Designation: ~~A888 – 21a~~ A888 – 23

Standard Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications[1]

This standard is issued under the fixed designation A888; 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 hubless cast iron soil pipe and fittings for use in gravity flow applications. It establishes standards covering material, manufacture, mechanical and chemical properties, dimensions, coating, test methods, inspection, certification, and product marking for hubless cast iron soil pipe and fittings. These pipe and fittings are intended for non-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 The EDP/ASA numbers indicated in this section represent a Uniform Industry Code adopted by the American Supply Association (ASA). A group designation prefix, 022, is assigned to hubless products, followed by the four-digit identification assigned to individual items and a check digit. This system has been instituted to facilitate EDP control through distribution channels, and is to be used universally in ordering and specifying product items. Those items with no EDP numbers are either new, special, or transitory and will be assigned numbers on subsequent prints of this specification.

1.3 This specification covers pipe and fittings of the following patterns and applies to any other patterns that conform with the dimensions found in Tables 1 and 2 and all other applicable requirements given in this specification.[2]

1.3.1 *Lengths:*

	Figures
EDP/ASA Identification Numbers for Hubless Pipe	Fig. 1
10 ft (3.0 m) in sizes and 5 ft. (1.5 m) 1½, 2, 3, 4, 5, 6, 8, 10, 12, and 15 in.	Fig. 1, Fig. 2
Method of Specifying Fittings	Fig. 3

1.3.2 *Fittings:*

Quarter Bend	Fig. 5
Quarter Bend, Reducing	Fig. 6
Quarter Bend, with Side Opening	Fig. 7
Quarter Bend, with Heel Opening	Fig. 8
Quarter Bend, Tapped	Fig. 9
Quarter Bend, Double	Fig. 10

[1] This specification is under the jurisdiction of ASTM Committee A04 on Iron Castings and is under the direct responsibility of Subcommittee A04.12 on Pipes and Tubes.
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[2] Reprinted with permission from Cast Iron Soil Pipe Institute (CISPI), 2401 Fieldcrest Dr., Mundelein, IL 60060, http://www.cispi.org. Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, http://www.ansi.org.

Quarter Bend, Long	Fig. 11
Short Sweep	Fig. 12
Long Sweep	Fig. 13
Long Sweep, Reducing	Fig. 14
Fifth Bend	Fig. 15
Sixth Bend	Fig. 16
Eighth Bend	Fig. 17
Eighth Bend, Long	Fig. 18
Sixteenth Bend	Fig. 19
Sanitary Tee	Fig. 20
Sanitary Tee with Side Opening	Fig. 21
Sanitary Tee with 2 in. Side Opening R or L/R and L	Fig. 22
Sanitary Tee, New Orleans Special with Side Opening	Fig. 23
Sanitary Tee with 45° Side Openings and New Orleans	Fig. 24
Sanitary Special Tee Tapped	Fig. 25
Sanitary Tapped Tee, Horizontal Twin	Fig. 26
Sanitary Tapped Tee, Double Vertical	Fig. 27
Y Branch	Fig. 28
Y Branch, Double	Fig. 29
Y Branch, Upright	Fig. 30
Upright Y Wide Center Florida Special	Fig. 31
Y Branch, Combination ⅛ Bend	Fig. 32
Y Branch, Combination ⅛ Bend Double	Fig. 33
Sanitary Cross	Fig. 34
Sanitary Cross with Side Opening	Fig. 35
Sanitary Cross, New Orleans, with Side Openings	Fig. 36
Sanitary Cross, New Orleans, with 45° Special and Regular Side Openings	Fig. 37
Sanitary Cross, Tapped	Fig. 38
Test Tee	Fig. 39
Tapped Extension Piece	Fig. 40
Increaser-Reducer	Fig. 41
Increaser-Reducer, Short	Fig. 42
Tapped Adapter	Fig. 43
Blind Plug	Fig. 44
Iron Body Cleanout, Tapped	Fig. 45
P Trap	Fig. 46
P Trap, Long	Fig. 47
P Trap, Deep Seal	Fig. 48
P Trap, with Primer	Fig. 49
P Trap, with Tapped Inlet	Fig. 50
Tapped Inlet, Double	Fig. 51
Modified Combination Wye and ⅛ Bend, Double	Fig. 52
Modified Combination Wye and ⅛ Bend, Double, Extended	Fig. 53
Two-Way Cleanout	Fig. 54
Twin Cleanout	Fig. 55
Closet Bend, Regular and Reducing	Fig. 56
Closet Flange Riser	Fig. 57
Tapping Bosses	Fig. 58
Double Sweep Sanitary Tee (Extended)	Fig. 59
Running Trap with Double Vents	Fig. 60
P Trap with Tapped or Hubless Side Inlet	Fig. 61
Vented Tub Wye Extended, Double	Fig. 62
Vented Tub Wye Extended Offset, Left or Right	Fig. 63
Vented Tub Wye	Fig. 64
Double Two-Way Cleanout	Fig. 65

1.4 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.

1.5 The committee with jurisdiction over this standard is aware of another comparable standard published by the Cast Iron Soil Pipe Institute, CISPI 301.

NOTE 1—The text of this standard references notes and footnotes that provide explanatory material. These notes and footnotes (excluding those in tables and figures) shall not be considered as requirements of the standard.

1.6 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*[3]

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/E8M Test Methods for Tension Testing of Metallic Materials
E1645 Practice for Preparation of Dried Paint Samples by Hotplate or Microwave Digestion for Subsequent Lead Analysis
E2349 Practice for Safety Requirements in Metal Casting Operations: Sand Preparation, Molding, and Core Making; Melting and Pouring; and Cleaning and Finishing

2.2 *Federal Standard:*[4]

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

2.3 *Military Standard:*[4]

MIL-STD-129 Military Marking for Shipment and Storage

2.4 *ANSI/ASME Standard:*[5]

B1.20 Pipe Threads

2.5 *Other Documents:*

Uniform Freight Classification Rules[6]
National Motor Freight Classification Rules[7]
Cast Iron Soil Pipe Institute (CISPI) Specification 301[8]

3. Terminology

3.1 *Abbreviations:*

3.1.1 *AC*—above center

3.1.2 *ADAPTR*—adapter

3.1.3 *&*—and

3.1.4 *ASA*—American Supply Association

3.1.5 *ASSY*—assembly

3.1.6 *BD*—bend

3.1.7 *CARL*—Carlson

3.1.8 *CF*—Carlson fitting

3.1.9 *CLO*—closet

3.1.10 *CO*—cleanout

3.1.11 *COMB*—combination

[3] 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.
[4] Available from Standardization Documents Order Desk, DODSSP, Bldg. 4, Section D, 700 Robbins Ave., Philadelphia, PA 19111-5098, http://www.dodssp.daps.dla.mil.
[5] Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, http://www.ansi.org.
[6] Available from the Uniform Classification Commission, Room 1106, 222 S. Riverside Plaza, Chicago, IL 60606.
[7] Available from National Motor Freight Traffic Association, Inc. (NMFTA), 1001 N. Fairfax St., Suite 600, Alexandria, VA 22314-1798, http://www.nmfta.org.
[8] Available from Cast Iron Soil Pipe Institute (CISPI), 2401 Fieldcrest Dr., Mundelein, IL 60060, http://www.cispi.org.

3.1.12 *CRS*—cross

3.1.13 *DB*—double

3.1.14 *DBL*—double

3.1.15 *EDP*—electronic data processing

3.1.16 *EXT*—extended, extension

3.1.17 *F*—figure

3.1.18 *FER*—ferrule

3.1.19 *FLNG*—flange

3.1.20 *FTG*—fitting

3.1.21 *HI*—high

3.1.22 *HOR*—horizontal

3.1.23 *INC*—increaser, increasing

3.1.24 *L*—left hand

3.1.25 *L/*—less

3.1.26 *LG*—long

3.1.27 *LH*—left hand

3.1.28 *LNG*—long

3.1.29 */MAIN*—on main

3.1.30 *MN*—on main

3.1.31 *NO*—New Orleans

3.1.32 *R*—right hand

3.1.33 *RAD*—radius

3.1.34 *RED*—reducer, reducing

3.1.35 *REV*—revent

3.1.36 *RH*—right hand

3.1.37 *SAN*—sanitary