

SECTION 08115

STEEL SLIP-ON FIXED-THROAT FRAMES AND ADJUSTABLE-THROAT FRAMES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Slip-On Fixed-Throat Steel Door Frames.
- B. Adjustable-Throat Steel Door Frames.
- C. Adjustable-Throat Steel Door Frames with Kerf for Weatherstrip.
- D. Fixed-Throat Borrowed-Lite Frames.
- E. Fixed-Throat Sidelite Frames.

1.2 RELATED SECTIONS

- A. Section 06200 - Finish Carpentry.
- B. Section 08110 - Steel Doors and Frames.
- C. Section 08210 - Wood Doors.
- D. Section 08220 - Plastic Doors.
- E. Section 08710 - Door Hardware.
- F. Section 08800 - Glazing.
- G. Section 09900 - Paints and Coatings.

1.3 REFERENCES

- A. ANSI A224.1 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames.
- B. ANSI A250.3 - Test Procedure and Acceptance Criteria for Factory-Applied Finish Painted Steel Surfaces for Steel Doors and Frames.
- C. ANSI/BHMA A156.7 - Standard Template Hinge Dimensions.
- D. ASTM A 366/A 366M - Standard Specification for Steel, Sheet, Carbon, Cold-Rolled, Commercial Quality.

- E. ASTM A 653/A 653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- F. ASTM B 117 - Practice for Operation of Salt Spray (Fog) Testing Apparatus.
- G. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes.
- H. ASTM D 1735 - Standard Practice for Testing Water Resistance of Coating Using Water Fog Apparatus.
- I. NFPA 80 - Standard for Fire Doors and Windows.
- J. Certification Listings; Warnock Hersey International Inc.

1.4 SYSTEM DESCRIPTION

- A. Performance Requirements: Frames for indicated fire-rated openings type-tested and approved by WHI testing agency.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's descriptive literature demonstrating compliance with referenced standards.
- C. Certificates: Manufacturer's certification that products comply with referenced standards.
- D. Shop Drawings: Indicate the following:
 - 1. Frame schedule.
 - 2. Frame sizes, profiles, and throat depths.
 - 3. Hardware preparation.
- E. Selection Samples: Submit two sets of color chips representing manufacturer's full range of available factory finishes.
- F. Verification Samples: Submit two samples, minimum 36 square inches each, of each color of factory finish specified.

- G. Quality Control Submittals: Manufacturer's printed installation instructions for each specified product.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Protect products from moisture, construction traffic, and damage; store under cover.
- B. Place units on 4-inch (101 mm) high wood sills to prevent rust or damage.
- C. Do not use non-vented plastic or canvas shelters; should wrappers become wet, remove immediately.

1.7 SEQUENCING

- A. Furnish templates and printed instructions of manufacturers of door hardware specified in Section 08710 to manufacturer of products of this section in time for fabrication.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: REDIFRAME Products Division, Dunbarton Corporation, Inc.; 868 Murray Road, PO Box 6416, Dothan AL 36302; ASD. Tel. (800) 633-7553, Fax. (334) 793-7022.
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.
- C. Substitutions: Not permitted.

2.2 MATERIALS

- A. Steel Sheet: Cold-rolled steel sheet conforming to ASTM A 366/A 366M, commercial quality.
- B. Galvanized Steel Sheet: Hot-dipped zinc coated steel conforming to ASTM A 653/A 653M, Class A40 coating.
- C. Aluminum Extrusions: Conforming to ASTM B 221, Alloy 6063-T5.
- D. Weatherstrip:

1. Manufacturer's standard fire-rated weatherstrip material for fire-rated frames, non-rated weatherstrip material for all other frames.
 2. Provide molded weatherstrip for installation in door frames having recessed kerf in stop to receive weatherstripping.
 3. Provide weatherstrip for surface mounting to exterior door frames without recessed kerf in stop.
 4. Color: Brown.
 5. Color: White.
- E. Fasteners: Types and sizes specified in manufacturer's installation instructions for project conditions.
- F. Glazing is specified in Section 08800.

2.3 MANUFACTURED UNITS

- A. Slip-on Fixed-Throat Steel Door Frames:
1. Acceptable Product: REDIFRAME.
 2. Construction: Three-piece knock-down frames constructed as follows:
 - a. Frames for interior use: Cold-rolled steel, ___ gage.
 - b. Frames for exterior use: Galvanized steel, ___ gage.
 - c. Profile: Double-rabbeted for indicated door thicknesses, with 5/8 inch high stop; throat dimension maximum 1/16 inch greater than indicated nominal thickness of partition to receive frame.
 3. Material texture: Standard smooth.
 4. Material texture: Woodgrain.
 5. Finish: Factory primer finish, grey color.
 6. Finish: Factory primer finish, capable of accepting field-applied stain, tan color.
 7. Finish: Factory baked enamel finish; _____ color.
- B. Adjustable-Throat Steel Door Frames:
1. Acceptable Product: Standard REDIFLEX.
 2. Construction: Two-piece knock-down frames constructed as follows:
 - a. Frames for interior use: Cold-rolled steel, ___ gage.
 - b. Frames for exterior use: Galvanized steel, ___ gage.

- c. Profile: Double-rabbeted for 1-3/4 inch door thickness, with 5/8 inch high stop; interlocking base and closure profiles for 1-1/4 inch throat dimension adjustment.
 - 3. Material texture: Standard smooth.
 - 4. Material texture: Woodgrain.
 - 5. Finish: Factory primer finish, grey color.
 - 6. Finish: Factory primer finish, capable of accepting field-applied stain, tan color.
 - 7. Finish: Factory baked enamel finish; _____ color.
- C. Adjustable-Throat Steel Door Frames with Kerf for Weatherstrip:
 - 1. Acceptable Product: Kerfed REDIFLEX.
 - 2. Construction: Two-piece knock-down frames constructed as follows:
 - a. Frames for interior use: Cold-rolled steel, ___ gage.
 - b. Frames for exterior use: Galvanized steel, ___ gage.
 - c. Profile: Double-rabbeted for 1-3/4 inch door thickness, with 5/8 inch high stop having formed kerf for weatherstrip; interlocking base and closure profiles for 1 inch throat dimension adjustment.
 - 3. Material texture: Standard smooth.
 - 4. Material texture: Woodgrain.
 - 5. Finish: Factory primer finish, grey color.
 - 6. Finish: Factory primer finish, capable of accepting field-applied stain, tan color.
 - 7. Finish: Factory baked enamel finish; _____ color.
- D. Casings: Same material and finish as adjacent frame, minimum 22 gage; snap-on type with mitered corners.
- E. Casings: Extruded aluminum profile, alloy T6063-T5, 0.050 minimum wall thickness; snap-on type with mitered corners, finish matching adjacent frame.
- F. Casing alignment clips: Manufacturer's standard, and as follows:
 - 1. Supply one clip per casing joint.
 - 2. Color: White.
 - 3. Color: Black.
- G. Casings: Molded vinyl; mitered corners, manufacturer's standard profiles and finishes.
- H. Casings: Wood molding profiles, specified in Section 06200.

- I. Silencers: Manufacturer's standard surface-mounted adhesive-applied felt silencer pads.
- J. Doors are specified in referenced sections of RELATED SECTIONS Article of PART 1 of this section.
- K. Door hardware is specified in Section 08710.

2.4 FABRICATION

- A. Steel Door Frames:
 - 1. Hinge Preparation:
 - a. Mortise frames for indicated size, type, and weight hinges; provide concealed reinforcement of same material as frame, minimum 14 gage material thickness.
 - b. Drill and tap holes for template hinges in accordance with ANSI/BHMA A156.7 template.
 - 2. Strike Preparation: Prepare single-door frames for indicated strikes in accordance with lockset manufacturers' templates and instructions.
 - 3. Closer Preparation: Provide reinforcement for frames indicated to receive closer hardware as follows:
 - a. Standard-arm mounting: Manufacturer's standard aluminum extrusion, alloy 6063-T5.
 - b. Parallel arm mounting: Same material as frame, minimum 16 gage material thickness.
 - 4. Emboss certifying agency's fire-resistance rating labels on frames for fire-rated openings.
 - 5. Silencers:
 - a. Single interior door frames: Mount 2 silencers on strike side, spaced 6 inches from top and bottom of door opening; mount one silencer at door head, at center of door opening.
 - b. Double interior door frames: Mount 2 silencers at door head, spaced 6 inches each way from meeting point of door swings.
 - 6. Weatherstrip:
 - a. Install molded weatherstrip in kerf of door frames having recessed kerf in stop to receive weatherstripping.
 - b. Apply surface-mounted weatherstrip at stop of exterior door frames without recessed kerf in stop.
- B. Fixed-Throat Borrowed-Lite Frames:

1. Fabricate components of same material and gage as adjacent door frames for field assembly in accordance with profiles, sizes, and configurations indicated in approved shop drawings; provide concealed devices for connection and alignment of components.
 2. Supply loose stops of cold-formed steel channels, 3/4 inch web by 5/8 inch flange by 18 gage, in lengths for tight fit within indicated openings, formed for butted ends at intersections; drill stops for manufacturer's standard countersunk fasteners.
- C. Fixed-Throat Sidelite Frames:
1. Fabricate components of same material and gage as adjacent door frames for field assembly in accordance with profiles, sizes, and configurations indicated in approved shop drawings; provide concealed devices for connection and alignment of components.
 2. Supply loose stops of cold-formed steel channels, 3/4 inch web by 5/8 inch flange by 18 gage, in lengths for tight fit within indicated openings, formed for butted ends at intersections; drill stops for manufacturer's standard countersunk fasteners.

2.5 FINISHES

- A. Chemical Treatment: Treat steel surfaces to promote paint adhesion.
- B. Factory Primer Finish: Meet requirements of ANSI A224.1
- C. Factory Baked Enamel Finish: Meet requirements of ANSI A250.3, and the following:
1. 100-hour salt spray test in accordance with ASTM B 117.
 2. 200-hour humidity test in accordance with ASTM D 1735, with no blistering.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Have installer verify that project conditions are acceptable before beginning installation of frames; verify that completed openings to receive frames are of correct size and thickness.

- B. Correct unacceptable conditions before preceding with installation.

3.2 INSTALLATION

- A. Install frames in accordance with manufacturer's printed instructions, and approved shop drawings; in addition, install frames for fire-rated openings in accordance with requirements of NFPA 80.
- B. Install casings in accordance with manufacturer's printed instructions.
- C. Installation of wood casings is specified in Section 06200.
- D. Installation of doors is specified in referenced sections of RELATED SECTIONS Article of PART 1 of this section.
- E. Installation of door hardware is specified in Section 08710.
- F. Installation of glazing is specified in Section 08800.
- G. Field finishing of factory-primed frames is specified in Section 09900.

END OF SECTION