

ASME B16.52-2018

# Forged Nonferrous Fittings, Socket- Welding and Threaded

(Titanium, Titanium Alloys,  
Aluminum, and Aluminum Alloys)

---

AN AMERICAN NATIONAL STANDARD



The American Society of  
Mechanical Engineers

**ASME B16.52-2018**

# **Forged Nonferrous Fittings, Socket- Welding and Threaded**

**(Titanium, Titanium Alloys,  
Aluminum, and Aluminum Alloys)**

---

**AN AMERICAN NATIONAL STANDARD**



**The American Society of  
Mechanical Engineers**

Two Park Avenue • New York, NY • 10016 USA

Date of Issuance: May 15, 2018

The next edition of this Standard is scheduled for publication in 2023.

ASME issues written replies to inquiries concerning interpretations of technical aspects of this Standard. Periodically certain actions of the ASME B16 Committee may be published as Cases. Cases and interpretations are published on the ASME website under the Committee Pages at <http://cstools.asme.org/> as they are issued.

Errata to codes and standards may be posted on the ASME website under the Committee Pages to provide corrections to incorrectly published items, or to correct typographical or grammatical errors in codes and standards. Such errata shall be used on the date posted.

The Committee Pages can be found at <http://cstools.asme.org/>. 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.

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 assume 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  
Two Park Avenue, New York, NY 10016-5990

Copyright © 2018 by  
THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS  
All rights reserved  
Printed in U.S.A.

# CONTENTS

Foreword .....	iv
Committee Roster .....	v
Correspondence With the B16 Committee .....	vi
<b>1</b> <b>Scope and General</b> .....	<b>1</b>
<b>2</b> <b>Pressure Ratings</b> .....	<b>1</b>
<b>3</b> <b>Size and Type</b> .....	<b>2</b>
<b>4</b> <b>Marking</b> .....	<b>2</b>
<b>5</b> <b>Material</b> .....	<b>2</b>
<b>6</b> <b>Dimensions</b> .....	<b>3</b>
<b>7</b> <b>Additional Tolerances</b> .....	<b>3</b>
<b>8</b> <b>Proof Testing</b> .....	<b>4</b>
 <b>Mandatory Appendix</b>	
I        References .....	17
 <b>Nonmandatory Appendix</b>	
A        Quality System Program .....	18
 <b>Figures</b>	
3.2-1    Method of Designating Outlets of Reducing Tees and Crosses .....	15
6.2.7-1    Welding Gap and Minimum Flat Dimensions for Socket-Welding Fittings .....	16
 <b>Tables</b>	
1.2.1-1    Types of Designated Schedule Fittings by Pipe Schedule and NPS Size Range .....	5
1.2.1-2    Socket-Welding Fittings .....	6
1.2.1-3    Forged Threaded Fittings .....	11
1.2.1-4    Forged Threaded Fittings — Street Elbows .....	12
1.2.1-5    Threaded Fittings .....	13
1.2.1-6    Plugs and Bushings .....	14
2.1.1-1    Correlation of Designated Schedule Fittings With Pipe Schedule for Calculation of Ratings .....	15
2.1.2-1    Nominal Wall Thickness of Schedule 160 Pipe .....	15