



Standard Specification for Cast Iron Soil Pipe and Fittings¹

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

1. Scope

1.1 This specification covers cast iron soil pipe and fittings for use in gravity flow applications. It establishes standards covering material, principal 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 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 requirements given herein.

1.2.1 Pipe:

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

1.2.2 Fittings:

¼ bends; long ¼ bends	Tables 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
⅝ bends	10
¾ bends; long ¾ bends	11
⅞ bends	11
Y branches	12, 13
Y branches, cleanout on main	14
Y branches, cleanout on branch	15
Y branches, inverted	16
Y branches, combination ½ bends, single	17
Y branches, combination ½ bends, double	17
Y branches, combination ⅝ bends, cleanout	18
Y branches, upright	19
Sanitary T branches, single	20
Sanitary T branches, double	20
Sanitary T branches, cleanout	21
Tapped sanitary T branches, single	22
Tapped sanitary T branches, double	22
T branches, single and double	23

Tapped T branches, single	Tables 24
Tapped T branches, double	24
Horizontal twin tapped T	25
T branches, cleanout	26
Vent branches, single	27
Offsets, ⅜ bend	28
Double hubs	29
Long double hubs	29
Reducers	30
Increases	31, 32
S traps	33
P traps	34, 35
Deep seal P traps	36
Running traps	37
Screw plugs (brass)	38
Blind plugs	39
Iron-body ferrules	40
Side inlets	Fig. 3
Closet bends	41
Tapping bosses	42

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

2. Referenced Documents

2.1 ASTM Standards:

A 48 Specification for Gray Iron Castings²
A 438 Test Method for Transverse Testing of Gray Cast Iron²

A 644 Terminology Relating to Iron Castings²

E 8 Test Methods for Tension Testing of Metallic Materials³

E 23 Test Methods for Notched Bar Impact Testing of Metallic Materials³

2.2 Federal Standard:

Fed. Std. No. 123 Marking for Shipment (Civil Agencies)⁴

2.3 Military Standard:

MIL-STD-129 Marking for Shipment and Storage⁴

2.4 ANSI Standard:

B1.20.1 Pipe Threads⁵

² Annual Book of ASTM Standards, Vol 01.02.

³ Annual Book of ASTM Standards, Vol 03.01.

⁴ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.

⁵ Available from American National Standards Institute, 11 West 42nd Street, 13th Floor, New York, NY 10036.

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