Aegis II™ Industrial
Aegis Plus™ Commercial

Ornamental Steel Fence
and
TransPort™ Ornamental Gates

Maintenance-Free PermaCoat™ Finish
Over Galvanized High Strength Steel

www.ameristarfence.com
Ameristar® was chartered several years ago to provide specialty fence products that were more affordable, but did not compromise the quality level demanded by specifiers and consumers. This could be accomplished only by complete reformation of the way fence products were being manufactured. Product design was approached from many new perspectives: maximizing high-volume productivity; increasing strength and durability; promoting ease of installation; ensuring an environmentally friendly workplace; and enhancing aesthetic appearance. A new plant was designed and built to house state-of-the-art roll-forming, metal processing and powder coating equipment. The result (shown in the photo above) has boosted Ameristar to its current position as the largest manufacturer of ornamental fencing in the world.

**HOW DO YOU SELECT A MANUFACTURER?**

*Ask these questions*

**IS THE COMPANY EXPERIENCED?**
- Does the company’s experience extend to product installation and use?
- Does the company’s experience include an understanding of consumer preferences?

**IS THE COMPANY CAPABLE?**
- Does the company have an integrated in-house process or must operations be sublet?
- Does the company maintain extensive raw materials and finished goods inventory?

**IS THE COMPANY A LEADER?**
- Does the company merely meet minimum requirements or does it rise above?
- Do the company’s products seem “just like all the others” or do they have added value?
Aegis® - A revolutionary system of fence posts, framework and mounting accessories that are easily assembled to form an attractive “good neighbor” appearance with no exposed fasteners. Any truly great product must have a defining feature that sets it apart from all others; Ameristar’s Aegis® fences, including Aegis II® Industrial and Aegis Plus® Commercial, has two such features:

**FORERUNNER™ RAIL**  
(Four Walls of Steel)

- NO RIVETS
- NO SCREWS
- NO WELDS

**PERMACOAT® FINISH**  
(Double-Coat over Galvanized)

The steel base material has a G-90 hot dip zinc coating, galvanized by a process developed especially for powder coating. Electrostatic application in the PermaCoat® powder coating system results in coated surfaces with unmatched performance. The base coat of epoxy powder far surpasses the corrosion resisting abilities of painted surfaces. The “no-mar” polyester powder top coat reduces scratches and burnishing marks normally encountered during shipping.
## SUPERIOR STRENGTH AND SECURITY

### RAIL STRENGTH

<table>
<thead>
<tr>
<th>Structural Parameters</th>
<th>Square (Steel)</th>
<th>Square (Steel)</th>
<th>U-Channel (Steel)</th>
<th>U-Channel (Aluminum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>T&lt;sub&gt;eff&lt;/sub&gt; = Effective Wall Thickness (IN)</td>
<td>.083</td>
<td>.095</td>
<td>.120</td>
<td>.100/.070</td>
</tr>
<tr>
<td>S&lt;sub&gt;v&lt;/sub&gt; = Section Modulus (IN) Vertical</td>
<td>.188</td>
<td>.115</td>
<td>.0938</td>
<td></td>
</tr>
<tr>
<td>S&lt;sub&gt;h&lt;/sub&gt; = Section Modulus (IN) Horizontal</td>
<td>.309</td>
<td>.147</td>
<td>.210</td>
<td>.260</td>
</tr>
<tr>
<td>W = Rail Weight (LBS/FT)</td>
<td>2.11</td>
<td>1.75</td>
<td>1.68</td>
<td></td>
</tr>
</tbody>
</table>

Profile of the Architectural Shape of the Rail

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

<table>
<thead>
<tr>
<th>Vertical Load Data</th>
<th>6' Span</th>
<th>8' Span</th>
</tr>
</thead>
<tbody>
<tr>
<td>PV&lt;sub&gt;f&lt;/sub&gt; = Ultimate Vertical</td>
<td>523#</td>
<td>320#</td>
</tr>
<tr>
<td>PH&lt;sub&gt;d&lt;/sub&gt; = Horizontal Design Load</td>
<td>859#</td>
<td>409#</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Horizontal Load Data</th>
<th>6' Span</th>
<th>8' Span</th>
</tr>
</thead>
<tbody>
<tr>
<td>PV&lt;sub&gt;d&lt;/sub&gt; = Vertical Design Load @ .66 f</td>
<td>345#</td>
<td>211#</td>
</tr>
<tr>
<td>PH&lt;sub&gt;f&lt;/sub&gt; = Ultimate Horizontal</td>
<td>567#</td>
<td>270#</td>
</tr>
</tbody>
</table>

* RECOMMENDED LOAD VALUE FOR SAFE STRUCTURAL DESIGN (Allowable Strength = .66F<sub>y</sub>).

### ATTACHMENT SECURITY

#### Picket To Rail
ForeRunner™ Rail with Enclosed Retaining Rod

Rod is completely enclosed. Attachment cannot be compromised.

#### Rail To Bracket
Aegis II™ Security Fastener

One-way fastener cannot be loosened by normally available tools.

#### Bracket To Post
Aegis II™ Industrial Bracket
High Strength Stainless Steel

Stainless steel is 75,000 PSI yield strength. Bracket will not fracture on severe impact as will cast material. Bracket allows simultaneous 45° rotation side to side and up and down.

Ameristar® is America’s largest manufacturer of ornamental steel fencing. Designing and forming a unique enclosed fastening system with vastly superior strength and security is one of the reasons for that achievement.
**Superior Finish**

**Protective Applications**

<table>
<thead>
<tr>
<th>Aegis II® Fence System</th>
<th>Riveted U-Channel</th>
<th>Steel Welded Fences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Galvanizing (G-90)</td>
<td>Galvanizing</td>
<td>Steel</td>
</tr>
<tr>
<td>Zinc Phosphate</td>
<td>Iron Phosphate</td>
<td>Primer</td>
</tr>
<tr>
<td>Epoxy</td>
<td>Polyester</td>
<td>Top Coat</td>
</tr>
<tr>
<td>No-Mar Polyester</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Salt Spray Resistance (ASTM B117)**

<table>
<thead>
<tr>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,500 Hrs</td>
</tr>
<tr>
<td>500 Hrs</td>
</tr>
<tr>
<td>100 Hrs</td>
</tr>
</tbody>
</table>

**Pre-Treatment/Coating Process**

**11 Stage PermaCoat® Double-Coating Process**

- Alkaline Wash
- Surfactant Rinse
- Zinc Phosphate
- Clear Water Rinse
- Non-Chromate Seal
- Clear Water Rinse
- Fixidine Rinse
- Alkaline Wash
- Clear Water Rinse
- Non-Chromate Seal
- Clear Water Rinse
- Drying Oven
- Zinc Phosphate
- Drying Oven
- Non-Chromate Seal
- Clear Water Rinse
- Drying Oven
- Polyester Powder Booth
- Cure
- Polyester Powder Booth
- Cure
- Polyester Powder Booth
- Cure
- Polyester Powder Booth
- Cure
- Polyester Powder Booth
- Cure

**Conventional Polyester Process**

- Glass & Phosphate
- Cure
- Polyester Powder Booth
- Cure

**Conventional Painting Process**

- Spray Primer
- Spray Finish
- Air Dry

**Corrosion Resistance**

Welded steel fences are frequently painted or single-coated without pre-treatment. Ameristar’s PermaCoat® system ensures the maximum protection that can be applied. The graph to the right shows dramatically how this compares with painted steel.

**Salt Spray Resistance**

In Accordance with ASTM B117 Test Method

- Painted over Steel
- Primed and Painted over Steel
- Iron Phosphate w/1 coat Polyester Powder
- Zinc Phosphate w/1 coat Polyester Powder
- PermaCoat® - Zinc Phosphate w/1 coat Epoxy Powder

**Independent Laboratory Test**

- 5,000 Hrs
- 4,000 Hrs
- 3,000 Hrs
- 2,000 Hrs
- 1,000 Hrs
- 0 Hrs

Ameristar® is America’s largest manufacturer of ornamental steel fencing. Applying the most extensive surface protection ever used on ornamental steel fencing is one of the reasons for that achievement.
SUPERIOR VALUE

SYMMETRY OF DESIGN
Aegis II® and Aegis Plus® Fence System

AMERISTAR® PERMACOAT® (DOUBLE COATED)

- "Good Neighbor" Design
- Pickets follow ForeRunner™ Centerline
- No Fasteners are Exposed

Clean uninterrupted look -
The same pleasing view from either side of fence.

CONVENTIONAL RIVETED OR WELDED

- One-Sided Appearance
- Pickets Leave Gap on Inside
- Rivets Create Visual Distraction

Disrupted look -
Viewer sees asymmetrical alignment and exposed rivets.

ABILITY TO FOLLOW GRADES
Aegis II® and Aegis Plus® Fence System

Biasability a minimum of 25%.
Does not require special assembly.

TOTAL PROCESS CONTROL

Ameristar® is America’s only ornamental fence manufacturer who controls all manufacturing processes and all quality criteria, from receipt of raw material to completion of finished product, totally inside the factory.

AMERISTAR FENCE PRODUCTS - TULSA, OKLAHOMA

Ameristar’s direct manufacturing throughput system ensures a competitive initial cost but a significantly lower long term cost enabled by superior strength and higher quality coating.

Compare strength, finish, security and value. See why Ameristar® is the world’s largest manufacturer of ornamental fencing.
Ameristar’s Aegis II® industrial steel ornamental fences not only control access, as one would expect from an industrial fence; Aegis II® also enhance the beauty of the facilities and properties they surround.
Security and protection are combined with the beauty of ornamental fencing in the Invincible™ design. Each picket is spear-topped and extends one foot above the top rail, curving outward to make this fence incapable of being overcome, as the name implies.

Like all Aegis II® fences, the Invincible™ can follow almost any grade and retain its clean, straight look.
A meristar’s spear-pointed picket extends through the ForeRunner™ top rail to form the attractive traditional Classic™ design. The picket spear is formed with a 3/8” diameter rounded tip rather than a sharp point.
The Majestic™ design is formed to a configuration of contemporary simplicity that maintains a stately look of dignity.
The Genesis™ style offers extended pickets similar to the Classic™, but is differentiated by having a flat rather than spear-shaped picket top. Genesis™ is becoming increasingly popular as a perimeter for apartments and condominiums. Available in both 2 and 3-Rail styles.

The Aegis II® Genesis™ can be modified with attractive finials such as the Quad-Flare or Triad (see Page 14).
“Just the Right Size”

Commercial businesses finally have a high quality, competitively priced alternative to welded steel, aluminum and chain link. Painted steel that has been welded can rust soon after installation; ultra light aluminum fencing can be easily deformed by small climbing loads or impact loads. Aegis Plus® combines strength greater than most industrial steel fences with a surface finish that is essentially maintenance-free. The size also works well for residential users seeking greater strength and a more substantial look without the extremely high cost of heavy industrial fencing.
**Majestic™ Commercial**

The smooth clean lines of the Majestic™ style make it ideal for many contemporary applications. The Majestic™ style is a popular and safe perimeter for a pool area.

**Genesis™ Commercial**

The simple lines of the Genesis™ style with flat-topped extended pickets never detract from the architecture and landscaping that the fence protects.
Adornments for Aegis II®

**Rings and Finials for Aegis Plus®**

Ameristar’s unique patented (pending) ring design provides secure and beautiful attachment with no exterior fasteners.

Finials or Rings always add a decorative flair to any Aegis II® fence.

Ameristar’s unique flare finial adds a beautiful look and can be attached either of two ways.
**General Product Information**

**Colors**

- Black
- Bronze
- White
- Desert Sand

**Swing Gates**

*Aegis II®* Single and Double Gates are available for maximum openings of 16’ and 32’ respectively. *Aegis Plus®* Single and Double Gates are available for maximum openings of 14’ and 28’ respectively.

**Specification**

*All Aegis II®* and *Aegis Plus®* Single Pedestrian, Double Pedestrian and Drive Gates shall be welded construction. Electrostatic application of PermaCoat® powder coating system, shall follow the welding operation.

**Ameristar® Deadbolt Lock**

Eliminates need for weld-on lock boxes

- Self-latching bolt and dead bolt can both be adjusted over 3/8” with an Allen wrench.
- For single gates

**Heavy-Duty Hardware**

- Keyed Lock-Both Sides
- Completely Rustproof
- Easy Installation
- No Welding
- Adjustable Bolt Length

**Swing Gate Hinges**

<table>
<thead>
<tr>
<th>Hinge</th>
<th>Size of Gate Leaf (Ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pin Hinge w/2-1/2” Male</td>
<td>Gate Leaves up to 4’ long</td>
</tr>
<tr>
<td>Pin Hinge w/3” Male</td>
<td>Gate Leaves from 4’ to 6’</td>
</tr>
<tr>
<td>Barrel Hinge/Box Hinge</td>
<td>Gate Leaves fit 2-1/2”, 3” and 4” Square Posts</td>
</tr>
<tr>
<td>180° Hinge</td>
<td>Gate Leaves fit 3” and 4” Square Posts</td>
</tr>
</tbody>
</table>
TRANSPORT™ CANTILEVER GATE SYSTEMS

Transport™ Cantilever Gate Systems are available for both ornamental and chain link applications. The Transport™ is an all weather cantilever gate utilizing an aluminum track extrusion with internal roller assemblies. This results in the gate and track system sliding as a single unit.

Ameristar® provides single track gates for openings up to 20’ (or 40’ for two gate leaves). With a double track, gates are available to close a maximum opening of 26’ (52’ for two leaves).

Gate Opening Sizes

<table>
<thead>
<tr>
<th>Gate Type</th>
<th>Opening</th>
<th>Security</th>
<th>Ornamental</th>
<th>Chain Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>6’ Through 36’</td>
<td>6’ Through 36’</td>
<td>6’ Through 36’</td>
<td></td>
</tr>
<tr>
<td>Double Track</td>
<td>12’ Through 72’</td>
<td>12’ Through 72’</td>
<td>12’ Through 72’</td>
<td></td>
</tr>
</tbody>
</table>

**Alignment**

Smooth, easy roll parallels fence line

**Strength**

Transport™ Cantilever Gates offer superior strength as the track is 60% heavier (by weight) than competitors extrusions.
TRANSPORT™ CANTILEVER GATE SYSTEMS

SPECIFICATION
TransPort™ Ornamental Aluminum Cantilever Gate

2.01 MANUFACTURER
The cantilever gate system shall conform to Ameristar® TransPort™ ornamental style (specify Invincible™, Classic™, Majestic™ or Genesis™ style), design (specify single or double), opening (specify total gate opening in feet), height (total in feet), gate direction (specify direction gate opens from outside looking in), with (specify cross sectional size and gauge of posts) posts.

2.02 MATERIALS
A. The materials used for cantilever gate framing shall be manufactured from aluminum (Designation 6063-T-6) with a yield strength of 25,000 psi, a tensile strength of 30,000 psi and a standard mill finish. The TransPort™ top track shall be manufactured from aluminum (Designation 6063-T-6) with a yield strength of 25,000 psi, a tensile strength of 30,000 psi and a standard mill finish.

B. TransPort™ cantilever gates shall be filled with 1” x 16 Ga. square aluminum pickets. Pickets, top track and bottom rail shall be predrilled to allow use of pop rivets for picket attachment.

C. Each gate section shall be supplied with truss cables for proper bracing.

D. Two upper suspension rollers and two lower guide rollers shall be included with each gate.

2.03 FABRICATION
A. Components shall be precut to specified lengths.
B. All fastener holes shall be predrilled.
C. Completed framing components shall be tested for alignment and fit at the factory prior to shipping.

TransPort™ Track Hardware

Ameristar’s unique single mainframe truck roller makes it the strongest truck assembly available in the industry.

Features
- Hot-Dip Galvanized
- Extra Heavy-Duty
- Solid Bar Truck Assembly
- With U-Bolts for either Round or Square Posts

Other Fine Ameristar® Gate Systems

TransPort™ Estate™ Ornamental Cantilever Gates

TransPort™ PermaCoat® and GalvOnAll™ Chain Link Cantilever Gates

Tulsa International Airport
Tulsa, OK
**Detailed Product Data**

**Architectural Binder**

The Classic™ series drawing above is one of several Aegis II™ and Aegis Plus™ shop drawings contained in the Architectural Binder, which is available upon request. Ameristar’s PermaCoat® Color Chain Link Fencing specifications and drawings are also included.

**Compact Disc**

Ameristar’s ornamental and color chain link fencing technical information is also available on CD format. On the new CD, architects will find all the details they require on Ameristar’s ornamental fence and gate systems as well as relevant data on PermaCoat® color chain link framework for commercial and industrial applications.

**Internet Website**

The Ameristar® architectural website (http://www.ameristarfence.com) enables the user to browse the entire Ameristar® product line. The site is complete with photos, drawings, specifications and installation procedures.

Ameristar’s electronic media enable architects and specifiers to simply download specification information directly into the appropriate section of their CSI-formatted project specifications; they also enable the direct downloading of product drawings onto project blueprints.

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**Framework**

* Special Roll-Formed ForeRunner™ Shape

**Wind Loading**

<table>
<thead>
<tr>
<th>Height (FT)</th>
<th>Rail Length</th>
<th>Post Size</th>
<th>Aegis II™ Wind Load Capacity Factor (PSF)</th>
<th>Aegis Plus™ Wind Load Capacity Factor (PSF)</th>
<th>Typical Wind Load Capacity (mph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>6</td>
<td>2-1/2” x 12 GA.</td>
<td>102.3</td>
<td>127.8</td>
<td>236</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>2-1/2” x 12 GA.</td>
<td>77.0</td>
<td>93.2</td>
<td>205</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>2-1/2” x 12 GA.</td>
<td>65.5</td>
<td>82.1</td>
<td>180</td>
</tr>
<tr>
<td>8</td>
<td>6</td>
<td>2-1/2” x 12 GA.</td>
<td>59.0</td>
<td>71.3</td>
<td>170</td>
</tr>
<tr>
<td>7</td>
<td>6</td>
<td>3 x 12 GA.</td>
<td>45.5</td>
<td>57.1</td>
<td>133</td>
</tr>
<tr>
<td>8</td>
<td>6</td>
<td>3 x 12 GA.</td>
<td>54.6</td>
<td>68.2</td>
<td>146</td>
</tr>
<tr>
<td>6</td>
<td>8</td>
<td>2-1/2” x 12 GA.</td>
<td>34.2</td>
<td>41.5</td>
<td>116</td>
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<td>7</td>
<td>8</td>
<td>2-1/2” x 12 GA.</td>
<td>33.4</td>
<td>42.0</td>
<td>114</td>
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<tr>
<td>8</td>
<td>6</td>
<td>3 x 12 GA.</td>
<td>30.7</td>
<td>38.4</td>
<td>110</td>
</tr>
<tr>
<td>9</td>
<td>6</td>
<td>3 x 12 GA.</td>
<td>19.2</td>
<td>23.4</td>
<td>87</td>
</tr>
<tr>
<td>10</td>
<td>6</td>
<td>4 x 12 GA.</td>
<td>23.0</td>
<td>27.9</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 x 12 GA.</td>
<td>30.6</td>
<td>36.8</td>
<td>110</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 x 12 GA.</td>
<td>32.0</td>
<td>N/A</td>
<td>113</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 x 12 GA.</td>
<td>28.7</td>
<td>N/A</td>
<td>107</td>
</tr>
</tbody>
</table>

Note: Mph calculated using ANSI/ASCE 7-95, *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.
PART 1 - GENERAL
1.01 WORK INCLUDED
The contractor shall provide all labor, materials and
appurtenances necessary for installation of the industrial
ornamental steel fence system defined herein at
(specify project site).

1.02 RELATED WORK
Section 022 _ _ - Earthwork
Section 030 _ _ - Concrete

1.03 SYSTEM DESCRIPTION
The manufacturer shall supply a total industrial ornamental steel fence system of the Aemistar®
Aegis II™ (specify Classic™, Majestic™, Genesis™ or Invincible™) design. The system shall include
all components (i.e., pickets, rails, posts, gates and hardware) required.

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

1.05 REFERENCES
ASTM A653/A653M - Standard Specification for
Steel Sheet. Zinc-Coated (Galvanized) or Zinc-Iron
Alloy Coated (Galvalume) by the Hot-Dip Process.
ASTM B117 - Practice for Operating Salt-Spray (Fog)
Apparatus. ASTM D523 - Test Method for Specular
Gloss. ASTM D822 - Practice for Conducting Tests
on Paint and Related Coatings and Materials using
Filtered Open-Flame Carbon-Arc Light and Water
Exposure Apparatus. ASTM D1654 - Test Method
for Evaluation of Painted or Coated Specimens Subjected
to Corrosive Environments. ASTM D2244 - Test Method
for Calculations of Color Differences from Instrumentally
Measured Color Coordinates. ASTM D2794 - Test
Method for Resistance of Organic Coatings to The Effects
of Rapid Exposure to Corrosive Gases. ASTM D3359 - Test
Method for Measuring Adhesion by Tape Test.

1.06 SUBMITTAL
The manufacturer's submittal package shall be provided
prior to installation.

1.07 PRODUCT HANDLING AND STORAGE
Upon receipt at the job site, all materials shall be checked
to ensure that no damage occurred during shipping or handling. Materials shall be stored in
such a manner to ensure proper ventilation and
drainage, and to protect against damage, weather,
vandalism and theft.

2.01 MANUFACTURER
The industrial ornamental steel fence system shall conform to Aemistar® AEGIS II™ (specify Classic™, Majestic™, Genesis™ or Invincible™) (specify 2-Rail, 3-Rail or 3-
Rail with Rings) style manufactured by Ameristar® Fence
Products, Inc., in Tulsa, Oklahoma.

2.02 MATERIAL
A. Steel material for fence framework (i.e., tubular pickets, rails and posts); when galvanized prior to forming, shall
conform to the requirements of ASTM A924/A924M,
with a minimum yield strength of 50,000 psi (344
MPa). The steel shall be hot-dip galvanized to meet the
requirements of ASTM A653/A653M with a minimum
zinc coating weight of 0.90 oz/ft² (27 g/m²). Coating
Designation G-90.
B. The manufactured galvanized framework shall be subjected to the PermaCoat® thermal stratiﬁcation coating process
(high temperature, in-line, multi-stage, multi-layer) including,
as a minimum, a six-stage pretreatment/wash (with zinc phosphate), an electrostatic spray application
of an epoxy base, and a separate electrostatic spray
application of a polyester ﬁnish. The base coat shall be a thermostetting epoxy powder coating (gray in color) with a
minimum thickness of 2 mils (0.0508mm). The topcoat shall be a “no-mar” TGIC polyester powder coat ﬁnish with a
minimum thickness of 2 mils (0.0508mm). The color shall be (specify Black, Bronze, White or Desert Sand).
The stratiﬁcation-coated framework shall be capable of meeting the performance requirements for each quality
classiﬁcation shown in Table 1.
C. Material for fence pickets shall be 1” square x 14 Ga.
tubing. The cross-sectional shape of the rails shall conform to the manufacturer’s ForeRunner™ design with
outside cross-section dimensions of 1.75” square and a minimum thickness of 14 Ga. Picket holes in the
ForeRunner™ rail shall be spaced 4.715” o.c., except for Invincible™ style manufactured with a minimum spacing of 4.98”
O.C. Picket retaining rods shall be 0.125” diameter galvanized steel. Posts shall be a minimum of 2-1/2”
square x 12 Ga. High quality PVC grommets shall be supplied to seal all picket-to-rail intersections.

2.03 FABRICATION
A. Pickets, rails and posts shall be pre-cut to specified
lengths. ForeRunner™ rails shall be pre-punched to
accept pickets.
B. Grommets shall be inserted into the pre-punched holes in the rails and pickets shall be inserted through the
grommets so that pre-drilled picket holes align
with the internal upper raceway of the ForeRunner™
rails. (Note: This can best be accomplished by using
an alignment template). Retaining rods shall be inserted
into each ForeRunner™ rail so that they pass through the
pre-drilled holes in each picket, thus completing the
panel assembly.
C. Completed panels shall be capable of supporting a
600 lb. load (applied at midspan) without permanent
deformation. Panels without rings shall be biscuited
to a 25% increase in grade: panels with rings shall be
tbisucited to a 12.5% change in grade.
D. Swing gates shall be fabricated using AEGIS II™
material and gate ends having the same outside cross-
section dimensions as the ForeRunner™ rail. All rail and
upright intersections shall be joined by welding. All
picket and rail intersections shall also be joined either
by welding or by the same retaning rod process used
for panel assembly.

PART 3 - EXECUTION
3.01 PREPARATION
All new installation shall be laid out by the contractor
in accordance with the construction plans.

3.02 INSTALLATION
Fence posts shall be set in accordance with the spacings
shown in Table 2, plus or minus 1/2”, depending on
the nominal span specified. Gate posts shall be spaced
according to the gate-openings speciﬁed in the
construction plans. The “Earthwork” and “Concrete”
sections of this speciﬁcation shall govern post base
material requirements. AEGIS II™ panels shall be
attached to posts using mechanically fastened panel
brackets supplied by the manufacturer.

3.03 CLEANING
The contractor shall clean the jobsite of excess materials; post-hole excavations shall be scattered
uniformly away from posts.

Table 1 - Coating Performance Requirements

<table>
<thead>
<tr>
<th>Quality Characteristics</th>
<th>ASTM Test Method</th>
<th>Performance Requirements</th>
</tr>
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<tr>
<td>Adhesion</td>
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<td>Corrosion Resistance</td>
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<td>Impact Resistance over 60 inch lb. (Forward impact impact 0.625” ball).</td>
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<td>Weathering Resistance</td>
<td>D822, D2244</td>
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Table 2 - Post Spacing Requirements

<table>
<thead>
<tr>
<th>Span</th>
<th>6’ Nominal (67-3/4” Rail)</th>
<th>8’ Nominal (92-5/8” Rail)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post Size</td>
<td>2-1/2”</td>
<td>3”</td>
</tr>
<tr>
<td>Bracket</td>
<td>Rigid</td>
<td>Swivel</td>
</tr>
<tr>
<td>Straight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post Settings +/- 1/2” O.C.</td>
<td>71-1/2”</td>
<td>72”</td>
</tr>
<tr>
<td>Curved</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post Settings +/- 1/2” O.C.</td>
<td>75”</td>
<td>75-1/2”</td>
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CONSTRUCTION SPECIFICATION

SECTION 02825 - ORNAMENTAL METAL FENCING SYSTEM
Aegis Plus® - Commercial Weight

PART 1 - GENERAL

1.01 WORK INCLUDED
The contractor shall provide all labor, materials and appurtenances necessary for installation of the commercial ornamental steel fence system described herein at [specify project site].

1.02 RELATED WORK
Section 032 ... Earthwork
Section 030 ... Concrete

1.03 SYSTEM DESCRIPTION
The manufacturer shall supply a total commercial ornamental steel fence system of the Ameristar® Aegis Plus® (specify Classic™, Majestic™, Genesis™ or Warrior™) design. The system shall include all components (i.e., pickets, rails, posts, gates and hardware) required.

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

1.05 REFERENCES

1.06 SUBMITTAL
The manufacturer’s submittal package shall be provided prior to installation.

1.07 PRODUCT HANDLING AND STORAGE
Upon receipt at the job site, all materials shall be checked to ensure that no damage occurred during shipping or handling. Materials shall be stored in such a manner to ensure proper ventilation and handling. Materials shall be stored in such a manner to ensure that no damage occurred during shipping or handling. Upon receipt at the job site, all materials shall be checked to ensure that no damage occurred during shipping or handling. Materials shall be stored in such a manner to ensure proper ventilation and handling.

PART 2 - MATERIALS

2.01 MANUFACTURER
The commercial ornamental steel fence system shall conform to Ameristar® Aegis Plus®, (specify Classic™, Majestic™, Genesis™ or Warrior™) design manufactured by Ameristar® Fence Products, Inc., in Tulsa, Oklahoma.

2.02 MATERIAL
A. Steel material for fence framework: (i.e., tubular pickets, rails and posts). Metal galvanized prior to forming, shall conform to the requirements of ASTM A924/A924M, with a minimum yield strength of 50,000 psi (344 MPa). The steel shall be hot-dip galvanized to meet the requirements of ASTM A653/A653M with a minimum zinc coating weight of 0.90 oz/ft² (27.6 g/m²), Coating Designation C-90.

B. The manufactured galvanized framework shall be subjected to the PermaCoat® thermal stratification coating process (high-temperature, in-line, multi-stage, multi-layer) including, as a minimum, a six-stage pretreatment/wash (with zinc phosphate), an electrostatic spray application of an epoxy base, and a separate electrostatic spray application of a polyester finish. The base coat shall be a thermosetting epoxy powder coating (gray in color) with a minimum thickness of 2 mils (0.00508mm). The topcoat shall be a “no-mar” TGIC polyester powder coat finish with a minimum thickness of 2 mils (0.00508mm). The color shall be [specify Black, Bronze, White or Desert Sand]. The stratification-coated framework shall be capable of meeting the performance requirements for each quality characteristic shown in Table 1.

C. Material for fence pickets shall be 3/4” square x 16 Ga. tubing. The cross-sectional shape of the rails shall conform to the manufacturer’s ForeRunner™ design with outside cross-section dimensions of 1.50” square and a minimum thickness of 14 Ga. Picket holes in the ForeRunner™ rail. All rail and upright intersections shall also be joined either by welding or by the same retaining rod process used for panel assembly.

2.03 FABRICATION
A. Pickets, rails and posts shall be pre-cut to specified lengths. ForeRunner™ rail shall be pre-punched to accept pickets.

PART 3 - EXECUTION

3.01 PREPARATION
All new installation shall be laid out by the contractor in accordance with the construction plans.

3.02 INSTALLATION
Fence posts shall be set in accordance with the spacings shown in Table 2, plus or minus 1/2”, depending on the nominal span specified. Gate posts shall be spaced according to the gate openings specified in the construction plans. The “Earthwork” and “Concrete” sections of this specification shall govern post base material requirements. Aegis Plus® panels shall be attached to posts using mechanically fastened panel brackets supplied by the manufacturer.

3.03 CLEANING
The contractor shall clean the jobsite of excess materials. Post-hole excavations shall be scattered uniformly away from posts.

Table 1 - Coating Performance Requirements

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<td>Post Settings +/- 1/2 O.C.</td>
<td>76-3/4”</td>
<td>77-1/4”</td>
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Availability

Aegis II® and Aegis Plus™ industrial ornamental fencing components (e.g., pickets, rails, etc.) and TransPort™ cantilever gates are carefully packaged in heavy duty cardboard boxes to ensure the most economical damage-free shipping.

Ordering Information

To order, simply specify the fence or gate design series, color, and height desired. Then figure and provide the quantities needed. Contact Ameristar® for the nearest distributor or if any other assistance is needed.

Warranty

A written 10 year limited warranty is extended on Ameristar® Aegis II® and Aegis Plus™ fencing systems. Call Ameristar® today for a copy.

Maintenance

Little or no maintenance is required for the fence and gate systems supplied by Ameristar®. The PermaCoat® coated galvanized metal in Aegis II® and Aegis Plus™ and the polyester coated aluminum in TransPort™ gates will remain corrosion free for years to come. If pickets or rails are damaged by accidental impact, the affected components can be easily replaced. Damages to coated surfaces can be readily covered with commercially available spray enamels.