

*This section includes commercial Recessed Panel Steel Doors that can be fire rated or non-fire rated. This section relies on both the Canadian Steel Door Manufacturers Association (CSDMA.org) industry standard, as well as on the Hollow Metal Manufacturers Association (NAAMM.org) industry standard for steel doors. This section includes proprietary and descriptive specifications. Edit to avoid conflicting requirements.*

## **Part 1            General**

### **1.1                SECTION INCLUDES**

*This article includes a summary of the content of this section which will not be included in other sections. This article is NOT intended to be used as a trade or other form of jurisdictional content.*

- .1        [Non-rated] [fire rated] hollow metal recessed panel steel doors [and panels].
- .2        [Louvres.] [Glass and glazing.]

### **1.2                RELATED SECTIONS**

*This article references other specification sections that inter-rely on this section. This listing should include those sections that describe subjects or products that affect this section directly.*

- .1        Section 08 11 13 - Hollow Metal Doors and Frames
- .2        Section 08 71 10 - Door Hardware - General.
- .3        [Section 08 81 00 - Glass Glazing: Glazing for installation in doors.]
- .4        Section 09 91 00- Painting: Field painting of doors.

### **1.3                REFERENCES**

*List reference standards below that are included within the text of this section, when edited for a project specification. Delete references that do not apply to this project.*

- .1        ASTM A653/A653M-15e1 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- .2        Canadian Steel Door Manufacturers Association (CSDMA), Selection and Usage Guide for Steel Doors and Frames, 2009.
- .3        HMMA 802-07- Manufacturing of Hollow Metal Doors and Frames.
- .4        HMMA 840-07 - Installation and Storage of Hollow Metal Doors and Frames.
- .5        HMMA 841-07 - Tolerances and Clearance for Commercial Hollow Metal Doors and Frames.
- .6        ICC A117.1-2017 Standard for Accessible and Usable Buildings and Facilities
- .7        NFPA 80-16- Standard for Fire Doors and Other Opening Protectives.

- .8 UL 10C-16 Standard for Positive Pressure Tests of Door Assemblies
- .9 USGBC – LEED v4.

**1.4 REGULATORY REQUIREMENTS**

*Include the following article only if fire rated assemblies are specified. AMBICO can supply Recessed Panel steel doors with 45 or 90 minute fire rating label.*

- .1 Installed Door: Conform to [NFPA 80] [\_\_\_\_\_] for fire rated class [as scheduled.] [as indicated.]
- .2 Installed Door: Conform to [ANSI/ICC A117.1]

**1.5 SUBMITTALS**

- .1 Product Data: Provide product data on standard door construction and [\_\_\_\_\_].
- .2 Shop Drawings: Indicate door elevations, number of panels, panel pattern, internal reinforcement, closure methods, [finishes] location of cut-outs for hardware, and cut-outs for [glazing] [louvres].

**1.6 QUALITY ASSURANCE**

*Include this article to identify a quality reference source affecting the work of this section; only one reference should be selected to avoid potential conflicts.*

- .1 Perform Work to requirements of [CSDMA (Canadian Steel Door Manufacturers Association)] [HMMA (Hollow Metal Manufacturers Association)] standards.
- .2 Manufacturer: Minimum 5 years documented experience manufacturing hollow metal door assemblies.
- .3 Sustainable Design:
  - .1 Section 01 35 18: LEED documentation procedures.
  - .2 Provide required LEED documentation for Product.
  - .3 Submit Type 3 Environmental Product Declaration (EPD) for Products of this Section.
  - .4 Manufacturer's Certificate: Certify that Products meet or exceed [specified requirements].

**1.7**

**DELIVERY, STORAGE AND PROTECTION**

- .1 Section [01 61 00]: Transport, handle, store, and protect products.
- .2 Comply with HMMA 840.

- .3 Remove doors and frames from wrappings or coverings upon receipt on site and inspect for damage.
- .4 Store in vertical position, spaced with blocking to permit air circulation between components.
- .5 Store materials out of water and covered to protect from damage.
- .6 Clean and touch up scratches or disfigurement caused by shipping or handling with zinc-phosphate primer.

**1.8 WARRANTY**

- .1 Manufacturer's Limited Warranty: Five (5) years from date of supply, covering material and workmanship.

**Part 2 Products**

**2.1 MANUFACTURERS**

- .1 AMBICO Limited  
 1120 Cummings Avenue  
 Ottawa, Ontario, Canada K1J 7R8  
  

Toll Free Phone	888-423-2224
Phone	613-746-4663
Toll Free Fax	800-465-8561
Fax	613-746-4721

- .2 Other Acceptable Manufacturers:
  - .1 [\_\_\_\_\_].
  - .2 [\_\_\_\_\_].

- .3 Substitutions: [Refer to Section 016000.] [Not permitted.]

**2.2 MATERIALS**

- .1 Sheet Steel: Galvanized steel to ASTM A653/A653M.
  - .1 Coating designation [Z275] ([G90]) for exterior door assemblies.
  - .2 Coating designation [ZF001] ([A01]) for interior door assemblies.
  - .3 Reinforcement [Channel]: To CSA G40.20/G40.21, coating designation to ASTM A653/A653M, [ZF75] ([A25]).

**2.3 ACCESSORIES**

*The following paragraphs identify the components required to complement the materials cited above.*

- .1 Exterior Top Caps: Rigid polyvinylchloride extrusion.

- .2 Glazing Stops: Formed galvanized steel channel, minimum 16 mm (0.625 inch) high, [butted] [mitred] corners; prepared for countersink style [tamperproof] screws.
- .3 Louvres: [Roll formed [steel] [aluminum]] [Extruded aluminum] material, [inverted [V] [Y] [slat] blade, [sight proof] [light proof] [\_\_\_\_\_] percent free area; [\_\_\_\_\_] style frame with [surface] [tamperproof] fasteners; [\_\_\_\_\_] manufactured by [\_\_\_\_\_]. Louvers to be factory supplied [and pre-installed].
- .4 Glass: [In accordance with Section [08 81 00]] [\_\_\_\_\_]. Glazing to be supplied by others.

## 2.4 FABRICATION

- .1 Recessed Panel Doors:

*Include this article to identify specific shop fabrication requirements. The size of each recessed panel and the pattern of those panels shall be at the architect's discretion.*

- .1 Panels shall be built with steel to comply exactly with the elevation indicated on the door schedule of the architectural drawings
- .2 Individual recessed steel panels shall be factory pre-installed in the door leaf.
- .3 Panels shall be securely fixed into door and welded in place.
- .4 Fixtures of panels shall be made seamless with the door face.
- .5 The depth of the recess around the perimeter of each panel shall be 1/2" (12mm) minimum on both sides of the door.
- .6 Top and Bottom Channels: Inverted, recessed, welded steel channels.
- .7 Fabricate doors with hardware reinforcement plates welded in place.

## 2.5 FINISHES

- .1 Factory Finish: Factory applied zinc phosphate primer [to be applied to all exposed surfaces] [touch-up only, where product has been welded and ground smooth].

## Part 3 Execution

### 3.1 INSTALLATION

- .1 Install components to manufacturer's written instructions.
- .2 Install doors to [CSDMA] [HMMA 840] standards [and in accordance with NFPA 80, and local authority having jurisdiction].
- .3 Adjust operable parts for correct clearances and function.
- .4 Install [louvers,] [glazing and] door silencers.
- .5 Finish paint in accordance with Section 09 91 00.

### 3.2 ERECTION TOLERANCES

- .1 Section 01 73 00: Tolerances.

- .2 Installation tolerances of installed frame for squareness, alignment, twist and plumbness are to be no more than  $\pm 1/16$ in (1.5mm) in compliance with HMMA 841.

### **3.3 FIELD QUALITY CONTROL**

- .1 Provide qualified manufacturer's representative to instruct installers on the proper installation and adjustment of door assemblies.
- .2 Provide manufacturer's representative to inspect door installation, and test minimum ten (10) cycles of operation. Correct any deficient doors.

**END OF SECTION**