

ARCHITECTURE

SECTION 08110

METAL DOORS AND FRAMES

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Interior Hollow Metal Doors and Frames (Welded frames at all locations).
- B. Exterior Insulated Hollow Metal Doors and Welded Frames
- C. Fire-Rated Door Assemblies to Conform to:
 - 1. NFPA 80 - Fire Doors and Windows
 - 2. ASTM E152 - Methods of Fire Tests of Door Assemblies
 - 3. Opening assemblies shall meet the requirements of NFPA 105 Hot Smoke Test.

PART 2 PRODUCTS

2.1 METAL DOORS

- A. Doors shall conform to SDI - Steel Door Institute Publications SDI 100, 105 through 121:
 - 1. Grade I, Model 2, standard duty, - Seamless 1-3/4" thickness.
 - 2. Flush Panel Design
 - a. Exterior doors shall be fabricated as thermal insulating door and frame assemblies and tested in accordance with ASTM C-236 with U-factor of 0.24 or better. 18-gauge face sheets, hot-dipped galvanized or electrolytic zinc-coated steel with a stretcher level degree of flatness.
 - b. Interior Doors: 20-gauge for face sheets, stiles and rails; 20-gauge louvers; 18-gauge moldings and trims; anchors not less than 15-gauge. Provide mineral fiberboard core for doors with a required temperature-rise limitation.
 - c. Provisions for Hardware: Mortise, reinforce, drill, and tap doors at factory to receive all mortise-type hardware. Gauges of metal reinforcing plates shall comply with manufacturer's recommendation for type of hardware used and size and thickness of doors.
 - 4. Attach fire-rating label to rated doors to certify compliance.
 - 5. Door Sizes and Clearances: Doors shall be of type, sizes, and design indicated. The clearances for doors shall be 1/8" at jambs and heads and 3/4" at bottom, unless indicated or specified otherwise. Clearances at meeting edges of pairs of doors shall be 1/4" (1/8" on fire doors).
 - 6. Provide installation instructions attached to each door in a manner that assures availability to the installer and building official.
- B. Manufacturers:
 - Amweld Building Products Division, Garrettsville OH (800-248-6116)
 - Ceco Door Products Corporation, Brentwood TN (615-661-5030)
 - Steelcraft Manufacturing Co., Cincinnati OH (513-745-6400)
 - Republic Builders Products (800-733-3667)
 - Curries Company (315-423-1334)

2.2 METAL FRAMES

- A. Frames and anchors shall conform to SDI 100: Fabricate from 16 gauge stock, with mitered corners. All exterior door frames and frames in concrete masonry shall use continuously welded corners. For interior frames, welded frames are to be provided.
- B. Frames, shall have a security anchor system installed on strike jam consisting of a compression anchor of 3-1/2" from head of door frame and a "Z" type security anchor at 45" above floor.

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- C. Manufacturers:
 - 1. Ceco Corporation, Oakbrook, IL (910) 229-0887.
 - 2. Fenestra Corporation, (414) 233-6161.
 - 3. Steelcraft, American-Standard Company, Cincinnati, OH (513) 745-6400.
 - 4. Curries Unit of B. Foster Company, Mason City, IA (315) 423-1334.
 - 5. Republic Builders Products (800-733-3667)
 - 6. "Wallmate - WM Series"; Steelcraft Door and Frame Products, Div. of Ingersoll-Rand
- 2.3. FABRICATION
- A. Factory Assembly: Metal doors, frames and shall be fabricated by same manufacturer.
 - B. Factory Finish: Phosphatize and prime doors and frames for field painting.
 - C. Frames shall be prepared at the factory for installation of hardware. Welding of hinges to frames will not be permitted. Lock strikes shall be set out and adjusted to provide clearance for silencers.
 - D. Plaster Guards: Provide steel sheet plaster guards or mortar boxes to close off interior of openings; place at back of hardware cutouts where mortar or other materials might obstruct hardware operation. Required at all door strikes.
- 2.4. FRAME INSULATION: To be provided at all exterior locations between heated and non-heated spaces.
- A. Glass fiber, semi-rigid board, 2" thickness, un-faced, 3 pound density. "Type 703" - Owens-Corning Fiberglass Corp, Toledo, OH (419) 248-8770.

PART 3 – EXECUTION

- 3.1. INSTALLATION
- A. Comply with provisions of "Steel door Institute" 105, unless otherwise indicated
 - B. Install fire rated frames in accordance with NFPA Standard No. 80.
 - C. Frame insulation to be installed in frames of gypsum board partitions. Cut insulation to full width of frame throat and friction fit within jamb and head. Pack solid around perimeter of frame.
 - D. Provide a bead of acoustical sealant at all heads and jambs at all doors.

END OF SECTION