

**SECTION 08 43 29**  
**MANUAL SLIDING ALUMINUM DOORS**

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. Section includes: Interior sliding aluminum doors.

**1.2 SUBMITTALS**

- A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for sliding doors.
- B. Shop Drawings: Include plans, elevations, sections, details, hardware mounting heights, and attachments to other Work.
1. For installed products indicated to comply with design loads, include structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
- C. Samples:
1. Submit 12-inch long samples of each type of exposed finish required prepared on same material and of same thickness indicated for the Work.
  2. If finishes involve normal color and texture variations, include sample sets showing the full range of variations expected.
  3. Architect will review samples for color and texture.
  4. If requested by Architect, submit samples of typical fabricated sections, showing joints, exposed fastenings, quality of workmanship, and accessory items.

**1.3 QUALITY ASSURANCE**

- A. Installer Qualifications: An experienced installer who is an authorized representative of the door manufacturer for both installation and maintenance of units required for this Project.
- B. Manufacturer Qualifications: A firm experienced in manufacturing doors similar to those indicated for this Project and with a minimum 5 years record of successful in-service performance.
- C. Source Limitations: Obtain sliding aluminum doors through one source from a single manufacturer.
- D. Welding Standards: Comply with AWS D1.2, "Structural Welding Code--Aluminum."
- E. Regulatory Requirements: Comply with the following:
1. ANSI A117.1 "Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People."
  2. Public Law 101-336 "The Americans with Disabilities Act of 1990 (ADA)."

3. ADA Accessibility Guidelines (ADAAG).

#### **1.4 PROJECT CONDITIONS**

- A. Field Measurements: Verify door openings by field measurements before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
  1. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish opening dimensions and proceed with fabricating doors without field measurements. Coordinate wall construction to ensure that actual opening dimensions correspond to established dimensions.

#### **1.5 REFERENCES**

- A. American Architectural Manufacturers Association (AAMA) 101: Appendix Dissimilar Materials.
- B. American National Standards Institute (ANSI): ANSI Z97.1: Safety Glazing Materials Used in Buildings - Methods of Test.
- C. American Society for Testing and Materials (ASTM) B221: Aluminum-Alloy Extruded Bars, Rods, Shapes and Tubes.
- D. National Fire Protection Association (NFPA) 101: Code for Safety to Life from Fire in Buildings & Structures.
- E. The Aluminum Association (AA) Aluminum Finishes Manual.

#### **1.6 WARRANTY**

- A. Warranty: Written warranty, executed by manufacturer agreeing to repair or replace components of the door system that fail in materials or workmanship within specified warranty period. Failures include, but are not limited to, the following:
  1. Lateral deflection of glass lite edges in excess of 1/175 of their length or 3/4 inch, whichever is less.
  2. Excessive air leakage.
  3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
- B. Warranty Period: Three years from date of Substantial Completion.

## **PART 2 - PRODUCTS**

### **2.1 MATERIALS**

- A. Door Unit: header with track, jambs, sliding door panel(s), and sidelite(s).
  - 1. Basis of Design: Type 310 Trackless as manufactured by Horten. Slide-Swing panels shall slide along interior side. Swing-out sidelite (door must be in full open position). No floor track or recess required.
- B. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated, complying with standards indicated below:
  - 1. Extruded: ASTM B 221.
  - 2. Sheet and Plate: ASTM B 209.
  - 3. Welding Rods and Bare Electrodes: AWS A5.10.
- C. Structural Header Sections: Minimum 3/16 inch (5 mm) thickness.
- D. Structural Frame Sections: Minimum 1/8 inch (3 mm) thickness.
- E. Glazing: As specified in Section 08 80 00 – Glazing.
- F. Sealants and Joint Fillers: As specified in Section 07 92 00 – Joint Sealants.
- G. Nonmetallic, Shrinkage-Resistant Grout: Premixed, nonmetallic, noncorrosive, nonstaining grout; complying with ASTM C 1107; of consistency suitable for application.
- H. Bituminous Paint: Cold-applied, asphalt-mastic paint complying with SSPC-Paint 12 requirements, except containing no asbestos; formulated for 30-mil thickness per coat.

### **2.2 COMPONENTS**

- A. Header: Aluminum with removable face plate. Optional transom of size and type indicated mounted on header.
  - 1. Header sizes: 4 inches (102 mm) deep by 2-1/2 inches high.
- B. Header Track: Aluminum, nylon covered and replaceable. Telescoping doors will have two separate tracks for sliding panels to travel. Rollers will be steel, high quality ball bearing wheels 1-1/4 inch (32 mm) diameter. Anti-Derailing shall be accomplished by means of a continuous aluminum extrusion full length of slide panel travel.
- C. Sliding Panels and Sidelights: Aluminum, 1-3/4 inch (44 mm) deep with narrow stile construction. Weather-stripping to be along vertical rails of sliding panel(s) and swing-out sidelite(s). Concealed guides to stabilize bottom of sliding panel. Standard glazing prep to be for 1/4 inch (6 mm) glass.
  - 1. Total weight limit per panel shall be:
    - a. 200 lbs. (90.7 kg) for slide panel (non-breakout)

- b. 156 lbs. (70.7 kg) for UL listed slide-swing panel
- D. Emergency Egress: Slide-swing panels must swing out 90 degrees from any position of slide movement and require no more than 50 lbf. (222 N) of force applied at the strike stile to open. Exception: Type 310 Trackless (door must be in full open position before panels can swing out).
  - 1. Breakout mechanism shall provide support across full width of the door, in normal operating mode. In breakout mode, torsion assembly shall support weight of the door to minimize drop during emergency egress.
  - 2. Slide-swing panels shall include intermediate horizontal rail.
  - 3. Units with floor mounted track and emergency egress feature are UL listed as an exit way and are compliant with NFPA 101.
- E. Jambs/Frame: Aluminum.
  - 1. Jamb dimensions: 1-3/4 inches (44 mm) deep by 4 inches (102 mm) wide.
- F. Hardware: A recessed pull shall be provided on each side of the sliding panel. No locks shall be provided. Exception: Trackless units shall include a flush bolt lock to lock the SO.
  - 1. Optional: The slide-swing panel shall be provided with positive latch that will latch this panel in place when closed. A lever handle shall be provided on each side of the sliding panel to unlock the door. The swing-out sidelite shall be provided with positive latch that will latch this panel in place when closed. A lever handle shall be provided on exterior side of sidelite to unlock the panel.

## 2.3 FABRICATION

- A. General: Fabricate door system components to designs, sizes, and thicknesses specified and to comply with indicated standards.
- B. Panel Construction:
  - 1. Corner block type with 3/16" steel backup plate construction, mechanically secured with minimum of four hardened steel screws. Sash consists of snap-in glass stops, snap-in glazing beads and vinyl gaskets.
  - 2. Weatherstripping material captured in extruded aluminum door panel. Door nosing weatherstrip to be spring-loaded adjustable astragal type. Surface applied self-adhesive weatherstripping not acceptable.
  - 3. Slide-swing doors to be supplied with adjustable glass setting block to allow for adjusting of door to meet site conditions eliminating the need for additional shims.
- C. Frame Construction: Butt joints, mechanically secured by means of screws & formed aluminum brackets.

## 2.4 ALUMINUM FINISHES

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

- B. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.
- C. Anodized Aluminum:
  - 1. .AA-C22A41 Chemically etched medium matte, with clear anodic coating, Class 1 Architectural, 0.7-mil thick.

### **PART 3 - EXECUTION**

#### **3.1 EXAMINATION**

- A. Examine conditions, with Installer present, for compliance with requirements for installation tolerances, header support, and other conditions affecting performance of doors.
- B. Examine roughing-in for compressed-air piping systems to verify actual locations of piping connections before equipment installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

#### **3.2 INSTALLATION**

- A. General: Comply with sliding door manufacturer's written installation instructions, unless more stringent requirements are indicated. Do not install damaged components. Fit frame joints to produce hairline joints free of burrs and distortion. Rigidly secure nonmovement joints. Seal joints watertight.
- B. Metal Protection: Where aluminum will contact dissimilar metals, protect against galvanic action by painting contact surfaces with primer or by applying sealant or tape recommended by manufacturer for this purpose. Where aluminum will contact concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.
- C. Entrances: Install entrances plumb and true in alignment with established lines and grades without warp or rack of framing members and doors. Anchor securely in place. Lubricate operating hardware and other moving parts.
  - 1. Install surface-mounted hardware using concealed fasteners to greatest extent possible.
  - 2. Set tracks, header assemblies, operating brackets, and guides level and true to location with anchorage for permanent support.
  - 3. Install components to drain water passing joints and condensation and moisture occurring or migrating within the system to the exterior.
- D. Glazing: Comply with installation requirements in Section 08 80 00 - Glazing unless otherwise indicated.
- E. Sealants: Comply with requirements in Section 07 92 00 - Joint Sealants for installing sealants, fillers, and gaskets.

**3.3 ADJUSTING**

- A. Adjust doors smooth and safe operation

**3.4 CLEANING AND PROTECTION**

- A. Clean glass and aluminum surfaces promptly after installation. Remove excess glazing and sealant compounds, dirt, and other substances. Repair damaged finish to match original finish.
  - 1. Comply with requirements in Section 08 80 00 - Glazing for cleaning and maintaining glass.

END OF SECTION