

ARMA Cantilever Gate

PART 1 - GENERAL:

1.01 REFERENCES:

- A.** Underwriters Laboratory Gate Operator Requirements (UL 325).
- B.** Automated vehicular gates only intended for vehicle traffic. Separate access for pedestrians must be supplied. (UL 325 51.8.4 b)
- C.** ASTM F 2200 – Standard Specification for Automated Vehicular Gate Construction.
- D.** ASTM F 1184 – Standard Specification for Industrial and Commercial Horizontal Slide Gates.
- E.** CSA standard W55.3-08 (R2013).

1.02 SUBMITTAL:

- A.** Shop Drawings:
 - 1. Supply shop drawings of gate, including details of major components.
 - 2. Supply details of gate construction, gate height and post spacing dimensions.
- B.** Certification of Performance Criteria:
 - 1. Upon request the manufacturer of the gate will provide documentation for the following components. Alternate designs built to minimum standards that do not include these additional structural features shall not be accepted.
 - a. Entire gate frame including counterbalance section will include two 5mm adjustable galvanized steel cables per bay to allow gate frame adjustment to maintain square and level orientation.
 - b. Gate truck assemblies have precision ground and hardened bearings. Bearings are sealed and pre-lubricated.
 - c. Gate truck assemblies shall be supported by a minimum 5/8" stainless steel bolt with self aligning capability.
 - d. Gate counter balance length to comply with ASTM standard.
 - e. Hanger brackets shall be hot dip galvanized steel with a minimum 3/8" thickness, gusseted for additional strength.
 - f. Gate truck assembly self aligning components shall be made of 316 stainless steel and lubricated with high temperature marine grease to prevent seizing.
- C.** Certifications:
 - 1. Gate in compliance with ASTM F 2200, Standard Specification for Automated Vehicular Gate Construction per section 2.01 C.
 - 2. If gate is automated, gate operator shall be in compliance with UL 325 as evidenced by UL listing label attached to gate operator.
 - 3. Aluminum welding process to conform to CSA W55.3-08 (R2013).

PART 2 - PRODUCTS:

2.01 CANTILEVER SLIDE GATE MANUFACTURERS:

- A.** The Arma cantilever gate system to be manufactured by Countermeasures Security Solutions Inc., 927 Alloy Drive, Thunder Bay, ON P7B 5Z8. Ph. 1.800.371.0735
- B.** Approved substitution – All other systems must be submitted to the design team in accordance with substitution requirements as set forth in the general provisions of the specification manual for approval prior to the bid date. Products submitted after the bid date will not be approved.

- C. Gate manufacturer shall certify gate is manufactured in compliance with ASTM F 2200, Standard Specification for Automated Vehicular Gate Construction.

2.02 GATE DIMENSIONS:

- A. Arma cantilever gate dimensions shall be as shown on the detail drawings.

2.03 GATE CONSTRUCTION DETAILS:

A. Gate Frame:

1. The gate frame shall be constructed from 6061 aluminum alloy extrusions. The upper rail shall be a 52mm x 157mm weighing no less than 7.9 kg/m. The lower rail shall be a 51mm x 127mm aluminum structural extrusion weighing no less than 3kg/m.

B. Vertical Members:

1. The vertical members shall be 51mm x 51mm x 3.2mm structural aluminum extrusions weighing not less than 1.65kg /m.
2. All welding of gate frame to conform to CSA W55.3 (R2013)

C. Gate Mounting:

1. The gate is to be supported from its track by two self aligning, four wheeled bearing truck assemblies.
2. The lower rail shall be guided by a guide bracket on both posts. Each guide bracket will have a pair of 76mm phenolic guide wheels. Lower guide wheels to have protective covers as per UL325.
3. Gap protectors shall be provided and installed, compliant with ASTM F 2200.

D. Diagonal Bracing:

1. Diagonal bracing of two 5mm galvanized steel cables installed in each bay throughout the entire gate frame.

E. The gate shall be completed by the installation of approved mesh as specified.

1. Chain Link: 2" x 2" x 9 gauge galvanized chain link mesh fabric to extend the entire length of the gate. Fabric attached at each end of the gate frame with standard fencing tension bars and tied at each vertical member with standard fencing ties. ASTM F 2200 requires attachment method that leaves no leading or bottom edge protrusions (cannot exceed 12.7mm).

B. Splicing:

1. When splicing of two or more panels is required, the following hardware requirements must be met.
2. Upper main splice bar to be machined from 6061 billet aluminum with final dimensions measuring 305mm x 63.5mm x 31.75mm. Upper main splice bar to be installed with a total of ten 3/8" Ø NC countersunk head fasteners.
3. Upper track alignment brace to be machined from 6061 billet aluminum with final dimensions measuring 152mm x 25.4mm x 25.4mm and secured in place with four 1/4" Ø NC countersink fasteners.
4. Lower splice bar to be machined from 6061 billet aluminum dimensions measuring 203mm x 51mm x 12.7mm and be secured in place with four 1/4" Ø NC button head fasteners.

2.04 POSTS:

- A. Support posts shall be a minimum of 88.9mm round SC40. Posts shall be galvanized or coated and supported in concrete footings as specified.

2.05 FINISH:

- A. Gate to be mill finish aluminum.

2.06 WARRANTY:

- A. The truck assembly shall be warranted against manufacturing defects by the manufacturer for a period of 3 years from date of sale.

PART 3 - EXECUTION:

3.01 Final installation conditions shall be examined. Installation shall not begin until all unsatisfactory conditions are corrected.

3.02 INSTALLATION:

- A. Installation shall be in accordance with the company's printed instructions unless otherwise shown on the contract drawings.
- B. The gate and installation shall conform to ASTM F 1184 standards for aluminum cantilever slide gates.
- C. If the gate is automated, the gate and installation shall comply with ASTM F 2200 and UL 325.
- D. Gates should be installed as to not fall over more than 45° from its vertical plane when the gate is detached from the supporting hardware.

3.03 SYSTEM INITIATION:

- A. The gate must be adjusted to ensure that it is working properly.
- B. The gate must be cycled an adequate number of times to ensure proper operation.
- C. For an automated gate - test and explain safety features:
 - 1. All features and devices are separate components of the gate system.
 - 2. Comply to instructions for all components.
 - 3. Ensure that all instructions for all components of the gate operator are available to end user.
 - 4. Ensure the owner understands the basic operation of the safety features of the automated gate system as per the gate operator manual.

Note: Countermeasures Security Solutions Inc. reserves the right to modify as necessary without prior notice.