This section includes steel or stainless steel fire doors and frames manufactured by AMBICO Limited that have been tested in accordance with the stringent fire resistant and temperature rise standards outlined in the International Marine Organization (IMO) Standard, Resolution A.754(18) for A-60 designation.

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 Fire rated [pressed steel] [stainless steel] frames.

.2 Fire rated [hollow steel] [stainless steel] doors.

.3 [Glass and glazing.]

.4 Door Hardware - General.

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 Insulation of metal frames.

.2 [Glass and Glazing: for installation in doors.]

1.3 REFERENCES

Edit this article after editing the rest of this section. Only 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 A240/A240M-07e1 - Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications.

.2 HMMA 802-92 - Manufacturing of Hollow Metal Doors and Frames.

.3 HMMA 840-99 - Installation and Storage of Hollow Metal Doors and Frames.

.4 HMMA 841-07 - Tolerances and Clearance for Commercial Hollow Metal Doors and Frames.

.5 IMO Resolution A.754(18) - Fire Resistant Tests Fire Safety Onboard Ships

1.4 REGULATORY REQUIREMENTS

.1 Installed Door and Frame Assembly: Conform to IMO A-60 for fire ratings and temperature-rise class [as scheduled.] [as indicated].

1.5 SUBMITTALS

Include this article to identify particular submission items. Division 01 Section 01 30 00 identifies the actual submission criteria.

.1 Product Data: Provide product data on standard door construction.

.2 Shop Drawings: Indicate door and frame elevations, internal reinforcement, anchor types and spacing, closure methods, [finishes] location of cut-outs for hardware, [and cut outs and provision for glazing].

.3 Samples: Submit manufacturer's door finish samples, as well as manufacturer's frame corner sample and door corner sample.

1.6 QUALITY ASSURANCE

Include this article to identify a quality reference source affecting the work of this section..

.1 Perform Work to International Marine Organization (IMO) Standard, Resolution A.754(18)

.2 Manufacturer: Minimum 5 years documented experience manufacturing hollow metal door assemblies.

1.7 DELIVERY, STORAGE AND PROTECTION

.1 Section [01 61 00]: Transport, handle, store, and protect products.

.2 Weld minimum two temporary jamb spreaders per frame prior to shipment.

.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.

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

In this article, 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
Phone 888-423-2224
Toll Free Fax 800-465-8561

.2 Other Acceptable Manufacturers:

.1 [_____].

.2 [_____].

2.2 MATERIALS

.1 Sheet steel: galvanized steel to ASTM A653/A653M

.1 Coating designation [Z275] ([G90]) for exterior door and door frame assemblies.

.2 Coating designation [ZF001] ([A01]) for interior door and door frame assemblies.

OR

.2 Stainless Steel Finish: ASTM A240, type [304] [316].

.3 Door Core:

.4 Steel Stiffened with insulation

2.3 ACCESSORIES

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

.1 Exterior Top Caps: [Stainless steel flush channel] [Galvanized steel flush channel].

.2 Glazing Stops: Formed [stainless steel] [galvanized steel] channel, minimum 35 mm (1.375 inch) high, [butted] [mitred] corners; prepared for countersink style screws.

.3 Glass: In accordance with Section IMO Resolution A.754(18) , special sealed unit 23mm thick

.4 Elevator Interlock:

.5 Door Hardware to be supplied by door manufacter:

.1 heavy weight butt hinges

.2 mortise lockset

.3 surface closer

2.4 FABRICATION

.1 Doors:

Include this article to identify specific shop fabrication requirements. The following two paragraphs apply to all construction 'types', unless otherwise indicated.

.1 Longitudinal edges mechanically inter-locked with visable edge seams.

.2 Top and Bottom Channels: Flush welded steel channels.

.3 Exterior Door: Flush top caps.

.4 Fabricate doors with hardware reinforcement plates welded in place.

.2 Frames: [Stepped Threshold] [Flat Threshold]

.1 [Stainless steel] [Mild steel] Pressed Steel Frames: 1.6 mm ([16] gauge) thick stainless steel, welded type construction, mitred corners.

.2 Factory assemble and weld frames.

.3 Fabricate frames with hardware reinforcement plates welded in place.

.4 Frames shall be [3 sided and supplied with spreaders] [4 sided with fully welded bottom jamb].

2.5 FINISHES

.1 Stainless Steel Finish: [#2B Mill Finish] [#4 Satin].

OR

.2 Galvanized sheet steel to be [factory prime painted] [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 and frames to manufacturer's instructions and in accordance with IMO standards.

.3 Co-ordinate steel anchors with bulkhead construction for anchor bolt 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 Adjust operable parts for correct clearances and function.

3.2 ERECTION TOLERANCES

.1 Installation tolerances of installed frame for squareness, alignment, twist and plumbness are to be no more then ± 1/16in (1.5mm) in compliance with HMMA 841.

3.3 SCHEDULE

Include this article to identify specific variations of products or installation requirements specified. If door and/or frame schedules are listed on drawings or on separate schedule sheets, do not repeat statements in this article. Schedule should identify fire rated from non-rated types.

.1 Door Schedule:

Tag	Room	Nominal Size	Thickness	Material	Glazing	Fire Rating	Comments
D-1	100	1219mm x 2134mm	80mm	SS	A	A-60	#304-4 Stainless Steel
D-2	101	4'0" x 7'0"	3 1/8"	GS	D	A-60	Wipe Coat Galvanized Steel

- Material types: GS = Galvanized Steel, SS = Stainless Steel
- Glazing types: A = Narrrow lite, D=Flush
- Fire Label types: A-60= Fire rated to A-60 standard and temperature rise ratings to IMO specifications.

END OF SECTION