



COMMERCIAL ORNAMENTAL IRON FENCE SYSTEMS



First Because They Last.™

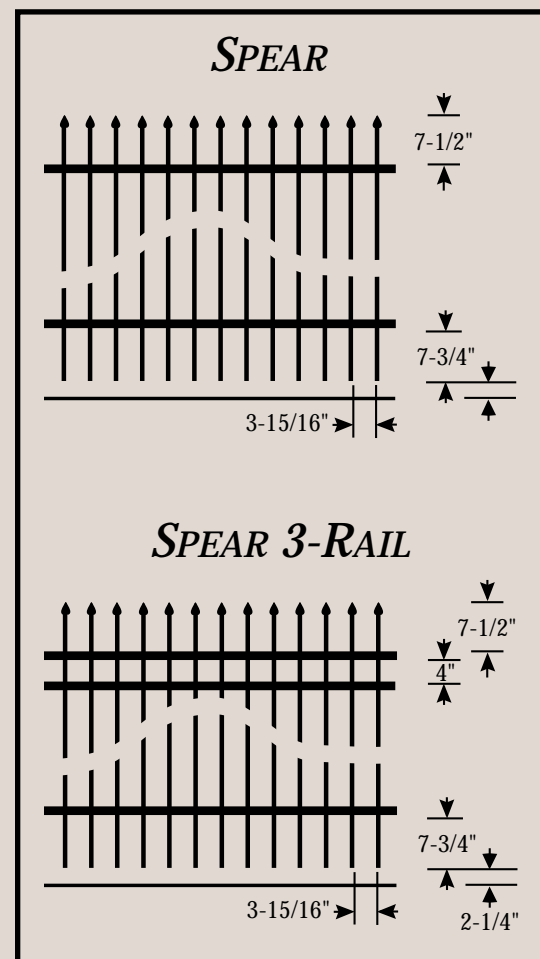
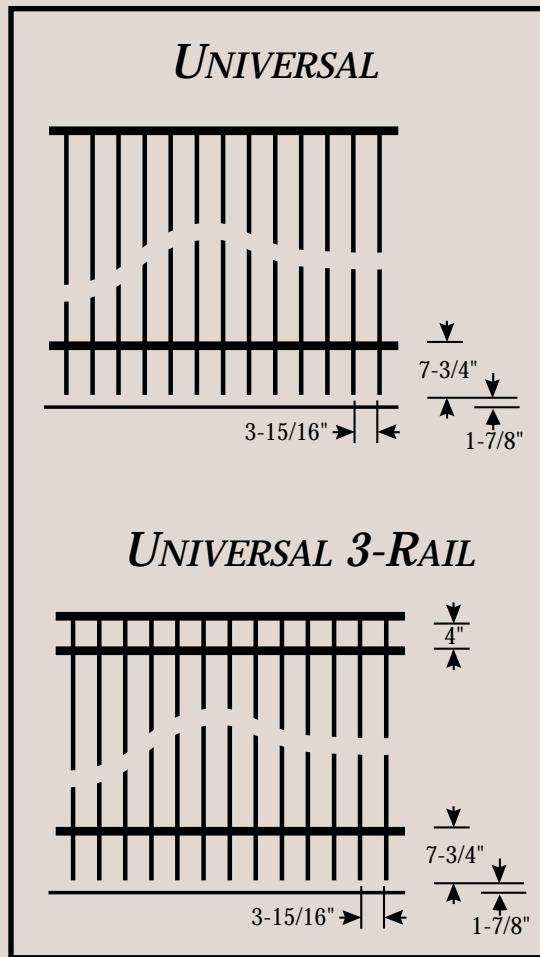


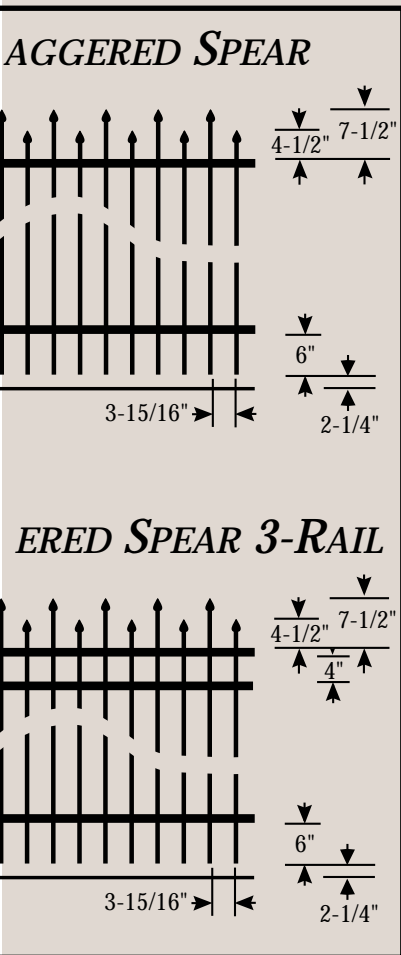
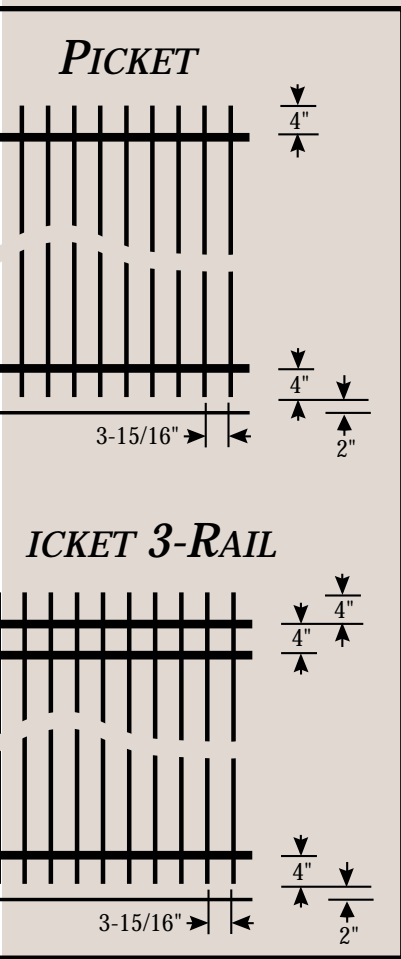
Master Halco's Classic Premier™ Commercial Ornamental fencing was specifically designed to meet the rigorous requirements of commercial applications. Constructed of heavy-gauge galvanized steel and coated with a state-of-the-art, mar-resistant polyester powder-coat finish, this fencing offers a degree of strength, durability and corrosion resistance that is clearly premier. Engineered to maximize strength, the special shape of our Classic Premier rail is two to three times stronger than many other fence systems.

With eight attractive styles and four colors to choose from, Classic Premier Commercial offers you the flexibility to design a fence that complements your design or application. All styles are available in heights up to 6 feet and all are available in six- or eight-foot lengths that rack to conform to slopes. Choose from two gate options; welded swing gates (single or double) for pedestrian or driveway applications and aluminum cantilever gates for sliding gate applications.

Classic Premier Commercial is designed with ease of handling and installation in mind. Panels are supplied unassembled to avoid damage during shipping. Panel assembly is accomplished by a unique fastening system contained within the fence rails. Installation is performed entirely with bolts so that the integrity of the four-step coating is not compromised. Classic Premier Commercial comes with a 12-year limited warranty*. A warranty backed by Master Halco, one of the largest distributors and manufacturers of fencing materials in the world.

*See actual warranty for details.





RAIL STRENGTH

Classic Premier Rail (Steel)

Square Rail (Steel)

U-Channel (Aluminum)

STRENGTH COMPARISON

Applied lbs. at mid-span*

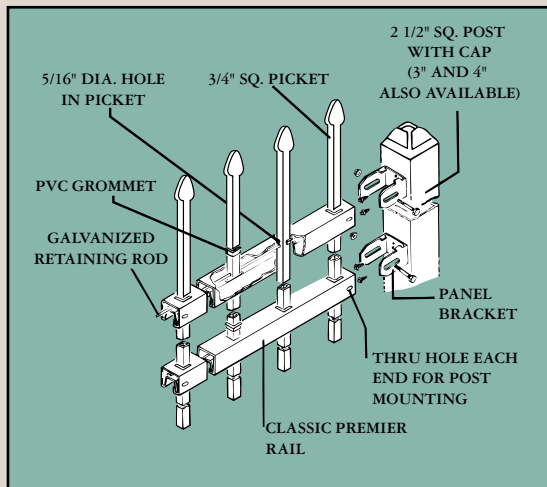
Vertical Load Data	PV _d = Vertical Design Load** @ .66 F _y	6' Span	430#***	112#	173#
		8' Span	325#***	84#	130#
Horizontal Load Data	PV _d = Horizontal Design Load @ .66 F _y	6' Span	422#	348#	318#
		8' Span	318#	261#	239#
S _V = Section Modulus (IN ³) Vertical			.1612	.0816	.1350
S _H = Section Modulus (IN ³) Horizontal			.254	.190	.260
W = Rail Weight (LBS/FT)			2.13	1.37	0.54
F _y = Yield Strength			50,000	45,000	35,000

* Values shown in graph are representative of the rails over an 8' span.

** Vertical Design Loads are per rail; for capacity of fence panel, multiply by number of rails.

** Vertical Design Loads include multiplying factor based on rigid connection of special bracket.

*



Detail Illustration

Classic Premier™ Commercial Ornamental fencing is available in the following colors:



WIND LOADING

Height (FT)	Rail Length	Post Size	Wind Load Capacity (PSF)	Typical Wind Load Capacity (mph)
6	6	2-1/2" X 12GA	45.5	133
		3" X 12GA	54.6	146
	8	2-1/2" X 12GA	34.2	116
		3" X 12GA	41.0	127

Note: Mph calculated using ANSI/ASCE 7-88, "American Society of Civil Engineers Minimum Design Loads for Buildings and other Structures." Exposure Category B (Urban and suburban areas with closely spaced obstructions having the size of single-family dwellings or larger). For wind loading applicable to a particular specification, consult the appropriate Building Code.

SALT SPRAY TEST - ASTM B117

Independent Test Lab Results:

Each of the specimens were scribed (ASTM D1654) with a cut through the coating to the bare metal. The specimens were then exposed to a 5% salt spray (ASTM B117) and evaluated periodically for degree of rusting and/or any change in the coating.

Specimen A was removed after 100 hours. Specimens B and C were removed after 300 hours. These three specimens showed the following results:

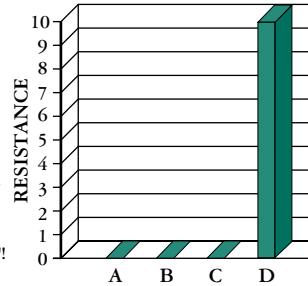
Specimens A, B and C - each of these specimens showed similar failure, the coating softened and blistered extensively and there was rust along the

scribe line. When the specimens were scraped, the coating along the scribe line and on the blistered areas was easily removed. The creepage rating was a "0" for loss of coating (worst possible rating).

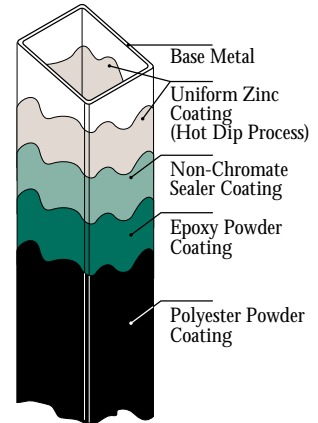
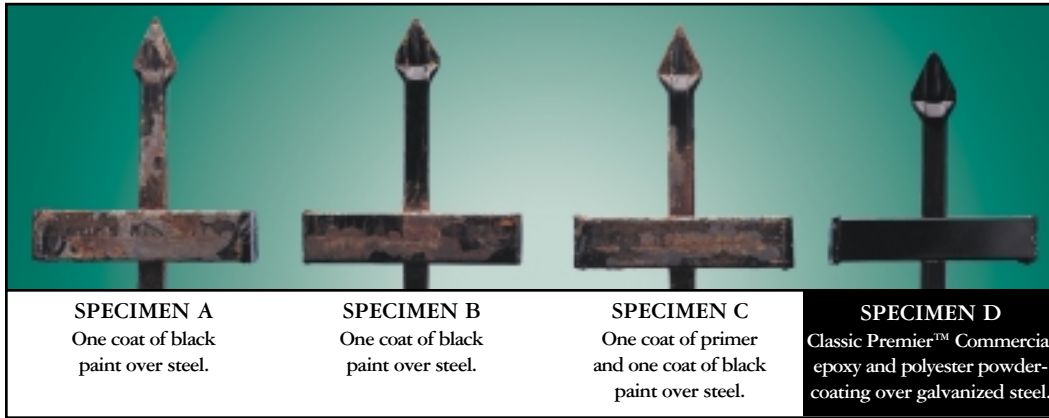
Specimen D was removed after 300 hours. The results were as follows:

Specimen D - No rust and absolutely no coating removed! The specimen was in a condition similar to when it was first exposed to the salt spray, even after scraping! Classic Premier Commercial Ornamental received the best possible rating, "10"!

**RESISTANCE TO CORROSION CREEPAGE
SPECIMENS RATED PER ASTM D1654**



12-YEAR LIMITED WARRANTY



**Classic Premier™
Commercial 4-Step Coating**

SPECIFICATIONS

Section 02830

Ornamental Iron Fencing

1.01 Work Included

The contractor shall provide all labor, materials and accessory items necessary for the installation of the ornamental metal fence system defined herein at (specify project location).

1.02 Related Work

Section 022 __ Earthwork
Section 030 __ Concrete

1.03 System Description

The manufacturer shall supply a total ornamental fencing system of the design, style, strength and picket spacing defined herein. The system shall include all components; pickets, rails, posts, gates and hardware as required.

1.04 Quality Assurance

The contractor shall provide laborers and supervisors who are thoroughly familiar with the type of construction involved and the materials and techniques specified.

1.05 References

ASTM A 513 - Standard Specifications for Electric-Resistance-Welded Carbon and Alloy Steel Mechanical Tubing.

ASTM A 526 - Specifications for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Commercial Quality.

ASTM B117 - Standard Test Method of Salt Spray (Fog) Testing.

ASTM D1654 - Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments.

1.06 Submitted

Product literature and warranty shall be submitted prior to installation to confirm compliance with the requirements for the materials specified in this section.

1.07 Product Handling and Storage

Upon receipt at the jobsite all materials shall be inspected to ensure that no damage has occurred during shipping. Materials shall be stored in such a manner as to preclude damage, vandalism and theft.

2.01 Supplier

The ornamental metal fencing system shall conform to Master Halco Classic Premier Commercial Ornamental _____ style (specify style from options in current Classic Premier Commercial Ornamental literature).

2.02 Materials

A. All primary fence components; pickets, rails and posts shall be manufactured from coil steel having a yield strength of 50,000 psi.

B. All primary fence components; pickets, rails and posts shall be galvanized by the hot dip process to meet the requirements of ASTM A526 and shall have a minimum zinc coating thickness of .90 oz/sq. ft. (coating designation G90).

C. Pickets shall be 3/4" sq. 16 ga., cold rolled steel tubing manufactured per ASTM A513.

D. Rails shall be made of 14 ga., cold rolled steel. The cross-sectional shape of the rails shall conform to the manufacturer's Classic Premier rail design. The cross-sectional outside dimensions of the rails shall be 1-1/2" sq. Each rail shall have a minimum weight of 2.13 pounds per square foot.

E. Posts shall be 2-1/2" sq., 12 ga., cold rolled steel tubing manufactured per ASTM A513.

2.03 Finish

A. Galvanized steel fence components shall be subjected to a six-stage wash and pre-treated system which includes a zinc phosphatizer and a non-chromate sealer.

B. Galvanized steel fence components shall then receive a two-step powder coating applied by the electrostatic spray process. The base coat shall be a thermosetting epoxy powder coating with a minimum coating thickness of 2-4 mils. The top coat shall be a mar-resistant TGIC polyester powder coating with a minimum coating thickness of 2-4 mils.

C. Color shall be _____ (select option from current Classic Premier Commercial Ornamental literature).

D. Coated galvanized steel fence components shall be capable of withstanding 3500 hours of salt spray testing, without loss of adhesion, as specified in ASTM B117.

2.04 Fabrication

A. Pickets, rails and posts shall be cut to specified lengths. Rails shall be punched to accept pickets. Pickets shall be drilled to accept retaining rods. Cutting, punching and drilling shall be done prior to coating to facilitate assembly without compromising the integrity of the finish.

B. PVC grommets shall be inserted into the pre-punched holes in the rails. Pickets shall be inserted through the grommets so that the pre-drilled holes in the pickets align with the internal upper raceway of the rails.

C. A 1/8" diameter galvanized steel retaining rod shall then be inserted into the upper raceway of the rails through the pre-drilled holes in each picket.

D. Completed sections shall be capable of supporting a 400 pound load at mid-span without permanent deformation. Completed sections can rack up to 24" in 8' section or 18" in 6' section (14°).

E. Posts shall have a square cap firmly affixed to the extending end.

F. Gates shall be fabricated using panel material except the uprights which shall be 1-3/4" sq. 14 ga. All intersections of gate material shall be joined by welding.

2.05 Warranty

A. The ornamental metal fence system shall include a written 12-year limited warranty against defects in materials and workmanship.

B. The ornamental metal fence system shall include a written 12-year limited warranty on the coating against cracking, chipping, blistering, peeling or corroding. Refer to warranty certificate for complete details and limitations.

3.01 Preparation

All new installations shall be laid out by the contractor in accordance with the construction plans.

3.02 Installation

A. Set fence posts at (specify 76-3/4" o.c. ± 1/2" for 6' o.c. nominal with 2-1/2" sq. posts or 95-1/2" o.c. ± 1/2" for 8' o.c. nominal with 2-1/2" sq. posts). Set gate posts for gate opening specified in the construction drawings. Posts shall be placed a minimum of 36" into the ground and set in concrete.

B. Attach fabricated panels to posts using brackets supplied by the manufacturer.

C. Install gates by attaching hardware supplied by the manufacturer.

3.03 Cleaning

Contractor shall clean the jobsite of construction debris.

Specifications subject to change without notice.



For more information, contact our Customer Service Department:
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