



**American Water Works  
Association**

The Authoritative Resource for Safe Drinking Water®

ANSI/AWWA C907-04  
(Revision of ANSI/AWWA C907-91)

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*AWWA Standard*

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# Injection-Molded Polyvinyl Chloride (PVC) Pressure Fittings, 4 In. Through 12 In. (100 mm Through 300 mm), for Water Distribution



Effective date: March 1, 2005.

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## Foreword

*This foreword is for information only and is not a part of ANSI/AWWA C907.*

### **I. Introduction.**

I.A. *Background.* Injection-molded, gasketed PVC fittings are suitable for use exclusively with PVC pipe for underground pressure applications.

I.B. *History.* This is the second edition of ANSI/AWWA Standard C907. In 1966, AWWA appointed Committee 8350-D to study and report on the adaptability of plastic pipe for use within the water industry. The committee presented its report on June 7, 1967, at AWWA's annual conference. The report included a recommendation that a task group be appointed to prepare standards for the use of plastic materials. The AWWA Standards Committee on Thermoplastic Pressure Pipe was established in 1968. Following years of very productive work, the committee was dissolved in June 1988 and replaced by two committees on plastic products: one for polyolefin and one for polyvinyl chloride (PVC) products. The AWWA Committee on PVC Pressure Pipe and Fittings, which prepared this standard, was formed at that time. The first edition of ANSI/AWWA C907, AWWA Standard for Polyvinyl Chloride (PVC) Pressure Fittings for Water—4 in. Through 8 in. (100 mm Through 200 mm), was approved by the AWWA Board of Directors on June 23, 1991. This edition, Injection-Molded Polyvinyl Chloride (PVC) Pressure Fittings, 4 In. Through 12 In. (100 mm Through 300 mm), for Water Distribution, was approved on June 13, 2004.

I.C. *Acceptance.* In May 1985, the US Environmental Protection Agency (USEPA) entered into a cooperative agreement with a consortium led by NSF International (NSF) to develop voluntary third party consensus standards and a certification program for all direct and indirect drinking water additives. Other members of the original consortium included the American Water Works Association Foundation (AWWARF) and the Conference of State Health and Environmental Managers (COSHEM). The American Water Works Association (AWWA) and the Association of State Drinking Water Administrators (ASDWA) joined later.

In the United States, authority to regulate products for use in, or in contact with, drinking water rests with individual states.\* Local agencies may choose to impose requirements more stringent than those required by the state. To evaluate the health

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\*Persons outside the US should contact the appropriate authority having jurisdiction.

effects of products and drinking water additives from such products, state and local agencies may use various references, including

1. An advisory program formerly administered by USEPA, Office of Drinking Water, discontinued on April 7, 1990.
2. Specific policies of the state, province, or local agency.
3. Two standards developed under the direction of NSF, NSF\*/ANSI<sup>†</sup> 60, Drinking Water Treatment Chemicals—Health Effects, and NSF/ANSI 61 Drinking Water System Components—Health Effects.
4. Other references, including AWWA Standards, *Food Chemicals Codex*, *Water Chemicals Codex*,<sup>‡</sup> and other standards considered appropriate by the state or local agency.

Various certification organizations may be involved in certifying products in accordance with NSF/ANSI 61. Individual states, provinces, or local agencies have authority to accept or accredit certification organizations within their jurisdiction. Accreditation of certification organizations may vary from jurisdiction to jurisdiction.

Annex A, "Toxicology Review and Evaluation Procedures," to NSF/ANSI 61 does not stipulate a maximum allowable level (MAL) of a contaminant for substances not regulated by a USEPA final maximum contaminant level (MCL). The MALs of an unspecified list of "unregulated contaminants" are based on toxicity testing guidelines (noncarcinogens) and risk characterization methodology (carcinogens). Use of Annex A procedures may not always be identical, depending on the certifier.

ANSI/AWWA C907 does not address additive requirements. Thus, users of this standard should consult the appropriate state or local agency having jurisdiction in order to

1. Determine additive requirements, including applicable standards.
2. Determine the status of certifications by all parties offering to certify products for contact with, or treatment of, drinking water.
3. Determine current information on product certification.

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\*NSF International, 789 N. Dixboro Rd., Ann Arbor, MI 48105.

†American National Standards Institute, 25 W. 43rd St., Fourth Floor, New York, NY 10036.

‡Both publications available from National Academy of Sciences, 2102 Constitution Ave. N.W., Washington, DC 20418.



**II. Special Issues.** Attention should be called to the need for users of this standard to provide proper design consideration for

1. Trench support.
2. Thrust restraint at areas of unbalanced forces.
3. Long-term effect of any anticipated cyclic transient surge pressures.
4. Exact critical external or internal dimensions, which should be obtained from the manufacturer.

**III. Use of This Standard.** It is the responsibility of the user of an AWWA standard to determine that the products described in that standard are suitable for use in the particular application being considered.

Accordingly, each user of this standard is responsible for determining that the standard's provisions are suitable for, and compatible with, that user's intended application.

**III.A. Purchaser Options and Alternatives.** The following items should be covered in the purchaser's specifications:

1. Standard to be used—that is, ANSI/AWWA C907, Standard for Polyvinyl Chloride (PVC) Pressure Fittings, 4 in. Through 12 in. (100 mm Through 300 mm), for Water Distribution, of latest revision.
2. The purchaser should state whether compliance with NSF/ANSI 61, Drinking Water System Components—Health Effects, is to be required, in addition to the requirements of the Safe Drinking Water Act.
3. Fittings.
  - a. Nominal size, for example, 6 in. (150 mm); or, for tees, 6 in. × 6 in. × 4 in. (150 mm × 150 mm × 100 mm) where naming sequence is body size × body size × leg size.
  - b. Configuration (for example, tee).
  - c. Quantity of each size and configuration to be provided.
4. Request for notification of time and date for in-plant inspection (Sec. 5.2).
5. Affidavit of compliance (Sec. 6.3).

**III.B. Modification to Standard.** Any modification to the provisions, definitions, or terminology in this standard must be provided in the purchaser's specifications.

**IV. Major Revisions.** Major changes made to the standard in this revision include the following:

1. The inclusion of 10-in. (250-mm) repair and line couplings.
2. The inclusion of 4-in. (100-mm), 6-in. (150-mm), and 8-in. (200-mm) single-tapped and double-tapped couplings.
3. The inclusion of 4-in. through 8-in. (100-mm through 200-mm) 11¼° bends.
4. The inclusion of 4-in. through 12-in. (100-mm through 300-mm) increaser/reducer couplings.
5. The inclusion of 4-in. through 8-in. (100-mm through 200-mm) caps, plugs, and tapped plugs.
6. The inclusion of 4-in. through 6-in. (100-mm through 150-mm) Cast Iron (CI) to Iron Pipe Size (IPS) adapters.
7. Editorial changes have been made throughout the standard.

**V. Comments.** If you have any comments or questions about this standard, please call the AWWA Volunteer and Technical Support Group (303) 794-7711, FAX (303) 795-7603, or write to the group at 6666 West Quincy Avenue, Denver, CO 80235-3098, or e-mail at [standards@awwa.org](mailto:standards@awwa.org).



American Water Works  
Association

ANSI/AWWA C907-04  
(Revision of A NSI/AWWA C907-91)

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## *AWWA Standard*

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# **Injection-Molded Polyvinyl Chloride (PVC) Pressure Fittings, 4 In. Through 12 In. (100 mm Through 300 mm), for Water Distribution**

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## **SECTION 1: GENERAL**

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### **Sec. 1.1 Scope**

This standard describes Pressure Class 150 polyvinyl chloride (PVC) injection-molded fittings with push-on, rubber-gasketed joints in nominal sizes 4 in. through 12 in. (100 mm through 300 mm).<sup>\*</sup> The fittings are for use with PVC water distribution pipe having an outside diameter conforming to the dimensions of cast-iron pipe and with dimension ratios (DR) of 18 (Class 150) or 25 (Class 100), as described in ANSI/AWWA C900, Standard for Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4 in. Through 12 in. (100 mm Through 300 mm), for Water Distribution.

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<sup>\*</sup>Throughout the body of this standard, metric equivalents (rounded) are set in parentheses next to the US customary units.