

**Lab-Tek™ STAINLESS STEEL DOORS AND FRAMES****Section 08 1130****PART I GENERAL****SUMMARY:**

- A. Description: This section includes interior and exterior Stainless Steel Doors, Frames, and related Sidelites, Transoms, and Windows designed for pharmaceutical, medical, hi-tech and other laboratory applications.
- B. Related work not included in this section:
  1. Finish hardware, including lock cylinders and thresholds.
  2. Glass and glazing.
  3. Caulking between frames and masonry.
  4. Structural members.

**1.02 QUALITY ASSURANCE**

- A. Applicable standards of the following as referenced herein:
  1. AAMA, American Architectural Manufacturers Association
  2. ASTM, American Society for Testing and Materials
  3. ADA, Americans with Disabilities Act
  4. NAAMM / HMMA, National Association of Architectural Metals Manufacturers
- B. Quality is based on the products manufactured by Stiles Custom Metal, Inc. [www.stilesdoor.com](http://www.stilesdoor.com)
- C. Manufacturer shall have been regularly engaged in manufacturing stainless steel doors and frames for a period of ten years. Doors and frames shall be fabricated by a single manufacturer. The manufacturer must have an effective quality control system in place.
- D. Allowable Tolerances as stated in NAAMM / HMMA Technical Manual.

**1.03 SUBMITTALS**

- A. Shop drawings: Indicate in elevation with sections and details to scale. Include glass and metal thicknesses, joining details, field connections, anchorage, concealed and exposed fastening methods, door and framing reinforcement, and metal finishes. Indicate compliance with specified design criteria.
- B. Finish samples: Submit two (minimum 5" x 7") samples indicating texture to be expected of finished work.
- C. Maintenance data: Give instructions for general maintenance and repair of surfaces and finishes.

**1.04 WARRANTY:** Warrant Stainless Steel Lab-Tek™ Doors, Frames, and Window assemblies against defects in materials and workmanship for (3) years from date of shipment when handled, stored, and installed in accordance with manufactures instructions and NAAMM / HMMA Technical Manual. Adjustments made necessary due to shifting or settling of building structure shall not be covered by warranty.

**PART II PRODUCTS****2.01 DOORS**

- A. The Stainless Steel Doors are based on Stiles Custom Metal, Inc. Model: Lab-Tek™ [www.stilesdoor.com](http://www.stilesdoor.com)
- B. Stainless Steel Materials:
  1. Face sheets shall be 0.053 in. (16 gage) min. thickness Stainless Steel: (choose one) AISI Type [304], [316] or [430]
  2. All components shall be manufactured from the same alloy stainless steel as door skins.
  3. Abraded Finish: (choose one) [#4 Satin], [Non-directional], [Bead Blasted], \*Consult factory for other finishes and embossing also available.
- C. Door Construction:
  1. Vertical Edges and Top and Bottom Edges: Door shall be built from two unitized face sheets with all four edges of the door folded and joined at center of vertical edges and top and bottom edges. Continuous reinforcing channels shall be welded inside all door edges. All seams shall be continuously welded with no visible seams on any surface of the door creating a completely smooth hermitically sealed door skin. Welds shall be finished smooth. Door thickness shall be 1-3/4".
  2. Door Core Options: (choose one) [Vertical steel stiffened] [Polyurethane] [Endura™ Impact Resistant] [Polystyrene]. Core and inside of door skins shall be completely covered with contact adhesive achieving 100% bond.
  3. Integral Astragal: Where required astragals shall be formed as an integral part of the doors skin with corresponding recessed area formed into adjacent door. Surface mounted flat plate or "Z" shaped astragals shall not be accepted.
  4. Hardware reinforcement: Hinges seven gauge, Lock/latch eleven gauge, welded into door body.

**Lab-Tek™ STAINLESS STEEL DOORS AND FRAMES (continued)****5. Glass Lite Kits: (choose one)**

**[Structural Glazed]:** Internal channel shall be formed with a recess permitting the glass to be structurally glazed completely flush with the face of the door using bacteria resistant structural silicon. There shall be no exposed fasteners.

**[Flush Channel Glazed]:** Door skin on clean room side shall be cut out to permit glass to be butted up to the end side surface. Glass shall be held in place on the side opposite clean room with removable glass channels or angle stops at the top and sides. Removable stop at the sill shall be either angle shaped or sloped channel. Removable stops shall be secured to the door with #8 stainless steel sheet metal screws. Glass shall be wet glazed using bacteria resistant structural silicon.

6. Door opening tag number shall be permanently engraved into the center hinge reinforcement using a programmable engraver. The engraving shall be deep enough to be read after the hinge reinforcement bar is painted. The use of paper stickers only is not acceptable.
7. Finish: After fabrication, all tool marks and surface imperfections shall be removed, and exposed faces of all welded joints shall be dressed smooth.

**2.02 STEEL PANELS:** Steel panels shall be made of the same material and construction and finished in the same way as specified for doors.

**2.03 FRAMES****A. Construction:**

1. Stainless Steel Materials: (choose one) AISI Type [304], [316] or [430]
2. Stainless Steel thickness: (choose one) [0.060" 16 gauge] or [0.072" 14 gauge]
3. Frames shall be continuous welded units of the sizes and types shown on approved shop drawings. Knocked-down frames shall not be accepted. Jamb, header, mullion, and sill profiles shall be in accordance with the frame schedule and as shown on the approved submittal drawings. All welds shall be finished smooth and regained to match.
4. Windows shall be provided with fixed and removable stops. Loose stops shall be channel type with butted corners and attached with countersunk, oval head, stainless steel sheet metal screws.

**B. Fasteners shall be stainless steel. Exposed fasteners shall be countersunk and shall match framing.**

**C. Exterior door frames shall have Seal-Tek™ integral weather-strip at vertical jambs and head.**

**2.04 FINISH HARDWARE:** Doors and frames shall be mortised, reinforced, drilled, and tapped at the factory for completely templated mortised hardware only, in accordance with the final approved hardware schedule and templates provided by the hardware supplier. Where surface-mounted, anchor hinges, or non-template mortised hardware is to be applied, doors shall be reinforced, with all drilling and tapping done by others in the field. Reinforcement steel shall comply with NAAMM / HMMA 830 and 861.

**PART III EXECUTION**

**3.01 CLEARANCES AND TOLERANCES** shall be in compliance with NAAMM / HMMA standards.

**3.02 SITE STORAGE AND PROTECTION OF MATERIALS**

- A. Deliver and store materials to prevent damaging and marring of finishes.
- B. Protection: Protect metal surfaces from contact with lime, mortar, cement, acids, and other harmful substances / surfaces and from careless handling, storage or machining.

**3.03 INSTALLATION**

- A. Framing systems shall be installed per Stiles instructions and NAAMM / HMMA 840. Install frames without use of exposed fasteners, except where indicated on shop drawings.
- B. Door Installation: Install doors and hardware in accordance with manufacturer's product data. Adjust hardware for proper operation. Adjust door closers for smooth operation throughout swing.

**3.04 CLEANING:** Clean doors and frames in accordance with manufacturer's special instructions.

**3.05 MAINTENANCE:** Instruct the Owner's Maintenance Personnel regarding the operation and maintenance of these doors.

End of Section