



## Standard Specification for UNS N08904, UNS N08925, and UNS N08926 Welded Pipe<sup>1</sup>

This standard is issued under the fixed designation B 673; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 This specification covers UNS N08904, UNS N08925, and UNS N08926\* welded pipe for general corrosion applications.

1.2 This specification covers pipe sizes in schedules shown in Table 1.

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

### 2. Referenced Documents

#### 2.1 ASTM Standards:

B 775 Specification for General Requirements for Nickel and Nickel Alloy Seamless and Welded Pipe<sup>2</sup>

#### 2.2 ANSI Standards:

B36.19 Stainless Steel Pipe<sup>3</sup>

B2.1 Pipe Threads<sup>3</sup>

### 3. Classification

3.1 *Class 1*—Welded, cold worked, solution treated, and nondestructively tested in accordance with 8.3.1.

3.2 *Class 2*—Welded, cold worked, solution treated, and nondestructively tested in accordance with 8.3.2.

3.3 *Class 3*—As welded, solution treated, and nondestructively tested in accordance with 8.3.1.

### 4. General Requirement

4.1 Material furnished under this specification shall conform to the applicable requirements of Specification B 775 unless otherwise provided herein.

### 5. Ordering Information

5.1 Orders for material under this specification should include the following information:

5.1.1 Alloy name or UNS number,

5.1.2 *Class*,

5.1.3 *Quantity* (feet or number of lengths),

5.1.4 *Size* (nominal size or outside diameter and schedule number or average wall thickness),

5.1.5 *Length*—Specify cut length or random,

5.1.6 *Certification*—State if certification or a report of test results is required,

5.1.7 *Purchaser Inspection*—State which tests or inspections are to be witnessed,

5.1.8 *Ends*—Plain ends cut and deburred will be furnished, unless otherwise specified, and

5.1.9 *Samples for Product (Check) Analysis*—State whether samples shall be furnished.

### 6. Materials and Manufacture

6.1 Pipe shall be made from flat-rolled alloy by an automatic welding process with no addition of filler metal. Subsequent to welding and before final solution treatment, Class 1 and Class 2 material shall be cold worked either in both weld and base metal or in weld metal only.

NOTE 1—The recommended heat treatment shall consist of heating to a temperature of 1985 to 2100°F [1085 to 1150°C] for UNS N08904 or 2010 to 2100°F [1100 to 1150°C] for UNS N08925 and UNS N08926, followed by quenching in water or rapid cooling by other means.

6.2 Pipe shall be furnished with oxide removed. When solution treatment is performed in a protective atmosphere, descaling is not necessary.

NOTE 2—Pipe produced with the addition of filler metal is available. The manufacturer must be consulted for applicable requirements.

### 7. Chemical Composition

7.1 The material shall conform to the requirements as to chemical composition prescribed in Table 2.

7.2 If a product (check) analysis is performed by the purchaser, the material shall conform to the product (check) analysis variations prescribed in Specification B 775.

### 8. Mechanical Properties and Other Requirements

8.1 *Tension Test*—The tensile properties of the material at room temperature shall conform to those shown in Table 3.

8.1.1 One tension test shall be made on each lot of pipe.

8.2 *Flattening Test*—One flattening test shall be made on a specimen from one end of one pipe from each lot.

8.3 *Nondestructive Tests* :

8.3.1 *Class 1 and Class 3*—Each piece in each lot shall be subjected to one of the following four tests: hydrostatic,

<sup>1</sup> This specification is under the jurisdiction of Committee B-2 on Nonferrous Metals and Alloys and is the direct responsibility of Subcommittee B02.07 on Refined Nickel and Cobalt and Alloys Containing Nickel or Cobalt or Both as Principal Constituents.

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\* New designation established in accordance with ASTM E 527 and SAE J1086, Practice for Numbering Metals and Alloys (UNS).

<sup>2</sup> *Annual Book of ASTM Standards*, Vol 02.04.

<sup>3</sup> Available from American National Standards Institute, 11 W. 42nd St., 13th Floor, New York, NY 10036.