

## HORTON AUTOMATICS - ARCHITECTURAL SPECIFICATIONS, 1/2008

### **Profiler-ICU® SmokeSwing™ Smoke Containment Barrier Manual Swing Door System**

#### **DIVISION 08 - OPENINGS**

#### **SECTION 08 42 43 – INTENSIVE CARE UNITS / CRITICAL CARE UNIT ENTRANCES**

*Specifier Note: Coordinate and edit articles and paragraphs below to suit project requirements. Add section numbers and titles per CSI "MasterFormat" and specifier's practice. Consult with manufacturer regarding performance requirements for units applicable to project, as well as, related equipment and accessories required.*

#### **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. Masonry: Division 4, applicable sections.
  - 2. Storefront; Glass; Hardware: Division 8, applicable sections.
  - 3. Perimeter Sealants; Insulation: Division 7, 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. NATIONAL FIRE PROTECTION ASSOCIATION:
  - 1. NFPA 101: Code for Safety to Life from Fire in Buildings & Structures.
  - 2. NFPA 105: Standard for the Installation of Smoke Door Assemblies and Other Opening Protectives.
- E. THE 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.
- 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:** One year warranty: Labor and 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 swinging door(s) of type(s) and size(s) specified on plans and door schedule.

## **2.02 EQUIPMENT**

- A. **MANUFACTURED DOOR UNITS:** Shall include header, jambs and swing panel(s)
  - 1. Unequal Pair: one wide swing panel (primary egress) and one narrow swing panel (auxiliary egress) normally fixed.
  - 2. Pair: two wide swing panels (both primary egress or primary/auxiliary combination)
  - 3. Single: wide swing panel (primary egress)
- B. **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 1 CFM/ft<sup>2</sup> of opening at 0.3 in. of water.
- C. **HEADER:** Shall be aluminum with removable faceplate. Header size to be 4" (102 mm) deep by 2 1/2" (63 mm) high.
- D. **SWING PANELS:** Shall be aluminum, 1-3/4" (44 mm) deep with narrow stile construction. Weather-stripping to be along perimeter of panel. Glazing prep to be for 1/4" (6 mm) glass. Panels to be wet glazed with red high temperature silicone sealant at corners.
  - 1. **Main Egress Panel (wide 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 panel to unlock and swing open door.
  - 2. **Auxiliary Egress Panel (narrow panel):** Shall be provided with a flush bolt lock to lock this panel in place when closed. Flush bolt to be manually released to unlock and swing open door.

3. Swing panels shall swing 90° after positive latching or locking released and require no more than 30 lbf. (133 N) of force applied at the strike stile to open.
4. Optional construction shall include:
  - a. Medium or wide stile rails
  - b. Intermediate horizontal rail (muntin) of size and type indicated with
5. Units are compliant with NFPA 101.

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

### **2.03 RELATED WORK REQUIREMENTS**

GLASS AND GLAZING: Glazing materials: glass stops, glazing vinyl and setting blocks for field glazing as per safety glazing standard ANSI Z97.1.2 and UL 1784. General contractor to coordinate acquisition of glass in thickness and type in accordance with manufacturer's recommendations for prescribed design.

### **2.04 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. Floor Smoke Seal is high temperature brush. All seals to be factory installed to maintain UL 1784 rating.
2. Panel 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**