

SECTION 08110 - STEEL DOOR FRAMES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:

1. Steel door frames.

1.2 DEFINITIONS

- A. Steel Sheet Thicknesses: Thickness dimensions, including those referenced in ANSI A250.8, are minimums as defined in referenced ASTM standards for both uncoated steel sheet and the uncoated base metal of metallic-coated steel sheets.

1.3 SUBMITTALS

- A. Product Data: For each type of door and frame indicated, include door designation, type, level and model, material description, core description, construction details, label compliance, sound and fire-resistance ratings, and finishes.
- B. Clarification that products comply with the 2007 Florida Building Code 110 MPH wind speed zone.
- C. Shop Drawings: Show the following:
1. Elevations of each door design.
 2. Details of doors including vertical and horizontal edge details.
 3. Frame details for each frame type including dimensioned profiles.
 4. Details and locations of reinforcement and preparations for hardware.
 5. Details of each different wall opening condition.
 6. Details of anchorages, accessories, joints, and connections.
 7. Coordination of glazing frames and stops with glass and glazing requirements.
- D. Door Schedule: Use same reference designations indicated on Drawings in preparing schedule for doors and frames.

1.4 QUALITY ASSURANCE

- A. Steel Door and Frame Standard: Comply with ANSI A 250.8, unless more stringent requirements are indicated.

- B. Fire-Rated Door Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire-protection ratings indicated, based on testing according to NFPA 252.
 - 1. Test Pressure: Test at atmospheric pressure.
 - 2. Temperature-Rise Rating: Where indicated, provide doors that have a temperature-rise rating of 450 degrees F maximum in 30 minutes of fire exposure.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Provide products by one of the following:
 - 1. Steel Doors and Frames:
 - a. Ceco Door Products; a United Dominion Company.
 - b. Curries Company.
 - c. Republic Builders Products.
 - d. Steelcraft; a division of Ingersoll-Rand.
 - e. Amweld Building Products, Inc.
 - f. Chicago Metallic
 - g. Premier Products
 - h. Or approved quality substitution by architect

2.2 MATERIALS

- A. Hot-Rolled Steel Sheets: ASTM A 569/A 569M, Commercial Steel (CS), Type B; free of scale, pitting, or surface defects; pickled and oiled.
- B. Cold-Rolled Steel Sheets: ASTM A 366/A 366M, Commercial Steel (CS), or ASTM A 620/A 620M, Drawing Steel (DS), Type B; stretcher-leveled standard of flatness.
- C. Electrolytic Zinc-Coated Steel Sheet: ASTM A 591/A 591M, Commercial Steel (CS), Class B coating; mill phosphatized; suitable for unexposed applications; stretcher-leveled standard of flatness where used for face sheets.
- D. Glazing: comply with requirements in Division 8 Section "Glazing".

2.3 DOORS

- A. General: Provide doors of sizes, thicknesses, and designs indicated.
- B. Interior Doors: Provide doors complying with requirements indicated below by referencing ANSI 250.8 for level and model and ANSI A250.4 for physical-endurance level:
 - 1. All Doors Excluding Stairwells: Level 1 and Physical Performance Level C, (Standard Duty), Model 2 (Seamless).

- C. Exterior Doors: Provide doors complying with requirements indicated below by referencing ANSI A250.8 for level and model and ANSI A250.4 for physical-endurance level:
 - 1. Level 3 and Physical Performance Level A (Extra Heavy Duty), Model 2 (Seamless).

2.4 FRAMES

- A. General: Provide steel knock down frames for interior doors and welded frames for exterior doors, and other openings that comply with ANSI A250.8 and with details indicated for type and profile. Conceal fastenings, unless otherwise indicated.
- B. Frames of 0.042-inch (**18 gage**) - thick steel sheet for:
 - 1. Level 1 steel doors.
 - 2. Wood doors, unless otherwise indicated.
- C. Frames of 0.053-inch (**16 gage**) - thick steel sheet for:
 - 1. Door openings wider than 48 inches.
 - 2. Level 2 steel doors.
 - 3. Wood doors, unless otherwise indicated.
- D. Door Silencers: Except on weather-stripped frames, fabricate stops to receive three silencers on strike jambs of single-door frames and two silencers on heads of double-door frames.
- E. Supports and Anchors: Fabricated from not less than 0.042-inch- thick, electrolytic zinc-coated or metallic-coated steel sheet.
 - 1. Wall Anchors in Masonry Construction: 0.177-inch- diameter, steel wire complying with ASTM A 510 may be used in place of steel sheet.
- F. Inserts, Bolts, and Fasteners: Manufacturer's standard units. Where zinc-coated items are to be built into exterior walls, comply with ASTM A 153/A 153M, Class C or D as applicable.

2.5 FINISHES

- A. Prime Finish: Manufacturer's standard, factory-applied coat of rust-inhibiting primer complying with ANSI A250.10 for acceptance criteria.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. General: Install steel doors, frames, and accessories according to Shop Drawings, manufacturer's data, and as specified.

3.2 ADJUSTING AND CLEANING

- A. Prime-Coat Touchup: Immediately after installation, sand smooth any rusted or damaged areas of prime coat and apply touch up of compatible air-drying primer.
- B. Protection Removal: Immediately before final inspection, remove protective wrappings from doors and frames.

END OF SECTION 08110