

ANSI/AWWA

C115/A21.15-20

(Revision of ANSI/AWWA C115/A21.15-11)

AWWA Standard

Flanged Ductile-Iron Pipe with Ductile-Iron or Gray-Iron Threaded Flanges

Effective date: Aug. 1, 2020.

First edition approved by Board of Directors Jan. 26, 1975.

This edition approved Jan. 23, 2020.

Approved by American National Standards Institute March 31, 2020.



American Water Works
Association



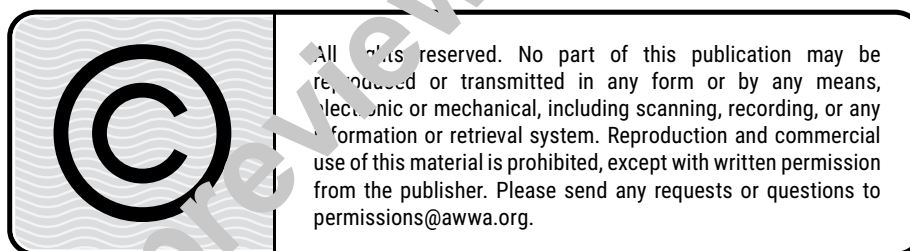
AWWA Standard

This document is an American Water Works Association (AWWA) standard. It is not a specification. AWWA standards describe minimum requirements and do not contain all of the engineering and administrative information normally contained in specifications. The AWWA standards usually contain options that must be evaluated by the user of the standard. Until each optional feature is specified by the user, the product or service is not fully defined. AWWA publication of a standard does not constitute endorsement of any product or product type, nor does AWWA test, certify, or approve any product. The use of AWWA standards is entirely voluntary. This standard does not supersede or take precedence over or displace any applicable law, regulation, or code of any governmental authority. AWWA standards are intended to represent a consensus of the water industry that the product described will provide satisfactory service. When AWWA revises or withdraws this standard, an official notice of action will be placed in the Official Notice section of *Journal AWWA*. The action becomes effective on the first day of the month following the month of *Journal AWWA* publication of the official notice.

American National Standard

An American National Standard implies a consensus of those substantially concerned with its scope and provisions. An American National Standard is intended as a guide to aid the manufacturer, the consumer, and the general public. The existence of an American National Standard does not in any respect preclude anyone, whether that person has approved the standard or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standard. American National Standards are subject to periodic review, and users are cautioned to obtain the latest editions. Producers of goods made in conformity with an American National Standard are encouraged to state on their own responsibility in advertising and promotional materials or on tags or labels that the goods are produced in conformity with particular American National Standards.

CAUTION NOTICE: The American National Standards Institute (ANSI) approval date on the front cover of this standard indicates completion of the ANSI approval process. This American National Standard may be revised or withdrawn at any time. ANSI procedures require that action be taken to reaffirm, revise, or withdraw this standard no later than five years from the date of ANSI approval. Purchasers of American National Standards may receive current information on all standards by calling or writing the American National Standards Institute, 25 West 43rd Street, Fourth Floor, New York, NY 10036; (212) 642-4900, or e-mailing info@ansi.org.



ISBN-13, print: 978-1-64717-021-0

ISBN-13, electronic: 978-1-61300-564-4

DOI: <http://dx.doi.org/10.12999/AWWA.C115.20>

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including scanning, recording, or any information or retrieval system. Reproduction and commercial use of this material is prohibited, except with written permission from the publisher.

Copyright © 2020 by American Water Works Association
Printed in USA

Contents

All AWWA standards follow the general format indicated subsequently. Some variations from this format may be found in a particular standard.

SEC.	PAGE	SEC.	PAGE
Foreword		4	Requirements
I	vii	4.1	Material..... 3
I.A	vii	4.2	Pipe Barrel..... 4
I.B	vii	4.3	Flanges 4
I.C	viii	4.4	Fabrication 5
II	ix	4.5	Coatings and Lining 9
II.A	ix	4.6	Marking 10
II.B		5	Verification
	x	5.1	Quality Control and Inspection..... 10
II.C	x	5.2	Inspection by Purchaser..... 10
II.D		5.3	Affidavit of Compliance 11
	xi		Delivery 11
III	xii		
III.A		Appendices	
	xi	A	Bolts and Nuts, Gaskets, and Installation 13
III.B	xiii	B	Typical Pipe and Flange Thread Construction..... 17
IV	xiii	C	Wall Pipe..... 19
V	xiii		
Standard			
1	General		
1.1	1	F.1	Comparison of Flange Dimensions.... xi
1.2	1	1	Solid Flange Details..... 4
1.3	1	2	Hollow-Back Flange Details 5
2	2	B.1	Typical Pipe and Flange Thread Construction..... 17
3	2	C.1	Typical Flanged Wall Pipe Installations..... 21

SEC.		PAGE	SEC.		PAGE
Tables			3	Hollow-Back Ductile-Iron Flange	
F.1	Gray-Iron Flange Minimum Tensile Strength	ix		Dimensions.....	8
1	Ductile-Iron Pipe for Use with Threaded Flanges	6	A.1	Flange Gasket Details.....	14
2	Solid Gray- or Ductile-Iron Flange Dimensions.....	7	C.1	Collar Dimensions	20
			C.2	Suggested Minimum “Face-to-Wall” Dimensions.....	21

Currently in preview, click buy full version



**American Water Works
Association**

Dedicated to the World's Most Important Resource®

ANSI/AWWA C115/A21.15-20
(Revision of ANSI/AWWA C115/A21.15-11)

AWWA Standard

Flanged Ductile-Iron Pipe with Ductile-Iron or Gray-Iron Threaded Flanges

SECTION 1: GENERAL

Sec. 1.1 Scope

This standard describes 2-in. through 64-in. (80-mm through 1,600-mm) flanged ductile-iron pipe with ductile-iron or gray-iron threaded flanges for potable water, waste water, and reclaimed water service. Flanged pipe and flanges are rated for a maximum working pressure of 250 psi (1,720 kPa). However, 24-in. (600-mm) and smaller flange joints with ductile-iron flanges may be rated for a maximum working pressure of 350 psi (2,413 kPa), as noted in the footnote of Table 1.

Sec. 1.2 Purpose

The purpose of this standard is to provide the minimum requirements for flanged ductile-iron pipe with ductile-iron or gray-iron threaded flanges.

Sec. 1.3 Application

This standard or sections of this standard can be referenced in documents for purchasing and receiving flanged ductile-iron pipe. This standard can be used as a guide for casting, fabricating, and inspecting flanged ductile-iron pipe. The stipulations of this standard apply when this document has been referenced and only to flanged ductile-iron pipe with ductile-iron or gray-iron threaded flanges.