

American Water Works Association

ANSI/AWWA C800-89

(Revision of ANSI/AWWA C800-84)



AWWA STANDARD
FOR
**UNDERGROUND SERVICE LINE
VALVES AND FITTINGS**



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AMERICAN WATER WORKS ASSOCIATION

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Contents

SEC.	PAGE	SEC.	PAGE
Foreword		7 Inspection, Testing, and Rejection	
I	History of Standard..... vii	7.1	Inspection..... 10
II	Lead Fittings..... vii	7.2	Testing..... 10
III	Information Regarding Use of This Standard vii	7.3	Rejection..... 11
IV	Major Revisions viii	8 Marking and Shipping	
Standard		8.1	Marking..... 11
1 General		8.2	Preparation for Shipment..... 11
1.1	Scope..... 1	Appendices	
1.2	Definitions..... 2	A Collected Standards for Service Line Materials	
1.3	References 2	A.1 Materials Covered..... 12	
1.4	Affidavit of Compliance..... 3	A.2 Copper Water Tube	
2 Materials		A.2.1	Scope..... 12
2.1	Castings..... 3	A.2.2	Standard Specifications 12
2.2	Component Parts..... 3	A.2.3	Dimensions..... 12
3 General Design		A.3 Red Brass Pipe	
3.1	Pressure Class 4	A.3.1	Scope..... 12
3.2	Normal Pressure..... 4	A.3.2	Standard Specifications 13
3.3	High Pressure 4	A.3.3	Dimensions..... 13
4 Detailed Design		A.4 Steel Pipe	
4.1	Dimensions of Corporation Valves..... 4	A.4.1	Scope..... 13
4.2	Curb Valves..... 4	A.4.2	Standard Specifications 13
4.3	Service Saddles 5	A.4.3	Dimensions..... 13
4.4	Service Line Fittings 5	A.5 Plastic Pipe and Tube	
4.5	Service Line Check Valves..... 5	A.5.1	Scope..... 15
5 End Connections		B Field Testing 16	
5.1	Threads and Threaded Connections 5	Figures	
5.2	Other Connections 10	1	Standard AWWA Corporation Valve Inlet Thread..... 7
5.3	Solder Ends for Copper Tube 10	2	Coupling Nut for Use With Flared Copper Service Tube, Types K and L..... 9
6 Fabrication			
6.1	Workmanship..... 10		

SEC.	PAGE	SEC.	PAGE
3	Outlet End of Corporation Valve Showing Increased Size N.P.T. External Threads and Internal Driving Threads 9	5	Corporation Valve Outlet Special-Purpose Coupling Threads 6
4	Flared Fitting End Showing Threads for Use With Flared Copper Service Tube..... 9	6	Standard AWWA Corporation Valve Inlet Threads and Corresponding Internal Threads for Saddles 7
5	Outlet End of Corporation Valve Showing Special-Purpose Coupling Threads and Internal Driving Threads 9	7	Tapered External Iron Pipe (N.P.T.) Threads for Outlet End of Corporation Valves 8
Tables		8	Internal Driving Thread for Corporation Valves 10
1	Maximum Drill Sizes for Installation of Corporation Valves in Service Clamps or Saddles With a Drilling Machine 4	A.1	Dimensions, Weights, and Tolerances in Diameter and Wall Thickness for Nominal or Standard Copper Water Tube Sizes..... 13
2	Maximum Overall Body Dimensions for Corporation Valves for Use With Tapping Machine 5	A.2	Dimensions, Weights, and Tolerances for Standard Sizes of Seamless Red Brass Pipe 14
3	Fitting Thread for Use With Flared Copper Service Tube..... 6	A.3	Standard Weights and Dimensions of Welded and Seamless Steel Pipe 14
4	Coupling Nut for Use With Flared Copper Service Tube..... 6		

Foreword

This foreword is for information only and is not part of AWWA C800.

I. History of Standard. In 1929, the development of a standard for threads for underground service fittings was undertaken by the American Standards Association (ASA). In 1932, the subcommittee that had been appointed for the task asked to be discharged after it had submitted its proposed standards in the form of two drawings. No action was taken by ASA on these proposed standards.

The American Water Works Association (AWWA) recognized the need for standardization of such threads and appointed a committee in 1940 to prepare a standard. The New England Water Works Association (NEWWA) also appointed a committee to prepare a standard for such threads. The AWWA and NEWWA committees cooperated closely in developing a tentative standard in 1947. This was approved as a standard by AWWA on Sept. 1, 1948, and by NEWWA on Sept. 14, 1948. Revisions to the standard were made effective Jan. 17, 1955. In July 1963, a committee was formed to revise C800-55 with regard to the evaluation of types K and L copper tubing for water services. In the revision, published in 1966, threads that represented current practice were set up for those fittings generally used in the water utility field. Sizes 1/2 in. and 5/8 in. were added for inlet and outlet threads for fittings and couplings, for use with flared copper service tubing. The 1966 revision introduced an appendix that was not part of the standard, but which listed standards for water service line materials. The appendix was provided for information only since the materials were covered by other standards. The appendix also contained specifications for copper water tubing, red brass pipe, cast-iron pipe, and steel pipe.

In 1974, a standing committee was formed to revise and update C800-66. The committee recognized the need to expand the scope of this standard beyond being a standard covering only threads for underground service fittings. All previous versions of C800 covered only the threads for fittings that were in common use in water distribution systems. Subsequently, the scope of the standard was changed to include performance standards for underground service line fittings as well as for the threads. The 1984 revision to C800 was approved by the AWWA Board of Directors on Jan. 29, 1984.

The next revision of this standard may address requirements for tapping saddles.

II. Lead Fittings. All references to lead fittings have been removed from this edition of C800 and the attached appendices. The AWWA Standards Department has available to users of C800, copies of C800-84 information that contains references to lead fittings.

III. Information Regarding Use of This Standard. This standard includes minimum performance standards not only for threads, but also for fittings. The following summarizes the items the purchaser should cover in the supplementary specifications and lists the sections where they may be found.

1. Standard used—that is, AWWA C800-89, Standard for Underground Service Line Valves and Fittings.
2. The size and type of fitting or valve.
3. Quantity required.
4. Type of inlet thread (Sec. 5).

5. Size and type of outlet thread (Sec. 5).
6. Working pressures under which the valve or fitting will be operated after installation—normal or high pressure (Sec. 3).
7. Whether an affidavit of compliance is to be furnished (Sec. 1.4).
8. Whether records of factory tests are to be furnished (Sec. 7.2.1).
9. Description of special castings or patterns, if required. Special casting markings, if required, should be stated, including location of such markings (Sec. 8.1).

IV. Major Revisions.

1. Provisions for higher-pressure service line components are included (Sec. 3.3).
2. References to additional types of end connections are included (Sec. 3 and Sec. 5).
3. All references to lead and lead pipe have been eliminated throughout the standard and the appendices. See item II in the Foreword for information. The 1986 Safe Drinking Water Act (SDWA) amendments are referred to in Sec. 1.1.2.
4. Several definitions in Sec. 1.2 have been revised.
5. References in Sec. 1.3 have been revised to reflect current standard referencing.
6. Material from the 1984 edition of the standard on “Field Testing” is now appendix B.
7. Material from appendix A providing information on pipe system materials larger than 2 in. (50.8 mm) has been partially removed.
8. Soft metric conversions have been added when appropriate.



AWWA STANDARD FOR

UNDERGROUND SERVICE LINE

VALVES AND FITTINGS

SECTION 1: GENERAL

Sec. 1.1 Scope

This standard covers valves and fittings in sizes ½ in. (12.7 mm) through 2 in. (50.8 mm) for use in the buried service line from the main to the meter valve or meter setting appurtenance. Valves include corporation and curb valves. Fittings include various types of couplings and adapters. This standard sets forth the minimum capabilities, characteristics, and properties that a service line valve or fitting must possess at the time of manufacture. Details of design and manufacture, other than those stated in this standard, including such design and production tests as will ensure that each valve or fitting will have the capabilities to the required degree, remain the responsibility of the manufacturer.

1.1.1 *Installation.* The performance of products depends on proper installation. The purchaser must follow instructions supplied by or available from the manufacturer. If these instructions are not available, good installation practices shall be followed.

1.1.2 *Exception.* All references to lead fittings have been removed from this standard. The 1986 amendments to the Safe Drinking Water Act (SDWA) prohibit the use of lead pipe and fittings in service line applications. The 1986 SDWA amendments also limit alloys used to produce service line components to a maximum 8 percent lead. The 1986 SDWA amendments also limit the lead content of solders and flux used to join components to no more than 0.2 percent lead.