



Standard Specification for Nickel-Iron-Chromium-Silicon Alloy Welded Pipe¹

This standard is issued under the fixed designation B 710; 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 specification² covers alloys UNS N08330 and UNS N08332 in the form of welded pipe intended for heat-resisting applications and general-corrosive service.

1.2 The pipe covered is nominal pipe sizes up to and including size 12, with the nominal wall thicknesses given as Schedules 5S, 10S, 40S, and 80S. Table 2 of Specification B 775 is based on Table A1 of ANSI B36.19 and gives the nominal dimension of these sizes. Table 3 of Specification B 775 lists the dimensional requirements of these sizes. Pipe having other dimensions may be furnished provided such pipe complies with all other requirements of this specification.

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.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to become familiar with all hazards including those identified in the appropriate Material Safety Data Sheet for this product/material as provided by the manufacturer, to establish appropriate safety and health practices, and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:³

B 536 Specification for Nickel-Iron-Chromium-Silicon Alloy (UNS N08330 and N08332) Plate, Sheet, and Strip

B 775 Specification for General Requirements for Nickel and Nickel Alloy Welded Pipe

B 899 Terminology Relating to Non-ferrous Metals and Alloys

¹ This specification is under the jurisdiction of ASTM Committee B02 on Nonferrous Metals and Alloys and is the direct responsibility of Subcommittee B02.07 on Refined Nickel and Cobalt and Their Alloys.

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² For ASME Boiler and Pressure Vessel Code applications, see related Specification SB710 in Section 11 of that code.

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.

TABLE 1 Chemical Requirements

Element	Composition Limits, %
C	... ^A
Mn	2.00 max
P	0.03 max
S	0.03 max
Si	0.75–1.50
Cr	17.0–20.0
Ni	34.0–37.0
Cu	1.00 max
Pb	0.005 max
Sn	0.025 max
Fe	remainder ^B

^A Alloy UNS N08330: 0.08 max. Alloy UNS N08332: 0.05–0.10.

^B Element shall be determined arithmetically by difference.

2.2 ANSI Standard:⁴

ANSI B36.19 Stainless Steel Pipe

3. Terminology

3.1 Definitions:

3.1.1 Definitions for terms defined in Terminology B 899 shall apply unless otherwise defined by the requirements of this document.

4. General Requirement

4.1 Material furnished in accordance with this specification shall conform to the applicable requirements of the current edition of Specification B 775 unless otherwise provided herein.

5. Ordering Information

5.1 It is the responsibility of the purchaser to specify all requirements that are necessary for material ordered under this specification. Examples of such requirements include, but are not limited to, the following:

- 5.1.1 Quantity (feet or number of lengths),
- 5.1.2 UNS number,
- 5.1.3 Size (nominal pipe size and schedule),
- 5.1.4 Length (random or specific),
- 5.1.5 ASTM designation,

⁴ Available from American National Standards Institute, 11 West 42nd St., 13th Floor, New York, NY 10036.