

Fence Fittings ASTM F 626, Federal specification RR-F-191, AASHTO M-181

1. PRODUCT NAME

Fence Fittings, Chain Link

2. MANUFACTURER

Merchants Metals

Corporate Headquarters:

Houston, TX 77067

515 West Greens Road

Phone: (800) 254-0080

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Merchants Metals Service Centers are located throughout the United States.

3. PRODUCT DESCRIPTION

Basic Use:

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

Composition and Materials:

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

Standards:

ASTM F626 *Fence Fittings*

ASTM F934 *Standard Colors for Polymer Coated Chain Link Fence Materials*

ASTM A 641 *Zinc-Coated (Galvanized) Carbon Steel Wire*

ASTM A 809 *Aluminum-Coated (Aluminized) Carbon Steel Wire*

ASTM A824 *Metallic Coated Steel Marcellled Tension Wire for Use with Chain Link Fence*

ASTM B6 *Zinc (Slab Zinc)*

ASTM B26 *Aluminum-Alloy Sand Castings*

ASTM B85 *Aluminum-Alloy Die Castings*

ASTM B209 *Aluminum and Aluminum Alloy Sheet and Plate*

ASTM B211 *Aluminum and Aluminum-Alloy*

ASTM B221 *Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes and Tubes*

ASTM B429 *Aluminum-Alloy Extruded Structural Steel and Pipe*
Federal specification RR-F-191K/4D
Type I, *Fencing, Wire and Post Metal (Fittings)*

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

4. TECHNICAL DATA

General:

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

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

Post and Line Caps

Post caps are fabricated from pressed steel or cast iron and galvanized with a minimum of 1.2 oz/ft² (366 g/m²) 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/ft² (366 g/m²) of zinc, or aluminum alloy 360.0 (ASTM B85), 356.0 or 713.0 (ASTM B26).

Top Rail Sleeves

Top rail sleeves are fabricated to prevent movement along the rail and are made from pressed steel or cast iron galvanized with a minimum of 1.2 oz/ft² (366 g/m²) of zinc, or aluminum alloy 6063-T6 (ASTM B221 or B429). The thickness is 0.051 in. (1.8 mm) of steel or 0.062 in. (1.8 mm), of aluminum alloy, min. Minimum length is 6 in. (152 mm).

Tension and Brace Bands

Tension and brace bands 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 bands have a minimum material thickness of 14 ga ((0.074 in. (1.88 mm)) and a minimum width of 3/4 in. (19 mm).

Brace bands have a minimum material thickness of 12 ga ((0.105 in. 2.66 mm)) and a minimum width of 3/4 in. (19 mm).

Tension bars

Steel tension bars are fabricated from merchant quality steel and galvanized, minimum zinc coating weight 1.2 oz/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 end, gate and corner posts 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 are fabricated from 5/16 in. (8 mm) merchant quality rod. Truss rods and tighteners are galvanized after threading with a minimum of 1.2 oz/ft² (366 g/m²) of zinc and shall withstand 2000 lb (900 kg) of tension.

Barbed Wire Arms

Barbed wire arms are fabricated from pressed steel of cast iron and galvanized with a minimum of 1.2 oz/ft² (366 g/m²) of zinc.

Barbed wire arms are available as various types (see drawing).

5. AVAILABILITY AND COST

Availability:

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

Cost:

Cost may vary depending on specific requirements. Costs may be obtained through all Merchants Metals Service Centers.

6. MAINTENANCE

Periodic inspection is recommended but no routine maintenance is required.

7. TECHNICAL SERVICES

Specifications, drawings and other technical services are available through the Merchants Technical Sales Department:

Phone: (888) 260-1600 (toll free)
Facsimile: (888) 261-3600 (toll free)

or your local Merchants Metals Service Center.

Merchants Metals Spec Tech

Tie Wires

Standard round wire ties are either preformed hook or pig tail at one end are designed to engage one picket of the chain link fence at the preformed end and wrap around the rail or post a minimum of 180° and wrap around one picket of the chain link fence fabric at least one full turn at the other end to draw up tightly around the post or rail.

Types and Sizes:

(1) Steel: 9 ga ((0.148 ± 0.005 in. (3.76 mm ± 0.13 mm)) tensile strength 55-65 ksi:

Zinc coated: 0.80 oz/ft² (230 g/m²), ASTM A 641 Class 3.

(2) Aluminum: Alloy 1350H19 11 ga (0.120 ± 0.005 in.)

(3.05 mm ± 0.13 mm) or

Tie Wires (continued)

9 ga (0.148 ± 0.005 in.

(3.76 mm ± 0.13 mm) or

6 ga ((0.192 ± 0.005 in.

(4.88 mm ± 0.13 mm)

Hog Rings

Hog rings for attaching fabric to tension wires are :

(1) Steel, 9 ga ((0.148 ± 0.005 in. (3.76 ± 0.13 mm)), zinc coating 0.80 oz/ft² (230 g/m²), ASTM A 641 Class 3 or;

(2) Aluminum alloy 1350-H19, 9 ga ((0.148 ± 0.005 in. (3.76 ± 0.13 mm)) or 11 ga ((0.120 ± 0.004 in. (3.05 ± 0.13 mm))

Tension Wire

Tension wire, 7 ga (0.177 ± 0.005 in. (4.50 ± 0.13 mm) is either zinc or aluminum coated:

Tension Wire (continued):

Type I zinc coated, Class 2, minimum average coating weight 1.2 oz/ft² (366 g/m²)

Type II aluminum coated, minimum average coating weight 0.40 oz/ft² (122 g/m²).

Minimum breaking strength is 1,950 lbf (14,230 N).

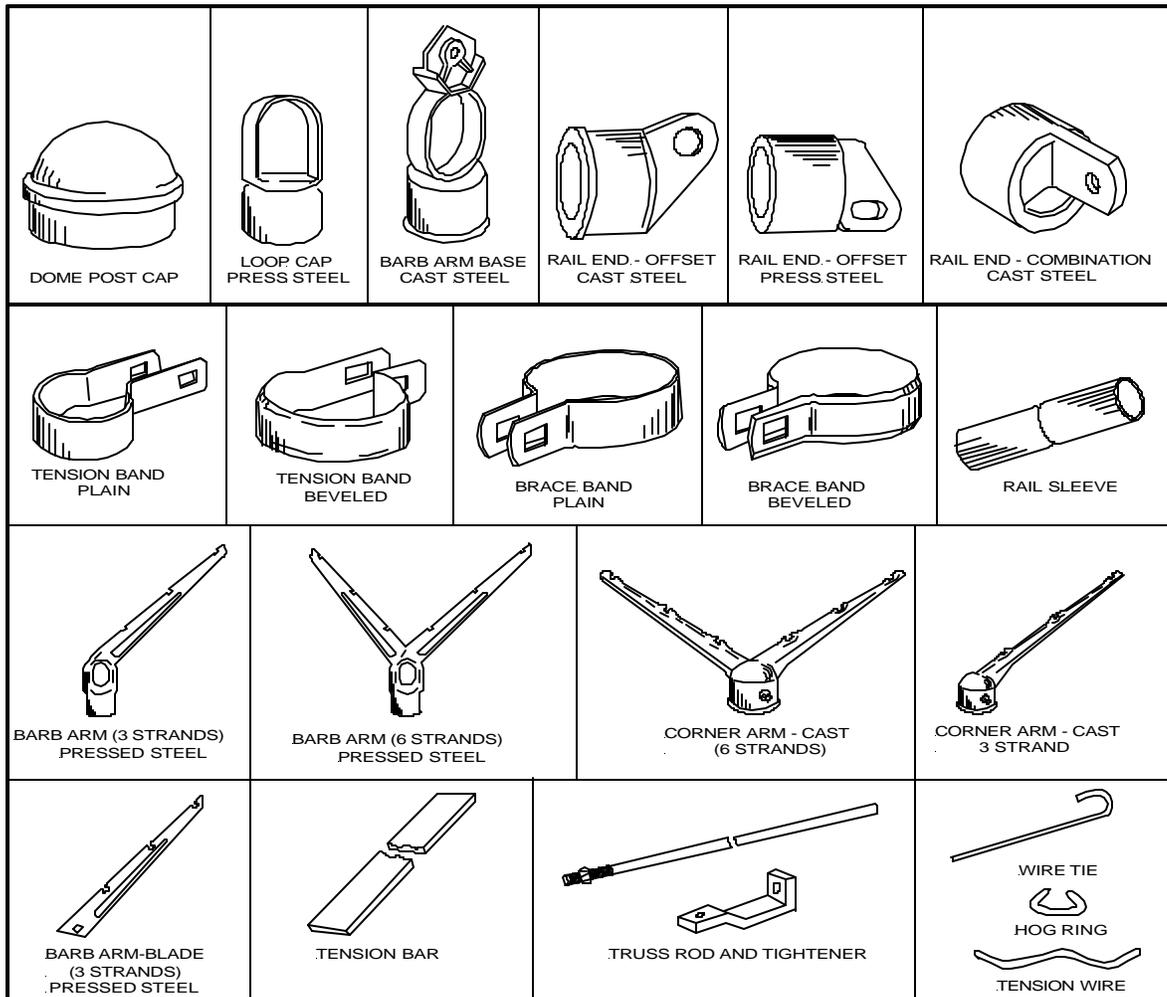
Color Coating of Fittings

Fittings may be color coated with a polymer to match the fabric, when so specified. Standard colors are as contained in ASTM F934.

The thickness of the color coating is from 0.006 to 0.015 in. (0.152 mm to 0.381 mm).

Painted fittings are not acceptable.

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



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The First Name In Fence