

SECTION 08 42 29
SERIES 5100 AUTOMATIC SLIDING DOOR SYSTEMS

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 07900 – Joint Sealers
 - 2. Section 08400 – Entrances and Storefronts
 - 3. Section 08700 – Hardware
 - 4. Section 08800 – Glazing
 - 5. Section 16000 – Electrical

1.02 RELATED WORK

The following exclusions are covered in Section(s) _____:

- 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

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.

Installation shall be approved by an AAADM certified inspector.

1.05 WARRANTY

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. **SLIDING DOOR PACKAGE:** Sliding door packages shall be complete including operator, sliding door(s), sidelite(s) [*filler tube(s) on surface mounted units*], header(s), jambs, threshold(s), bottom door guide(s), and activation and safety sensors.
- B. **DOORS AND FRAMES:** All structural aluminum sections shall be 6063-T5 alloy with exposed surfaces anodized (painted) 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 1¾" 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 1¾" (44 mm) deep x 2" (51 mm) wide vertical profiles and 3½" (89 mm) bottom rails [*medium stile door and sidelite construction shall utilize 1¾" (44 mm) deep x 3½" (89 mm) wide vertical profiles and 6" (152 mm) bottom rails*]. Mohair weather pile shall run full height at front of sliding door(s), back of sidelite(s), and between the door(s) and sidelite(s) [*filler tube(s) on surface mounted units*].

Side jambs and transom framing shall be 1¾" (44 mm) x 4½" (114 mm). Optional 1" (25 mm) x 4½" (114 mm) side jambs are also available.

- C. OPERATOR:** Door movement shall be driven by a sealed DC gearmotor 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.
- D. EMERGENCY EGRESS:** Sliding door(s) and swing-out sidelites (on units so equipped) 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.
- E. SECURITY:** The sliding doors shall be fitted with a Maximum Security hookbolt deadlock. Biparting units shall include a threshold bolt for two-point locking. Units with swing-out sidelites shall incorporate mechanical interlocks between the sliding door(s) and sidelite(s) to guard against forced entry when the unit is locked. (Option: Unit can be provided with either a fail-safe or fail-secure electric lock concealed in the header and coordinated with the operator to electrically lock slide movement). Additionally, units can be equipped with Adams Rite Series F86 flush-mounted exit devices with concealed vertical rods to lock against swing.
- F. FINISH:** All exposed surfaces shall be 204-R1 clear anodized or 313-R1 two-step, hard coat dark bronze anodized for Class 1 architectural finish. Other painted or anodized colors as specified.
- G. SAFETY AND ACTIVATING DEVICES:** Unit shall have two infrared safety beams installed at 24" and 48" from the finished floor. On single slide units, beams will be installed in the vertical stile of the sidelite facing the door opening [*in the filler tube on surface mount units*] and the lock side jamb. On biparting units, beams will be installed in the vertical stiles of the sidelites [*in the filler tubes on surface mount units*]. 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.

PART 3: EXECUTION

3.01 INSPECTION

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

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

3.03 INSTRUCTION

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

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