proposed B18.8.4M, covering spring pins, slotted, metric series for B18 Main Committee approval.

In May 1993, Subcommittee 8 proposed B18.8.5M, covering hardened ground machine dowel pins, metric series, for B18 Main Committee approval.

In April 1997, Subcommittee 8 submitted proposed standard B18.8.9M, covering grooved pins, metric series, for B18 Main Committee approval.

In April 1999, Subcommittee 8 proposed B18.8.3M, B18.8.4M, B18.8.5M, and B18.8.9M be consolidated into B18.8.100M.

ASME B18.8.100M-2000 was approved by the American National Standards Institute (ANSI) on June 22, 2000.

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<sup>1</sup> As of April 1, 1966, Subcommittee 23 was redesignated Subcommittee 8.

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