



Designation: F900 – 05

Standard Specification for Industrial and Commercial Swing Gates¹

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1. Scope

1.1 This specification covers detailed requirements for chain link fence gates, gate posts and accessories for both single and double swing-type gates for industrial and commercial application.

2. Referenced Documents

2.1 *ASTM Standards:*²

A780 Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings

F1043 Specification for Strength and Protective Coatings on Steel Industrial Chain Link Fence Framework

F1083 Specification for Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded, for Fence Structures

F2200 Specification for Automated Vehicular Gate Construction

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *polymer*—in this specification, polymer is used to describe all types of vinyl, poly(vinyl-chloride) (PVC) or similar types of coatings other than zinc or aluminum.

4. Materials and Manufacture

4.1 *Materials*—The base materials of the gate frame shall be round or rectangular tubular members, welded at all corners or assembled with corner fittings. Gates assembled with corner fittings shall have adjustable truss rods $\frac{5}{16}$ in. [7.9 mm] minimum diameter on panels 5 ft [1.5 m] wide or wider. Truss rods shall be the same base metal and finish as the gate frames.

4.1.1 The interior bracing, when needed, shall be the same metal and shape tubular material and finish as the gate frame, but need not be the same size.

4.2 *Manufacture*—Gate frames shall be fabricated and coated where necessary, as described in 4.2.1 through 4.2.6. For gates intended to be automated, manufacture shall conform to the applicable provisions of Specification **F2200**.

4.2.1 *Zinc-Coated Steel Frames* shall be in accordance with Specifications **F1043** or **F1083**, or a combination thereof, and shall match that selected for any adjoining fence framework. Welded joints shall be coated in accordance with Practice **A780**, employing a zinc-rich paint conforming to 4.2.2 of Practice **A780** and following only the procedures outlined in A2.1.3 and A2.1.4 of Practice **A780**.

4.2.2 *Aluminum Alloy Gate Frames* shall be in accordance with Specification **F1043**.

4.2.3 *Polymer-Coated Steel or Polymer-Coated Aluminum Frames* shall be in accordance with Specification **F1043** and shall match that selected for any adjoining fence framework. Welded joints on steel gate frames shall be coated in accordance with Practice **A780**, employing a zinc-rich paint conforming to 4.2.2 of Practice **A780** and following only the procedures outlined in A2.1.3 and A2.1.4 of Practice **A780**. The painted areas shall then be top-coated to match the frame color.

4.2.4 *Chain Link Gate Fabric*—The fabric shall be as specified for the fence.

4.2.5 *Barbed Wire Top*—When specified, shall have the end members of the gate frame extended in height to accommodate three strands of barbed wire uniformly spaced and positioned so that the top strand is approximately 1 ft [300 mm] above the top horizontal member of the gate frame, except that the minimum height for barbed wire installed at the top of gates intended to be automated shall be in accordance with Specification **F2200**. Barbed wire shall be attached by suitable means to prevent wire from moving out of position and shall be supported by a gate frame member at maximum intervals of 8 ft [2.44 mm].

4.2.6 *Barbed Tape*—The minimum height for barbed tape installed at the top of gates intended to be automated shall be in accordance with Specification **F2200**.

5. Dimensions, Mass, and Permissible Variations

5.1 Size of the gate opening shall be measured from the inside face to inside face of gate posts.

¹ This specification is under the jurisdiction of ASTM Committee **F14** on Fences and is the direct responsibility of Subcommittee **F14.40** on Chain Link Fence and Wire Accessories.

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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.