



TITAN
ARCHITECTURAL FENCE by FORTRESS



DURABLE

- 100% G60 Steel
- E-coat & Powder Coat System
- UV inhibitors reduce fading over time

SECURE

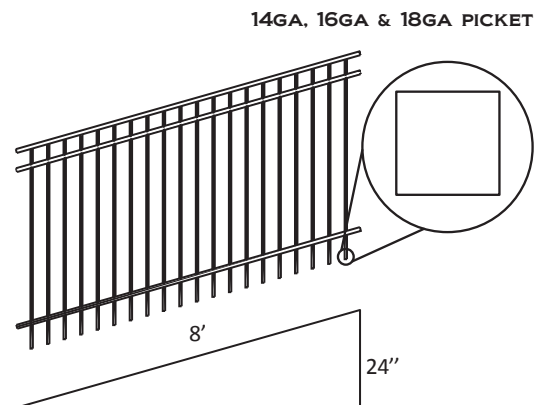
- Slide Lock Rail
- 680 LB mid-span load per rail
- Fully Pre-assembled

ENGINEERED

- Easily adjusts 24" on an 8' panel to match terrain
- No steel fatigue
- Coating is not compromised when racked



- 45000PSI Steel
- G60 Zinc Galvanize
- Zinc Rinse
- E-Coat
- Black Premium Powder Coat

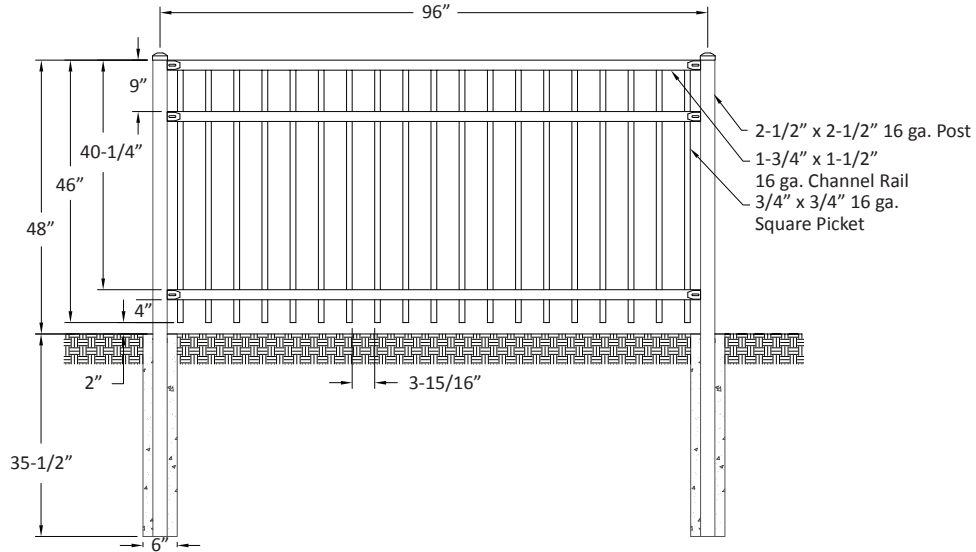


COMMERCIAL



**TITAN ARCHITECTURAL BY FORTRESS
COMMERCIAL SPECIFICATIONS**

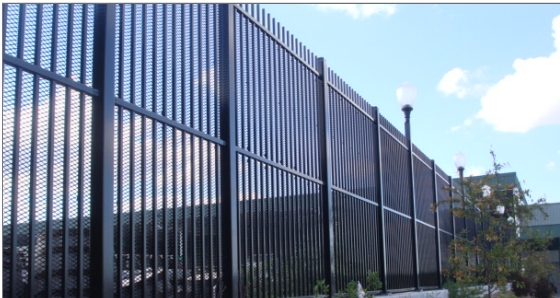
PICKETS	3/4" x 3/4" x 16 gauge
RAILS	1-3/4" x 1-1/2" x 16 gauge
RAIL SLIDE LOCK	G60 Galvanized Steel - 18 gauge
POSTS	2-1/2" x 2-1/2" x 16 gauge
OPTIONAL POSTS	2-1/2" x 2-1/2" x 14 gauge 2-1/2" x 2-1/2" x 12 gauge 3" x 3" x 12 gauge
PICKET SPACING	3-15/16" Air Space
HEIGHTS AVAILABLE	34", 46", 58", 70"
WIDTHS AVAILABLE	90.5"
ALLOY	G60 Galvanized Steel
FULLY ASSEMBLED	8' On Center Spacing (Based on 2-1/2" posts)
Styles: 2 & 3 Rails - Flat Top, Extended Picket, and Pressed Spear	



RECOMMENDED USE

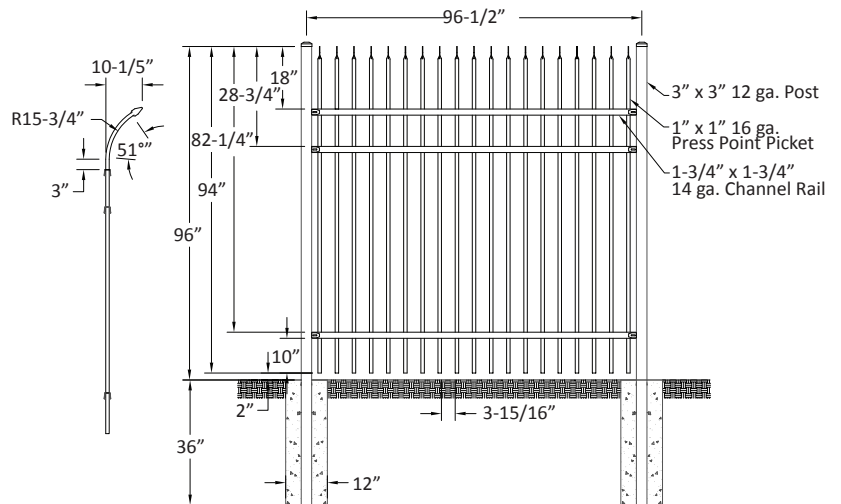
- SCHOOLS ◦ PUBLIC HOUSING AUTHORITIES ◦ PUBLIC POOLS
- APARTMENT COMPLEXES ◦ CHURCHES ◦ RESTAURANTS

INDUSTRIAL



**TITAN ARCHITECTURAL BY FORTRESS
INDUSTRIAL SPECIFICATIONS**

PICKETS	1" x 1" x 18 gauge, 16 gauge, or 14 gauge
RAILS	1-3/4" x 1-3/4" x 14 gauge
RAIL SLIDE LOCK	G60 Galvanized Steel - 18 gauge
POSTS	2-1/2" x 2-1/2" x 16 gauge
OPTIONAL POSTS	2-1/2" x 2-1/2" x 14 gauge 2-1/2" x 2-1/2" x 12 gauge 3" x 3" x 12 gauge
PICKET SPACING	3-15/16" Air Space
HEIGHTS AVAILABLE	34", 46", 58", 70", 82", 94", 106", 118"
WIDTHS AVAILABLE	90.5"
ALLOY	G60 Galvanized Steel
FULLY ASSEMBLED	8' On Center Spacing (Based on 2-1/2" posts)
Styles: 2 & 3 Rails - Flat Top, Extended Picket, Pressed Spear, and Curved Top	



RECOMMENDED USE

- ENERGY PLANTS ◦ WATER TREATMENT FACILITIES ◦ STADIUMS
- UNIVERSITIES ◦ HOSPITALS ◦ GARDEN CENTERS ◦ EVENT CENTERS
- FINANCIAL INSTITUTIONS



TITAN ARCHITECTURAL

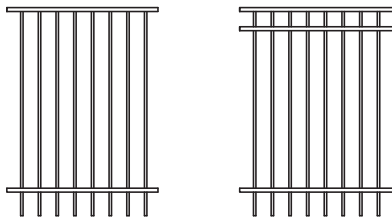
COMMERCIAL & INDUSTRIAL FENCE
 PANEL STYLES & ACCESSORIES



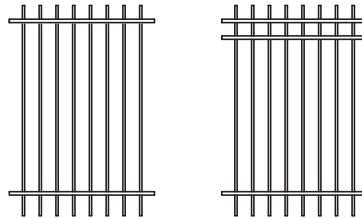
PANEL STYLES



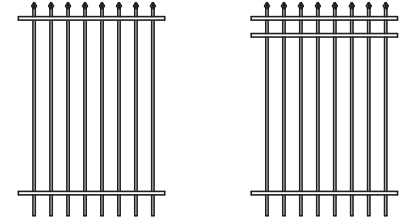
FLAT TOP (FT)



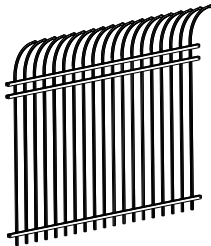
EXTENDED PICKET (EXT)



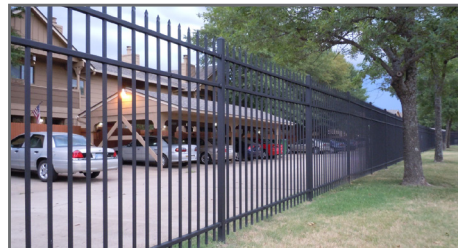
PRESSED SPEAR (SP)



CURVED TOP (CT)

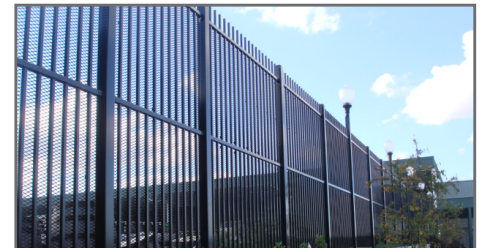


*Use CT post cap to maintain 4" spacing



COMMERCIAL

2 RAIL	3 RAIL
34"	34"
46"	46"
58"	58"
70"	70"

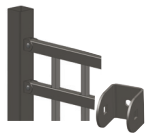


INDUSTRIAL

2 RAIL	3 RAIL
34"	34"
46"	46"
58"	58"
70"	70"
	82"
	94"
	118"

ACCESSORIES

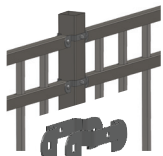
BRACKETS



EXTERIOR ONE DIRECTION (EX-107)



SWIVEL BRACKET (EXS-107)

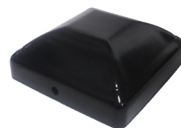


EXTERIOR TWO DIRECTION (EXW-207)



EXTERIOR THREE DIRECTION (EXW-307)

POST CAPS



DOMES



CURVED TOP

RECOMMENDED POST CHART

PANEL HEIGHT	8' O.C. PANEL
3' TALL	2.5" SQ. POST
4' TALL	2.5" SQ. POST
5' TALL	2.5" SQ. POST
6' TALL	3" SQ. POST
7' TALL	3" SQ. POST
8' TALL	3" SQ. POST
9' TALL	4" SQ. POST
10' TALL	4" SQ. POST

FINISH



BLACK



TITAN ARCHITECTURAL 3 PART SPECIFICATION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Steel Ornamental Picket Fencing.

1.02 RELATED SECTIONS

- A. Section 32 13 00 - Paving and Surfacing
- B. Section 03 06 30 - Cast-In-Place Concrete
- C. Section 04 20 00 - Unit Masonry

1.03 SUBMITTALS

- A. Changes in specifications may not be made after the published date of bid. All submittals of substitutions must be approved before bid date.
- B. Shop drawing of fences and gates with all dimensions, details, and finishes. Drawings must include post foundations.
- C. Product data: Manufacturer's catalog cuts indicating materials compliance that all conditions of the specifications have been met.

1.04 SPECIAL WARRANTY

Provide manufacturer's standard limited warranty that its ornamental fence system is free from defects in material and workmanship including cracking, peeling, blistering and corroding for a period of 20 years from the date of purchase.

PART 2 PRODUCTS

2.01 MANUFACTURER

- A. Fortress Fence – Richardson, TX. 75081. (Phone 866-323-4766, Fax 972-644-3720) Products from other qualified manufacturers who have five years or more experience manufacturing steel ornamental picket fencing will be considered by the architect as equal if approved in writing 10 days prior to biddings, and they meet all specifications for design, size gauge of metal parts and fabrication.

- B. Picket fences and gates must be obtained from a single source.

- C. Approved Supplier:

2.02 ORNAMENTAL PICKET FENCE

Style: Titan Industrial -1" Spear Point, Extended, Flat Top or Curved Top

Height: 3',4',5',6',7',8',9' & 10'

- A. Pickets: Galvanized square steel tubular members manufactured per ASTM A-924/A-924M, having a 45,000 psi (310 MPa) yield strength and hot-dip galvanized per ASTM A653/A653M with a G60 zinc coating, 0.60 oz/ft² (0.18 kg/M²). Minimum size pickets 1". Space pickets 3-15/16" maximum (100 mm) face to face. Attach pickets to each rail with Slide Lock System Patent No. 6752386. Picket minimum gauge wall thickness 18, 16 or 14 gauge.
- B. Rails: 1-3/4" x 1-3/4", 14 gauge thick galvanized steel square rail per ASTM A-653/A-653M, having a 50,000 psi (344 MPa) yield strength and G60 zinc coating, 0.60 oz/ft² (0.18 kg/M²). Punch rails to receive pickets and attach rails to rail brackets with, 1/4" (6 mm) industrial bolt.
- C. Posts: Made of galvanized steel tube, galvanized inside and outside, produced per ASTM A-653/653M G60 zinc coating, 0.60 oz/ft² (0.18 kg/M²), steel to have 45,000 psi (310 MPa) yield strength. Post size 2-1/2" to have 12, 14 or 16 gauge wall thickness. Post size 3" to be 12 Gauge and post size 4" to be 11 or 12 Gauge.

- D. Finish: All primary components receive a thorough cleaning and pre-treatment – This 12-step process consists of 1.) Hot alkaline cleaner, 2.) Clear water rinse, 3.) Zinc rinse application, 4.) Clear water rinse, 5.) Z-153 sealer application, 6.) Ring rinse, 7.) Deionized water rinse, 8.) Dry off oven heat at 425° F, 9.) E-Coat Dip 10.) Gel oven heat at 400°F, 11.) Ultra polyester finish powder coat at 2-4 mins., 12.) Final curing oven at 450° F Choose color-Black.

2.03 ACCESSORIES

- A. Grommets inserted into pre-punched holes in the rails and pickets inserted through the grommets so that the pre cut groove in the picket align with the Slide Lock Channel in the rail.
- B. Assembled panel capable of supporting a 680 lb. load (applied at midspan) without permanent deformation.
- C. Post Caps: Cast iron, malleable iron or formed steel manufactured to form a weather-tight closure. Caps to be (flat tops) style on all posts. (Choose ball type or flat tops.)

2.04 GATES

- Ornamental picket swing gates (see section 32 31 19.13)
- Ornamental picket cantilever slide gates (see section 32 31 19.14)

2.05 SETTING MATERIALS

- A. Concrete: Minimum 28 day compressive strength of 3,000 psi (20 Mpa).
- B. Flanged Post: Provide flanged base plates with 4 holes for surface mounting where indicated. (For wall mount or pad mount situations.)

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify areas to receive fencing are completed to final grades and elevations.
- B. Property lines and legal boundaries of work to be clearly established by the general contractor or property owner.

3.02 FENCE INSTALLATION

- A. Install fence per manufacturer's recommendations.
- B. Space posts uniformly at 96" center to center unless instructed otherwise.
- C. Set posts in concrete. Dig holes having a diameter 4 times the diameter of the post, and 6" (152 mm) deeper than the bottom of the post. Forms are not necessary or recommended. Crown concrete at top to shed water.
- D. Check each post for vertical and top alignment.
- E. Attach brackets using 1/4" (6 mm) carriage bolts with lock nuts.

3.03 CLEANING

- A. Clean up debris and remove from the site.

