

*This section includes standard commercial Stainless Steel Window Frames and relies on industry standards. This section includes descriptive and performance type 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] stainless steel window frames.
- .2        [Non-rated] [fire rated] stainless steel panels.

### **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 frames.
- .2        Section 07 92 00-Joint Sealing: Caulking between windows and adjacent construction.
- .3        Section 08 81 00 - Glass Glazing: Glazing for installation in stainless steel window frames.

### **1.3                REFERENCES**

*Edit this article after editing the rest of this section. List reference standards that are included within the text of this section, when edited for a project specification. Delete references that do not apply.*

- .1        ASTM A240/A240M-17 - Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications.
- .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 841-17 Guide Specifications For Receipt, Storage and Installation of Hollow Metal Doors and Frames.
- .6        NFPA 80-16 - Standard for Fire Doors and Other Opening Protectives.
- .7        UL 10c-16 Standard for Positive Pressure Fire Tests of Door Assemblies
- .8        USGBC – LEED v4.

**1.4 REGULATORY REQUIREMENTS**

*Include the following article only if fire rated assemblies are specified. AMBICO can supply Stainless Steel Window Frames with a 45 minute fire rating label.*

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

**1.5 SUBMITTALS**

- .1 Product Data: Provide product data on standard stainless steel window frame construction.
- .2 Shop Drawings: Indicate stainless steel window frame elevations, internal reinforcement, anchor types and spacing, closure methods, finishes and cut outs [for glazing].
- .3 Samples: Submit manufacturer's stainless steel finish samples showing range of material variation as well as polishing details.
- .4

*Include the following ONLY if specifying for a LEED project. Specify only the technical requirements necessary to achieve the credits desired for this project. The Type 3 EPD are normally required for LEED v4 certification. AMBICO stainless steel products offer significant advantages to firms interested in supporting LEED certification.*

**1.6 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.

**1.7 QUALITY ASSURANCE**

- .1 Perform Work to requirements of [CSDMA (Canadian Steel Door Manufacturers Association)] [HMA (Hollow Metal Manufacturers Association)] standards.
- .2 Manufacturer: Minimum 5 years documented experience manufacturing stainless steel window frames.

**1.8 DELIVERY, STORAGE AND PROTECTION**

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

- .3 Remove window 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. Store materials out of water and covered to protect from damage.

**1.9 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.]

**2.2 MATERIALS**

*Note: Type #304 stainless steel alloy is standard. Type #316 alloy may be specified for extremely corrosive environments, such as in the presence of chlorine*

- .1 Stainless Steel: ASTM A240, type [304] [316].

**2.3 ACCESSORIES**

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

- .1 Frame Thermal Breaks: Rigid polyvinylchloride extrusion.
- .2 Glazing Stops: Formed stainless steel channel, minimum 16 mm (0.625 inch) high, [butted] [mitred] corners; prepared for countersink style [tamperproof] screws.
- .3 Glass: [In accordance with Section [08 81 00]] [\_\_\_\_\_]. Glazing to be supplied by others.

## 2.4 FABRICATION

Stainless Steel Frames:

- .1 Stainless Steel Window Frames: [1.6] [2.0] [2.8] mm ([16] [14] [12] gauge) thick stainless steel, welded type construction, mitred corners.
- .2 Factory assemble and weld stainless steel window frames.
- .3 Fabricate with stainless steel hardware reinforcement plates welded in place.
- .4 Reinforce window frames wider than 1200 mm (48 inches) with roll formed stainless steel channels fitted tightly into frame head, flush with top.
- .5 Mullions to be fit to perimeter jambs with visible seams in accordance with architectural elevations.

## 2.5 FINISHES

*Edit the following to identify finish. Choose from Standard or Custom finishes.*

- .1 Standard Stainless Steel Finish: [#2B Mill Finish] [#4 Satin] [#6 Hairline] [#8 Mirror] [Colored].

OR

- .2 Custom Stainless Steel Finish: [Embossed] [Etched] [Patterned] [Non-directional] [Textured] [\_\_\_\_\_]

## Part 3 Execution

### 3.1 INSTALLATION

- .1 Install components to manufacturer's written instructions.
- .2 Install stainless steel window frames 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 window frames plumb, square, level and at correct elevation.
- .5 Allow for deflection to ensure that structural loads are not transmitted to window frame.
- .6 [Install glazing].

### 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 stainless steel window frames. Correct any deficiencies.
- .2 Provide manufacturer's representative to inspect window frame installation. Correct any deficient units.

**END OF SECTION**