

## SECTION 08112

### STANDARD STEEL FRAMES

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Non-rated, fire rated steel frames.
- B. Interior Exterior glazed light frames.

##### 1.2 RELATED SECTIONS

- A. Section 08111 - Standard Steel Doors.
- B. Section 08211 - Flush Wood Doors.
- C. Section 08712 - Door Hardware.
- D. Section 08800 - Glazing.

##### 1.3 REFERENCES

- A. ANSIA117.1 - Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People.
- B. ANSI/SDI-100 - Standard Steel Doors and Frames.
- C. ASTM A525 - Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process.
- D. ASTM E152 - Methods of Fire Tests of Door Assemblies.
- E. DHI - Door Hardware Institute: The Installation of Commercial Steel Doors and Steel Frames, Insulated Steel Doors in Wood Frames and Builder's Hardware.
- F. NFPA 80 - Fire Doors and Windows.
- G. NFPA 252 - Fire Tests for Door Assemblies.
- H. UL 10B - Fire Tests of Door Assemblies.

##### 1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Shop Drawings: Indicate frame elevations, reinforcement, and finish.
- C. Product Data: Indicate frame configuration, anchor types and spacings, location of cut-outs for hardware, reinforcement.
- D. Manufacturer's Installation Instructions: Indicate special installation instructions.

E. Manufacturer's Certificate: Certify that Products meet or exceed specified requirements.

#### 1.5 QUALITY ASSURANCE

- A. Conform to requirements of ANSI/SDI-100 and ANSI A117.1.
- B. Maintain one copy of each document on site.

#### 1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum three years experience.

#### 1.7 REGULATORY REQUIREMENTS

- A. Fire Rated Frame Construction: Conform to ASTM E152, NFPA 252, UL 10B.
- B. Installed Frame Assembly: Conform to NFPA 80 for fire rated class same as fire door.

#### 1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect, and handle products to site under provisions of Section 01600.
- B. Accept frames on site in manufacturer's packaging. Inspect for damage.

#### 1.9 FIELD MEASUREMENTS

A. Verify that field measurements are as indicated on shop drawings.

#### 1.10 COORDINATION

- A. Coordinate work under provisions of Section 01039.
- B. Coordinate the work with frame opening construction, door and hardware installation.

### PART 2 PRODUCTS

#### 2.1 FRAME MANUFACTURERS

- A. Amweld Building Products
- B. Steelcraft - Cincinnati, Ohio

- C. Curries Manufacturing - Mason City, Iowa
  - D. Mesker Door, Inc.
  - E. Republic Steel
  - F. Allied Steel Products
- 2.2 FRAMES
- A. Frames: To suit ANS/SDI-100 Grade and Model of door specified in Section 08111.
  - B. Exterior Frames: 14 gage thick material, base metal thickness.
  - C. Interior Frames: 16 gage thick material, base metal thickness.
- 2.3 ACCESSORIES
- A. Silencers: Resilient rubber, fitted into drilled hole - 3 per frame or as listed at 2.4 D.
  - B. Removable Stops: Rolled steel channel shape, mitered corners; prepared for countersink style tamper proof screws.
- 2.4 FABRICATION
- A. Fabricate frames as welded unit.
  - B. Transom Bars for Glazed Lights: Fixed type, of same profiles as jamb and head.
  - C. Fabricate frames with hardware reinforcement plates welded in place. Provide mortar guard boxes.
  - D. Prepare frame for silencers. Provide three single silencers for single doors on strike side. Provide two single silencers on frame head at double doors without mullions.
  - E. Fabricate frames to suit masonry wall coursing.
- 2.5 FINISH
- A. Primer: Baked on coat of rust inhibitive primer.
- 2.6 LABELING OF FIRE DOORS AND FRAMES
- A. All door openings in fire resistive walls and partitions requiring a rating shall be protected by assemblies which include doors, frames, hardware, closing devices, anchorage, sills, etc., installed in accordance with the National Fire Protection Association (NFPA) 80, Standard for "Fire Doors and Fire Windows" and the State

## Building Code.

To further clarify the basic requirements and/or the correct method of labeling that will be acceptable to the Alabama Building Commission, the labels shall include the following:

1. Accessibility: Each component shall bear a label located so as to be accessible after installation.
2. Permanence: Each component shall bear a label of a type material and be so attached that the life of the label and the attachment thereof can reasonably be expected to equal the life of the component to which it is attached. Labels shall be raised or embossed on metal labels or stamped into metal frames. Plastic or paper labels are unacceptable.
3. Legibility: The label design shall be such that it can be visible and legible at all times and must be clean of any paint or other coverage making the label illegible.
4. Fire Resistance: All approved labels on doors and on frames shall include thereon the fire resistance rating in hours and/or minutes for which the door or frame is labeled. Labels on frames with transoms or sidelights must identify that the opening assembly includes same.
5. Other Requirements: The labels or stamps applied to frames must be provided by a manufacturer that has been approved by a laboratory or organization to provide testing and follow-up services for fire-rated opening assemblies.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Verify substrate conditions under provisions of Section 01039.
- B. Verify that opening sizes and tolerances are acceptable.

### 3.2 INSTALLATION

- A. Install frames in accordance with ANSI/SDI-100 and DHI.
- B. Coordinate with masonry, wallboard and existing wall construction for anchor placement.
- C. Coordinate installation of glass and glazing.
- D. Coordinate installation of frames with installation of hardware specified in Section

08710 and doors in Section 08111.

- E. Install roll formed steel reinforcement channels between two abutting frames. Anchor to structure and floor.

### 3.3 ERECTION TOLERANCES

- A. Maximum Diagonal Distortion: 1/8 inch measured with straight edges, crossed corner to corner.

**END OF SECTION**

