



Designation: B 676 – 97

Standard Specification for UNS N08367 Welded Tube¹

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1. Scope

1.1 This specification covers UNS N08367* welded tube for general corrosion applications.

1.2 This specification covers outside diameter and nominal wall tube.

1.2.1 The tube sizes covered by this specification are $\frac{1}{8}$ to 5 in. (3.2 to 127 mm) in outside diameter and 0.015 to 0.320 in. (0.38 to 8.13 mm), inclusive, in wall thickness.

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.

2. Referenced Documents

2.1 *ASTM Standards:*

B 751 Specification for General Requirements for Nickel and Nickel Alloy Seamless and Welded Tube²

3. General Requirement

3.1 Material furnished in accordance with this specification shall conform to the applicable requirements of Specification B 751 unless otherwise provided herein.

4. Classification

4.1 *Class 1*—Welded, cold worked, solution treated, and each piece of each lot subjected to one of the following four tests: hydrostatic, pneumatic (air underwater), eddy current, or ultrasonic.

4.2 *Class 2*—Welded, cold worked, solution treated, and each piece of each lot leak tested (hydrostatic or pneumatic) plus electric tested (eddy current or ultrasonic).

5. Ordering Information

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

¹ This specification is under the jurisdiction of ASTM Committee B-2 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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*New designation established in accordance with Practice E 527 and SAE J1086, Practice for Numbering Metals and Alloys (UNS).

² *Annual Book of ASTM Standards*, Vol 02.04.

TABLE 1 Chemical Requirements

Element	Composition Limits, %
	N08367
Carbon	0.030 max
Manganese	2.00 max
Silicon	1.00 max
Phosphorus	0.040 max
Sulfur	0.030 max
Chromium	20.00 to 22.00
Nickel	23.50 to 25.50
Molybdenum	6.00 to 7.00
Nitrogen	0.18 to 0.25
Iron ^A	remainder
Copper	0.75 max

^A Iron shall be determined arithmetically by difference.

5.1.1 Alloy name or UNS number,

5.1.2 ASTM designation and year of issue,

5.1.3 Dimensions:

5.1.3.1 Outside diameter and nominal wall thicknesses,

NOTE 1—Tube produced to outside diameter and minimum wall thickness may be furnished upon agreement between the manufacturer and the purchaser.

5.1.3.2 Length (specific or random),

5.1.4 Class (Section 4),

5.1.5 Quantity (feet or number of pieces),

5.1.6 *Certification*—State if certification is required,

5.1.7 *Samples for Product (Check) Analysis*—State whether samples for product (check) analysis should be furnished, and

5.1.8 *Purchaser Inspection*—If the purchaser wishes to witness tests or inspection of material at the place of manufacture, the purchase order must so state indicating which tests or inspections are to be witnessed.

6. Material and Manufacture

6.1 Tube shall be made from flat-rolled alloy by an automatic welding process with no addition of filler metal. Subsequent to welding and prior to 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 2—The recommended heat treatment shall consist of heating to a minimum temperature of 2025°F (1105°C) for Type N08367 and quenching in water or rapidly cooling by other means.

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