

Ametco Manufacturing Corp.



1. Product Name

Ametco Fences and Gates

- Steel Security Fencing
- Fixed Louvered Fences
- Welded Wire Fences
- Aluminum Fence System
- Swing Gates
- Cantilever Gates
- V-Wheel Gates

2. Manufacturer

Ametco Manufacturing Corp.
 P.O. Box 1210
 Willoughby, OH 44096-1210
 (800) 321-7042
 (440) 951-4300
 Fax: (440) 951-2542
 E-mail: ametco@ametco.com
 www.ametco.com

3. Product Description

BASIC USE

Ametco fence and gate systems are both functional and decorative, and are designed to meet modern security and design requirements while harmonizing with the surrounding environment. Offered in a variety of designs, styles and materials, Ametco fence and gate systems are suitable for both exterior and interior applications in military, commercial, corporate, recreation, education and residential settings. Exterior applications include secure and/or decorative perimeter enclosures, sunshades, louvers, screens, window guards, railings, infill panels and trash enclosures. Interior applications include handrails, drop ceilings, sign backdrops, dividers and displays.

COMPOSITION & MATERIALS

Ametco fence and gate systems are manufactured of extruded aluminum, welded steel and/or stainless steel. Composition and material vary by product model.

Fences

Ametco Fencing Systems are available in 9 Steel Security fence models, 5 Welded Wire fence models, 7 Fixed Louvre fence models and 7 Aluminum fence models.

Steel Security Fencing systems consist of modular open grille or fixed louver fencing panels, gates, posts and hardware. Fence panels are fabricated from electro-forged steel. Posts are manufactured of flat steel bars or square steel tubes. Steel bars have a yield strength of 36,000 psi and tensile strength of 58,000 psi. The steel fencing, gates and posts are hot dip galvanized after fabrication, then polyester powder coated to one of 15 standard colors.

Ametco Fixed Louvered Fencing systems consist of fixed louver modular fence panels, fence posts, gates and hardware. Systems are fabricated of aluminum, steel or stainless steel, depending on application and model, with a polyester powder coat finish.

Ametco Welded Wire Fencing consists of modular fence panels, tubular steel posts, gates and panel fasteners. Fence panels are constructed of galvanized steel wire and are welded to form an open mesh. Posts are fabricated from galvanized or Galvalume steel. Gates have welded frames fabricated from steel tubing and welded wire panels to match fencing. Panel fasteners are U-shaped clamping strips or K-shaped strap-types, depending on model. The fence system is finished with a polyester powder coating.

Ametco Aluminum Fencing systems consist of modular fence panels, posts and gates. Fence panels are fabricated from extruded aluminum framing bars and are supported by extruded aluminum fence posts. The fence system is finished with a polyester powder coating.

Gates

Ametco gate systems are available in swing, V-wheel roller and aluminum track cantilever models, and are offered in more than 13 designs for seamless integration with Ametco fencing. Gate frames are fabricated of welded aluminum, stainless steel or steel tubing. The frame is infilled with steel security fencing, aluminum or stainless steel fixed louver fencing, or steel welded wire panels to match the fencing material.

Swing gates are furnished with tube frame, infill panels, posts, hinges, a padlockable slide bolt and padlockable cane bolt.

V-wheel roller gates are furnished with gate frames, infill panels, posts, U-bolts, guide-wheel brackets, V-wheels, V-wheel mounting brackets, V-track and wheel stop. V-wheels are made of steel or plastic according to application requirements.



Steel Security Fence



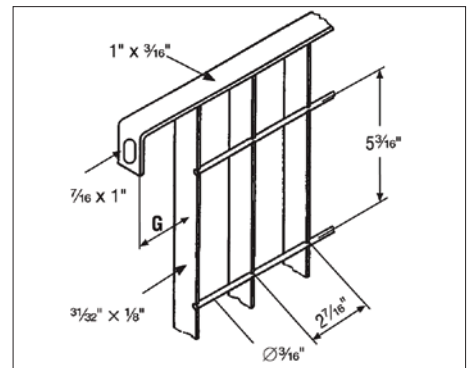
Double Swing Gate

Ametco Cantilever Gates are custom fabricated to fit project-specific requirements. Tracks are available in steel or aluminum. Steel gate frames and infill panels are hot dip galvanized and powder coated for maintenance free protection from the elements. Aluminum gates are powder coated after fabrication.

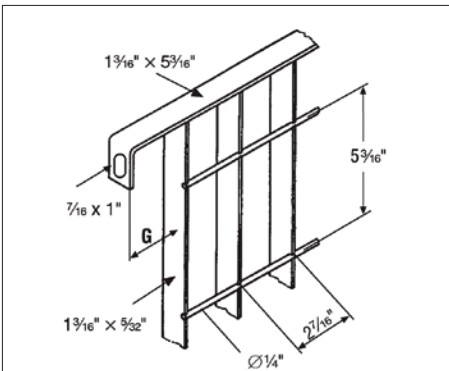
TYPES

Steel Security Fencing

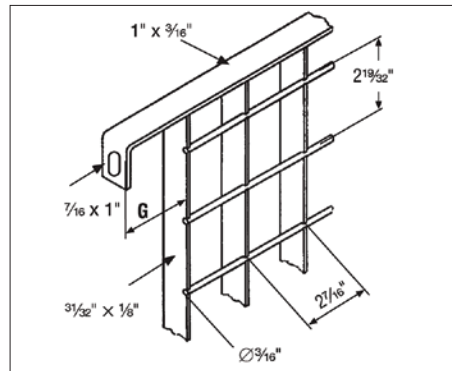
The simple, clean lines of Ametco Steel Security Fencing make it suitable for installation in ornamental applications, while its strength makes it ideal for applications requiring a high level of security. Fence panels are available in both open grille and fixed louver patterns and provide a permanent, aesthetically pleasing bar-



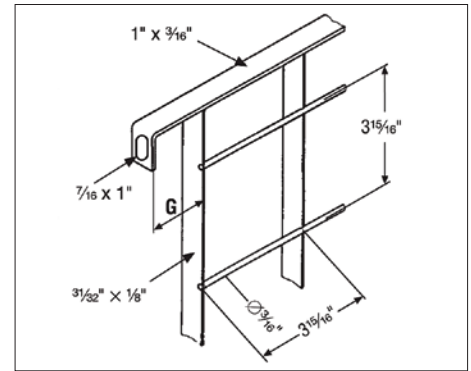
Metro



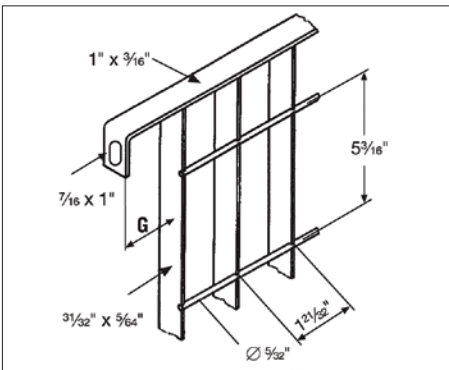
Blockade



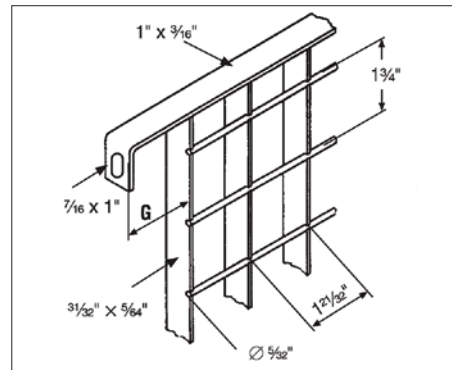
Lattice



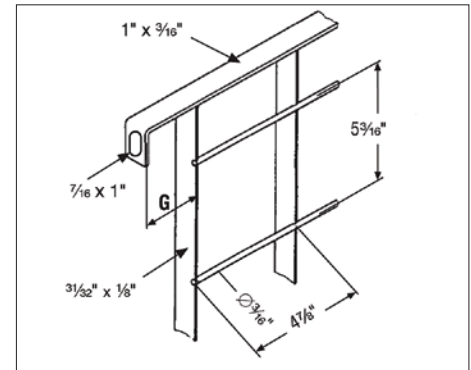
Stadium



Grotto



Shield



Trellis

rier in residential, sports, leisure, industrial and military settings. Open grille fence panels in a square or rectangular pattern can also be fabricated with top and/or bottom pickets. Ametco Steel Security Fencing is offered in the following designs:

- Metro - Styling suitable for prominent and high security residential, sports, leisure, educational, industrial and military applications; mesh size 2 7/16" x 5 3/16" (62 x 132 mm)
- Blockade - For high security applications such as military installations, radar stations and petrochemical installations that require fencing with added safety, strength and anti-break-in characteristics; available with stainless steel security bolts and nuts; mesh size 2 7/16" x 5 3/16" (62 x 132 mm)
- Lattice - Versatile design with styling suitable for both civil and industrial use; also well suited for railings and for internal decoration; mesh size 2 7/16" x 2 19/32" (62 x 66 mm)
- Stadium - Economical; ideal for fencing large areas, such as parking lots and parking garages, and for subdividing already fenced areas; also suitable for interior decoration, false ceilings and other special applications; mesh size 3 15/16" x 3 15/16" (100 x 100 mm)

- Grotto - Simple, clean lines; useful for a wide range of applications; virtually unclimbable; mesh size 2 21/32" x 5 3/16" (42 x 132 mm)
- Shield - Features small square openings; ideal for use as railing infill panels; useful with any application in which opening size control is needed; 2 21/32" x 1 3/4" (42 x 44.5 mm) mesh
- Trellis - Economical for fencing large areas and subdividing areas already fenced; also suitable for internal decoration, false ceilings and other special applications; mesh size 4 7/8" x 5 3/16" (124 x 132 mm)
- Shadow 80 - Installed horizontally as a louver section to provide 80% direct visual screening; suitable for applications including fencing, gates, rooftop screening, sunshades, false ceilings and ventilation openings; other possible applications include equipment enclosures, trash enclosures, parking garages and balconies; fabricated from electro-forged welded steel; standard panel heights to 144" (3.66 m); custom heights available
- Shadow 100 - Similar to Shadow 80 but provides 100% direct visual screening

Welded Wire Fences

Sturdy and durable, the Ametco Welded Wire Fencing systems are galvanized and powder

coated for corrosion protection. They are available in a variety of designs to meet diverse security requirements:

- Fiesta Design - Suitable for applications with high security requirements in which security with visibility is needed, such as airports, schools, power plants and hospitals; durable and easy to install; manufactured of the strongest materials; uses modern fastening systems with special U-shaped clamping strips; 2" x 8" (51 x 203 mm) mesh with 1/4" (6.4 mm) diameter vertical wire and two 5/16" (7.9 mm) diameter horizontal wires
- Guardian Design - Fence system for applications with medium to high security needs; same 2" x 8" (51 x 203 mm) mesh design as Fiesta, but mounts to the post with synthetic K-fasteners, clamping brackets and safety screws; easy to install; posts coated with aluminum zinc for up to triple the protection of comparable hot galvanized versions
- Park Design - Economical fence systems for applications with basic and medium security needs; manufactured with high tensile wire that is welded, then hot dip galvanized before powder coating; 2" x 8" (51 x 203 mm) mesh constructed of 1/4" (6.4 mm) diameter

vertical wire and two 1/4" (6.4 mm) diameter horizontal wires

- Amopanel Design - Attractive perimeter fence system designed for applications with basic security requirements; the most economical of Ametco welded wire fence designs; offers a well-balanced price/performance ratio; 2" x 8" (51 x 203 mm) mesh constructed of 3/16" (4.8 mm) diameter wire with strengthening folds for increased stability and visual appeal
- Gala Design - Fence system for applications with medium to high security needs; characterized by durability and easy installation; uses a simple fastening system; flexible; can be installed on slopes; 2" x 8" (51 x 203 mm) mesh constructed of 1/4" (6.4 mm) vertical wire and 14 gauge 3/8" x 3/4" (9.5 x 19.1 mm) horizontal channels

Fixed Louvered Fences

Attractive and flexible, Ametco Louvered Fence systems provide 80% and 100% direct visual screening, as well as air circulation, making this fence system ideal for equipment enclosures, trash enclosures, rooftop screening and parking garage applications. Offered in steel, aluminum and stainless steel with a polyester powder coating to any of Ametco's 15 standard coatings. Ametco Louvered Fence systems are offered in the following designs:

- Eclipse - Inclined, flanged louver blade provides 80% visual blocking; manufactured from aluminum or stainless steel; 1 31/32" (50 mm) wide fixed louver bars spaced at 2 1/16" (52 mm)
- Total Eclipse - Inclined, flanged louver blade provides 100% visual blocking; manufactured from aluminum or stainless steel; 1 31/32" (50 mm) wide fixed louver bars spaced at 1 13/16" (46 mm)
- Shadow 80 - Installed horizontally as a louver section to provide 80% direct visual screening; suitable for applications including fencing, gates, rooftop screening, sunshades, false ceilings and ventilation openings; other possible applications include equipment enclosures, trash enclosures, parking garages and balconies; fabricated from electro-forged welded steel; standard panel heights to 144" (3.66 m); custom heights available
- Shadow 100 - Similar to Shadow 80 but provides 100% direct visual screening
- Venetian - A V-shaped louver blade providing 100% visual blocking in any direction; fabricated from extruded aluminum; can be used horizontally or vertically; 1 3/4" wide x 2 1/2" high (44 x 64 mm) fixed louver bars spaced at 2 5/8" (67 mm)

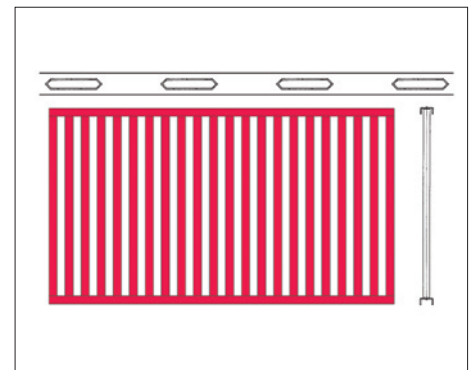
Table 1 Properties, Performance	
Wire	Galvanized
Steel bar stock	ASTMA36yieldstrength36,000psitensilestrength58,000psi
Steel tubing	ASTMA500GradeB
Steel sheet	ASTMA653galvanizedbrASTMA792Galvalume
Finish	ASTM A123
Extruded aluminum	ASTM B221, alloy 6061, temper T-6
Sheet aluminum	ASTM B209, alloy 6061, temper T-6
Powder coat	
Minimum hardness (ASTM D3363)	2H
Impact resistance (ASTM D2794)	160 inch-pounds
Salt spray resistance (ASTM B117)	No undercutting, rusting or blistering
500 hours	
Weatherability (ASTM D822), one year exposure	No film failure, 88% gloss retention
Polyurethane coat	
	Resists 5% salt spray for 500 hours
	100% humidity for 1000 hours
	Water immersion for 100 hours
	20 double rubs with cloth saturated with lacquer thinner, acetone, MED, gasoline, xylene
	Exposure to lubricating oils, hydraulic fluids, cutting oils
	16 cycles of 24 hours at 100% humidity, 24 hours at 10 degrees F (-12 degrees C), 24 hours at 77 degrees F (25 degrees C)
	Hardness H - 2H
	Flexibility 1/8" (3.2 mm) conical mandrel

- Phoenix - Provides 80% or 100% visual blocking; fabricated from extruded tubular aluminum blades; the strongest fence system in the louvered product line; available in both fixed and adjustable styles; 1/2" x 4" (12.7 x 102 mm) fixed louver blades, inclined 45 degrees and spaced at 2.83" (72 mm) for 100% direct visual screening or 3.4" (86 mm) for 80% direct visual screening
- Saturn Design - Two alternating rows of 1/2" x 4" (12.7 x 102 mm) extruded aluminum tubes provides both visual screening and ventilation; fencing can be configured vertically to limit climbing, or horizontally
- Saturn Design - Manufactured from two alternating rows of 1/2" x 4" (12.7 x 102 mm) extruded aluminum tubes; provides both visual screening and ventilation; can be configured vertically to limit climbing, or horizontally
- Corral Design - Manufactured with 4" (102 mm) ridged extruded aluminum horizontal rails in a 2-, 3- or 4-rail design; superior rail

Aluminum Fence System

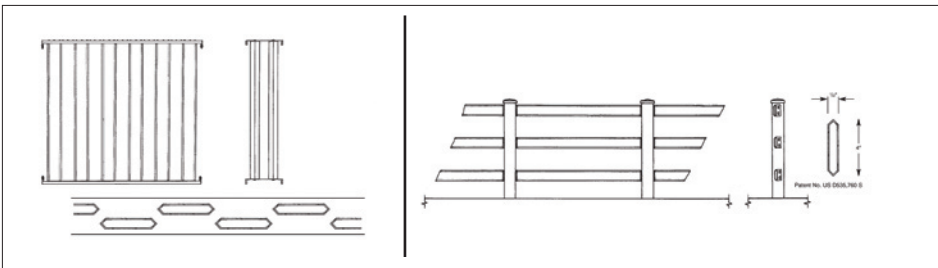
Ametco Aluminum Fencing products are manufactured from extruded aluminum sections and have a powder coat finish. Ametco aluminum fencing is available in the following designs:

- Blade Design - Manufactured from 1/2" x 4" (12.7 x 102 mm) extruded aluminum tubes that can be spaced from 1" - 4" (25.4 - 102 mm) apart; fencing can be configured vertically to limit climbing, or horizontally

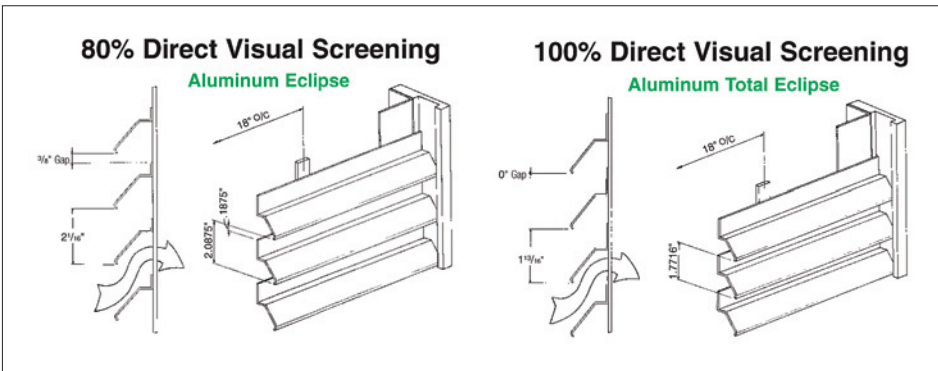


Blade Design

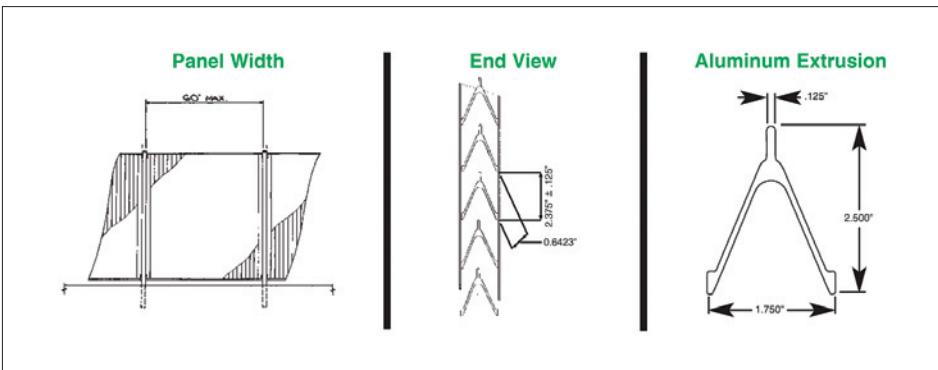
Ametco Manufacturing Corp.



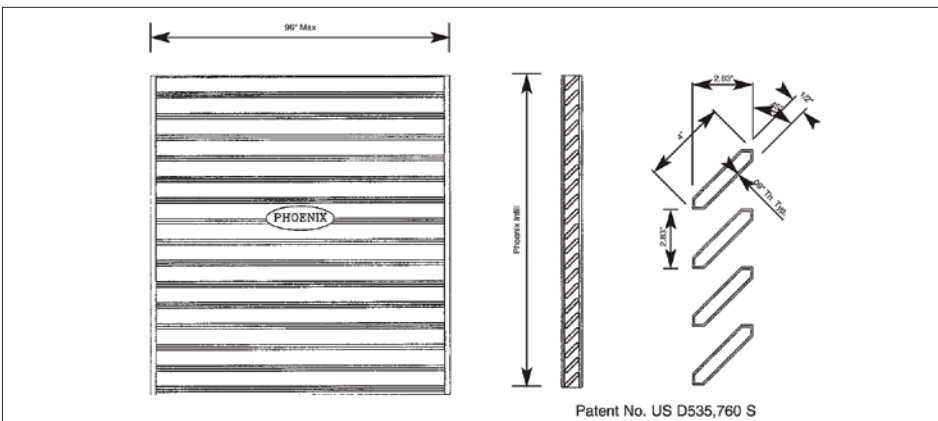
Saturn Design (left) and Corral Design (right)



Eclipse Aluminum



Venetian Aluminum



Phoenix Aluminum

strength allows posts to be spaced up to 12 (3.7 m) apart; establishes a perimeter without a "fenced in" look

- Eclipse - Inclined, flanged louver blade provides 80% visual blocking; 1 31/32" (50 mm) wide fixed louver bars spaced at 2 1/16" (52 mm)
- Total Eclipse - Inclined, flanged louver blade provides 100% visual blocking; 1 31/32" (50 mm) wide fixed louver bars spaced at 1 13/16" (46 mm)
- Venetian - A V-shaped louver blade providing 100% visual blocking in any direction; can be used horizontally or vertically; 1 3/4" wide x 2 1/2" high (44 x 64 mm) fixed louver bars spaced at 2 5/8" (67 mm)
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Swing Gates

Gates are available in steel, aluminum or stainless steel. Steel gate frames, infill panels and posts are hot dip galvanized after fabrication. All gates are polyester powder coated for maintenance-free protection from the elements.

V-Wheel Roller Gates

Ametco V-Wheel Roller Gates are custom fabricated and have a dual wheel option that makes it ideal for large openings. The rolling mechanism consists of frame-mounted steel wheels that ride on the track. The roller gate assembly is braced at the top by adjustable guide wheels that are mounted with brackets to the support posts.

Cantilever Gates

Custom fabricated to fit project-specific requirements, Ametco Cantilever Gates are available with a variety of track configurations, from Monorail steel to top mount aluminum track, enabling even the largest gates to perform smoothly. Cantilever slide gates are furnished with gate frames, infill panels, posts, guidewheels and aluminum track or T-track, in either single or double track models. Tracks can be top or bottom mounted.

SIZES

Custom sizes are available.

COLOR, FINISH

Ametco steel fence and gate systems are hot dip galvanized before powder coating, which may leave rough areas on the treated surface, although it does not impair the coating's corrosion resistance. To ensure protection from the elements, improve rigidity, eliminate maintenance and endure exposure without crazing or fading, standard size components receive polyester powder coating; large gate panels are coated with a 2-part polyurethane coating.

Fences and gates are available in the following standard powder coat colors:

- White
- Moss Green
- Light Ivory
- Light Blue
- Charlie Brown
- Cal Gray
- Red Barons
- Black Velvet
- Safety Yellow
- Safety Orange
- Cream
- Bronze Mat
- Pale Green
- Blue Streak
- Silver

ACCESSORIES

Steel security panels are available with canted fence panel extensions, custom fasteners and anti-intruder bolts. Open grille steel security fence panels can be fabricated with optional top and/or bottom pickets and with anti-intruder posts containing extension arms for barbed wire.

Fixed lower fencing is available with optional stainless steel fasteners and anti-intruder bolts.

Aluminum fencing can be supplied with optional stainless steel fasteners, aluminum end caps and anti-intruder bolts.

BENEFITS

- Modular design
- Diverse styling
- Ease of installation

4. Technical Data

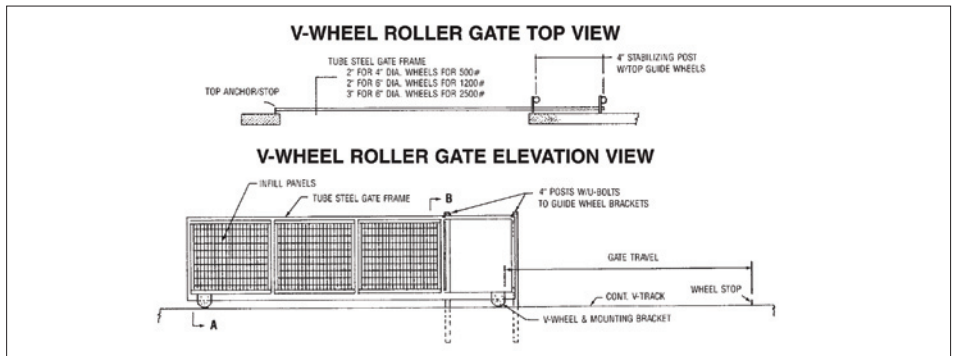
APPLICABLE STANDARDS

ASTM International (ASTM)

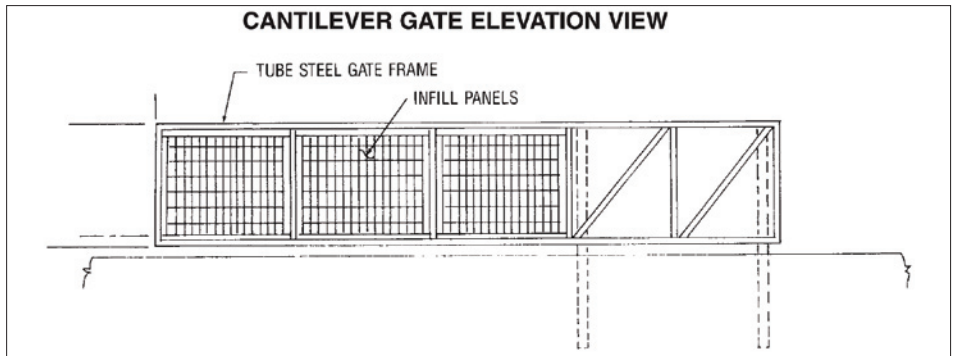
- ASTM A36 Standard Specification for Carbon Structural Steel
- ASTM A121 Standard Specification for Metallic-Coated Carbon Steel Barbed Wire

- ASTM A123 Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
- ASTM A167 Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet and Strip
- ASTM A269 Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service
- ASTM A276 Standard Specification for Stainless Steel Bars and Shapes
- ASTM A500 Standard Specification for Cold-Formed Welded and Seamless Carbon Steel

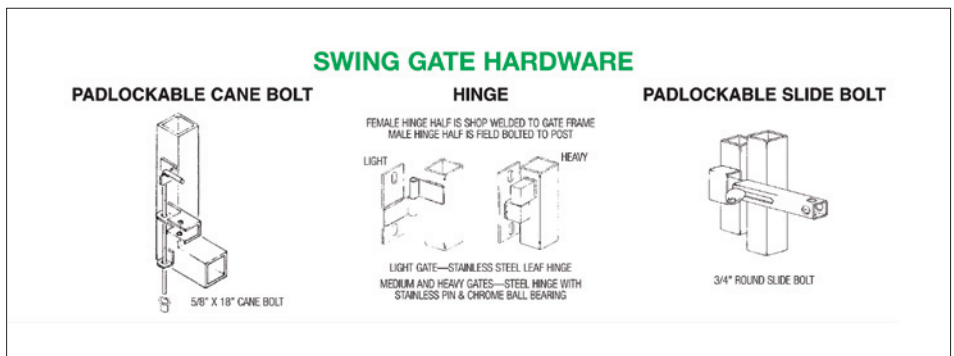
- Structural Tubing in Rounds and Shapes
- ASTM A653 Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Commercial Quality (Withdrawn 1990)
- ASTM A792 Standard Specification for Steel Sheet, 55 % Aluminum-Zinc Alloy-Coated by the Hot-Dip Process
- ASTM B117 Standard Practice for Operating Salt Spray (Fog) Apparatus
- ASTM B209 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate
- ASTM B221 Standard Specification for



V-Wheel Roller Gate

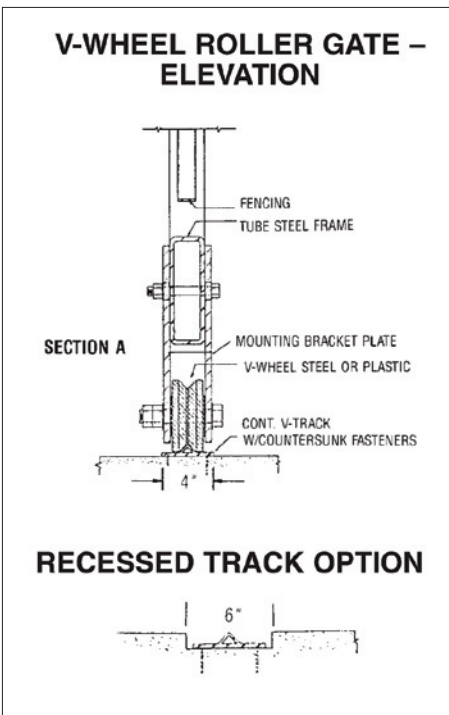


Cantilever Gate



Swing Gate

Ametco Manufacturing Corp.



V-Wheel Roller Gate Hardware

Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes

- ASTM D822 Standard Practice for Filtered Open-Flame Carbon-Arc Exposures of Paint and Related Coatings
- ASTM D2794 Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)
- ASTM D3363 Standard Test Method for Film Hardness by Pencil Test

PHYSICAL/CHEMICAL PROPERTIES

See Table 1.

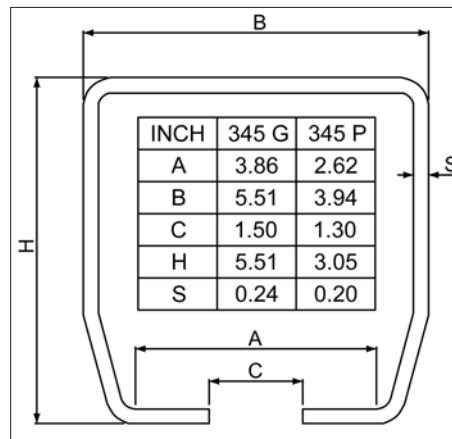
5. Installation

PREPARATORY WORK

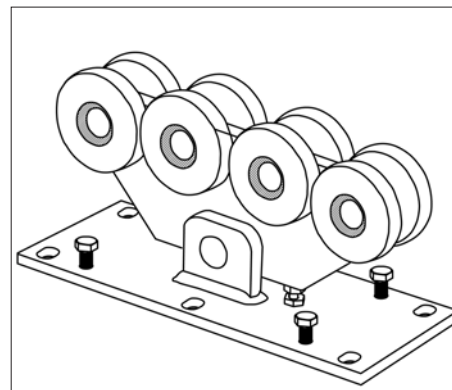
Deliver products in manufacturer's original, unopened, undamaged containers with identification labels intact. Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

Verify that site conditions are acceptable for installation. Do not proceed with installation until unacceptable conditions are corrected.

Field verify required dimensions. Standard post spacing is 78 3/4" (2000 mm) for Ametco steel fencing. Refer to appropriate drawings for site-specific dimensions.



Cantilever Gate Steel Monorail



Cantilever Gate 8 Wheel Carriage

Coordinate fence and gate installation with provision of gate operator, if applicable, to ensure proper power supply and concealment of conduit and wiring.

Cast concrete footings as detailed on approved shop drawings. Provide setting holes or core drill existing concrete footings for fence post embedment.

METHODS

Temporarily brace fence posts, then secure fence panels to posts. Install fence posts plumb and level. In-ground posts may be set in concrete in holes 12" (305 mm) in diameter for terminal posts and 10" (254 mm) in diameter for intermediated posts. Concrete should be 6" (152 mm) deeper than posts, although requirements may vary by application and/or project.

Space fasteners and secure to posts. Install accessories, if applicable. Install gates and adjust hardware for smooth operation.

After installation, test gate operation, correct deficiencies and adjust as needed. Attach

plastic caps to steel posts and touch up any damaged finish.

PRECAUTIONS

- Do not install fence panels that are bent, bowed or otherwise damaged
- Ametco recommends using 2 x 4 supports to temporarily erect the fence before permanently setting it into concrete. After the fence is plumb and level, concrete grouting can be poured into postholes

BUILDING CODES

Installation must comply with the requirements of all applicable local, state and federal code jurisdictions.

6. Availability & Cost

AVAILABILITY

Ametco fence and gate systems are available throughout the United States. Contact manufacturer for information on local availability.

COST

Costs are quoted according to project requirements. Contact Ametco for detailed pricing information.

7. Warranty

Ametco Manufacturing Corp. certifies that its fencing systems are free from defects in material and workmanship. The factory finish carries a 10 year warranty against cracking, peeling and blistering under normal use. Complete warranty terms and conditions are available from the manufacturer. For details, consult Ametco.

8. Maintenance

The powder coated finish supplied on Ametco fence and gate systems requires little or no maintenance.

9. Technical Services

Technical assistance, including more detailed information, product literature, test results, project lists, assistance in preparing project specifications and arrangements for application supervision, is available by contacting Ametco.

10. Filing Systems

Additional product information is available from the manufacturer upon request.