

SECTION 08111

STANDARD STEEL DOORS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Non-rated, fire rated and thermally insulated steel doors and panels.
- B. Louvers. Glass and glazing.

1.2 RELATED SECTIONS

- A. Section 08112 - Standard Steel Frames.
- B. Section 08710 - Door Hardware.
- C. Section 08800 - Glazing: Glass for doors.
- D. Section 09900 - Painting: Field painting of doors.

1.3 REFERENCES

- A. ANSI A117.1 - Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People.
- B. ASTM A525 - Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process.
- C. ASTM E152 - Methods of Fire Tests of Door Assemblies.
- D. NFPA 80 - Fire Doors and Windows.
- E. NFPA 252 - Fire Tests for Door Assemblies.
- F. SDI-100 - Standard Steel Doors and Frames.
- G. UL 10B - Fire Tests of Door Assemblies.

1.4 SUBMITTALS FOR REVIEW

- A. Section 01300 - Submittals: Procedures for submittals.
- B. Shop Drawings: Indicate door elevations, internal reinforcement, closure method and cutouts for glazing and louvers.

1.5 SUBMITTALS FOR INFORMATION

- A. Section 01300 - Submittals: Procedures for submittals.
- B. Manufacturer's Certificate: Certify that Products meet or exceed specified requirements.

1.6 QUALITY ASSURANCE

- A. Manufacturer: Specializing in manufacturing products specified in this section with three years experience.

1.7 REGULATORY REQUIREMENTS

- A. Installed Door and Panel Assembly: Conform to NFPA 80 for fire rated class as scheduled.

1.8 DELIVERY, STORAGE AND PROTECTION

- A. Section 01600 - Material and Equipment: Transport, handle, store and protect products.
- B. Accept doors on site in manufacturer's packaging. Inspect for damage.
- C. Break seal on site to permit ventilation.

1.9 PROJECT CONDITIONS

- A. Section 01039 - Coordination and Meetings.
- B. Coordinate frame installation with size, location, and installation of service utilities.
- C. Coordinate the work with door opening construction, doorframes and door hardware installation.
- D. Sequence installation to ensure wire connections are achieved in an orderly and expeditious manner.

PART 2 PRODUCTS

2.1 ACCEPTABLE PRODUCTS:

- A. Allied Steel Products, Inc.
- B. Amweld/Div. American Welding & Mfg. Co.
- C. Ceco Corp.
- D. Curries Mfg., Inc.
- E. Pioneer Builders Products Corp./Div. CORE Industries, Inc.
- F. Steelcraft/Div. American Standard Co.
- G. Republic Builders Products Corp./Subs. Republic Steel.

2.2 DOORS AND PANELS

- A. Astragals for Double Doors: Steel T shaped, specifically for double doors (As required).
- B. Fabricate doors with hardware reinforcement welded in place.
- C. Attach fire rated label to each fire rated door unit.
- D. Configure exterior doors with special profile to receive recessed weather stripping.
- E. Type and Design:
 - 1. Tightly hemmed vertical seam on lock and hinge edges, with top flush channel and beveled lock edge, in the dimensions and types shown on the drawings, reinforced for the finish hardware being provided under Section 08710 of these Specifications, and in the following gauges:
 - a. Interior Doors: 18 gauge honeycomb core. Labeled and/or Non-labeled.
 - b. Exterior Doors: 16 gauge insulated core. Labeled and/or Non-labeled.

2.3 FINISH

- A. Steel Sheet: Exterior doors to be galvanized to ASTM A525.
- B. Primer: Air-dried.
- C. Paint per Specification Section 09900: color as selected.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01039 - Coordination and Meetings: Verification of existing conditions before starting work.
- B. Verify that opening sizes and tolerances are acceptable.

3.2 INSTALLATION

- A. Install doors in accordance with SDI-100 and DHI.
- B. Coordinate installation of glass and glazing.
- C. Install door louvers, plumb and level.
- D. Coordinate installation of doors with installation of frames and hardware specified in Section 08710.
- E. Touch-up finished doors.

3.3 ERECTION TOLERANCES

- A. Maximum Diagonal Distortion: 1/16 inch measured with straight edge, corner to corner.

3.4 ADJUSTING

- A. Section 01650 - Starting of Systems: Adjusting installed work.
- B. Adjust door for smooth and balanced door movement.

3.5 SCHEDULE

- A. Refer to Door and Frame Schedule on architectural drawings.

END OF SECTION

SECTION 08112

STANDARD STEEL FRAMES

PART 1 GENERAL

1.1 SECTION INCLUDES

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

1.2 RELATED SECTIONS

- A. Section 08111 - Standard Steel Doors.
- B. Section 08710 - Door Hardware: Hardware, silencers and weather stripping.
- C. Section 08800 - Glazing.

1.3 REFERENCES

- A. ANSI A117.1 - Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People.
- B. ASTM A525 - Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process.
- C. ASTM E152 - Methods of Fire Tests of Door Assemblies.
- D. DHI - Door Hardware Institute: The Installation of Commercial Steel Doors and Steel Frames, Insulated Steel Doors in Wood Frames and Builder's Hardware.
- E. NFPA 80 - Fire Doors and Windows.
- F. NFPA 252 - Fire Tests for Door Assemblies.
- G. SDI-100 - Standard Steel Doors and Frames.
- H. UL 10B - Fire Tests of Door Assemblies.

1.4 SUBMITTALS FOR REVIEW

- A. Section 01300 - Submittals: Procedures for submittals.
- B. Shop Drawings: Indicate frame elevations, reinforcement, anchor types and spacing, location of cutouts for hardware and finish.

1.5 QUALITY ASSURANCE

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

1.6 REGULATORY REQUIREMENTS

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

1.7 DELIVERY, STORAGE AND PROTECTION

- A. Section 01600 - Material and Equipment: Transport, handle, store and protect products.
- B. Accept frames on site in manufacturer's packaging. Inspect for damage.

1.8 PROJECT CONDITIONS

- A. Section 01039 - Coordination and Meetings.
- B. Coordinate the work with frame opening construction, door and hardware installation.
- C. Sequence installation to ensure wire connections are achieved in an orderly and expeditious manner.

1.9 FRAMES

- A. Frames: To suit SDI-100 Grade and Model of door specified in Section 08111.

PART 2 PRODUCTS

2.1 FRAMES

- A. 16 gauge. To suit SDI-100 Grade.
 - 1. Provide drywall wrap around frames for interior and exterior doors.

2.2 ACCESSORIES

- A. Removable Stops: Rolled steel channel shape, butted corners; prepared for countersink style tamper proof screws.
- B. Bituminous Coating: Fibered asphalt emulsion.
- C. Primer: Zinc chromate type.
- D. Silencers: Specified in Section 08710.
- E. Weatherstripping: Specified in Section 08710.

2.3 FABRICATION

- A. Fabricate frames as welded unit.
- B. Mullions for Double Doors: Fixed type, of same profiles as jambs.
- C. Transom Bars for Glazed Lights: Fixed type, of same profiles as jamb and head.
- D. Fabricate frames with hardware reinforcement plates welded in place. Provide mortar guard boxes.
- E. Reinforce frames wider than 4" with roll formed steel channels fitted tightly into frame head, flush with top.
- F. Configure exterior frames with special profile to receive recessed weather stripping.
- G. Attach fire rated label to each fire rated door unit.

2.4 FINISH

- A. Steel Sheet: Galvanized.
- B. Primer: Air-dried.
- C. Paint per Specification Section 09900: color as selected.
- D. Coat inside of frame profile with bituminous coating.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01039 - Coordination and Meetings: Verification of existing conditions before starting work.
- B. Verify that opening sizes and tolerances are acceptable.

3.2 INSTALLATION

- A. Install frames in accordance with SDI-100 and DHI.
- B. Coordinate with masonry, gypsum board or concrete 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" measured with straight edges, crossed corner to corner.

3.4 SCHEDULE

- A. Refer to Door Schedule on drawings.

END OF SECTION