



Standard Specification for Cast Iron Soil Pipe and Fittings¹

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This standard has been approved for use by agencies of the U.S. Department of Defense.

1. Scope

1.1 This specification covers cast iron soil pipe and fittings for use in gravity flow plumbing, drain, waste and vent sanitary, and storm water applications. It establishes standards covering material, manufacture, mechanical and chemical properties, coating, test methods, inspection, certification, product markings, dimensions, and dimensional tolerances for extra heavy and service cast iron soil pipe and fittings. These pipe and fittings are not intended for pressure applications as the selection of the proper size for sanitary drain, waste, vent, and storm drain systems allows free air space for gravity drainage.

1.2 This specification covers pipe and fittings of the following patterns and, when so designated, shall apply to any other patterns that conform with the applicable requirements given in this specification.

1.2.1 Pipe:

	Tables
Extra heavy, 2½ ft (0.75 m), 3½ ft (1.0 m), 5 ft (1.5 m), 10 ft (3.0 m) lengths	1, 2
Service, 2½ ft (0.75 m), 3½ ft (1.0 m), 5 ft (1.5 m), 10 ft (3.0 m)	1, 2
Outside dimensions (for detailing)	X1.1

1.2.2 Fittings:

	Tables
¼ bends; long ¼ bends	3, 4
¼ bends, long low-hub	5
¼ bends, low heel; high heel	6, 7
¼ bends, short sweep; long sweep	8
¼ bends, reducing long sweep	9
½ bends	10
¾ bends	10
¾ bends; long ¾ bends	11
⅞ bends	11
Y branches	12, 13
Y branches, combination ¼ bends, single	14

	Tables
Y branches, combination ¼ bends, double	14
Sanitary T branches, single	15
Sanitary T branches, double	15
Sanitary T branches, cleanout	16
Tapped sanitary T branches, single	17
Tapped sanitary T branches, double	17
T branches, single and double	18
Tapped T branches, single	19
Tapped T branches, double	19
T branches, cleanout	20
-45° offset fitting	21
Double hubs	22
Long double hubs	22
Reducers	23
Increases	24, 25
P traps	26, 27
Deep seal P traps	28
Running traps	29
Screw plugs (brass)	30
Blind plugs	31
Iron-body ferrules	32
Side inlets	Fig. 3
Closet bends	33
Tapping bosses	34
Reducing ¼ bend SV	35
Combination Y and ¼ bend	36
'H' branch fitting	37

1.3 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

2. Referenced Documents

2.1 ASTM Standards:²

- A48/A48M Specification for Gray Iron Castings
- A644 Terminology Relating to Iron Castings
- D1248 Specification for Polyethylene Plastics Extrusion Materials for Wire and Cable
- D3960 Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings
- E8 Test Methods for Tension Testing of Metallic Materials

¹ This specification is under the jurisdiction of ASTM Committee A04 on Iron Castings and is the direct responsibility of Subcommittee A04.12 on Pipes and Tubes.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.