# **Gate Fittings**

# ASTM F 654, F 900, F1184, F2200 Federal specification RR-F-191 AASHTO M-181

## **BASIC USE**

Gate fittings include those items that are routinely used in conjunction with metallic coated chain link; walk and drive gates to complete a chain link fence installation.

# Composition and Materials:

Gate fittings for chain link fence may be manufactured from steel or aluminum alloy. Steel items are galvanized after fabrication.

Association of State Highway Transportation Officials M-181 Chain Link Fence

#### **TECHNICAL DATA**

#### General:

The manufacturer, if requested, will supply samples and certification that all materials comply with the appropriate specifications.

#### **Gate and Frame Hinges:**

Hinges are fabricated from pressed steel or cast iron and hot-dip galvanized with a minimum of 1.2oz/ft2 (366 g/m2) of zinc coating of surface area, or from aluminum alloy 380.0 conforming to die cast Specification ASTM B85, or sand cast or permanent mold alloy 356.0 or 713.0 conforming to Specification ASTM B26/B26M or ASTM B108.

## **Industrial Hinges:**

Industrial Hinges are fabricated from pressed steel or cast iron and galvanized with a minimum of 1.2 oz/ft2 (366 g/m2) of zinc, or aluminum alloy 6063-T6 (ASTM B221 or B429).

#### Fork Latch:

Top rail sleeves shall be fabricated from pressed steel or round steel tubing and hot-dip galvanized with a minimum of 1.2oz /ft2 (366 g/m2) of zinc coating surface area, or from aluminum alloy 6063-T6 (see Specification B221, B221m or Specification B429/B429M). Rail sleeve material shall be a minimum of 0.051 in. (1.3 mm) in thickness if steel, or a minimum of 0.062 in. (1.8mm) in thickness if aluminum alloy, and a minimum of 6 in. (152.4 mm) in length.

## Tie Wires and Hog Rings:

Tie Wire used to tie fabric to frame work and Hog rings for attaching fabric to tension. Fabricated from steel wire galvanized minimum zinc coating 1.2oz/ft2 (366 g/m2) 9 gauge (0.148) (3.76 mm) steel wire - lighter gauge steel wire may be used on lighter gauge mesh, see ASTM F626.

#### Strong Arm Latch:

Strong Arm Latch's are fabricated from pressed steel or cast iron and galvanized with a minimum of 1.2 oz/ft2 (366 g/m2) of zinc, or aluminum alloy 6063-T5, 6063-T6, or 8176-H19 (ASTM B211 or B221).

#### Tension bars:

Steel tension bars are fabricated from merchant quality steel and galvanized, minimum zinc coating weight 1.2oz/ft2 (366 g/m2). Steel tension bars used to connect 1-3/4 in. (44 mm) and 2 in. (50 mm) mesh fabric to end, gate and corner posts are a minimum 3/16 in. (4.8 mm) by 5/8 in. (16 mm) for fabric heights to 5 ft. (1,520 mm) and 3/16 in. (16 mm) by 3/4 in. (19 mm) for fabric heights over 5 ft. (1,520 mm). Tension bars used to connect 1 in. mesh fabric to gate frames are a minimum 1/4 in.(6 mm) by 3/8 in. (10 mm). The minimum length of a tension bar is 2 in. (50 mm) less than the full height of the chain link fabric.

# Truss Rod and Tightener:

Steel truss rods shall be fabricated from 3/8 in. (9.5mm) merchant quality rod and it and all related devices shall be hot-dip galvanized after threading with a minimum of 1.2oz/ft2 (366 g/m2) of zinc coating and shall withstand 2000lb (900 kg) of tension.



# **Barbed Wire Arms:**

Barbed wire arms shall be fabricated from pressed steel or cast iron, and hot-dip galvanized with a minimum  $1.2 \text{ oz/ft}^2 (366 \text{ g/m}^2) \text{ of zinc coating. Barbed wire arms are available as various types.}$ 

#### **Tension Wire:**

Tension wire per ASTM A817 Specification for Metallic-Coated Steel Wire for Chain-Link Gates:

Type I - Aluminum-coated (aluminized), minimum average coating weight 0.40oz/ft2 (122 g/m2).

Type II - Zinc-coated (galvanized), Class 4, minimum average coating weight 1.2oz/ft2 (366 g/m2).

Minimum breaking strength is 1,950 lbf [8,670 N].

#### Standards:

ASTM A641/A641M Specification for Zinc–Coated (Galvanized) Carbon Steel Wire

ASTM A809 Specification for Aluminum- Coated (Aluminized) Carbon Steel Wire

ASTM A817 Specification for Metallic-Coated Wire for Chain-Link Fence Fabric and Marcelled Tension Wire.

ASTM B26/B26M Specification for Aluminum-Alloy Sand Castings

ASTM B85 Specification for Aluminum-Alloy Die Castings A

STM B108 Specification for Aluminum-Alloy Permanent Mold Castings

ASTM B117 Practice for Operating Salt Spray (Fog) Apparatus

ASTM B209/B209M Specification for Aluminum and Aluminum-Alloy Sheet and Plate

ASTM B211 Specification for Aluminum and Aluminum-Alloy Rolled or Cold Finished Bar, Rod, and Wire

ASTM B221B221M Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes

ASTM B429/B429M Specification for Aluminum-Alloy Extruded Structural Pipe and Tube

ASTM F552 Terminology Relating to Chain Link Fencing

ASTM F626 Standard Specification for Fence Fittings

ASTM F 654 Standard Specification for Residential Chain Link Fence Gates

ASTM F668 Specification for Polyvinyl Chloride (PVC), Polyolefin and Other Polymer-Coated Steel Chain Link Fence Fabric

ASTM F900 Standard Specification for Industrial and Commercial Swing Gates

ASTM F934 Specification for Colors for Polymer-Coated Chain Link Fence Materials

ASTM F1184 Standard Specification for Industrial and Commercial Horizontal Slide gate

ASTM F2200 Standard Specification for Automated Vehicular Gate Construction

Federal specification RR-F-191 American

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#### **COLOR COATING OF FITTINGS:**

Fittings may be color coated with a polymer to match the fabric, when so specified. Standard colors are as contained in ASTM F934. Painted fittings are not acceptable. The exterior surface of the fittings shall be polymer coated with a minimum 0.006in (0.152-mm), maximum 0.015-in (0.381-mm) thickness when so specified. Ferrous fittings shall be hot-dip galvanized prior to application of color coating

# **MAINTENANCE**

Periodic inspection is recommended but no routine maintenance is required.

# Availability:

Chain link Gate fittings are available for shipment throughout the United States and worldwide.

Representative Illustrations of Common Chain Link Gate Fittings (not to scale)



