

RUSCO® MANUFACTURING INC. Specifications
STEEL DOORS AND FRAMES

PART ONE: General

1.01 GENERAL

- a. Steel doors
- b. Steel frames

1.02 RELATED SECTIONS

- a. Section 08710 - Door Hardware
- b. Section 09900 - Paints and Coatings

1.03 REFERENCES

- a. ASTM A 653/A 653M - Standard Specification for Steel Sheet, Zinc-Coated, (Galvanized) or Zinc-Iron Alloy-Coated (Galvanealed) by the Hot-Dip Process; 2002a.
- b. ASTM A 1008/A 1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with improved Formability; 2002.
- c. ANSI A250.3 - Test Procedures and Acceptance Criteria for Factory-Applied Finish Painted Steel Surfaces for Steel Doors and Frames; 1999.
- d. ANSI A250.6 - Hardware on Standard Steel Doors (Reinforcement-Application); 1997.
- e. ANSI A250.7 - Nomenclature: Standard Steel Doors and Frames; 1997 (R2002).
- f. ANSI A250.8 - SDI-100 Recommended Specifications for Standard Steel Doors and Frames; 1998.
- g. ANSI A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames; 1998.
- h. ANSI A250.11 - Recommended Erection Instructions for Steel Frames; 2001.
- i. DHI A115.1G - Installation Guide for Doors and Hardware; 1994.

STEEL DOORS AND FRAMES**1.03 REFERENCES (Continued)**

- j. SDI 105 - Recommended Erection Instructions for Steel Frames; Steel Door Institute; 1998.
- k. SDI 117 - Manufacturing Tolerances for Standard Steel Doors and Frames; Steel Door Institute; 2000.
- l. SDI 124 - Maintenance of Hollow Metal Doors and Frames; Steel Door Institute; 1998.

1.04 SUBMITTALS

- a. See Section 01300 - Administrative Requirements, for submittal procedures.
- b. Product Data: Provide manufacturer's standard catalogue data for specified products demonstrating compliance with referenced standards.
- c. Shop drawings: Show layout, profiles, product components, anchorages, accessories and finish colors.
 - Indicate door type, frame, steel, core, material thickness, mortises, reinforcements, exposed fastener locations, hardware arrangements.
 - Include schedule identifying each unit, with door marks or numbers referencing drawings.
- d. Samples: Selection and verification samples for finishes, colors and textures. Coordinate with Division 9 painting section for paint finishes.
- e. Installation Instructions: Manufacturer's printed installation instructions.
- f. Operation and Maintenance Data: Include methods for maintaining installed products and precautions against cleaning materials and methods determined to finishes and performance.
- g. Warranty documents specified herein.

1.05 QUALITY ASSURANCE

- a. Installer Qualifications: Experienced in performing work of this selection who has specialized in installation of work similar to that required for this project.
 - Certificate: When requested, submit certificate indicating qualification.

STEEL DOORS AND FRAMES**1.05 QUALITY ASSURANCE (continued)**

- b. Mock-Up:
 - Comply with Division 1 requirements
 - Install mock-up using acceptable products and manufacturer approved installation methods.
 - Maintenance: Maintain mock-up during construction for workmanship comparison
 - Incorporate mock-up into final construction upon approval by Architect.
 - Obtain Architect's acceptance of finish color, texture and pattern, and workmanship standard.

- c. Pre-installation Meetings: Conduct meetings to verify project requirements, substrate conditions, manufacturer's installation instructions, and warranty requirements. Comply with Division 1 requirements.

1.06 DELIVERY, STORAGE AND HANDLING

- a. General: Comply with ANSI A250.8.

- b. Ordering: Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.

- c. Delivery
 - Manufacturer's original, unopened, undamaged containers, identification labels intact.
 - Handle and store products according to manufacturer's recommendations published in technical materials. Leave products wrapped or otherwise protected and under clean and dry storage conditions until required for installation.

- d. Storage and Protection
 - Store materials protected from exposure to harmful weather conditions and at temperature and humidity conditions recommended by the manufacturer.
 - Store doors protected at corners to prevent damage or marring of finish. Store doors in upright position under cover on building site on wood sills or on floors in a manner to prevent rust and damage.
 - Store frames in upright position under cover on building site on wood sills or on floor in a manner to prevent rust and damage.
 - Do not use non-vented plastic or canvas shelters.

STEEL DOORS AND FRAMES**1.07 DELIVERY, STORAGE AND HANDLING**

- a. Verify actual openings by field measurements before fabrication; show recorded measurements on shop drawings.
- b. Coordinate field measurements and fabrication schedule with construction progress to avoid construction delays.

1.08 DELIVERY, STORAGE AND HANDLING

- a. See section 01780 - Closeout Submittals for additional warranty requirements.
- b. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty documents executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under Contract Documents.
 - Warranty Period: 3 years commencing on Date of Substantial Completion. Please see individual warranty specifications.

PART TWO: Products

2.01 MANUFACTURERS

- a. Acceptable manufacturer:
Rusco Manufacturing Inc.,
PO Box 668, 180 Willmott Street
Cobourg, ON K9A 4R5;
Tel (800) 787- 2620 Fax (905) 373 - 6059
Email: byoung@ruscomfg.com Website: www.ruscomfg.com
- b. Provide all steel doors and frames from a single manufacturer.

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2.02 MATERIALS

- a. General Requirements for Doors and Frames: Comply with ANSI A250.6, ANSI 250.7, ANSI A250.8 and SDI 117.
- b. Cold Rolled Steel: ASTM A 1008/A, Designation CS.
- c. Galvanized Steel: ASTM A 653/A 653M
- d. Primer Materials: Comply with ANSI A250.10 test procedures and acceptance criteria for prime painted steel surfaces for steel doors and frames.
- e. Painted Finish Materials: Comply with ANSI A250.3 test procedures and acceptance criteria for factory applied finish for steel doors and frames.
- f. Door Color Paint Material: Manufacturer's standard finish and color.

2.03 APPLICATIONS

- a. Door Frames:
 - 1¾" (44 mm) six panel, insulated metal doors fabricated of 18 gauge steel framing, covered with 18 gauge steel panels over rigid foam insulation.
- b. Sizes:
 - Door Thickness: 1¾" (44 mm)
 - Height and Width: As indicated on drawings.

2.04 DOORS AND HARDWARE

- a. Model 850 standard 6 panel embossed prime entrance door.
- b. Hardware Locations: Unless otherwise specified, conform to recommendations of the Steel Door Institute or Door and Hardware Institute for location of locks, hinges, latches, push-pull plates, bars, exit devices, handle sets, closer reinforcing, roller latches, and arm pulls.

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2.05 FRAMES

- a. Wood frame, when required, shall be of treated kiln dried Ponderosa pine.
- b. Steel hollow metal frames with kerf and/or adapter frames shall be a minimum of 18 gauge galvanized steel pre-drilled and reinforced for hinges as required. Shape of adapter frame shall be generally L-shaped.
- c. Exterior frame covers, where required, shall be 24 gauge factory finished shaped to existing contour.

2.06 FINISHES

- a. All steel selections will be chemically treated to ensure proper paint adherence.
- b. All exposed surfaces of the door and frame shall be finished with polyester powder paint electrostatically applied and baked for a total of 20 minutes at 350°F

PART THREE: Execution

3.01 EXAMINATION

- a. Before beginning installation, verify that substrate conditions previously installed under other sections are acceptable for installation of doors and frames in accordance with manufacturer's installation instructions and technical bulletins.
 - Verify door frame openings are installed plumb, true and level.
 - Select fasteners of adequate type, number and quality to perform intended functions.

3.02 INSTALLATION

- a. General:
 - Set frames plumb, square, aligned, without twist at correct elevation.
 - Install frames plumb, straight, and true, rigidly secured in place and properly braced; comply with DHI 115.IG
 - Comply with Door and Hardware Institute (DHI) installation standards.
 - Comply with ANSI A250.11 and SDI 124.

STEEL DOORS AND FRAMES**3.02 INSTALLATION (Continued)**

- b. Frame Installation Tolerances:
- Plumbness: Plus or minus 0.063 inch (1.6 mm) measured through a line intersecting corner of vertical members and the head to the floor.
 - Squareness: Plus or minus 0.063 inch (1.6 mm) measured through a line 90° from one jamb at upper corner to opposite jamb.
 - Alignment: Plus or minus 0.063 inch (1.6 mm) measured on jambs, through a horizontal line parallel to plan of wall.
 - Twist: Plus or minus 0.063 inches (1.6 mm) measured at face corners of jambs, on parallel lined perpendicular to plane of wall.
- c. Secure anchorages and connections to adjacent construction.
- d. Install doors and hardware in accordance with manufacturer's templates and instructions.
- e. Finish exposed field welds to present a smooth uniform surface, touch-up with rust inhibitive primer.
- f. Touch-up exposed surfaces scratched or marred during shipment, installation, or handling and field prime scratches or bare edges with a rust inhibitive primer.
- g. Before application of finish paint, ensure that surfaces are dry and free of dirt, oil, and dust.
- h. Apply finish coat over intact film, complying with application instructions of finish coat manufacturer.

3.03 ADJUSTING AND CLEANING

- a. Adjust hinge sets, locksets, and other hardware. Lubricate using a suitable lubricant compatible with door and frame coverings.
- b. Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products. Clean installed products in accordance with manufacturer's instructions before owner's acceptance.
- c. Remove from project site and legally dispose of construction debris associated with this work.
- d. Protect installed products and finished surfaces from damage during construction.