



Standard Specification for Shielded Couplings Joining Hubless Cast Iron Soil Pipe and Fittings¹

This standard is issued under the fixed designation C 1277; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This specification covers the materials and testing of shielded hubless couplings to join hubless cast iron soil pipe and fittings.

1.2 Several different types of hubless couplings are available for use in hubless cast iron sanitary and storm drain, waste and vent piping applications to connect hubless cast iron soil pipe and fittings by using a sleeve-type, or some other type coupling device. It is the purpose of this specification to furnish information as to the characteristics of one such sleeve type couplings when applied to cast iron soil pipe and fittings manufactured in accordance with Specification A 888, latest revision, and CISPI Designation 301, latest revision.

1.3 The values stated in inch-pound units are to be regarded as the standard. The SI units given in parentheses are for information only.

1.4 The committee with jurisdiction over this standard is aware of other comparable standard published by the Cast Iron Soil Pipe Institute, CISPI-310, FM 1680 published by Factory Mutual, and Specification C 1540 published by ASTM.

1.5 The following precautionary caveat pertains only to the test method portion, Section 7, of this specification. *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:

A 888 Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications²

C 564 Specification for Rubber Gaskets for Cast Iron Soil Pipe and Fittings³

C 717 Terminology of Building Seals and Sealants³

C 1540 Specification for Heavy Duty Shielded Couplings Joining Hubless Cast Iron Soil Pipe and Fittings

2.2 CISPI Standard:

CISPI-301 Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste and Vent Piping Applications⁴

CISPI-310 Specification for Couplings for Use in Connection with Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications⁴

FM 1680 Couplings Used in Hubless Cast Iron Systems for Drain, Waste or Vent, Sewer, Rainwater or Storm Water System, Above or Below Ground, Industrial, Commercial and Residential⁵

3. Terminology

3.1 Definitions:

3.1.1 Definitions of the following terms used in this specification are found in Terminology C 717, paragraph 4.1: elastomeric, durometer and dynamic.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *center stop, n*—an integral part of the gasket centered on the axial length of the gasket intended to limit the insertion depth of the pipe to be coupled.

3.2.2 *clamp assembly, n*—that portion of the coupling excluding the gasket and shield.

3.2.3 *corrugated, n*—any method of embossing.

3.2.4 *coupling, n*—the complete assembly.

3.2.5 *fitting, n*—parts of a pipeline other than straight pipes, valves, or couplings.

3.2.6 *gasket, n*—the elastomeric portion of the coupling.

3.2.7 *joint, n*—the point of assembly consisting of the coupling and the joined pipes or fittings, or both.

3.2.8 *shield, n*—an external metallic protective device designed to protect the sealing gasket from external elements that could cause failure of the sealing gasket.

¹ This specification is under the jurisdiction of ASTM Committee C24 on Building Seals and Sealants and is the direct responsibility of Subcommittee C24.75 on Gaskets and Couplings for Plumbing and Sewer Piping.

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² Annual Book of ASTM Standards, Vol 01.02.

³ Annual Book of ASTM Standards, Vol 04.07.

⁴ Available from Cast Iron Soil Pipe Institute, 5959 Shallowford Rd., Suite 419, Chattanooga, TN 37421.

⁵ Available from Factory Mutual Research, 1151 Boston Providence Turnpike, Norwood, MA, 02062.