

## SECTION 08163 – SLIDING ALUMINUM-FRAMED GLASS DOORS

## PART I – GENERAL

## 1.01 SUMMARY

- A. **WORK INCLUDED:** Furnish complete intensive care aluminum door system, as specified, that has been manufactured, fabricated and installed to maintain performance criteria stated by manufacturer without defects, damage or failure.
- B. **RELATED WORK:**
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.

## 1.02 REFERENCES

- A. AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION (AAMA) 101: Appendix Dissimilar Materials.
- B. AMERICAN NATIONAL STANDARDS INSTITUTE (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. ALUMINUM ASSOCIATION (AA) Aluminum Finishes Manual.
- E. INTERTEK, WARNOCK HERSEY: Testing Laboratory and Certification Agency in partnership with ETL SEMKO Testing and Certification includes, but is not limited to, Smoke Containment Barrier Doors as per performance criteria of UL 1784.
- F. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 105: Standard for the Installation of Smoke Door Assemblies and Other Opening Protectives.
- G. UNDERWRITERS LABORATORIES (UL) 1784: Air Leakage Test of Door Assemblies

## 1.03 SUBMITTALS

- A. **PRODUCT DATA:** Submit manufacturer's complete product and installation data.
- B. **SHOP DRAWINGS:** Submit drawings showing layout, profiles, product components including anchorage, accessories, finish and glazing details (where required).
- C. **QUALITY ASSURANCE AND CLOSEOUT SUBMITTALS:** Submit the following:
1. Manufacturer's Operation and Maintenance Data.
  2. Warranty document as specified herein.

#### 1.04 QUALITY ASSURANCE

- A. **INSTALLERS QUALIFICATIONS:** Installer experienced (as determined by contractor) to perform work of this section who has specialized in the installation of work similar to that required for this project and who is acceptable to product manufacturer.
- B. **MANUFACTURER'S QUALIFICATIONS:** Manufacturer to have minimum (5) five years successful experience in the fabrication of intensive care doors of the type required for this project. Manufacturer capable of providing field service representation during installation, approving acceptable installer and approving application method.

#### 1.05 WARRANTIES

- A. **MANUFACTURER'S WARRANTY:** Units to be warranted against defect in material and workmanship for a period of one year from the Date of Substantial Completion. Manufacturer's warranty is in addition to, and not a limitation of, other rights owner may have under Contract Documents.
- B. **DISTRIBUTOR'S WARRANTY:** 1 year warranty: Labor & transportation charges for defective parts replacement.

#### 1.06 PROJECT CONDITIONS

**FIELD MEASUREMENTS:** Verify actual dimensions/openings by field measurements before fabrication and record on shop drawings. Coordinate with fabrication and construction schedule to avoid construction delays.

#### 1.07 DELIVERY, STORAGE AND HANDLING

- A. **ORDERING AND DELIVERY:** Comply with factory's ordering instructions and lead time requirements. Delivery shall be in factory's original, unopened, undamaged containers with identification labels intact.
- B. **STORAGE AND PROTECTION:** Provide protection from exposure to harmful weather conditions and vandalism.

### PART II – PRODUCTS

#### 2.01 MANUFACTURER

**HORTON AUTOMATICS,** a division of Overhead Door Corporation, shall manufacture intensive care sliding door(s) of type(s) and size(s) specified on plans and door schedule.

#### 2.02 EQUIPMENT

- A. **PROFILER-ICU SMOKE RATED TELESCOPING TRACKLESS TYPE 310T MANUFACTURED DOOR UNITS:** Shall include header with track, jambs, slide-swing door panels, and swing-out sidelite. Units will be perimeter mounted within rough opening. Slide-swing panels shall slide in one direction, in telescoping fashion, along swing-out sidelite utilizing trackless floor system. No floor track or recess required.
1. **AIR INFILTRATION RATING:** Units tested and certified by Intertek to be in compliance with UL 1784. Maximum leakage rate at ambient temperature shall be less than 2 CFM/ft<sup>2</sup> of opening at 0.3 in. of water. At 400°F the rate of leakage shall be less than 2 CFM/ft<sup>2</sup> of opening at 0.3 in. of water.
  2. **HEADER:** Shall be aluminum with removable faceplate. Header size to be 7" (178 mm) deep by 2 1/2" (64mm) high on exterior side and 4 13/16" (122 mm) high on interior/faceplate side.
  3. **TRACK:** Double track system shall be integral part of header. Each track shall be 1/4" (6 mm) wide, nylon covered, and replaceable. Rollers will be steel, high quality ball bearing wheels 1-1/4" (32 mm) diameter. Anti-Derailing shall be accomplished by means of a continuous aluminum extrusion full length of slide panel travel.

4. **SLIDE-SWING PANEL AND SWING-OUT SIDELITE:** Shall be aluminum, 1-3/4" (44 mm) deep with narrow stile construction and with perimeter weather-stripping. Standard glazing prep to be for 1/4" (6 mm) tempered glass. Wet glazed with red high temperature silicone sealant at corners.

Total weight limit per panel shall be 156 lbs. (70.7 kg).

a. Locking Hardware: shall be provided as follows:

1. Positive Latch: shall be provided on lead/initial slide-swing panel. Panel will latch in place when closed. A lever handle shall be provided on each side of this sliding panel to unlock the door.
2. Flush Bolt: shall be provided for swing-out sidelite. Swing-out sidelite will thus be locked in place under normal conditions.

b. Swing-out Feature: (door must be in full slide-open position).

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. Swing-out slide panels and sidelite shall include intermediate horizontal rail.

5. **JAMBS/FRAME:** Shall be aluminum, 1 3/4" (44 mm) deep by 7" (178 mm) wide.

#### B. PROFILER-ICU SMOKE RATED SINGLE SLIDE TRACKLESS TYPE 310 MANUFACTURED DOOR

**UNITS:** Shall include header with track, jambs, single sliding door panel, and sidelite. Units perimeter mounted within rough opening with sliding panel sliding along sidelite. Units will be single-slide and Slide-Swing panel shall slide along interior side utilizing trackless floor system. No floor track/guide or recess required.

1. **AIR INFILTRATION RATING:** Units tested and certified by Omega Point to be in compliance with UL 1784. Maximum leakage rate at ambient temperature shall be less than 1 CFM/ft<sup>2</sup> of opening at 0.3 in. of water. At 400°F the rate of leakage shall be less than 1 CFM/ft<sup>2</sup> of opening at 0.3 in. of water.

2. **HEADER:** Shall be aluminum with removable faceplate. Header size to be 4" (102 mm) deep by 2 1/2" (63 mm) high for Types 110 and 310.

3. **TRACK:** Shall be aluminum, 1/4" (6 mm) wide, nylon covered, and replaceable. Rollers will be steel, high quality ball bearing wheels 1-1/4" (32 mm) diameter. Anti-Derailing shall be accomplished by means of a continuous aluminum extrusion full length of slide panel travel.

4. **SLIDING PANEL AND SIDELITE:** Shall be aluminum, 1-3/4" (44 mm) deep with narrow stile construction. Weather-stripping to be along perimeter of sliding panel and swing-out sidelite. Standard glazing prep to be for 1/4" (6 mm) tempered glass. Wet glazed with red high temperature silicone sealant at corners.

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

5. **EMERGENCY EGRESS:** Slide-swing panels must be in full open position before panels can swing in 90° (after flush bolt locking released) and require no more than 50 lbf. (222 N) of force applied at the strike stile to open.

- a. 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.
- b. Slide-swing panels shall include intermediate horizontal rail.
- c. Units with floor mounted track and emergency egress feature are UL listed as an exit way and are compliant with NFPA 101.

6. **JAMBS/FRAME:** Shall be aluminum, 1 3/4" (44 mm) deep by 4" (102 mm) wide x .125" thickness.

7. **HARDWARE:** Positive latching shall be provided as follows:

- a. Type 310 Trackless: 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 a flush bolt lock to lock the panel in place when closed. A lever handle shall be provided on exterior side of sidelite to unlock the panel.

## 2.03 MATERIALS, FINISHES AND FABRICATION

### A. EXTRUDED ALUMINUM: ASTM B221, 6063-T5 alloy and temper, anodized:

1. Structural Header Sections: Minimum 3/16" (5 mm) thickness.
2. Structural Frame Sections: Minimum 1/8" (3 mm) thickness.
3. Structural Panel Sections: Commercial grade.

### B. FINISHES (for all exposed aluminum surfaces): Shall be one of the following:

1. 204-R1 Clear: Arch. Class 2 Clear Anodized Coating, AA-MI2C22A31.
2. 313-R1 Dark Bronze: Arch. Class 1 Anodized Coating, AA-MI2C22A44.
3. 312-R1 Light Bronze: Arch. Class 1 Anodized Coating, AA-MI2C22A44.
4. 315-R1 Black: Arch. Class 1 Anodized Coating, AA-MI2C22A44.
5. Special Paint Coating: Color as selected.

### C. 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. Gasketing material is high temperature silicone and is to be captured in extruded aluminum door panel. All seals to be factory installed to maintain UL 1784 rating.
2. 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.

### D. FRAME CONSTRUCTION: Butt joints, mechanically secured by means of screws and formed aluminum corner brackets.

## PART III - EXECUTION

### 3.01 EXAMINATION

**SITE VERIFICATION OF CONDITIONS:** Installer must verify that base conditions previously installed under other sections are acceptable for product installation according to with manufacturer's instructions. Notify the Contractor

in writing of conditions detrimental to the proper and timely completion of work. Do not start work until all negative conditions are corrected in a manner acceptable to the installer and manufacturer.

### 3.02 INSTALLATION

**A. GENERAL:** Install door units plumb, level and true to line, without warp or rack of frames or sash with manufacturer's prescribed tolerances. Provide support and anchor in place.

**B. DISSIMILAR MATERIALS:** Comply with AAMA 101, Appendix Dissimilar Materials by separating aluminum materials and other corrodible surfaces from sources of corrosion or electrolytic action contact points.

**C. SMOKE CONTAINMENT BARRIER CONSTRUCTION:** Install header and framing members in a bed of neutral cure silicone sealant to maintain compliance with NFPA 105. Coordinate installation with wall flashings and other components of construction.

### 3.03 CLEANING, ADJUSTMENT AND PROTECTION

**A. CLEANING:** After installation, installer to take following steps:

1. Remove temporary coverings and protection of adjacent work areas.
2. Remove construction debris from construction site and legally dispose of debris.

3. Repair or replace damaged installed products.
  4. Clean product surfaces and lubricate operating equipment for optimum condition and safety.
- B. ADVISE CONTRACTOR: Of precautions required through the remainder of the construction period, to ensure that doors will be without damage or deterioration (other than normal weathering) at the time of acceptance.

Note: Horton Automatics reserves the right to make product improvements and change specifications without notice.

END OF SECTION

