ARCHITECTURAL FENCE GUIDE

CONSTRUCTION SPECIFICATION 32 31 00

ORNAMENTAL STEEL FENCES & GATES | ORNAMENTAL ALUMINUM FENCES & GATES HIGH SECURITY FENCES & GATES | ENGINEERED CANTILEVER, ROLL & PEDESTRIAN EGRESS GATES



AMERISTARFENCE.COM | 800-321-8724

Experience a safer and more open world

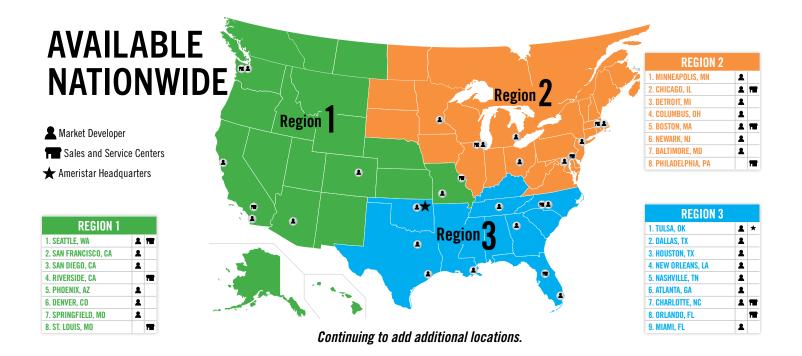


ARCHITECTURAL Support and Solution Services

Ameristar's Project Solution Specialists are experienced in every facet of perimeter security design. Our goal is to assist the architectural community in finding the best perimeter and entry solutions for their projects.

SERVICES

- Extensive library of project photos
- BIM & CAD drawings
- Architectural specifications
- Project budget quotes



EDUCATION

As a registered AIA/CES provider, we offer a variety of educational LU, HSW and CE programs to help you make informed decisions, including the following:

- Architectural Perimeter Security Alternatives
- Bollards Perimeter Security and Traffic Management Design & Practices
- Codes and Standards for Perimeter Security
- Fence Framework Design and Construction Standards
- Integration of Safety Standards Site/Climate Conditions with Gates and Automation
- Perimeter Security Planning, Products and Procedures
- Understanding Modern Ornamental Fence Products and Applications

All programs listed above qualify for AIA/CES learning units.

See complete list of all programs offered at ameristarfence.com/education



AFFILIATES

- Airports Council International ACI-NA (ACI)
- American Association of Airport Executives (AAAE)
- American Fence Association (AFA)
- American Institute of Architects (AIA)
- American Society for Industrial Security (ASIS)
- American Society of Landscape Architects (ASLA)
- Chain Link Fence Manufacturers Institute (CLFMI)
- Security Industry Association (SIA)
- Society of American Military Engineers (SAME)

See full list of affiliates on our website



MONTAGE[®] Products

Profusion Welded Ornamental Steel Fence MONTAGE II[®] Industrial Ornamental Steel Fence

MONTAGE COMMERCIAL® Commercial Ornamental Steel Fence

MONTAGE PLUS[®] Ornamental Steel Fence

Montage fence systems are coated inside and out for maintenancefree protection.





Ameristar is committed to providing products that meet the Buy American Act.

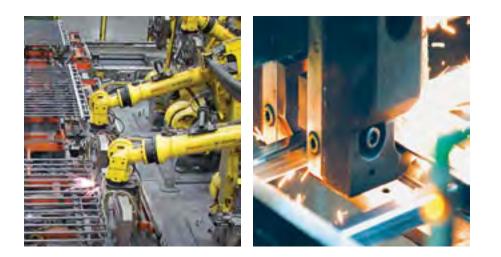


Ameristar products have the opportunity to earn LEED points.



AMERISTARFENCE.COM | 800-321-8724

4



PROFUSION WELDING

Montage fence panels are fabricated through a welding technique that combines laser and fusion technology to create a virtually invisible structural connection at every picket to rail intersection. Montage welded steel construction is unmatched in strength and durability.

RAKEABLE VS STAIR-STEP

The ProFusion welded picket to rail connection is the method used to construct Montage panels, which allows a minimum biasability of 25%, eliminating any possible security risks due to large gaps under the fence panels.

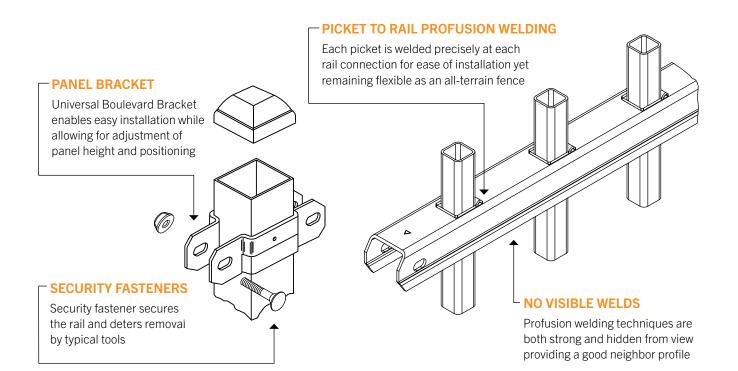




FULLY RAKEABLE PANELS

STAIR-STEPPING PANELS





E-COAT™

Major corrosion problems start from the inside. That's why all products in the Montage® family are coated inside and out. Our galvanized steel framework is subjected to a multi-stage pre-treatment/wash, followed by a duplex cathodic electrocoat system consisting of an epoxy primer, which significantly increases corrosion protection, and an acrylic topcoat, which provides the protection necessary to withstand adverse weathering effects.











SPRAY SEAL





Immersion processes coat and cleanse the inside of the fence components as thoroughly as the outside. This prevents corrosion, giving Montage products the ability to withstand the elements and be maintenance-free.



FINISH CURING

OVEN

22



COOLING TUNNEL

16



LAYERED PROTECTION

Protection against corrosion starts with a proven process, which is why Ameristar emulated its PermaCoat method to develop a superior E-Coat process that protects the product with complete coverage inside and out.



EPOXY PRIMER PHOSPHATE

GALVANIZED STEEL

MONTAGE II[®] Industrial Ornamental Steel Fence









Built for strength yet a penchant for beauty, Montage II is an industrial grade steel fence that delivers on both levels. Superior welding techniques create a profile that lends itself to landscaping design while maintaining a level of perimeter security that is unmatched.

PRIMARY Applications

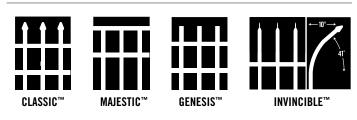
- State Facilities
- Government Facilities
- Airports
- Water Treatment & Storage
- Public Housing Authorities
- Parks & Recreation
- Stadiums & Event Centers
- Universities
- Hospitals
- K-12 Schools

8

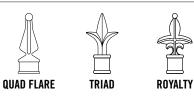
PICKETS	RAILS	POSTS	HEIGHTS
1" SQ. x 14 GA.	1.75" x 1.75" x 12 GA.	2.5" SQ. x 12 GA. 3" SQ. x 12 GA.	3', 3½', 4', 4½', 5', 6', 7', 8'



Montage II gate options vary from swing gates for pedestrian or vehicle access to sliding gates for high-functioning points of entry. Each of these gate systems is individually constructed to provide project specific performance. **STYLES**

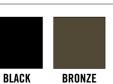


ADORNMENTS





COLORS



Refer to color sample for actual color



MONTAGE COMMERCIAL®

Commercial Ornamental Steel Fence





Montage Commercial steel fences have redefined the commercial fence industry with strength that matches the level of security demanded. In the past commercial fencing was defined as a chain link fence with three strands of barb wire, today Montage Commercial ornamental fences are the standard for security fencing.

PRIMARY APPLICATIONS

- Commercial Developments
- Municipal Facilities
- Self Storage
- Parking Facilities
- Parks & Recreation
- Universities
- K-12 Schools

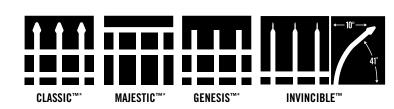
PICKETS	RAILS	POSTS	HEIGHTS
.75" SQ. x 14 GA.	1.4375" x 1.5" x 14 GA.	2.5" SQ. x 14 GA.	7', 8'



Montage Commercial gate options vary from swing gates for pedestrian or vehicle access to sliding gates for high-functioning points of entry. Each of these gate systems is individually constructed to provide project specific performance.

STYLES

Also available in Pool, Pet & Play (3" air spacing)*

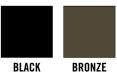


ADORNMENTS



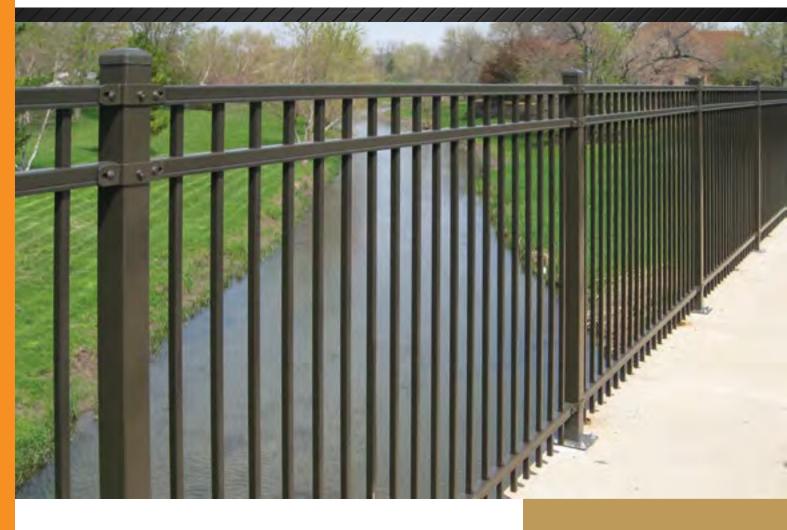
COLORS

Refer to color sample for actual color





MONTAGE PLUS® Ornamental Steel Fence









The Montage Plus ornamental steel fence has the versatility to fit many different project applications. With its ability to traverse varying grades, variety of distinct product styles and unmatched coating performance, Montage Plus is the preferred choice for ornamental fence.

PRIMARY Applications

- Commercial Developments
- Self Storage
- Apartments (Multi-Family)
- Parks & Recreation
- Schools & Universities
- Childcare Facilities

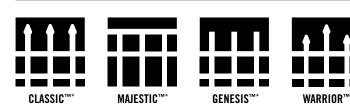
PICKETS	RAILS	POSTS	HEIGHTS
.75" SQ. x 18 GA.	1.4375" x 1.50" x 14 GA.	2.50" SQ. x 16 GA.	3', 3½', 4', 4½', 5', 6'



Montage Plus gate options vary from swing gates for pedestrian or vehicle access to sliding gates for high-functioning points of entry. Each of these gate systems is individually constructed to provide project specific performance.

STYLES

Also available in Pool, Pet & Play (3" air spacing)*

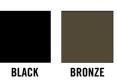


ADORNMENTS



COLORS

Refer to color sample for actual color







AEGIS® PRODUCTS

Internally secured Ornamental Steel Fence AEGIS II[®] Xtreme Pedestrian Ornamental Railing

AEGIS II[®] Industrial Ornamental Steel Fence

AEGIS PLUS[®] Commercial Ornamental Steel Fence

Ameristar's Aegis fence systems are protected to endure the elements and are maintenance-free.



Ameristar's Aegis fence systems are backed by over 30 years of excellence in the fencing industry.

Ameristar is committed to providing products that meet the Buy American Act.



Ameristar products have the opportunity to earn LEED points.



AMERISTARFENCE.COM | 800-321-8724

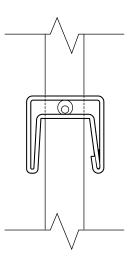
FORERUNNER® LOCKING SYSTEM

Ameristar crafted the ForeRunner rail to increase strength through architecture. The innovative design of the ForeRunner rail contains an internally secured rod that allows for variable pitch connection, high-angle biasability and eliminates the need for visually unappealing external fasteners. The ForeRunner rail is galvanized inside and out to protect against internal corrosion, putting it in the upper echelon of fencing solutions.

Increased security

Aesthetic details

The ForeRunner Rail with internal retaining rod prevents the attachment from being compromised. Fasteners are not exposed. "Good Neighbor Design" rod follows ForeRunner centerline providing a clean and uninterrupted look, void of visible screws or rivets.



RAKEABLE VS STAIR-STEP

Having a unique picket to rail connection allows Aegis products a minimum biasability of 25%, eliminating any possible security risks due to large gaps under the fence panels.

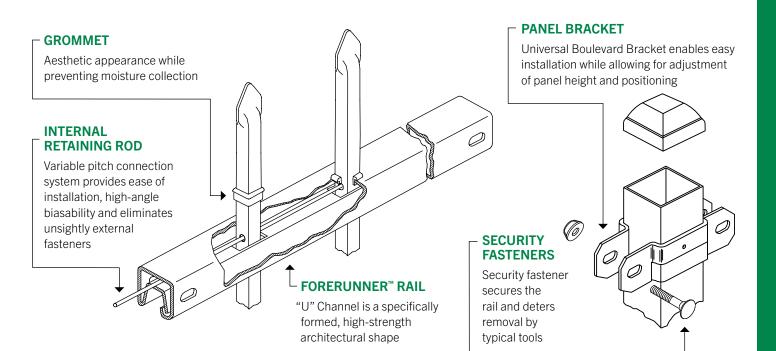




FULLY RAKEABLE PANELS





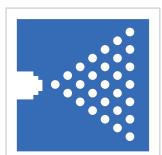


PERMACOAT[™]

The majority of Ameristar products are protected by the unique PermaCoat process. Our pre-galvanized steel base material is subjected to an 11-stage process to cleanse & prepare the steel for a dual top-coat finish. PermaCoat's corrosion resistant abilities far surpass those of painted surfaces and have a "no-mar" polyester powder top coat. This dual coating not only provides resistance from weathering but also reduces scratch and burnishing marks typically encountered during shipping.

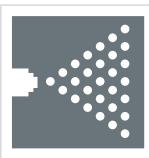


PRE-TREATMENT



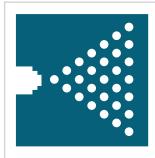
ALKALINE WASH Cleans metal for proper adhesion of zinc phosphate





FIXIDINE RINSE Rinses excess alkaline prior to zinc phosphate application



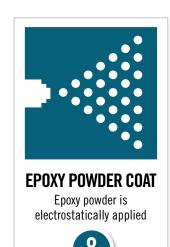


PHOSPHATE Corrosion resistant layer that assists in bonding powder coating



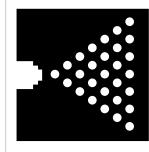








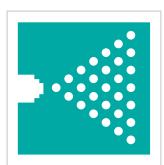
EPOXY GEL OVEN Powder is gelled & cured to finish coat



POLYESTER POWDER TGIC powder is electro-statically applied







NON-CHROMATE SEAL Barrier to prevent moisture from reaching base metal



Final wash in H2O to remove any excess debris or particles





DRYING OVEN Eliminates all moisture prior to double coating



Once completed, these 7 stages will have removed everything from the surface of the steel that might inhibit the finish from properly adhering during the next 4 stages of the coating process.

Corrosion occurs more easily without the proper preparation and protection, which is why Ameristar has put our fence products to the test based on ASTM B117 standards. The results speak for themselves.



TESTING

CORROSION



PRIMED & PAINTED STEEL



SINGLE COAT PROCESS Iron Phosphate + Polyester Powder Coat

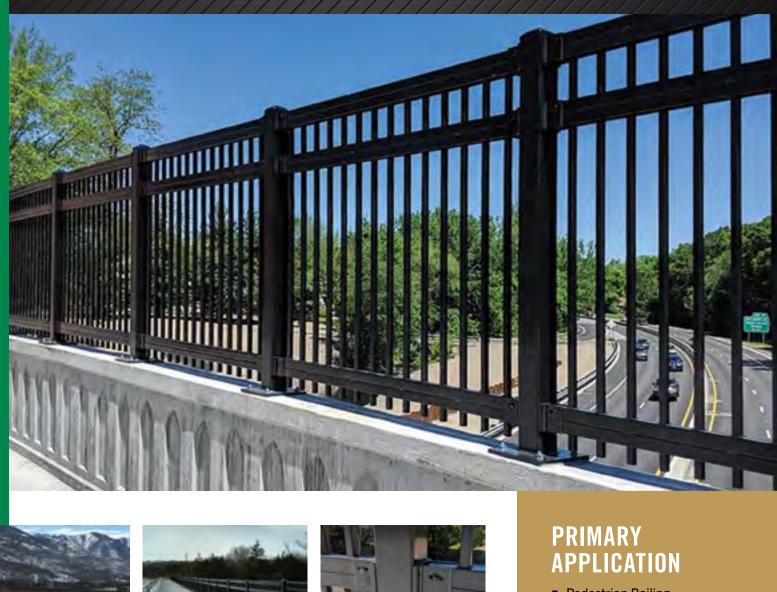


SINGLE COAT PROCESS Phosphate + Polyester Powder Coat



PERMACOAT PROCESS Phosphate + Epoxy Powder Coat + Polyester Powder Coat

AEGIS II[®] XTREME Pedestrian Ornamental Railing



Pedestrian Railing for Bridges

Engineered to meet AASHTO LRFD

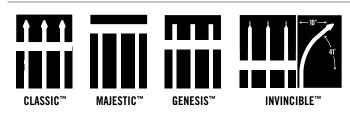
Aegis II Xtreme is the obvious front-runner in strength and durability for decorative pedestrian bridge railing. With a dual ForeRunner rail and multi-layer coating, this pedestrian railing is unmatched in overall product performance. In addition, the manufactured design of Aegis II Xtreme allows for a simplistic installation that yields extreme project savings.

AMERISTARFENCE.COM | 800-321-8724

PICKETS	RAILS	POSTS	HEIGHTS
1" SQ. x 14 GA.	1.75" x 3.5" x 14 GA. Dual forerunner™ Rails	4" SQ. x 11 GA.	3½', 4', 5', 6', 7' & 8'



The innovative design of the Dual ForeRunner rail contains an internally secured galvanized retaining rod that allows for variable pitch connection, biasability and eliminates the need for visually unappealing external fasteners. Galvanized inside and out to protect against internal corrosion, the Dual ForeRunner rail is in the upper echelon of decorative railing options. **STYLES**



ADORNMENTS





COLORS

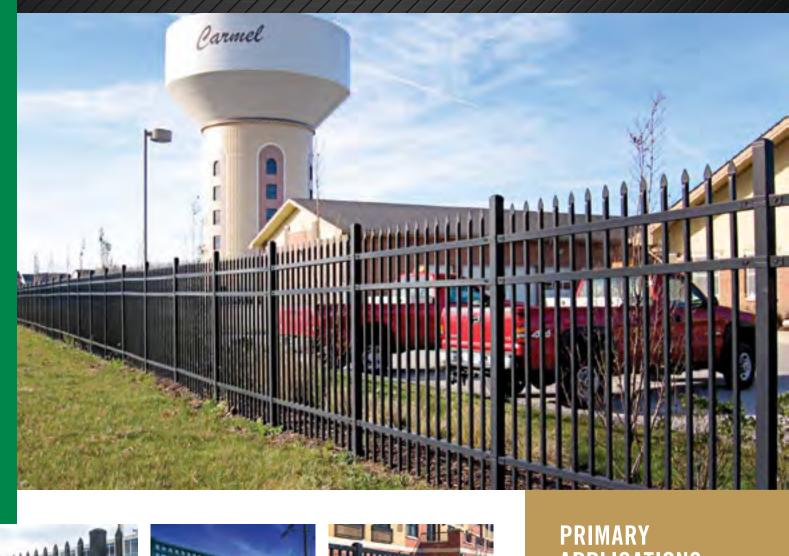
Custom colors also available

Refer to color sample for actual color





AEGIS II[®] **Industrial Ornamental Steel Fence**





The strength of Aegis II is rivaled only by the elegance of its profile. Manufactured as an industrial grade fence system, it is designed for strength and durability. Balanced by the beauty of its design features, Aegis II matches the level of security demanded by any application.

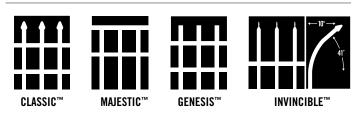
APPLICATIONS

- Stadiums & Event Centers
- Universities
- Airports
- Water Treatment & Storage
- Public Housing Authorities
- State Facilities
- Municipal Facilities
- Parks & Recreation
- Hospitals
- K-12 Schools

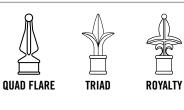
PICKETS	RAILS	POSTS	HEIGHTS
1" SQ. x 14 GA.	1.75" x 1.75" x 14 GA.	2.5" SQ. x 12 GA.	3', 3½', 4', 5', 6', 7', 8', 9', 10'
	Forerunner™ Rails	3" SQ. x 12 GA.	Custom heights also available



Aegis II gate options vary from swing gates for pedestrian or vehicle access to sliding gates for high-functioning points of entry. Each of these gate systems is individually constructed to provide project specific performance. STYLES



ADORNMENTS







COLORS

Refer to color sample for actual color







AEGIS PLUS® Commercial Ornamental Steel Fence









Aegis Plus combines strength greater than most commercial steel fences with a surface finish that is essentially maintenancefree. The size of Aegis Plus works well for numerous applications where users are seeking greater strength and a more substantial look without the high cost of industrial fencing.

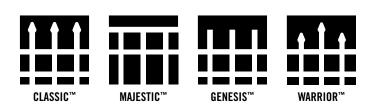
PRIMARY Applications

- Municipal Facilities
- Self Storage
- Parks & Recreation
- Event Centers
- K-12 Schools
- Childcare Facilities

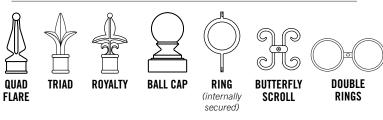
PICKETS	RAILS	POSTS	HEIGHTS
.75" SQ. x 17 GA.	1.5" x 1.5" x 14 GA. Forerunner™ Rails	2.5" SQ. x 12 GA.	3', 3½', 4', 5', 6', 7', 8' Custom heights also available



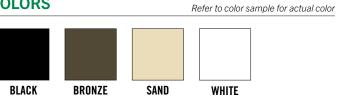
Aegis Plus gate options vary from swing gates for pedestrian or vehicle access to sliding gates for high-functioning points of entry. Each of these gate systems is individually constructed to provide project specific performance. STYLES



ADORNMENTS



COLORS



Custom colors also available

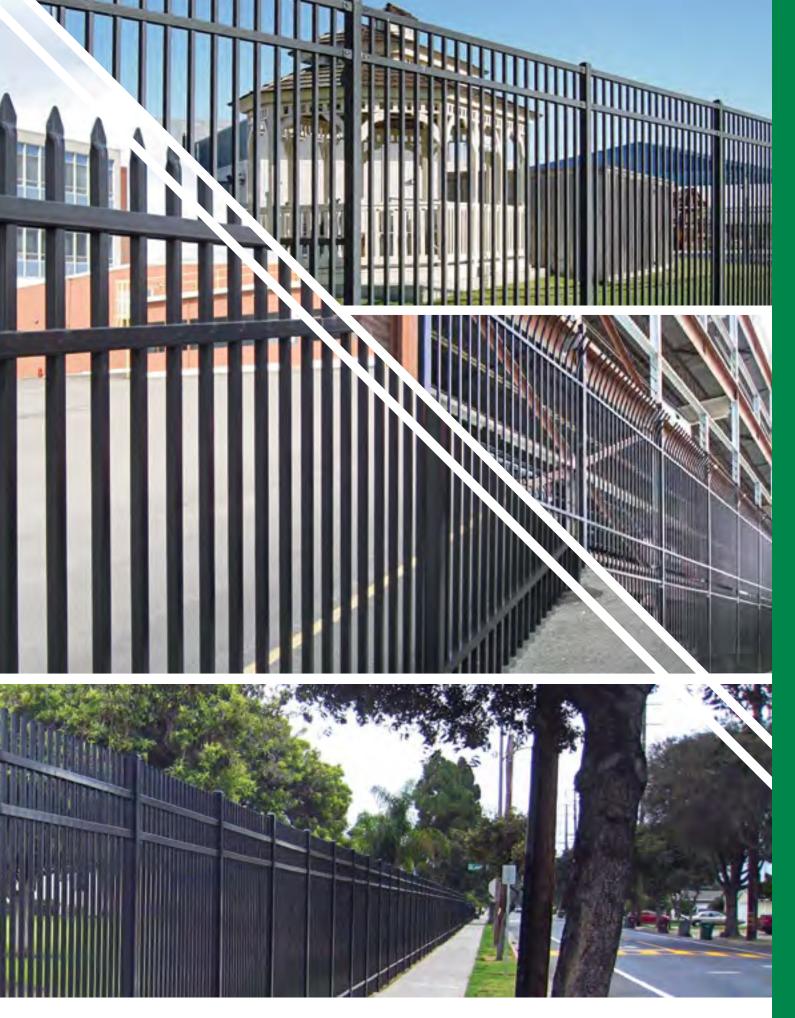
<image>

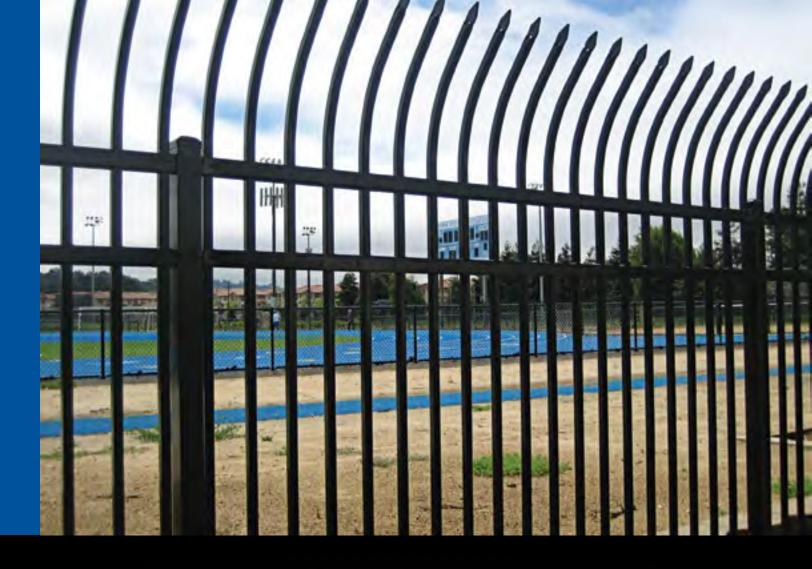
AEGIS STEEL RAIL STRENGTH COMPARISON

STRUCTURAL PARAMETERS		FORERUNNER™ Aegis II®	SQUARE RAIL INDUSTRIAL	FORERUNNER™ AEGIS PLUS®	SQUARE RAIL COMMERCIAL
Architectural Profile of rail shape. Vertical Design Loads are per rail. (For capacity of fence panel, multiply by number of rails)		1.75" 1.	$ \begin{array}{c} $	" 1.5" 1.5" ↓ .080"	↓ 1.5" ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
T _{eff} = Effective Wall Thickness (inches)		.160	.083	.160	.095
S _v = Section Modulus (inches vertical)		.1624	.188	.1612	.115
S _h = Section Modulus (inches horizontal)		.367	.309	.254	.147
Vertical Load Data	6' span	676#	523#	652#	320#
PV _f = Ultimate Vertical	8' span	506#	392#	492#	239#
Horizontal Load Data	6' span	1,020#	859#	639#	409#
PH _f = Ultimate Horizontal	8' span	765#	644#	482#	306#
Vertical Load Data*	6' span	446#	345#	430#	211#
$PV_d = Vertical Design Load @ 66° F_y$	8' span	334#	259#	325#	158#
Horizontal Load Data*	6' span	673#	567#	422#	270#
$PH_d = Horizontal Design Load @ 66° F_y$	8' span	505#	425#	318#	202#

* Recommended load value for safe structural design / allowable strength = .66° F







ECHELON® PRODUCTS

Internally Secured Ornamental Aluminum Fence ECHELON II[®] Industrial Ornamental Aluminum Fence

ECHELON PLUS® Ornamental Aluminum Fence

Echelon fence systems are protected to endure the elements and are maintenance-free.



Echelon fence systems are backed by over 30 years of excellence in the fencing industry.



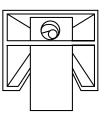
Ameristar is committed to providing products that meet the Buy American Act.



AMERISTARFENCE.COM | 800-321-8724

FORERUNNER® LOCKING SYSTEM

Ameristar crafted the ForeRunner rail to increase strength through architecture. The innovative design of the ForeRunner rail contains an internally secured rod that allows for variable pitch connection, high angle biasability and eliminates the need for visually unappealing external fasteners.



Increased security

Aesthetic details

The ForeRunner Rail with internal retaining rod prevents the attachment from being compromised. Fasteners are not exposed.

"Good Neighbor Design" rod follows ForeRunner centerline providing a clean and uninterrupted look, void of visible screws or rivets.

RAKEABLE VS STAIR-STEP

Having a unique picket to rail connection allows Echelon products a minimum biasability of 12.5%, eliminating any possible security risks due to large gaps under the fence panels.





FULLY RAKEABLE PANELS

Aesthetic appearance while

preventing moisture collection

GROMMET

INTERNAL RETAINING ROD Variable pitch connection





REINFORCED POST

Center rib increases strength against wind loading and other horizontally applied forces

(6)

0

0

PANEL BRACKET

Universal Boulevard Bracket enables easy installation while allowing for adjustment of panel height and positioning

SECURITY FASTENER

Security fastener secures the rail and deters removal by typical tools

FORERUNNER[™] RAIL

system provides ease of

biasability and eliminates

installation, high angle

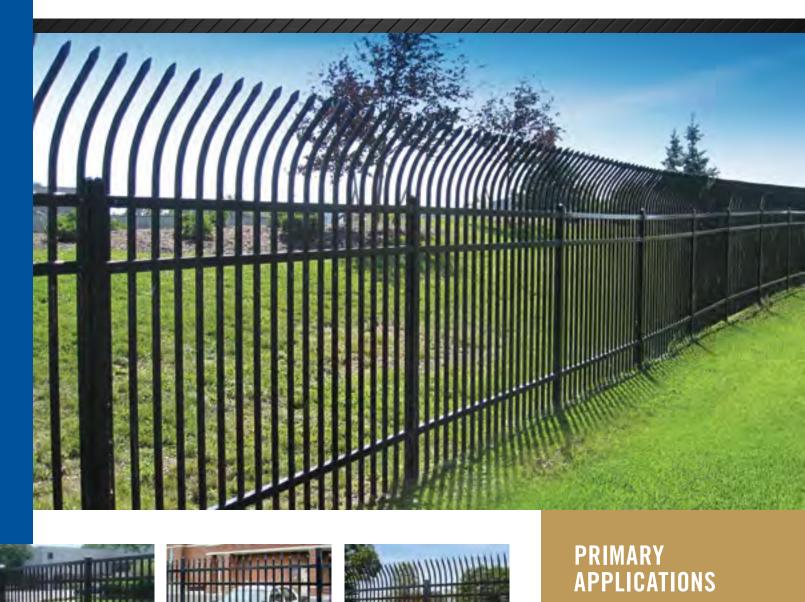
unsightly external

fasteners

"U" Channel is a specifically formed, high-strength architectural shape

Ď

ECHELON II® Industrial Ornamental Aluminum Fence



- Water Treatment & Storage
- Public Housing Authorities
- State Facilities
- Stadiums & Event Centers
- Schools & Universities
- Municipal Facilities
- Airports
- Parks & Recreation
- Hospitals

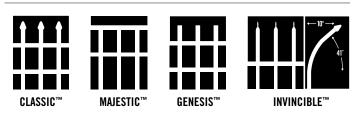
Echelon II's superior strength and durability is a result of combining top-quality design components with a maintenance-free, architectural grade finish. This revolutionary fence system is comprised of aluminum posts, panels, and mounting brackets that are easily installed along any terrain.

PICKETS	RAILS	POSTS	HEIGHTS
1" SQ. x .062"	1.75" x 1.75" x (.070" SIDE & TOP WALL) FORERUNNER TM RAILS	2.5" SQ. x .080" 3" SQ. x .120"	4', 5', 6', 7', 8', 9', 10' Custom heights also available

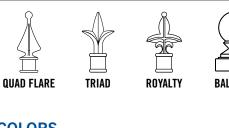


Echelon II gate options vary from swing gates for pedestrian or vehicle access to sliding gates for high-functioning points of entry. Each of these gate systems is individually constructed to provide project specific performance.

STYLES



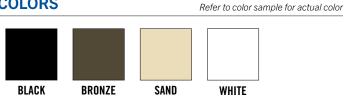
ADORNMENTS





RING (internally secured)

COLORS



Custom colors also available







ECHELON II ALUMINUM RAIL STRENGTH COMPARISON

STRUCTURAL PARAMETERS		FORERUNNER [™] ECHELON II	SQUARE RAIL INDUSTRIAL
Architectural Profile of rail shape. Vertical Design Loads are per rail. (For capacity of fence panel, multiply by number of rails)		→ ← .070" → ↓ ↓ ↓	→ ← .100" 1.625" ↓ 0.70" 1.625" ↓ 1.625"
T _{eff} = Effective Wall Thickness (inches)		.070	.100 / .070
S _v = Section Modulus (inches vertical)		.125	.135
S _h = Section Modulus (inches horizontal)		.260	.260
Vertical Load Data	6' span	243#	262#
$PV_f = Ultimate Vertical$	8' span	182#	182#
Horizontal Load Data	6' span	505#	499#
PH _r = Ultimate Horizontal	8' span	379#	373#
Vertical Load Data* 6'		145#	145#
$PV_{d} = Vertical Design Load @ 66° F_{y}$	8' span	109#	109#
Horizontal Load Data*	6' span	303#	299#
$PH_d = Horizontal Design Load @ 66° F_y$	8' span	227#	224#

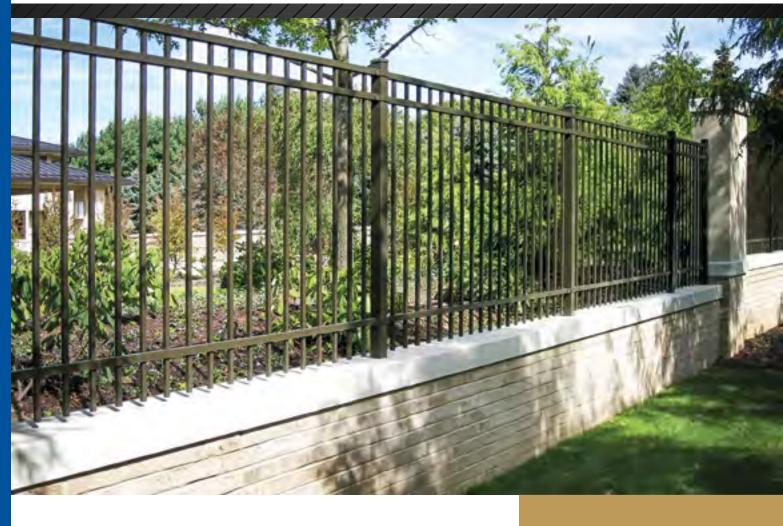
* Recommended load value for safe structural design / allowable strength = .66° F



30



ECHELON PLUS® Ornamental Aluminum Fence







Echelon Plus has taken the quality and performance of aluminum ornamental fencing to a higher level. The strength characteristics of the reinforced rail and posts, coupled with a superior powder coat finish, make Echelon Plus the most durable .75" ornamental picket product on the market.

PRIMARY APPLICATIONS

- Municipal Facilities
- Childcare Facilities
- Coastal Environments
- Parks & Recreation
- Schools

PICKETS

RAILS

POSTS

HEIGHTS

.75" SQ. x .045"

1.4375" x 1.25" x (.090" SIDE / .060" TOP) FORERUNNER RAILS

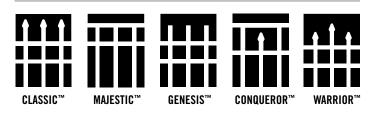
2.5" SQ. x .060"

3', 3½', 4', 4½', 5', 6' Custom heights also available

Refer to color sample for actual color



Echelon Plus gate options vary from swing gates for pedestrian or vehicle access to sliding gates for high-functioning points of entry. Each of these gate systems is individually constructed to provide project specific performance. STYLES



ADORNMENTS



COLORS



Custom colors also available





IMPASSE II[®]

High Security Steel Palisade Fence



Developed by the US Department of Homeland Security, the SAFETY Act established a system of risk and litigation management for claims arising out of, relating to, or resulting from an act of terrorism.

Impasse II fence systems are protected to endure the elements and are maintenance-free.



Impasse II is backed by over 30 years of excellence in the fencing industrv.



Ameristar is committed to providing products that meet the Buy American Act.



Ameristar products have the opportunity to earn LEED points.



800-321-8724 AMERISTARFENCE.COM

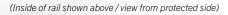
34

DESIGN INTEGRATION

The Impasse II framework is a raceway for wiring, conduits, and/or security cabling required around the perimeter of a project. This integrated design eliminates the need for costly trenching and boring, becoming a value-added solution for perimeter security upgrades.

When installing these security elements use Impasse II as a platform:

- Communication & Video Cables
- Access Control Wiring
- Intrusion Detection / **Fiber Optic Cables**
- Conduits
- Anti-Ram Cabling (Stalwart)



FABRICATION & DESIGN

- High-tensile Pre-Galvanized Steel
- Roll formed profiles yield significant system strength
- Design enables fence panels to follow terrain



POST CAP

Cast aluminum cap adds beauty and provides closure

STEEL PALES

Specifically formed high strength corrugated architectural shape resists prying or bending; bolt holes are recessed to prevent bolt head from chiseling

HIGH STRENGTH RAIL

Specifically formed for strength through architectural shape; lower lip contoured to conceal and carry security elements such as anti-ram cabling, IDS, etc.

I-BEAM POST

Specifically formed I-beam; pre-punched for rail attachment with pass through integrated design features

SECURITY FASTENER

deters removal by typical tools

Security fastener secures the rail and

IMPASSE II[®] **High Security Steel Palisade Fence**





Maintaining a secure perimeter is your first line of defense against potential threats. Impasse II fence systems serve as a visual deterrent backed with heavy steel components that give a higher level of protection compared to the traditional chain link or architectural mesh fence alternatives.

PRIMARY **APPLICATIONS**

- Military Sites
- Government Facilities
- Petroleum & Chemical **Facilities**
- Power Plants & Substations
- Airports
- Data Centers
- Ports of Entry
- Water Treatment & Storage

PALES	RAILS	I-BEAM POSTS	HEIGHTS
2.75" W x 14 GA.	2" x 2" x 11 GA.	3" x 2.75" x 12 GA. 4" x 2.75" x 11 GA.	6', 7', 8', 9', 10'



Impasse II gate options vary from swing gates for pedestrian or vehicle access to sliding gates for high-functioning points of entry. Each of these gate systems is individually constructed to provide project specific performance.

STYLES



COLORS

Refer to color sample for actual color



ANTI-SCALE OPTION

The Impasse II Anti-Scale fence system has decreased pale spacing, which deters climbing and delays those trying to cut or pry through the fence.





STALWART® PRODUCTS

Anti-Ram Vehicle Barriers

STALWART OPTIMA[®] Fiber Rope Anti-Ram Barrier

STALWART[®] Post & Rail Anti-Ram Crash Barrier

STALWART IS[®] Anti-Ram Barrier + Security Fence

STALWART II[®] Anti-Ram Barrier + Ornamental Fence

STALWART PLUS® Anti-Ram Barrier + Architectural Mesh

Stalwart systems are protected to endure the elements and are maintenance-free.



Ameristar's fence framework for Stalwart is backed by over 30 years of excellence in the fencing industry.



Ameristar is committed to providing products that meet the Buy American Act.



Ameristar products have the opportunity to earn LEED points.



AMERISTARFENCE.COM | 800-321-8724

DESIGN INTEGRATION

The Stalwart framework is a raceway for wiring, conduits, and/or security cabling required around the perimeter of a project. This integrated design eliminates the need for costly trenching and boring, becoming a value-added solution for perimeter security upgrades.

Use the Stalwart framework as a platform for these security elements:

- Communication & Video Cables
- Access Control Wiring
- Intrusion Detection / Fiber Optic Cables
- Conduits
- Anti-Ram Cabling (Stalwart)



(Inside of rail shown above / view from protected side)







CRASH RATINGS

Stalwart offers multiple anti-ram ratings. Each installation can be designed with the most appropriate stand-off distance from the assets.





SAFETY ACT CERTIFIED

Developed by the US Department of Homeland Security, the SAFETY Act established a system of risk and litigation management for claims arising out of, relating to, or resulting from an act of terrorism.







STALWART OPTIMA®

Fiber Rope Anti-Ram Crash Barrier

Stalwart Optima Fiber Rope System redefines and sets the standard in vehicle crash protection for the 21st century. The inherently flexible and innovative design allows for multiple changes of direction with run lengths from 16' to 1,500' linear runs. A shallow footer design and simplified installation round out the innovations making Stalwart Optima the most cost-effective, economical, crash tested barrier system on the market today.

RAILS | 11" x 2.75" POSTS | 8" Diameter / 15" Set Depth

Minimum runs of 16' and greater

STALWART Systems primary Applications

- Government Facilities
- State Facilities
- Military Sites
- Petroleum & Chemical Facilities
- Stadiums & Event Centers
- Schools & Universities

STALWART[®]

Post & Rail Anti-Ram Crash Barrier

The Stalwart post and rail anti-ram barrier is the most economical passive perimeter barrier on the market. The Stalwart standalone design, when installed adjacent to an existing perimeter fence, transforms the perimeter into a secure anti-crash perimeter system.

RAILS | 2" x 2" x 11 GA. I-BEAM POSTS | 3" x 2.75" x 12 GA.

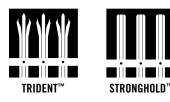


STALWART IS[®]

Anti-Ram Barrier + Security Fence

PALES | 2.75" x 14 GA. I-BEAM POSTS | 3" x 2.75" x 12 GA. RAILS | 2" x 2" x 11 GA.

STYLE OPTIONS









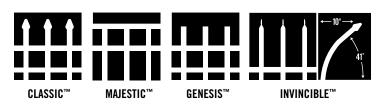
Stalwart IS unites the strongest security fence available with the most widely used anti-ram perimeter barrier. The appearance of Stalwart IS is a great visual deterrent that delivers strength and fortitude for keeping any assailant from easily breaching the perimeter.

STALWART II[®]

Anti-Ram Barrier + Ornamental Fence

RAILS | 2" x 2" x 11 GA. I-BEAM POSTS | 3" x 2.75" x 12 GA.

STYLE OPTIONS





Stalwart II integrates the design features of a traditional ornamental iron fence with the resilience of the Stalwart anti-ram barrier. The ornamental picket design blends into its surroundings, not drawing attention to itself, but still maintaining the requirements of an anti-ram barrier.

STALWART PLUS®

Anti-Ram Barrier + Architectural Mesh

RAILS | 2"x 2"x 11 GA. I-BEAM POSTS | 3"x 2.75" x 12 GA.

STYLE OPTIONS











Stalwart Plus combines the design components of an anti-ram barrier with the industrial appearance of architectural mesh. Diverse mesh options are available, providing varied levels of security with anti-cut and anti-climb properties.



WIREWORKS® PRODUCTS

Welded Wire Fence

WIREWORKS PLUS® **Commercial Welded Wire Steel Fence**

WIREWORKS ANTI-CLIMB®

High Security Welded Wire Mesh Fence



Our polyester powder coated steel guarantees a maintenance-free and environmentally friendly fence.



AMERISTARFENCE.COM | 800-321-8724

DESIGN INTEGRATION

The WireWorks Anti-Climb framework is a raceway for wiring, conduits, and/or security cabling required around the perimeter of a project. This integrated design eliminates the need for costly trenching and boring, becoming a valueadded solution for perimeter security upgrades.

When installing these security elements use WireWorks Anti-Climb as a platform:

- Communication & Video Cables
- Access Control Wiring

- Intrusion Detection / Fiber Optic Cables
- Conduits
- Anti-Ram Cabling (Stalwart)



(Inside of rail shown above / view from protected side)

FABRICATION & DESIGN

WireWorks is Ameristar's line of welded wire fence, perfect for projects that require full visibility. This fence system provides unobstructed visibility, aesthetics and security while delivering a value-added fencing solution.





WIREWORKS PLUS®

Commercial Welded Wire Steel Fence

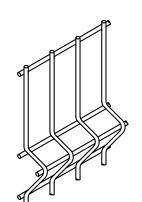


WIRE PANELS	V-FOLDS	POSTS	HEIGHTS
2" x 6" MESH / 6 GA. WIRE	2, 2, 3, 4 (4', 5', 6', 8' HEIGHTS RESPECTIVELY)	2" SQ. x 16 GA. 2.5" SQ. x 16 GA.	4', 5', 6', 8'

WireWorks Plus is the new standard in welded wire fencing

Each WireWorks Plus panel has been designed with a series of architectural "V" folds, vital to the overall reinforcement and strength of the welded wire fence system, providing:

- Unobstructed visibility
- Aesthetics
- Security



PRIMARY APPLICATIONS

- Commercial Developments
- Parking Facilities
- Self Storage
- Parks & Recreation
- Schools & Universities
- Apartments (Multi-Family)
- Amusement Parks
- Healthcare Facilities

WIREWORKS ANTI-CLIMB®

High Security Welded Wire Mesh Fence



WIRE PANELS

3" x .5" x 10.5 GA. (8') 3" x .5" x 8 GA. (10')

RAILS

2" SQ. x 11 GA. IMPASSE II

I-BEAM POSTS

3" x 2.75" x 12 GA. (8')

4" x 2.75" x 12 GA. (10')

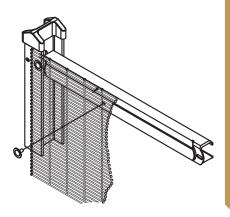
HEIGHTS

8' & 10'

WireWorks Anti-Climb is a unique perimeter security system that maintains

visibility while also delaying and deterring an attack. The tightly fabricated welded wire mesh is designed to provide additional protection from intruders on multiple fronts:

- The wire mesh's tight spacing makes handholds and footholds virtually impossible.
- Minimal spacing between each welded wire strand makes it difficult to cut yet still provides increased visibility.
- This fence solution is groundable and meets IEEE standards.



PRIMARY APPLICATIONS

- Petroleum & Chemical Facilities
- Power Plants & Substations
- Manufacturing Plants
- Military Sites
- Government Facilities
- Airports
- Railway



MATRIX® PRODUCTS

High Security Perimeter Enclosure Grid

MATRIX® Mesh Infill System

MATRIX HARDENED® Infill + Pale System

MATRIX ALPHA® Curtain Wall System

Matrix products are protected to endure the elements and are maintenance-free.



Matrix products are backed by over 30 years of excellence in the fencing industry.



Ameristar is committed to American Act.



AMERISTARFENCE.COM | 800-321-8724

DESIGN INTEGRATION

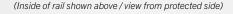
Serving as a raceway for wires and cabling, the Matrix framework creates a smart perimeter platform. The design eliminates the need for costly trenching and boring, saving money without compromising security.

Available on Matrix and Matrix Hardened

The framework houses:

- Communication & video cables
- Intrusion detection/fiber optic cables
- Anti-ram cabling

- Access control wiring
- Conduits





PRIMARY Applications

- Power Utilities
- Petrochemicals
- Industrial Storages
- Waters and Wastewaters
- Data Storages
- Sally Ports
- Critical Infrastructures

This innovative fence solution expands to accommodate your level of required security. Multiple mesh options allow you to select the degree of delay and site visibility. Engineered for critical infrastructure, this system unites strength with versatility to protect any asset.

ENGINEERED SOLUTIONS

Designed as a layered solution, Matrix systems exceed expectations and meet strict security standards.



CONFORMS TO IEEE GROUNDING STANDARDS



MEETS ASTM F2781 Forced Entry Standard



MEETS ASCE 7-10 Exposure C wind load



EXPANDABLE TO MEET ASTM F2656 CRASH BARRIER STANDARD

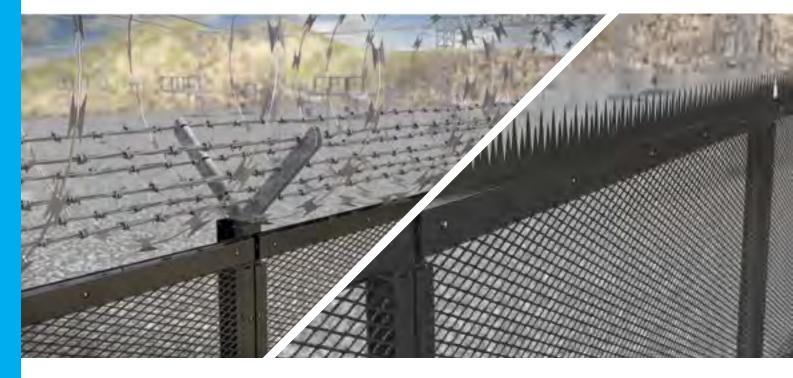
SYSTEM ENHANCEMENTS

Matrix product options to improve deterrence and increase delay.



- ANIMAL MITIGATION SHIELD
- BARBED WIRE ARMS
- TECHNOLOGY POSTS

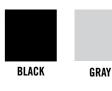
- SPIKE DETERRENT STRIPS
- ANTI BURROW (not shown)
- BALLISTIC PANELS (UL 752 Level 8)



MATRIX[®] **Mesh Infill System**

With an expandable design, Matrix is built to accommodate multiple mesh infill options. Each infill possesses unique characteristics, allowing you to determine the level of visibility, delay and deterrence for your site.





RAILS **INFILL CHANNEL DIRECT BURY/PLATED POSTS HEIGHTS** 2" x 11 GA. C-SHAPED 3.5" x .75" ALUMINUM I-BEAM/TANDEM I-BEAM POSTS 4" x 2.75" x 11 GA. 8" SQ. x .25 WALL





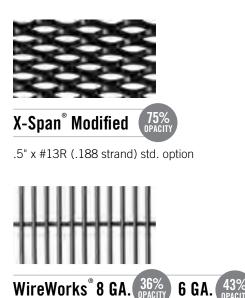
X-Span[°]

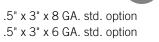
.75" x #9F std. option



X-Screen® 94% OPACITY

1.5" x #14 std. option





8'-8", 10'-8", 12'-9", 15'-7", 20'-10"

MATRIX HARDENED[®] Infill + Pale System

Matrix Hardened combines X-Span® mesh infill grid and Impasse pales to create a heavy-duty security system with increased delay times. Choose from Trident[™], Stronghold[™] or Gauntlet[™].

COLORS

Refer to color sample for actual color

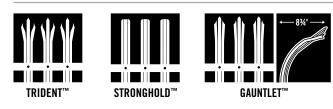


GRAY

RAILS	PALES	DIRECT BURY/PLATED POSTS	HEIGHTS
2" x 11 GA. C-SHAPED	2.75" x 14 GA.	I-BEAM/TANDEM I-BEAM POSTS 4" x 2.75" x 11 GA.	9'-9", 11'-9", 13'-10", 16'-10"
		8" SQ. x .25 WALL	



STYLE OPTIONS



PALE SPACING OPTIONS

\sim			
Ś	STANDARD SPACING:	3.25"	62% OPACITY
\sim	ANTI-SCALE SPACING:	1.5"	81% OPACITY

.75" x #9F std. option

X-Span[®]

MATRIX ALPHA® Curtain Wall System

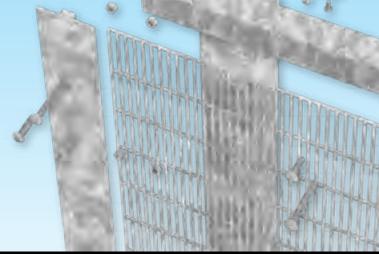
Galvanized to protect from the elements, the Matrix Alpha fence system is a baseline for perimeter security. Alpha's curtain wall architecture allows for variable post spacing, yielding reduced installation times.

FINISHES Refer to color sample for actual color

GRAY

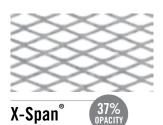


GALVANIZED



RAILS	INFILL COVER	DIRECT BURY/PLATED POSTS	HEIGHTS
2" x 16 GA. RAIL TO INFILL BRA 1" x .125"		4" SQ. x 11 GA. 3" x 6" x 14 GA. & .1875" WALL 6" SQ. x .1875" WALL	7', 8', 9', 10', 11', 12', 13', 14', 15' Custom height options available. Standard height options available in ½' increments.



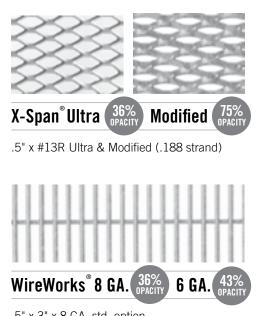


.75" x #9F std. option





1.5" x #14 std. option



.5" x 3" x 8 GA. std. option .5" x 3" x 6 GA. std. option



GATES

Strength, durability and proven functionality

EXODUS EGRESS All-in-One Pedestrian Gate Systems

PASSPORT Steel V-Track Roll Gate Design

TRANSPORT Engineered Cantilever Gates

STYLES

- Classic
- Majestic
- Genesis
- Invincible

- Trident
- Stronghold
- Gauntlet

COLORS



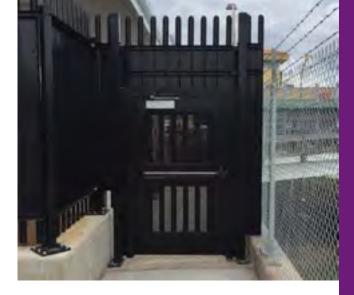
Refer to color sample for actual color

Custom colors also available

EXODUS

Exodus Egress Gates come pre-installed with a specific hardware set. There are various hardware set options available; see product catalog for details. These hardware options include a gate closer, exit device and pull or trim handle set. Exodus Double gates include removable mullion posts and are only available in the flange mounting option.

Hardware set options available to meet California building code.



PASSPORT

Passport is an innovative roll gate system with a robust fabricated design. Its rigid framework enables the gate system to glide effortlessly across its on-grade track, and its V-Track design provides the least amount of space required for a slide gate system.

The reversible design of the PassPort roll gate insures a flawless installation by allowing the gate to be installed on either side of the gate opening.



TRANSPORT

TransPort is a revolutionary cantilever gate system made up of three components: frame, facade and hardware.

The component design decreases the risk of damage during transit and does not require a team of installers or machinery to install the gate system. The cantilever gate can easily be installed with a standard three-man crew in about two hours.



EXODUS® EGRESS All-in-One Pedestrian Gate System





The Exodus Egress all-in-one gate system includes pre-installed hardware and is available in both Single and Double gate models. The non-removable pins and power transfer components produce a secure gate more capable of restricting vandalism and forced entry.

Designed for full functionality out-of-the-box, the Exodus Egress gate combines frame, gate and hardware into a complete system that is plug and play ready.

PRIMARY Applications

- K-12 Education
- Higher Education
- Stadiums & Arenas
- Municipal Facilities
- Data Centers
- Power Utility
- Retail Outlets
- Apartments
- Assisted Living









Exodus Egress Gates come pre-installed with a specific hardware set. There are various hardware set options available; see product catalog for details. These hardware options include a gate closer, exit device and pull or trim handle set. Exodus Double gates include removable mullion posts and are only available in the flange mounting option.

Hardware set options available to meet California building code.



FEATURES

- Pre-installed panic hardware
- 18 hardware set options
- Pre-hung gate assembly
- 3 mounting options
- Left- or right-hand swing
- Removable threshold
- Multiple infill options

INTEGRATIONS

- Montage II
- Aegis II
- Impasse II
- Matrix
- Matrix Hardened
- Matrix Alpha

INFILLS

Various infills and hardware available. Some options not shown



PERFORATED METAL



X-SPAN MODIFIED

1" PICKET WITH

EXPANDED METAL



MOUNTING

Flange

Plated

Flange

COLORS

BLACK

Direct Bury

Single Mounting Options

Double Mounting Options



BRONZE

1" PICKET WITH

PERFORATED METAL



SAND



Refer to color sample for actual color

GREY

IMPASSE PALE WITH PERFORATED METAL Anti-Scale available

EXPANDED METAL Anti-Scale available

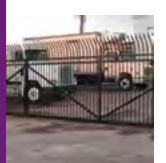
IMPASSE PALE WITH



PASSPORT[®] Steel V-Track Roll Gates

2" SQ. x 12 GA. uprights & diagonal braces 2" x 4" x 11 GA. bottom rail (notched & plated for v-track wheels)









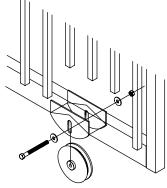
PASSPORT COMMERCIAL Matches: Montage Plus, Montage Commercial & Aegis Plus

PASSPORT II Matches: Montage II & Aegis II

PASSPORT IS Matches: Impasse II

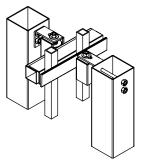
PASSPORT GATE HARDWARE

The PassPort roll gate design has been matched with equally superior hardware. The v-track rollers are designed to support more than the recommended load, and provide an effortless balance that glides smoothly across its gate opening.



PRIMARY Applications

- Water Treatment & Storage
- Municipal Facilities
- Government Facilities
- Airports
- Manufacturing Plants
- Petro & Chemical Facilities
- Power Plants & Substations
- Schools & Universities
- Stadiums & Event Centers



TRANSPORT[®] Engineered Cantilever Gates

2" SQ. x .25" wall uprights & diagonal braces 5" x 2" Fast-Trak









TRANSPORT II Matches: Montage II, Echelon II & Aegis II

TRANSPORT IS Matches: Impasse II

TRANSPORT ESTATE Matches: Aluminum Estate Entry Gates

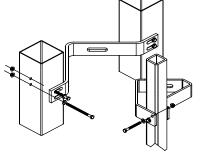
TRANSPORT LINK Matches: Chain link fence design

- TRANSPORT GATE HARDWARE

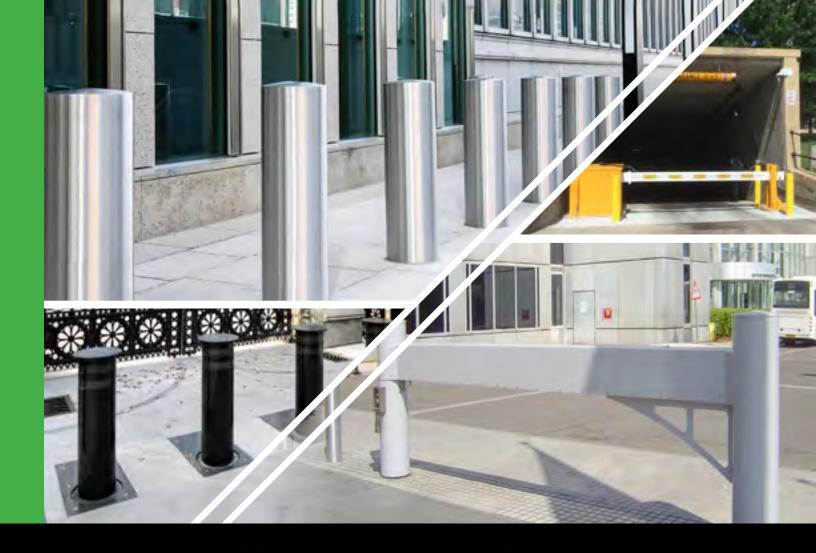
Unlike other engineered cantilever gates, Transport gates greater than 24' openings come equipped with 4 internal trollies that distribute the weight of the gate as it is opened and closed.

PRIMARY Applications

- K-12 Education
- Higher Education
- Stadiums & Arenas
- Municipal Facilities
- Data Centers
- Power Utility
- Retail Outlets
- Apartments
- Assisted Living







BOLLARDS & BARRIERS

Perimeter Security Products

BOLLARDS

Fixed, Removable and Retractable (automated or manual)

BARRIERS

Vehicle Wedges, Beams, Drop Arm, and Manual Gate

Refer to Bollards & Barriers Guide for more in-depth information





BOLLARDS

Ameristar's line of fixed, retractable and removable security bollards are available in a variety of styles and crash ratings to fit your project's needs.

BARRIERS

Ameristar's line of crash-tested barriers offers exceptional security and access control to defend your facility against vehicular threats.

FIXED BOLLARDS

BULWARK

- M30/P1 single bollard
- M30/P2 three bollard array
- Eng. M50/P1 single bollard

DS22

K12/L3 three bollard array

DS25

• K4/L3 three bollard array

GLADIATOR

M50/P1 five bollard array

SP1000

- M40/P2 equivalent
- PAS68 tested three bollard array

SMB

K4/L3 single bollard

RETRACTABLE BOLLARDS

SP100

- PU30/P2 equivalent
- PAS68 tested at 7700 lbs - single bollard

TITAN

K12/L3 three bollard array

DEFENDER

K4/L2 three bollard array

SP1000

M50/P1 single bollard

- Engineered Solutions Available
- Custom HPU enclosures available (i.e. color, climate controlled, ballistic, etc.)
- HPU with weather resistant enclosures
- Access Control Integration
- Cold Weather Kits

ACTIVE BARRIERS

PATRIOT - Rising Beam

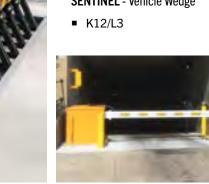
M50/P1

SENTINEL - Vehicle Wedge

M530 - Drop Arm M30/P1

CITYSCAPE - Manual Gate

M40/P2 equivalent









Why Choose Ameristar?

KNOWLEDGE AND Experience

For over 30 years we've delivered aesthetically pleasing, high-quality and innovative fencing products with superior design strength and easy installation.

PROVEN CAPABILITIES

Our integrated in-house processes, extensive raw materials and finished goods inventory translate into quality, on-time delivery.

INDUSTRY LEADERSHIP

We continually raise the bar in manufacturing customer-focused solutions. Our high standards produce premium products that go beyond merely meeting minimum industry standards.









AMERISTARFENCE.COM | 888-333-3422 Experience a safer and more open world

#9727 | 02/2021

AMERISTAR® ASSA ABLOY