# FENCE FITTINGS AND ACCESSORIES

# ASTM F 626 FEDERAL SPECIFICATION RR-F-191/4 F AASHTO M-181



# **FENCE SPEC DATA SHEET**

### **BASIC USE**

Fence fittings and accessories include those items that are normally used in conjunction with metallic or color-coated chain link fabric and framework to complete a chain link fence installation.

# **COMPOSITION AND MATERIALS**

Fence fittings and accessories as part of a chain link fence installation may be manufactured from steel or aluminum alloy. Steel items are galvanized after fabrication.

# **TECHNICAL DATA**

All steel products are galvanized using zinc metal conforming to ASTM B6.

### **POST AND LINE CAPS**

Post and line caps are fabricated from pressed steel or cast iron and galvanized with a minimum or 1.2 oz/ft² of zinc, or from aluminum alloy 360.0 conforming to ASTM B85. Post and line caps are to fit snugly over posts and exclude moisture from inside tubular posts.

#### **RAIL AND BRACE ENDS**

Rail and brace ends are fabricated from pressed steel or cast iron and galvanized with a minimum of 1.2 oz/ft<sup>2</sup> of zinc, or aluminum alloy 360.0 (ASTM B85), or alloy 356.0 or 713.0 (ASTM B26 or ASTM B108).

### **TOP RAIL SLEEVES**

Top rail sleeves are fabricated from pressed steel or cast steel with a minimum of  $1.2 \text{ oz/ft}^2$  of zinc, or aluminum alloy 6063-T6 (ASTM B221 or B429). The material thickness shall be a minimum or 0.051 in. of steel or 0.062 in. of aluminum alloy. Minimum length shall be 6 in.

#### **TENSION AND BRACE BANDS**

Tension and brace bands are fabricated from pressed steel and hot-dip galvanized with a minimum of 1.2 oz/ft<sup>2</sup> of zinc coating or from aluminum alloy 6063-T5, 6063-T6, or 8176-H19 (ASTM B211 or B221).

Tension bands have a minimum material thickness of 14 ga. (0.074 in.) and a minimum width or 3/4 in.

Brace bands have a minimum material thickness of 12 ga (0.105 in.) and a minimum width of 3/4 in.

#### **TENSION BARS**

Steel tension bars are fabricated from merchant quality steel and hot-dip galvanized with 1.2 oz/ft<sup>2</sup> min. zinc coating.

Steel tension bars used to connect 1-3/4 in. and 2 in. mesh fabric to terminal and gate posts shall be a minimum of 3/16 in. by 5/8 in. for fabric heights up to 5 ft and a minimum of 3/16 in. by 3/4 in. for fabric heights over 5 ft. Tension bars to connect 1 in. mesh fabric to terminal and gate posts are a minimum of 1/4 in. by 3/8 in.

Aluminum alloy tension bars shall be 6061-T6 or 6063-T6 alloy (ASTM B211M or B221M). Aluminum alloy tension bars used to connect 1-3/4 in. and 2 in. mesh fabric to terminal and gate posts shall be a minimum of 1/4 in. by 3/4 in.

Minimum lengths of tension bar shall be 2 in. less than the full height of chain link fabric.

# TRUSS ROD ASSEMBLY

Steel truss rods are fabricated from 5/16 in. merchant quality rod. Truss rod and tighteners shall be galvanized after threading with a minimum of  $1.2 \text{ oz/ft}^2$  of zinc coating. Truss rod and tightener shall withstand 2,000 lbs of tension.

## **BARBED WIRE ARMS**

Barbed wire arms are fabricated from pressed steel or cast iron and hot-dip galvanized with a minimum of 1.2 oz/ft $^2$  of zinc. Barbed wire arms shall be of the following types:

Type I - Single slanted arm, for 3 barbed wire strands

Type II - Single vertical arm, for 3 barbed wire strands

Type II - V-shaped arm, for 6 barbed wire strands

Type IV - A-shaped arm, for 5 barbed wire strands

Each arm shall be able to support a vertical 250 lb. load placed at the point of the outer barbed wire strand.

# FENCE FITTINGS AND ACCESSORIES



### **TENSION WIRE**

Tension wire, 7 ga.  $(0.177 \pm 0.005 \text{ in.})$  shall be either zinc or aluminum-coated per ASTM A824.

Type I aluminum-coated, minimum average coating weight of 0.40 1.2 oz/ft<sup>2</sup>.

Type II zinc-coated, class 4, minimum average coating weight of 1.2 oz/ft² of zinc.

Minimum breaking strength of 1,950 lbs.

### **TIE WIRES**

Standard round wire ties shall have either a preformed hook or pig tail at one end and designed of sufficient length to engage one picket of the chain link fabric at the preformed end with two 360° turns, then wrap around the rail or post a minimum of 180°. The opposite end of the tie should be secured to the nearest chain link fabric picket with two 360° turns to draw up tightly around the post or rail.

Types and Sizes

Steel: 9 ga.  $(0.148 \pm 0.005 \text{ in.})$ , tensile strength 55-65 ksi.

Zinc-coated - 0.80 oz/ft<sup>2</sup>, Class 3

Aluminum: Alloy 1350H19

11 ga. (0.120 ± 0.005 in.)

9 ga. (0.148 ± 0.005 in.)

6 ga. (0.192 ± 0.005 in.)

### **HOG RINGS**

Round wire hog rings for attaching chain link fabric to horizontal tension wire shall be one of the following:

Steel – 12 ga. (0.106  $\pm$  0.005), min. of 0.80 oz/ft<sup>2</sup> zinc

Steel – 9 ga.  $(0.148 \pm 0.005)$ , min. of 0.80 oz/ft<sup>2</sup> zinc.

Aluminum - 9 ga. (0.148 ± 0.005) alloy 1350-H19 wire

### **COLOR COATING OF FITTINGS**

When specified, the fittings and accessories may be color-coated with a polymer coating to match the fabric. Standard colors are contained in ASTM F934. The thickness of the polymer coating shall be a minimum of 0.006 in., maximum 0.015 in. Pressed steel or cast fittings shall be hot-dip galvanized prior to application of color coating material.

# **STANDARDS**

ASTM F 626 - Fence Fittings

RR-F-191/4 – Federal Specification, Fencing, Wire and Post, Metal (Chain Link Fence Accessories)

AASHTO M 181 – American Association of State Highway And Transportation Officials

FAA – Federal Aeronautics Administration, Item F-162

# **TECHNICAL SERVICES**



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