

ASME B16.9-2007
(Revision of ASME B16.9-2003)

Factory-Made Wrought Buttwelding Fittings

AN AMERICAN NATIONAL STANDARD



**The American Society of
Mechanical Engineers**



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FOREWORD

In 1921, the American Engineering Standards Committee, later the American Standards Association (ASA), organized Sectional Committee B16 to unify and further develop national standards for pipe flanges and fittings (and, later, for valves, gaskets, and valve actuators). Cosponsors of the B16 Committee were The American Society of Mechanical Engineers (ASME), the Heating and Piping Contractors National Association [now the Mechanical Contractors Association of America (MCAA)], and the Manufacturers Standardization Society of the Valve and Fittings Industry (MSS). Cosponsors were later designated as cosecretariat organizations.

Standardization of welding fittings was initiated in 1937 by a subgroup (designated Subgroup 6) of Subcommittee 3. After consideration of several drafts, a standard was approved by the Committee, cosponsors, and ASA, and published with the designation ASA B16.9-1940.

Revisions were made in 1950 and 1955 to add sizes up to NPS 24 and to complete coverage of fittings in some sizes. These revisions were approved and published as ASA B16.9-1951 and ASA B16.9-1958. With the subgroup now designated Subcommittee 6 (later Subcommittee F), further revisions were begun to clarify the intent of the standard, to add angularity tolerances, and to include fittings of different types (long radius reducing elbows and crosses) and smaller sizes (NPS $\frac{1}{4}$ and NPS $\frac{1}{2}$). This revision was published as ASA B16.9-1964 after ASA approval.

After reorganization of ASA, first as the United States of America Standards Institute (USASI), then as the American National Standards Institute (ANSI), with the Sectional Committee being redesignated as an American National Standards Committee, another revision increasing the size range to NPS 48 and revising the text for clarity was approved and published as ANSI B16.9-1971.

In 1975, Subcommittee F began a major revision to bring the standard up to date with current practice and usage. Common fractions were expressed as decimals (but without intending higher precision) and metric dimensional equivalents were added. Provisions for step-wise change of radius for NPS $\frac{3}{4}$ long radius elbows and 180-deg returns were introduced. Following Standards Committee, cosecretariat, and ANSI approval, the revision was published as ANSI B16.9-1978. It was updated by a corrective addendum, B16.9a-1981, issued in February 1982.

In 1982, American National Standards Committee B16 was reorganized as an ASME Committee operating under procedures accredited by ANSI. In ASME/ANSI B16.9-1986, the text was revised and inch dimensions were established as the standard.

In 1991, the Subcommittee reviewed the document and made a number of revisions that were included in ASME B16.9-1993. Dimensions for short pattern lap joints were also added.

In ASME B16.9-2001, short radius elbows and returns were added, which included all dimensions and tolerances of ASME B16.28-1994. Metric units were provided as an independent but parallel alternative standard to U.S. Customary units and a Quality System Program appendix was added.

In 2003, the Subcommittee reviewed the document and made a number of revisions. The scope of the standard was changed to permit fabricated lap joint stub ends employing circumferential or intersection welds.

In 2006, the Subcommittee reviewed the document and made a number of additions and revisions. Segmental elbow requirements were added as were 3D elbow dimensions. Reference documents were updated.

This Standard was approved as an American National Standard on May 18, 2007.



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