



Standard Specification for Corrugated Steel Structural Plate, Zinc-Coated, for Field- Bolted Pipe, Pipe-Arches, and Arches¹

This standard is issued under the fixed designation A 761/A 761M; 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 corrugated steel structural plate, zinc-coated, used in the construction of pipe, pipe-arches, arches, underpasses, and special shapes for field assembly. Appropriate fasteners and accessory materials are also described. The pipe, arches, and other shapes are generally used for drainage purposes, pedestrian and vehicular underpasses, and utility tunnels.

1.2 This specification does not include requirements for bedding, backfill, or the relationship between earth cover load and plate thickness of the pipe. Experience has shown that the successful performance of this product depends upon the proper selection of plate thickness, type of bedding and backfill, manufacture in the plant, and care in the installation. The purchaser must correlate the preceding factors and also the corrosion and abrasion requirements of the field installation with the plate thickness. The structural design of corrugated steel structural plate pipe and the proper installation procedures are described in Practices A 796/A 796M and A 807/A 807M.

1.3 This specification is applicable to orders in either inch-pound units (as A 761) or SI units (as A 761M). Inch-pound units and SI units are not necessarily equivalent. SI units are shown in brackets in the text, but they are the applicable values when the material is ordered to A 761M.

1.4 This specification references notes and footnotes which provide explanatory material. These notes and footnotes (excluding those in tables and figures) shall not be considered as requirements of this specification.

2. Referenced Documents

2.1 ASTM Standards:

A 36/A 36M Specification for Structural Steel²

A 90/A 90M Test Method for Weight [Mass] of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings³

A 123 Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products³

A 153 Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware³

A 307 Specification for Carbon Steel Bolts and Studs, 60 000 psi Tensile Strength⁴

A 370 Test Methods and Definitions for Mechanical Testing of Steel Products⁵

A 449 Specification for Quenched and Tempered Steel Bolts and Studs⁴

A 563 Specification for Carbon and Alloy Steel Nuts⁴

A 563M Specification for Carbon and Alloy Steel Nuts [Metric]⁴

A 751 Test Methods, Practices, and Terminology for Chemical Analysis of Steel Products⁵

A 754 Test Method for Coating Thickness by X-ray Fluorescence³

A 780 Practice for Repair of Damaged Hot-Dip Galvanized Coatings³

A 796/A 796M Practice for Structural Design of Corrugated Steel Pipe, Pipe-Arches, and Arches for Storm and Sanitary Sewers and Other Buried Applications³

A 807/A 807M Practice for Installing Corrugated Steel Structural Plate Pipe for Sewers and Other Applications³

A 902 Terminology Relating to Metallic Coated Steel Products³

B 6 Specification for Zinc (Slab Zinc)⁶

B 695 Specification for Coatings of Zinc Mechanically Deposited on Iron and Steel⁷

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications⁸

E 376 Practice for Measuring Coating Thickness by Magnetic-Field or Eddy-Current (Electromagnetic) Test Methods⁹

F 568 Specification for Carbon and Alloy Steel Externally

¹ This specification is under the jurisdiction of ASTM Committee A-5 on Metallic Coated Iron and Steel Products and is the direct responsibility of Subcommittee A05.17 on Corrugated Steel Pipe Specifications.

Current edition approved Dec. 10, 1998. Published March 1999. Originally published as A 761 – 79. Last previous edition A 761/A 761M – 97a.

² Annual Book of ASTM Standards, Vol 01.04.

³ Annual Book of ASTM Standards, Vol 01.06.

⁴ Annual Book of ASTM Standards, Vol 15.08.

⁵ Annual Book of ASTM Standards, Vol 01.03.

⁶ Annual Book of ASTM Standards, Vol 02.04.

⁷ Annual Book of ASTM Standards, Vol 02.05.

⁸ Annual Book of ASTM Standards, Vol 14.02.

⁹ Annual Book of ASTM Standards, Vol 03.03.