
SECTION 08 11 13
HOLLOW METAL DOORS AND FRAMES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Non-fire-rated hollow metal doors and frames.
- B. Fire-rated hollow metal doors and frames.
- C. Thermally insulated hollow metal doors with frames.
- D. Security resistant hollow metal doors and frames.
- E. Bullet resistant hollow metal doors and frames.

1.2 RELATED REQUIREMENTS

- A. Section 08 71 20 - Door Hardware.

1.3 ABBREVIATIONS AND ACRONYMS

1.4 REFERENCE STANDARDS

- A. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.
- B. ANSI/SDI A250.3 - Test Procedure and Acceptance Criteria for Factory Applied Finish Coatings for Steel Doors and Frames; 2007 (R2011).
- C. ANSI/SDI A250.8 - Specifications for Standard Steel Doors and Frames (SDI-100); 2014.
- D. ANSI/SDI A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames; 2011.
- E. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2015.
- F. ASTM A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural,
 - 1. High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable; 2015.
- G. ASTM A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength; 2014.
- H. ICC A117.1 - Accessible and Usable Buildings and Facilities; 2009.
- I. ITS (DIR) - Directory of Listed Products; current edition.
- J. NAAMM HMMA 840 - Guide Specifications for Installation and Storage of Hollow Metal Doors and Frames; 2007.
- K. NFPA 80 - Standard for Fire Doors and Other Opening Protectives; 2016.
- L. NFPA 252 - Standard Methods of Fire Tests of Door Assemblies; 2012.
- M. UL (DIR) - Online Certifications Directory; current listings at database.ul.com.
- N. UL 10C - Standard for Positive Pressure Fire Tests of Door Assemblies; Current Edition, Including All Revisions.
- O. UL 752 - Standard for Bullet-Resisting Equipment; Current Edition, Including All Revisions.

1.5 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.

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- B. Shop Drawings: Details of each opening, showing elevations, glazing, frame profiles, and any indicated finish requirements.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum five years documented experience.
- B. Copies of Documents at Project Site: Maintain at the project site a copy of each referenced document that prescribes installation requirements.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Comply with NAAMM HMMA 840 or ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.
- B. Protect with resilient packaging; avoid humidity build-up under coverings; prevent corrosion and adverse effects on factory applied painted finish.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Hollow Metal Doors and Frames:
 - 1. Ceco Door, an Assa Abloy Group company: www.assaabloydss.com.
 - 2. Republic Doors: www.republicdoor.com.
 - 3. Steelcraft, an Allegion brand: www.allegion.com/us.

2.2 DESIGN CRITERIA

- A. Requirements for Hollow Metal Doors and Frames:
 - 1. Steel used for fabrication of doors and frames shall comply with one or more of the following requirements; Galvanized steel conforming to ASTM A653/A653M, cold-rolled steel conforming to ASTM A1008/A1008M, or hot-rolled pickled and oiled (HRPO) steel conforming to ASTM A1011/A1011M, Commercial Steel (CS) Type B for each.
 - 2. Accessibility: Comply with ICC A117.1 and ADA Standards.
- B. Combined Requirements: If a particular door and frame unit is indicated to comply with more than one type of requirement, comply with the specified requirements for each type; for instance, an exterior door that is also indicated as being sound-rated must comply with the requirements specified for exterior doors and for sound-rated doors; where two requirements conflict, comply with the most stringent.

2.3 HOLLOW METAL DOORS

- A. Exterior Doors: Thermally insulated.
 - 1. Door Thickness: 1-3/4 inch, nominal.
- B. Interior Doors, Non-Fire Rated:
 - 1. Door Thickness: 1-3/4 inch, nominal.
- C. Fire-Rated Doors:
 - 1. Fire Rating: As indicated on Door Schedule, tested in accordance with UL 10C and NFPA 252 ("positive pressure fire tests").
 - a. Provide units listed and labeled by UL (DIR) or ITS (DIR).
 - b. Attach fire rating label to each fire rated unit.

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2. Door Thickness: 1-3/4 inch, nominal.
- D. Security and Bullet Resistant Interior and Exterior Doors:
1. Ballistic Resistance: UL 752, Threat Level Rating - Level 1.
 2. Core Material: Manufacturers standard core material/construction and in compliance with requirements..
 3. Door Thickness: As required to meet requirements indicated.
 4. Hinge Rail and Reinforcement: Non-beveled edge, reinforced with continuous steel channel, 12 gage, 0.093 inch minimum metal thickness, welded at 5 inch on center maximum, and compatible with 4-1/2 inch full mortise template and continuous geared hinges.

2.4 HOLLOW METAL FRAMES

- A. Comply with standards and/or custom guidelines as indicated for corresponding door in accordance with applicable door frame requirements.
- B. General:
1. Comply with the requirements of grade specified for corresponding door.
 2. Finish: Same as for door.
- C. Exterior Door Frames: Knock-down type.
1. Weatherstripping: Separate, see Section 08 71 20.
- D. Interior Door Frames, Non-Fire Rated: Full profile/continuously welded type.
- E. Door Frames, Fire-Rated: Knock-down type.
1. Fire Rating: Same as door, labeled.
- F. Bullet Resistant Door Frames: Comply with UL 752, with same level of ballistic resistance as door; face welded construction, ground smooth, fully prepared and reinforced for hardware installation.
- G. Security Resistant Door Frames: With same security resistance as door; face welded or full profile/continuously welded construction, ground smooth, fully prepared and reinforced for hardware installation.

2.5 FINISHES

- A. Primer: Rust-inhibiting, complying with ANSI/SDI A250.10, door manufacturer's standard.
- B. Factory Finish: Complying with ANSI/SDI A250.3, manufacturer's standard coating.
1. Color: As selected by Architect from manufacturer's standard range.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install doors and frames in accordance with manufacturer's instructions and related requirements of specified door and frame standards or custom guidelines indicated.
- B. Install fire rated units in accordance with NFPA 80.
- C. Coordinate frame anchor placement with wall construction.
- D. Install door hardware as specified in Section 08 71 30.
- E. Touch up damaged factory finishes.

END OF SECTION 08 11 13