



Standard Specification for Electric-Resistance-Welded Metallic-Coated Carbon Steel Mechanical Tubing¹

This standard is issued under the fixed designation A787/A787M; 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 round, square, rectangular, and special shape, electric-resistance-welded mechanical tubing, either zinc-coated (galvanized) after welding or produced from aluminum-coated, zinc-coated (galvanized), zinc-iron alloy-coated (galvannealed), 55 % aluminum-zinc alloy-coated, or zinc-aluminum-magnesium alloy-coated steel sheet. Tubing for use as electrical conduit (EMT) or intermediate metallic conduit (IMC) is not covered by this specification.

1.2 This specification covers mechanical tubing with outside diameters or maximum outside dimensions ranging from ½ to 15 in. [12.7 to 380.0 mm] and wall thickness from 0.028 to 0.180 in. [0.70 to 4.60 mm].

1.3 Sizes outside the ranges listed above may be ordered provided all other requirements of the specification are met.

1.4 This specification is expressed in both inch-pound units and in SI units; however, unless the purchase order specifies the applicable M specification designation (SI units), the inch-pound units shall apply. The values stated in either SI units or inch-pound units are to be regarded separately as standard. Within the text, the SI units are shown in brackets. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

2. Referenced Documents

2.1 ASTM Standards:²

A463/A463M Specification for Steel Sheet, Aluminum-Coated, by the Hot-Dip Process

A653/A653M Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed)

¹ This specification is under the jurisdiction of ASTM Committee A01 on Steel, Stainless Steel and Related Alloys and is the direct responsibility of Subcommittee A01.09 on Carbon Steel Tubular Products.

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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.

by the Hot-Dip Process

A792/A792M Specification for Steel Sheet, 55 % Aluminum-Zinc Alloy-Coated by the Hot-Dip Process

A924/A924M Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process

A1046/A1046M Specification for Steel Sheet, Zinc-Aluminum-Magnesium Alloy-Coated by the Hot-Dip Process

B6 Specification for Zinc

3. Classification

3.1 The types of tubing covered by this specification are:

Type Number	Code Letters	Description
1	AWAC	electric-resistance-welded aluminum-coated carbon steel mechanical tubing
2	AWG	electric-resistance-welded galvanized carbon steel mechanical tubing
3	AWPG	electric-resistance-welded carbon steel mechanical tubing, post-hot dipped galvanized
4	AWGA	electric-resistance-welded carbon steel mechanical tubing, zinc-iron alloy-coated (galvannealed)
5	AWGZ	electric-resistance-welded carbon steel mechanical tubing, 55 % aluminum-zinc alloy-coated
6	AWZAM	electric-resistance-welded carbon steel mechanical tubing, zinc-aluminum-magnesium alloy-coated

4. Ordering Information

4.1 The ordered wall thickness of the tubing shall be the total of the base metal and the metallic coating.

4.2 Orders for material under this specification shall include the following:

- 4.2.1 Quantity (feet, metres, or number of lengths),
- 4.2.2 Type, code letters, and description (Sections 1 and 3),
- 4.2.3 Applicable ASTM designation number(s),
- 4.2.4 Coating designation and type of coating,
- 4.2.5 Chemically treated or not chemically treated raw material,
- 4.2.6 Oiled or dry (Section 16),
- 4.2.7 Extra smooth coating (if required),
- 4.2.8 Customer application, including fabrication,
- 4.2.9 Flash condition (7.1),

*A Summary of Changes section appears at the end of this standard