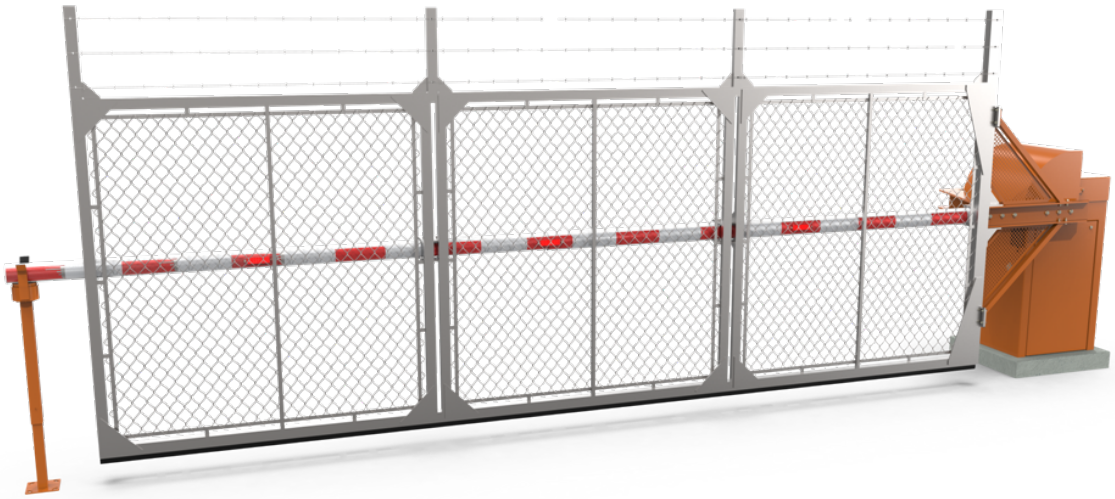
AUTOMATIC SYSTEMS
Access controlled...
Future secured

BLG76
Rising Fenced Barrier



Engineering Specifications

ENGINEERING SPECIFICATIONS

BLG76 Rising Barrier

SECTION 08 34 56 – Security Gates

SECTION 11 12 33 – Parking barrier

SECTION 28 13 00 – Access Control

SECTION 34 71 13 – Vehicle Barriers

PART I – GENERAL

1.01 SECTION INCLUDES

A. This section covers the furnishing and installation of a rising fenced barrier.

1.02 REFERENCES

A. The toll barrier gate must be certified by a nationally recognized laboratory according to UL 325 – Standard for Door, Drapery, Gate, Louver, and Window Operators and Systems.

B. The toll barrier gate must be certified by a nationally recognized laboratory according to CAN / CSA - C22.2 no. 247-92 (R 2008) – Standards for Operators and Systems of Doors, Gates, Draperies, and Louvers.

1.03 SYSTEM REQUIREMENTS

A. The rising fenced barrier must control and restrict vehicle and pedestrian traffic between secured and unsecured zones.

B. Must feature a rising fence to block vehicles and pedestrians and prevent access to restricted areas without authorization.

C. Must be mechanically locked when in the vertical (up position), and the horizontal (down position).

D. Must be bidirectional and able to operate automatically, allowing traffic in both directions.

E. Must be configurable in one of three (3) states:
1. Open - fence remains in the open or up position.
2. Closed - fence remains in the closed or down position.
3. Automatic - fence is normally in the closed position and controlled by the associated entry/exit hardware.

F. Must be able to use the access control system to grant or deny access to the facility and operate with a variety of user authentication devices such as card readers, ticketing systems or barcode reader systems.

G. Must permit the operator to manually raise and lower the gate.

H. The fence must be composed of an aluminum frame with a 9 gauge galvanized steel Frost fence.

I. Bottom of fence will be provided with safety edge to prevent it from closing on a vehicle.

J. Design of the unit must provide provision for visual and audible notifications for intuitive process.

K. Can be used in a standalone barrier or master/slave configuration for up to 32ft (10m) opening.

L. Must be equipped with the entrapment protections required to satisfy UL325 and CAN/CSA -C22.2 no. 247-92 (R 2008) standard conditions.

1.04 SUBMITTALS

A. Submit product data: equipment description, dimensions, electrical wiring diagrams for installation, and manufacturer's technical manuals for each product being used, including:
   1. Site preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.
   4. Operation and maintenance manuals.

B. Provide shop drawings and indicate component connections, anchoring methods and installation details.

1.05 DELIVERY, STORAGE AND HANDLING

A. Deliver equipment to job site in manufacturer's original packaging to prevent damages, and with complete installation instructions.

B. Store indoors in a controlled environment, protected from construction activities and debris.

1.06 PROJECT/SITE CONDITIONS

A. Install the rising fenced barrier on a leveled concrete base as per implementation drawing.

1.07 QUALITY ASSURANCE

A. The rising fenced barrier must be manufactured in North America.

B. Manufacturer Qualifications:
   1. Manufacturer must be a company specialized in designing and manufacturing rising barriers with a proven minimum experience of ten (10) years.

C. Source Limitations: obtain the rising fenced barriers from Automatic Systems.

1.08 WARRANTY

A. Automatic Systems warranties its products against parts defects for a period of two (2) years from the date of invoicing. This warranty excludes normal wear on finish or damage that occurs due to abuse or misuse. Obtain full warranty terms from Automatic Systems.

PART II – PRODUCTS

2.01 MANUFACTURERS

A. Manufacturers: subject to compliance with requirements, provide products by the following:
   1. AUTOMATIC SYSTEMS AMERICA INC, 4005 Matte Boulevard, Unit D, Brossard, Quebec, J4Y 2P4, CANADA
      Phone: 800 263 6548
      Fax: 450 659 0966
      Homepage: www.automatic-systems.com E-mail: sales.nam@automatic-systems.com

B. Products:
   1. Rising fenced barrier, Model BLG76

2.02 CONSTRUCTION

A. Cabinet
   1. Frame must be manufactured from 11 gauge to 25/64in (3 mm to 10 mm) thick steel, corrosion-protected by a 4000hrs salt spray resistant primer and a powder coat paint (standard color: orange).

B. Doors and cover
   1. The cover and doors must be removable to allow easy access to both the electro-mechanical drive and electronic control units
   2. The doors and cover must be locked by key.

C. Arm
   1. Left or right mounted arm,
   2. Round and manufactured from aluminum, painted white with red and white reflective strips,
   3. The arm is composed of 2 segments of Ø 3 7/8in and 3 ½in (100-90 mm).

D. Fence
   1. Frame to be manufactured from aluminum (length 13ft 1in or 16ft 6in / 4m or 5m)
   2. Fence to be manufactured in one section (height 6ft / 1.8m)
   3. Wire mesh to be in galvanized steel.
   4. Fence to be topped by barb wire.

E. Enclosure
   1. Design of the unit's enclosure must ensure an IP 43 degree of protection.

2.03 DIMENSIONS

A. Fence dimensions:

** NOTE TO SPECIFIER * Chose from the following subparagraphs in brackets, or add as necessary.*

   1. *[Must be 6ft x 13ft 1in (1.8m x 4m) excluding the barbwire additional (1ft (0.3m)]*
   2. *[Must be 6ft x 16ft 6in (1.8m x 5m) excluding the barbwire additional (1ft (0.3m)]*

B. Operator dimensions:
1. Overall dimensions of BLG76 operator:
   a. Height: 47 1/4in (1201mm)
   b. Footprint: 24in x 24in (610mm x 610mm)
2. Rotation axis height
   a. 39 3/4in (1010mm)

2.04 OPERATION

A. Automatic mode (arm Normally Closed & Controlled by a loop or access control device):
1. Command to barriers. In stand-by position, the passageway must be blocked by the fence.
2. Upon receipt of a signal from the access control system or the inductive loop, the fence must open, freeing the passageway,
3. The obstacle immediately closes after passage or after a configurable delay.

B. Power Failure
1. In case of power failure, the barrier can open/close manually with a special tool.
2. After the power has been restored, the unit must return to its previous operating mode.

C. Emergency Operation
1. The unit can be set to remain open upon receiving an emergency signal. The obstacle opens and allows unobstructed exit / entrance,
2. This operating mode continues as long as the emergency signal is active.
3. After the emergency signal has been turned off, the unit must return to its previous operating mode.

2.05 SECURITY

A. Must provide operator and fence to securely block the passageway:

B. Must have an integrated mechanical locking mechanism. The fence must be mechanically locked in the closed position to prevent any attempted break-in.

C. The cabinet's hood and doors must be locked by key.

2.06 SAFETY

A. Must provide minimum 12ft 5in (3.8m) wide passageway.

B. Passage can be monitored in both directions by means of a loop detector, infrared beams, safety edge or other means of monitoring, to ensure user safety and prevent fence from closing when a vehicle is crossing the passageway:
1. If a presence is detected in the obstacle safety area during the opening motion, the fence will complete its opening.
2. If a presence is detected in the safety area during a closing motion, the fence can be set to either immediately stop and remain in place or re-open depending on the selected mode.
3. The obstacle will return to regular operation once the safety zone has been cleared.

C. The fence controller motor must be provided with all the entrapment protection devices as per UL325 and CAN CSA 22.2-47 requirement that will enable the gate to automatically reverse or stop the movement whenever the fence encounters an object or an individual during a closing action.

2.07 VEHICLE GUIDANCE

A. Visual notification with clear graphics should be installed in each direction to control flow and to warn users.

2.08 DRIVE UNIT

A. Three-phase asynchronous geared motor combined V-belt driven gear reducer and a clutch with crank-and-rod linkages ensuring perfect mechanical locking in both extreme positions.

B. Variable-speed controller ensuring progressive accelerations and gradual decelerations, for safe movement without vibrations.

2.09 CONTROLLER

A. Microprocessor-based controller with the following characteristics:
   1. The logic must be equipped with:
      a. Digital screen to facilitate the configuration of the barrier,
      b. LED indicators showing the status of the inputs and outputs,
      c. 14 configurable digital inputs,
      d. 3 configurable output relays, 6 configurable digital outputs.
   2. The logic must be able to accommodate any loop detector with dry contact outputs.
   3. The barrier operator must be equipped with an extension module that adds 8 configurable inputs and 8 configurable output relays.
   4. The operating device must be equipped with an Ethernet connection module and an SD card to store the usage log.

2.10 POWER SUPPLY

A. Power supply:
   1. *[240/120 single phase VAC 60 Hz]*
   2. *[208 VAC three phase 60 Hz]*
   3. *[120VAC single phase 60 Hz]*

B. Nominal power consumption:
   1. At rest: 50W
   2. In operation:
      - 846W (without heater)
      - 296W (with 450W heater)
      - 1646W (with 800W heater)

2.11 PERFORMANCE

A. Opening Time & Closing Time:
   1. The obstacle opening time: 10 seconds
   2. The obstacle closing time: 10 seconds

B. MCBF: 750,000 average number of cycles between failures, when respecting manufacturer's recommended maintenance.

C. Operating Temperatures: 14° to 122°F (-10° to 50°C) without optional heater.

2.12 OPTIONAL EQUIPMENT

*** NOTE TO SPECIFIER ** Delete the following subparagraphs in brackets if the optional equipment is not required, or add as necessary.*

1. *[Standard tip support]*
2. *[Support leg to be mounted under the obstacle]*
3. *[STOP traffic sign]*
4. *Traffic lights fixed on a standalone post]*
5. *[Push button box]*
6. *[Key switch]*
7. *[Command by radio transmitter/receiver]*
8. *[Inductive loops for car or truck detection]*
9. *[Inductive loop presence detector].*
10. *[Photocells (automatic opening, closing, safety) fixed on post or housing]*
11. *[Post for photocells]*
12. *[AS1049 board for third party traffic light]*
13. *[450/800 W heater for operation in temperatures as low as -49°F (-45°C)]*
14. *[Arm lighting]*
15. *[Raise base]*
16. *[Other color RAL color available]*
17. *[Master/slave configuration with interlock mechanism between the 2 fences]*
18. *[240V single phase power supply]*
19. *[120V single phase power supply]*
20. *[Audible alarm]*
21. *[120V-15A power outlet]*

PART III – EXECUTION

3.01 INSPECTION

A. Installer must examine the installation location and advise the Contractor of any site conditions inconsistent with proper installation of the product. These conditions include but are not limited to the following:
   1. Rising fenced barrier operator must be installed on a level concrete pad,
   2. Power supply and control wiring must respect the manufacturer's recommendations.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

A. Install rising fenced barrier in strict accordance with manufacturer's instructions. Set units level. Anchor securely into place.

3.03 ADJUSTMENT

A. Installer must adjust rising fenced barrier for proper performance after installation.

3.04 INSTRUCTION

A. A factory trained installer must demonstrate to the owner's maintenance crew the proper operation and the necessary service requirements of the equipment, including exterior maintenance.

3.05 CLEANING

A. Clean barrier operator and area carefully after installation to remove excess caulk, dirt and labels.

3.06 MAINTENANCE

A. Maintain the equipment according to the manufacturer's instructions.

Automatic Systems reserves the right to change this specification at any time without notice.

END OF SECTION