Designation: ~~F1083 – 10~~ F1083 – 13

Standard Specification for Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded, for Fence Structures[1]

This standard is issued under the fixed designation F1083; 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 hot-dipped galvanized welded steel pipe in sizes ranging from 1.315–8.625 in. (33.4 – 219.1 mm) outside diameter (OD) inclusive, with nominal (average) wall thickness as given in Table 1 and Table 2. Pipe having other dimensions (Note 2) may be furnished provided such pipe complies with all other requirements of this specification. Pipe ordered under this specification is intended for use as a structural support for fencing in accordance with Specification F1043, Group 1A.

NOTE 1—Outside diameter size is designated in that fence fittings are designed to securely fit on the outside of the pipe framework.
NOTE 2—A comprehensive listing of standardized pipe dimensions is contained in ANSI B 36.10.

1.2 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:*[2]
A90/A90M Test Method for Weight [Mass] of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings
A700 Practices for Packaging, Marking, and Loading Methods for Steel Products for Shipment
B6 Specification for Zinc
E8 Test Methods for Tension Testing of Metallic Materials
E29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications
F1043 Specification for Strength and Protective Coatings on Steel Industrial Fence Framework
2.2 *ANSI Standard:*
B 36.10 Welded and Seamless Wrought Steel Pipe[3]

3. Ordering Information

3.1 Orders for material under this specification shall include the following as required, to describe the desired material adequately:
3.1.1 Specification designation,
3.1.2 Quantity (feet, metres, or number of lengths),
3.1.3 Name of material (schedule 40 steel pipe or schedule 80 steel pipe),
3.1.4 Method of manufacture (electric-resistance welded or furnace welded),
3.1.5 Grade ~~(Regular, Intermediate,~~ (Regular or High ~~Strength 83 000)~~ Strength) *~~Intermediate~~High Strength Grade available ~~for~~in sizes ~~5.563~~1.660 in. ~~(141.3~~(42.2 mm) OD and larger. Regular ~~and High Strength 83 000 Grades are~~ Grade is available for all sizes*.
3.1.6 Type (Table 1 or Table 2),
3.1.7 Size (outside diameter and weight per foot),
3.1.8 Length (see Section 14),

[1] This specification is under the jurisdiction of Committee F14 on Fences and is the direct responsibility of Subcommittee F14.40 on Chain Link Fence and Wire Accessories.
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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.
[3] Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, http://www.ansi.org.

TABLE 1 Dimensions, Nominal Weights (Plain Ends) for Standard Weight Pipe (Schedule 40)

NOTE 1—Pipe furnished in accordance with this table will be standard pipe. Nominal size designations are names, not dimensions, thus they are a unit-less term. The dimensionless designator NPS (nominal pipe size) is referenced in this specification as it is the historical designation for schedule 40 pipe. The fence framework application requires the framework fittings to fit securely on the outside of the pipe and therefore the OD, outside diameter, is the applicable dimension for this specification.

NOTE 2—The wall thickness is expressed in three decimal places, the fourth decimal place being carried forward or dropped, in accordance with Practice E29.

NPS	Trade Size O.D.	Outside Diameter		Wall Thickness		Weight	
Designator	in.	in.	(mm)	in.	(mm)	lb/ft	(kg/m)
~~1~~	~~1⅜~~	~~1.315~~	~~(33.4)~~	~~0.133~~	~~(3.38)~~	~~1.68~~	~~(2.5)~~
1	1⅜	1.315	(33.4)	0.133	(3.38)	1.68	(2.5)
~~1¼~~	~~1⅝~~	~~1.660~~	~~(42.2)~~	~~0.140~~	~~(3.56)~~	~~2.27~~	~~(3.4)~~
1¼	1⅝	1.660	(42.2)	0.140	(3.56)	2.27	(3.4)
~~1½~~	~~1⅞~~	~~1.900~~	~~(48.3)~~	~~0.145~~	~~(3.68)~~	~~2.72~~	~~(4.0)~~
1½	1⅞	1.900	(48.3)	0.145	(3.68)	2.72	(4.0)
~~2~~	~~2⅜~~	~~2.375~~	~~(60.3)~~	~~0.154~~	~~(3.91)~~	~~3.65~~	~~(5.4)~~
2	2⅜	2.375	(60.3)	0.154	(3.91)	3.65	(5.4)
~~2½~~	~~2⅞~~	~~2.875~~	~~(73.0)~~	~~0.203~~	~~(5.16)~~	~~5.80~~	~~(8.6)~~
2½	2⅞	2.875	(73.0)	0.203	(5.16)	5.80	(8.6)
~~3~~	~~3½~~	~~3.500~~	~~(88.9)~~	~~0.216~~	~~(5.49)~~	~~7.58~~	~~(11.3)~~
3	3½	3.500	(88.9)	0.216	(5.49)	7.58	(11.3)
~~3½~~	~~4~~	~~4.000~~	~~(101.6)~~	~~0.226~~	~~(5.74)~~	~~9.12~~	~~(13.6)~~
3½	4	4.000	(101.6)	0.226	(5.74)	9.12	(13.6)
~~4~~	~~4½~~	~~4.500~~	~~(114.3)~~	~~0.237~~	~~(6.02)~~	~~10.80~~	~~(16.1)~~
4	4½	4.500	(114.3)	0.237	(6.02)	10.80	(16.1)
5	5⁹⁄₁₆	5.563	(141.3)	0.258	(6.55)	14.63	(21.77)
~~6~~	~~6⅝~~	~~6.625~~	~~(168.3)~~	~~0.280~~	~~(7.11)~~	~~18.99~~	~~(28.3)~~
6	6⅝	6.625	(168.3)	0.280	(7.11)	18.99	(28.3)
~~8~~	~~8⅝~~	~~8.625~~	~~(219.1)~~	~~0.322~~	~~(8.18)~~	~~28.58~~	~~(42.5)~~
8	8⅝	8.625	(219.1)	0.322	(8.18)	28.58	(42.5)

TABLE 2 Dimensions, Nominal Weights (Plain Ends) for Extra Strong Pipe (Schedule 80)

NOTE 1—Pipe furnished in accordance with this table will be extra-strong pipe. Nominal size designations are names, not dimensions, thus they are a unit-less term. The dimensionless designator NPS (nominal pipe size) is referenced in this specification as it is the historical designation for schedule 80 pipe. The fence framework application requires the framework fittings to fit securely on the outside of the pipe and therefore the OD, outside diameter, is applicable dimension for this specification.

NOTE 2—The wall thickness is expressed in three decimal places, the fourth decimal place being carried forward or dropped, in accordance with Practice E29.

NPS	Trade Size O.D.	Outside Diameter		Wall Thickness		Weight	
Designator	in.	in.	(mm)	in.	(mm)	lb/ft	(kg/m)
~~1~~	~~1⅜~~	~~1.315~~	~~(33.4)~~	~~0.179~~	~~(4.55)~~	~~2.17~~	~~(3.23)~~
1	1⅜	1.315	(33.4)	0.179	(4.55)	2.17	(3.23)
~~1¼~~	~~1⅝~~	~~1.660~~	~~(42.2)~~	~~0.191~~	~~(4.85)~~	~~3.00~~	~~(4.47)~~
1¼	1⅝	1.660	(42.2)	0.191	(4.85)	3.00	(4.47)
~~1½~~	~~1⅞~~	~~1.900~~	~~(48.3)~~	~~0.200~~	~~(5.08)~~	~~3.63~~	~~(5.41)~~
1½	1⅞	1.900	(48.3)	0.200	(5.08)	3.63	(5.41)
~~2~~	~~2⅜~~	~~2.375~~	~~(60.3)~~	~~0.218~~	~~(5.54)~~	~~5.03~~	~~(7.48)~~
2	2⅜	2.375	(60.3)	0.218	(5.54)	5.03	(7.48)
~~2½~~	~~2⅞~~	~~2.875~~	~~(73.0)~~	~~0.276~~	~~(7.01)~~	~~7.67~~	~~(11.41)~~
2½	2⅞	2.875	(73.0)	0.276	(7.01)	7.67	(11.41)
~~3~~	~~3½~~	~~3.500~~	~~(88.9)~~	~~0.300~~	~~(7.62)~~	~~10.26~~	~~(15.27)~~
3	3½	3.500	(88.9)	0.300	(7.62)	10.26	(15.27)
~~3½~~	~~4~~	~~4.000~~	~~(101.6)~~	~~0.318~~	~~(8.08)~~	~~12.52~~	~~(18.63)~~
3½	4	4.000	(101.6)	0.318	(8.08)	12.52	(18.63)
~~4~~	~~4½~~	~~4.500~~	~~(114.3)~~	~~0.337~~	~~(8.56)~~	~~15.00~~	~~(22.32)~~
4	4½	4.500	(114.3)	0.337	(8.56)	15.00	(22.32)
5	5⁹⁄₁₆	5.563	(141.3)	0.375	(9.52)	20.80	(30.94)
~~6~~	~~6⅝~~	~~6.625~~	~~(168.3)~~	~~0.432~~	~~(10.97)~~	~~28.60~~	~~(42.56)~~
6	6⅝	6.625	(168.3)	0.432	(10.97)	28.60	(42.56)
~~8~~	~~8⅝~~	~~8.625~~	~~(219.1)~~	~~0.500~~	~~(12.70)~~	~~43.43~~	~~(64.64)~~
8	8⅝	8.625	(219.1)	0.500	(12.70)	43.43	(64.64)

3.1.9 Certification (see 18.1), and

3.1.10 Selection of applicable level of preservation and packaging required, if other than in accordance with Practices A700 (see 20.1).