



Designation: A 74 – 03b

Endorsed by the
Cast Iron Soil Pipe Institute
American Association State
Highway and Transportation Officials Standard
AASHTO No.: M 263-77

Standard Specification for Cast Iron Soil Pipe and Fittings¹

This standard is issued under the fixed designation A 74; 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.

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 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 herein.

1.2.1 Pipe:

Extra heavy, 2½ ft (0.75 m), 3½ ft ((1.0 m), 5 ft (1.5 m), 10 ft (3.0 m) lengths	Tables 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:

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
⅓ bends	10
⅓ bends	10
⅓ bends; long ⅓ bends	11
⅓ 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 ⅓ bends, single	17
Y branches, combination ⅓ bends, double	17
Y branches, combination ⅓ 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	24
Tapped T branches, double	24
Horizontal twin tapped T	25
T branches, cleanout	26
Vent branches, single	27
Offsets, ⅓ 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
Hubbed Cleanout Cap	43

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. Metric conversions in Table 1 and Table 2 are to two decimal places; all other metric conversions are rounded to the nearest whole number.

2. Referenced Documents

2.1 ASTM Standards:

A 48 Specification for Gray Iron Castings²

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

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.

Current edition approved Aug. 10, 2003. Published September 2003. Originally approved in 1917. Last previous edition approved in 2003 as A 74 – 03a.

² Annual Book of ASTM Standards, Vol 01.02.

³ Annual Book of ASTM Standards, Vol 03.01.