

SECTION 08460 - AUTOMATIC SLIDING DOORS

PART 1 - GENERAL

1.01 SUMMARY

- A. WORK INCLUDED: Furnish and install automatic aluminum door system(s), factory fabricated. Door packages shall be complete and without damage or defect.
- B. RELATED WORK:
 - 1. Section 07920 – Joint Sealers
 - 2. Section 08410 – Aluminum Entrances and Storefronts
 - 3. Section 08700 – Finish Hardware
 - 4. Section 08800 – Glazing
 - 5. Section 16000 – Electrical

1.02 RELATED WORK

- A. The following exclusions are covered in other Sections:
 - 1. Preparation of the plumb and square masonry opening
 - 2. Floor preparation
 - 3. Electrical supply and connection (dedicated 120 VAC, 15 amp circuit to each operator/header)

1.03 SUBMITTALS

- A. PRODUCT DATA: Provide complete product and installation documentation as provided by the manufacturer.
- B. SHOP DRAWINGS: Provide details of door construction including profiles, dimensioned layout, and assembly including finish, glazing, electrical, and anchoring requirements.
- C. Contract Closeout: Provide manufacturer's Warranty documentation and Owners Manual.

1.04 QUALITY ASSURANCE

- A. Manufacturer must have a minimum of five (5) years experience in the fabrication of aluminum-and-glass door assembly similar to those specified. Door packages shall be warranted against defect in material and workmanship for a period of two years from the date of installation.
- B. Installation shall be approved by an AAADM certified inspector.

1.05 WARRANTY

- A. Door packages shall be warranted against defect in material and workmanship for a period of two years from the date of installation, and a lifetime warranty on the roller track.

PART 2 - PRODUCT

- 2.01 MANUFACTURER
record-usa
Monroe, North Carolina, USA
(704) 289-9212

2.02 DESIGN

- A. Series 5400 Bi-Part Slider-Full Breakout Sliding Doors as tested in conformance with Dade County Requirements by ATL.

Tests Conducted: **FBC, HVHZ TAS201-94, TAS202-94, TAS 203-94 Qualifying: ASTM E 283, E 330**

- B. DESIGN PRESSURES: + 65.0 psf, - 70.0 psf
- C. SLIDING DOOR PACKAGE: Sliding door packages shall be complete including operator, sliding doors, sidelites, headers, jambs, thresholds, bottom door guides, and activation and safety sensors.
- D. DOORS AND FRAMES: All structural aluminum sections shall be 6063-T5 alloy with exposed surfaces anodized to matching architectural finish. Extruded aluminum header and cover shall conceal replaceable roller track, and integrated anti-derail extrusion. Door carrier assemblies shall incorporate four 1 $\frac{3}{4}$ " diameter roller assemblies with sealed ball bearings and Grade 8 alloy steel hanger bolts. Concealed bottom door guides shall provide stable movement of sliding panels. Narrow stile door and sidelite construction shall utilize 1 $\frac{3}{4}$ " deep x 2" wide vertical profiles and 6" or 10" bottom rails. Mohair weather pile shall run full height at front of sliding doors, back of side lites, and between the doors and side lites.
1. Side jambs and transom framing shall be 1 $\frac{3}{4}$ " x 4 $\frac{1}{2}$ ".
- E. OPERATOR: Door movement shall be driven by a sealed DC gear motor and nylon reinforced drive belt. The multifunction microprocessor control shall provide fully adjustable open, close, and check speeds. An adjustable hold open time delay (1-30 seconds) shall be provided. The microprocessor shall provide a safety-first recycle/stop feature if closing/opening is obstructed. The control shall provide a self-monitor system that compensates each cycle for changes in temperature, wind load, pressure and mechanical drag and checks for proper internal operation. The control shall automatically adjust motor speeds, checking action, and other operating characteristics. A backlit jamb mounted LCD display panel shall be provided as standard and shall have the following modes: Automatic, Off, Exit Only, Full Open, and Partial Open, and shall allow authorized service personnel to make door performance adjustments to the control. The reduced opening distance shall be field adjustable and can be constant or a function of traffic frequency. Selectable ratchet mode shall keep the door in the open position until a second activation signal. The operator shall allow the door to be opened manually in power off conditions. Optional battery pack shall automatically either open or close the door(s) after power is lost.
- F. EMERGENCY EGRESS: Sliding doors and swing-out side lites shall be capable of being swung out to 90° from any position of slide movement (except for SR units) and require no more than 50 lbf. (222 N) of force applied at the lock stile to open. Units with this emergency egress feature comply with Chapter 5, Means of Egress, of Code for Safety from Fire in Buildings & Structures, NFPA 101.
- G. SECURITY: The sliding doors shall be fitted with a International Door Closer Inc. DH-1820-H hook bolt deadlock with HB-4015-N Header Bolt Set. Biparting units shall include a two-point lock Adams Rite MS1880 Flush Bolt. Units with swing-out side lites shall incorporate mechanical interlocks between the sliding doors and side lites to guard against forced entry when the unit is locked.
- H. Optional Security: Adams Rite G86exit device locking with outside cylinder/escutcheon (in lieu of flush bolts all SX panels) to meet Means of Egress Life Safety Codes.
- I. Optional Electric locking: May be Fail-Safe or Fail Secure
- J. FINISH: All exposed surfaces shall be 204-R1 clear anodized for Class 2 architectural finish or dark bronze or black anodized for Class 1 architectural finish. Painted packages to match storefront are optional.

- K. SAFETY AND ACTIVATING DEVICES: Unit shall have two infrared safety beams installed at 24" and 48" from the finished floor. On bi-parting units, beams will be installed in the vertical stiles of the side lites. The beams will not be active when the doors are fully closed. Motion/presence sensors shall be installed on both sides of the unit to detect traffic approaching the door from either direction. For units intended for one-way traffic only, the detection sensor on the side not intended for use shall not be active when the doors are fully closed.

2.03 REQUIREMENTS FOR WORK SPECIFIED IN OTHER SECTIONS

- A. ELECTRICAL: The General Contractor or Electrical Contractor shall furnish and install all wiring to the operator. Provide 120VAC, 60 Hz, 1 phase, 15 amp service to each operator header on a separate, dedicated circuit routed into the header.
- B. GLASS AND GLAZING: Glazing bead and setting blocks shall be in compliance with ANSI Z97.1.
 - 1. Note: Laminator's Bug (Permanent Identification) verified prior to testing
 - 2. Glazing Material: 0.449" laminated Storm glass. 3/16" HS glass / 0.075" Venceva Composite (VS-XX) interlayer / 3/16" HS glass, laminated by Old Castle Glass, Inc.
 - 3. Glazing Method: The doors are glazed from the outside. The glass is supported on the interior side by an extruded aluminum gutter (part # 5-11-4044) that is attached to the stiles and rails with # 10-16 x 1/2" PPH thread forming screws, staggered 2" from each end and sealant 4" – 6" on center. Glass is wet glazed on the interior side with a Geon 8700 insert (glass spacer block) (part # 6-11-9002) (0.318 x 0.274), (2) in all horizontal and vertical gutters located at 6" from corners, and Dow Corning 983 silicone sealant (specimens A, A1 and C1) or Dow Corning 995 silicone sealant (specimen D), Glass bite 31/64". The glass is supported on the exterior side by an extruded aluminum sash, 1/4" square (part # 5-11-4040)(0.628" x 0.815" x 0.050" typical wall thickness) and glazed with a EPDM Glazing bulb (part # 6-11-9001)(0.331" x 0.320"). (2) glass setting blocks (part # 6-11-9007)(material 93 Duro, 082BA) in all lower horizontal gutters and in all vertical gutters, each, located 4" – 6" from corners.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Inspect frame opening for correct size, plumb and square, and level floor for safe and reliable performance. Provide written notification to the appropriate personnel of conditions not acceptable to the installer and/or manufacturer. Proceed with installation only after necessary corrections are made by the general contractor to insure a suitable opening.

3.02 INSTALLATION

- A. Install sliding door unit plumb, square, and level in properly prepared and supported opening, using specified fasteners, as required by installation instructions, Test report and as detailed on the shop drawings.

3.03 INSTRUCTION

- A. Following the installation and final adjustments, the installer shall fully instruct the facility manager as to correct operating procedure and safety requirements of the sliding door package.

3.04 FINAL CLEANUP

- A. After installation and adjustment for smooth, reliable operation, clean the door package and remove all surplus material, equipment, and debris incidental to this work.

END OF SECTION