#### SECTION 08110 - STEEL DOORS AND FRAMES

#### PART 1 - GENERAL

#### **SUMMARY**

This Section includes steel doors and frames.

#### **SUBMITTALS**

Product Data: For each product indicated. Include door designation, type, level and model, material description, label compliance, fire-resistance ratings, and finishes.

Door Schedule. Use same reference designations indicated on Drawings.

### QUALITY ASSURANCE

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

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.

#### PART 2 - PRODUCTS

#### **MANUFACTURERS**

Manufacturers: Subject to compliance with requirements, provide products by one of the following:

Amweld Building Products, Inc.

Benchmark Commercial Doors; a division of General Products Co., Inc.

Ceco Door Products; a United Dominion Company.

Copco Door Co.

Curries Company.

Deansteel Manufacturing, Inc.

Kewanee Corporation (The).

Mesker Door, Inc.

Pioneer Industries Inc.

Republic Builders Products.

Steelcraft; a division of Ingersoll-Rand.

#### **MATERIALS**

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.

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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.

#### **DOORS**

Interior Doors: Complying with ANSI 250.8 for level and model and ANSI A250.4 for physical-endurance level indicated.

Level 2 and Physical Performance Level B, Model 1 (Full Flush).

### **FRAMES**

General: ANSI A250.8; conceal fastenings, unless otherwise indicated.

Frame Steel Sheet Thickness:

0.053-inch- (1.3-mm-) for level 2 steel doors.

Door Silencers: Three silencers on single-door frames and two silencers on double-door frames.

Plaster Guards: 0.016-inch- (0.4-mm-) thick, steel sheet plaster guards or mortar boxes to close off interior of openings.

Supports and Anchors: Not less than 0.042-inch- (1.0-mm-) thick zinc-coated steel sheet.

Masonry Wall Anchors: 0.177-inch- (4.5-mm-) diameter, steel wire complying with ASTM A 510 (ASTM A 510M) may be used in place of steel sheet.

Inserts, Bolts, and Fasteners: Manufacturer's standard units. Zinc-coat items that are to be built into exterior walls according to ASTM A 153/A 153M, Class C or D as applicable.

### **FABRICATION**

General: Fabricate steel door and frame units to comply with ANSI A250.8 free from defects including warp and buckle. Where practical, fit and assemble units in manufacturer's plant.

Interior DoorFaces: Fabricate exposed faces of doors and panels, including stiles and rails of nonflush units, from cold-rolled steel sheet.

Core Construction: Manufacturer's standard core construction that produces a door complying with SDI standards.

Clearances for Non-Fire-Rated Doors: Not more than 1/8 inch (3.2 mm) at jambs and heads, except not more than 1/4 inch (6.4 mm) between pairs of doors. Not more than 3/4 inch (19 mm) at bottom.

Clearances for Fire-Rated Doors: As required by NFPA 80.

Door-Edge Profile: Beveled edge.

Tolerances: Comply with SDI 117.

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Prepare doors and frames to receive mortised and concealed hardware according to final door hardware schedule and templates provided by hardware supplier. Comply with applicable requirements in ANSI A250.6 and ANSI A115 Series specifications for door and frame preparation for hardware.

#### Frame Construction:

Fabricate knock-down frames with mitered or coped corners, for field assembly. Fabricate knock-down, drywall slip-on frames for in-place gypsum board partitions.

Reinforce doors and frames to receive surface-applied hardware. Drilling and tapping for surface-applied hardware may be done at Project site.

Locate hardware as indicated or, if not indicated, according to ANSI A250.8.

# **FINISHES**

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

## PART 3 - EXECUTION

### **INSTALLATION**

Placing Frames: Comply with provisions in SDI 105, unless otherwise indicated. Set frames accurately in position, plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is completed, remove temporary braces and spreaders, leaving surfaces smooth and undamaged.

Wall Anchors: Provide at least three anchors per jamb. For openings 90 inches (2286 mm) or more in height, install an additional anchor at hinge and strike jambs.

Gypsum Board Partitions: For in-place partitions, install knock-down, drywall slip-on frames.

Fire-Rated Frames: Install according to NFPA 80.

Door Installation: Comply with ANSI A250.8. Shim as necessary to comply with SDI 122 and ANSI/DHI A115.1G.

Fire-Rated Doors: Install within clearances specified in NFPA 80.

After installation, remove protective wrappings from doors and frames and touch up prime coat with compatible air-drying primer.

END OF SECTION 08110