

This section includes Brass or Bronze Window Frame Assemblies. This section relies on both the Canadian Steel Door Manufacturers Association (CSDMA.org) industry standard, as well as on Hollow Metal Manufacturers Association (NAAMM.org) industry standard. This section includes proprietary, descriptive and performance type specification requirements. 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] steel frame assemblies clad in [brass] [bronze].
- .2 [Non-rated] [fire rated] [thermally insulated] hollow metal panels clad in [brass] [bronze].
- .3 [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 [_____ - _____]: Masonry mortar fill of metal window frames.
- .2 Section 07 92 00 - Joint Sealing: Caulking between frames and adjacent construction.
- .3 Section 08 81 00 - Glass Glazing: Glazing for installation in [brass] [bronze] window frames.

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 B36/B36M-13 Standard Specification for Brass Plate, Sheet, Strip and Rolled Bar.
- .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 840-16- Installation and Storage of Hollow Metal Doors and Frames.
- .5 HMMA 841-13 - Tolerances and Clearance for Commercial Hollow Metal Doors and Frames.
- .6 NFPA 80-07 - Standard for Fire Doors and Other Opening Protectives.
- .7 USGBC – LEED v4.

1.4 REGULATORY REQUIREMENTS

Include the following article only if fire rated assemblies are specified. AMBICO can supply brass or bronze clad window frames with a 45 or 90 minute fire rating label.

- .1 Installed Window Frame Assembly: Conform to [NFPA 80] [_____] for fire rated class [as scheduled.] [as indicated.].

1.5 SUBMITTALS

- .1 Product Data: Provide product data on [brass] [bronze] clad window frame assemblies.
- .2 Shop Drawings: Indicate frame elevations, internal reinforcement, anchor types, finishes and cut outs [for glazing].
- .3 Samples: Submit manufacturer's [brass] [bronze] finish samples, showing range of color variation and polishing details.
- .4 Sustainable Design:
 - i) Section 01 35 18: LEED documentation procedures.
 - ii) Provide required LEED documentation for Product.
 - iii) Submit Type 3 Environmental Product Declaration (EPD) for Products of this Section.
 - iv) Manufacturer's Certificate: Certify that Products meet or exceed specified requirements.

1.6 QUALITY ASSURANCE.

- .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 [brass] [bronze] window frame assemblies.

1.7 DELIVERY, STORAGE AND PROTECTION

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

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

List the manufacturers acceptable for this project. Edit the subsequent descriptive specifications of Part 2, to identify project requirements and to eliminate any conflict with specified manufacturer's products.

- .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 01 60 00.] [Not permitted.]
- .4 Sheet Steel Subcores: Galvanized steel to ASTM A653/A653M.
 - .1 Coating designation [Z275] ([G90]) for exterior window assemblies.
 - .2 Coating designation [ZF001] ([A01]) for interior window assemblies.
- .5 Cladding: Brass or Bronze to ASTM B36/B36M-13 [C220 Commercial Bronze] [C260 Cartridge Brass] [C280 Muntz Metal] alloy.

2.2 ACCESSORIES

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

- .1 Glazing Stops: Formed [brass] [bronze], minimum 16 mm (0.625 inch) high, [butted] [mitred] corners; prepared for countersink style [tamperproof] screws.
- .2 Glass: [In accordance with Section [08 81 00]] [_____]. Glazing to be supplied by others.

2.3 FABRICATION

Include this article to identify specific shop fabrication requirements. Window frame assemblies are made from a steel core with [brass] [bronze] cladding.

- .1 [Brass] [Bronze] Window Frame Assemblies:
 - .1 [1.6] [____] mm ([16] [____] gauge) thick base metal thickness, welded type, clad [brass] [bronze] frame construction, mitred corners.
 - .2 Clad frame jambs and header with [brass] [bronze] material.
 - .3 Factory assemble jambs, header, [and mullions].
 - .4 Fabricate frames with steel hardware reinforcement plates welded in place.
 - .5 Reinforce frames wider than 1200 mm (48 inches) with roll formed steel channels fitted tightly into frame head, flush with top.
 - .6 Mullions to be fit to perimeter jambs with visible seams in accordance with architectural elevations.

2.4 FINISHES

- .1 Finish: [#4 Satin] [#8 Mirror].

Part 3 Execution**3.1 INSTALLATION**

- .1 Install components to manufacturer's written instructions.
- .2 Install [brass] [bronze] window frame assemblies to [CSDMA] [HMMA 840] standards [and in accordance with NFPA 80, and local authority having jurisdiction].
- .3 Coordinate with [masonry] [gypsum board] [concrete] [_____] wall construction for anchor placement.
- .4 Set frames plumb, square, level and at correct elevation.
- .5 Allow for deflection to ensure that structural loads are not transmitted to frame.
- .6 [Install glazing].

3.2 ERECTION TOLERANCES

- .1 Section 01 73 00: Tolerances.
- .2 Installation tolerances of installed window 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 window frame installation. Correct any deficient units.

END OF SECTION