



**GT SYSTEM 1400 FOLD DOOR
AUTOMATIC ENTRANCE SYSTEM
SUGGESTED ARCHITECTURAL SPECIFICATIONS
SECTION 8**

**Series 1400
ALUMINUM AUTOMATIC FOLDING ENTRANCE SYSTEM**

**DIVISION 08 – OPENINGS
SECTION 08 42 29.13 FOLDING AUTOMATIC ENTRANCES**

Note to Specifier: Articles and paragraphs below may be edited or modified to suit specific project requirements. Add section numbers and titles per CSI “MasterFormat” and specifier’s standard practice. Contact manufacturer’s representative to discuss specification modifications, performance requirements, accessories and/or related equipment that may be applicable to this project.

Part 1 - GENERAL

1.01 DESCRIPTION

- A. Furnish and install automatic folding door equipment as indicated on drawings and specifications.
- B. Related work specified elsewhere.
 - 1. Concrete: Division 03, applicable sections.
 - 2. Masonry: Division 04, applicable sections.
 - 3. Thermal and Moisture Protection: Division 07, applicable sections.
 - 5. Openings: Division 08, applicable sections.
 - 6. Electrical: Division 26, applicable sections. (See note to Specifier*)

1.02 REFERENCES

- A. American Association of Automatic Door Manufacturers (AAADM) - www.aaadm.com
- B. American National Standards Institute (ANSI) - www.ansi.org
- C. Builders’ Hardware Manufacturers Association (BHMA) - www.buildershardware.com
- D. Underwriters Laboratory, Inc. (UL) - www.ul.com
- E. Canadian Standards Association (CSA) - www.csa.ca
- F. National Fire Protection Association (NFPA) - www.nfpa.org
- G. International Code Council (ICC) - www.iccsafe.org

1.03 QUALITY ASSURANCE

- A. Manufacturer’s Qualifications: Manufacturer to have at least (5) five years experience in the fabrication of automatic and manual entrance systems.
- B. Installer’s Qualifications: Products specified shall be represented by a factory authorized and trained distributor. Distributor shall be AAADM Certified, maintain a parts inventory and have trained service personnel with experience installing and maintaining units indicated for this project.
- C. All automatic equipment to comply with UL325 (USA and Canada).
- D. All automatic equipment to comply with ANSI A156.10.

1.04 SUBMITTALS

- A. Product Data: Submit manufacturer’s product and complete installation data for all materials covered in this section.
- B. Shop Drawings: Submit complete elevations, details and methods of anchorage to location; installation of hardware; size, shape, joints and connections; and details of joining with other construction.
- C. Templates and Diagrams: As needed shall be furnished to fabricators and installers of related work for coordination of folding door system with concrete work, electrical work, and other related work.

D. A copy of appropriate manual shall be provided to owner / contractor upon completion of installation.

1.05 SUBSTITUTIONS

A. Gyro Tech equipment as manufactured by NABCO ENTRANCES, INC. has been specified and shall be quoted as the base bid. Proposals for substitution products may be submitted by the bidding contractors a minimum of 10 days prior to bid due date. The proposed substitution shall meet the quality and performance standards described in this specification.

1.06 JOB SITE CONDITIONS

A. Site Survey: Verify site conditions including, but not limited to the following; opening sizes, floor conditions, plumb and level mounting surfaces (substrates shall be of proper dimension and material).

B. Coordinate installation with glass, glazing, hardware and electrical to avoid construction delays.

1.07 DELIVERY, STORAGE AND HANDLING

A. Ordering and Delivery: Comply with all factory ordering instructions and lead time requirements. Delivered product shall be in original, unopened, undamaged factory containers with identification labels intact.

B. Storage and Protection: Provide protection from exposure to harmful weather conditions and vandalism.

1.08 WARRANTY

A. Warranted materials shall be free of defects in material and workmanship for a period of one year from date of substantial completion. During the warranty period the Owner shall request NABCO factory-trained technicians to perform service. Warranty repairs are provided during normal business hours. Owner to receive warranty after completion of installation.

1.09 COMPLIANCE

A. A completed American Association of Automatic Door Manufacturers (AAADM) compliance form shall be submitted as proof of compliance with ANSI A156.10 Standard for power operated pedestrian doors. Door(s) shall be inspected and a form shall be signed by an AAADM certified inspector prior to placing door(s) in operation.

Part 2-PRODUCTS

2.01 APPROVED MANUFACTURER

A. Automatic equipment and controls shall be manufactured by:
NABCO ENTRANCES INC.
S82 W18717 Gemini Drive
Muskego, WI 53150
Phone: (877) 622-2694
Fax: (888) 679-3319

2.02 AUTOMATIC FOLD DOOR SYSTEM - GT 1400 folding unit as indicated on door schedule and details.

A. Mode of operation: Gyro Tech swing operator shall open door by energizing motor and shall stop door by electrically reducing voltage and stalling motor against mechanical stop. Door shall close by means of spring energy, and closing force shall be controlled by gear system and motor being used as dynamic brake without power. Opening and closing speeds shall be adjustable. Door operation shall not require any fluids or gases under pressure to be used in opening and closing door.

B. Types / Configurations:

1. Single Fold, FS-FX or FX-FS
2. Bi-Fold, FS-FX-FX-FS

C. Components:

1. Aluminum panels, operator housing and frame.
2. Gyro Tech Swing Operator.
3. Computerized Control
4. Connecting Hardware
5. Air infiltration and intrusion protection

1a) Aluminum panels: Folding units are available in two or four panel configurations. Door (FX) and sidelite (FS) panels shall be factory assembled with 3/8"-16 threaded tie rods spanning full length of top and bottom rails. Snap-in glass stop with integral extruded vinyl standoff to accommodate glass flexing. A horizontal muntin bar to provide glass protection as required by UL standard 325.

1b) Operator Housing: Fold unit housing shall be 5-1/2" (140mm) wide by 7-1/2" (191mm) high aluminum extrusion with enclosed end caps. All header sections shall have a minimum thickness of 0.167" (4mm) and shall be fabricated of 6063-T5 aluminum alloy.

1c) Finish: Aluminum shall have a standard finish of AA-M12-C22-A31 (204R1, clear) or AA-M12-C22-A44 (dark bronze). Black and special finishes available upon request.

1d) Vertical jambs shall be of 2" (51mm) by 5" (127mm) extruded aluminum tubes. Optional framing available.

2) Gyro Tech Swing Operator: Completely assembled and sealed unit which shall include helical gear-driven transmission, mechanical spring and bearings, all located in cast aluminum housing and filled with special lubricant for extreme temperature conditions. Attached to transmission system shall be a DC shunt-wound permanent magnet motor with sealed ball bearings. Motor shall operate from 115-volt supply and require less than 5 amps at full stall. Complete unit shall be resilient mounted with provisions for easy replacement without removing door from pivots or frame.

3) Computerized Control: Control shall be a Universal Control capable of operating swing or fold units. Adjustable opening and closing speeds shall enable operation in accordance with ANSI A156.10 standard.

4) Connecting Hardware: There shall be positive mechanical connections between all operating parts. Belts or other devices, which may allow the doors to get out of phase, shall not be allowed.

5a) Air infiltration and intrusion protection: Double 1/4" (6mm) thick pile weatherstripping on lead and pivot edge of door panel (FX) and sidelite (FS) panel.

5b) Finger guard protection located at leading edge of the door (FX) and the pivot stile of the sidelite (FS).

5c) Optional locking configurations available upon request. The lock assemblies will incorporate a key cylinder on the exterior and a thumb turn on the interior in accordance with NFPA 101.

5d) The door panel may be broken outward at any point during the opening or closing cycle allowing for emergency egress in compliance with NFPA 101. The door panel in the breakout mode disconnects the power to the computerized control circuit inhibiting automatic door operation. The control circuit will automatically reset when the door panel re-engages.

2.03 ACTIVATING DEVICES

- A. Acusensor: Manufactured by NABCO ENTRANCES, INC. shall be used for activating and/or a holding device. The Acusensor shall be supplied and installed on one or both sides of operator housing to activate doors for single or two-way traffic. Units shall be sealed for protection against dust, moisture, and the elements. The Acusensor allows adjustment of detection beam pattern with five selections. The Acusensor meets and exceeds the ANSI A156.10 Standards. The Acuvision sensor shall be used on fold side of panels for threshold protection.
- B. Wall Switches: 6", 4-1/2" diameter stainless steel surface or flush mounted, engraved or plain, as provided by NABCO ENTRANCES INC.
- C. Optional activators are available - See Product Catalog.

PART 3- EXECUTION

3.01 INSTALLATION

- A. Automatic door equipment shall be installed by AAADM Certified, factory-trained installers in compliance with ANSI A156.10, manufacturer's recommendations and approved shop drawings.

3.02 CLEANING AND PROTECTION

- A. After installation, clean framing members as recommended by the manufacturer. Aluminum surfaces in contact with masonry, concrete or steel shall be protected from contact by use of neoprene gaskets, where indicated, or a coat of bituminous paint to prevent galvanic or corrosive action. Advise general contractor to protect unit from damage during subsequent construction activities.

*** COVER NOTE TO SPECIFICATION WRITER**

Indicate under appropriate Section the following work by others:

ELECTRICAL INSTALLER shall furnish and install all conduit and electrical wiring for activating devices and door operators. A minimum of 5 amperes, 115 volts, A/C, 1-phase circuit shall be furnished for each door operator, terminate and connect to operator control panel, in operator housing.

CONCRETE INSTALLER shall prepare floor at location of automatic entrance system to be level and smooth without changes in elevation between foundation and associated walkways.

END OF SECTION