

Specifications

PRE-ASSEMBLED DOOR SPECIFICATION

PART 1 GENERAL

1.01 SUMMARY

- A. This section pertains to items known commercially as a complete door opening assemblies.
- B. Complete door opening assemblies includes a door, a frame, and the hardware.
- C. The door shall be installed into the frame with all finish hardware applied.
- D. This section includes:
 - 1. Pre-assembled door and frame
 - 2. Hinges
 - 3. Locksets
 - 4. Exit Devices
 - 5. Door Closers
 - 6. Threshold
 - 7. Weatherstrip
 - 8. Sweep

1.02 SUBMITTALS

- A. Submittals shall include
 - 1. Submittals shall include opening numbers as per architectural plans and specifications.
 - 2. Manufacturers' product data for each item of the door opening assembly.
 - 3. Installation Instructions
 - 4. Maintenance requirements on all operable parts of door assembly.
 - 5. Finish
 - 6. Any other information necessary to show compliance with requirements.

1.03 QUALITY

- A. Single Source Responsibility
 - 1. Door assembly unit shall be from a single supplier of pre-assembled, ready to install door system.
 - 2. Door System supplier shall be a certified direct distributor.
 - 3. Door System supplier shall be factory trained and certified.
 - 4. Door System Supplier shall pre-assemble door, frame and hardware in a factory approved shop.
 - 5. Provide concealed fasteners for all hardware, except for where sex nuts and bolts are required on door closers for reinforcing, and exit devices for fire rated applications.
- B. Fire Rated openings
 - 1. All fire rated opening assemblies shall comply with NFPA 80 Standards
 - 2. Supply only hardware items listed and tested by U.L., Warnock Hersey.

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1.04 PRODUCT HANDLING

- A. Each pre-assembled door unit shall be marked with opening numbers related to the final approved door submittal.
- B. Installation instructions for each item shall be included with each unit shipped.
- C. Package the entire door system in a heavy duty wooden crate that has been adapted for forklift handling.
- D. For protection, box all parts (i.e. keys, fasteners, door closer if applicable, instructions, lockset, and hinge shims).

1.05 WARRANTY

- A. Products shall be warranted for the time period listed in the Contract Documents.
- B. Provide the following special written warranties
 - 1. Door Opening Assemblies 2 Years
 - 2. Locksets 5, 8 or 10 Years
 - 3. Door Closers 5 or 25 Years
 - 4. Exit Devices 5 Years

PART 2 – PRODUCTS

2.01 DOORS

- A. Standard Door Panels shall be flush 1 ¼”
- B. Door faces shall be formed of 18 gauge steel to present a completely smooth unbroken surface.
- C. Visible seams shall only be permitted at door edges.
- D. Top and bottom end closures shall be 16 gauge steel channels and projection welded to the face panels around the entire perimeter approximately every two inches. Top channel to be flush,
- E. Door panels and end closures shall be manufactured of hot dipped material in the 0.40-ounce (A40) coating class conforming to ASTM designations A924 and A653. The material shall be treated in the mill to insure superior primer and paint adhesion.
- F. Panels shall be securely bonded by a thermosetting adhesive to an odorless, rigid foam (nominal 1lb. Density) that is resistant to vermin, fungus, bacteria, moisture, mildew, and rot.
- G. Lockset reinforcements shall be 14 gauge steel
- H. Lockset location shall be in accordance with ANSI/DHI A115.1 (mortised) or A115.2 (bored).
- I. Hinge reinforcements shall be 10 gauge steel welded in place and tapped for 1 ½ pair of 4 ½” template hinges.
- J. Hinge mortises shall extend the full width of the hinge stile and filler plates shall be provided to permit installation of hinges for right or left hand swing, as specified.
- K. Hinge mortise shall accept both standard and heavy weight hinges.
- L. All doors shall have a 12 gauge closer reinforcement.
- M. Door closer reinforcement shall be capable of accepting parallel arm door closer application.

2.02 DOOR FRAME

- A. Frames shall be formed of 16 gauge steel.
- B. Headers and jambs shall have self-aligning slots and tabs for secure locking of the assembly.
- C. Headers shall be equipped at each joint with 18 gauge channel-shaped reinforcements.

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- D. All corners shall present a neat butt joint.
- E. All stop heights shall be 5/8".
- F. All frame returns shall be 7/16".
- G. All frame members shall be manufactured of hot dipped material in the 0.40-ounce (A40) coating class conforming to ASTM A924 and A653. The material shall be treated in the mill to insure superior primer and paint adhesion.
- H. Hinge jambs shall be mortised and reinforced with 10 gauge steel welded in place and tapped for 1 ½ pair of 4 ½" template hinges.
- I. Hinge reinforcements shall have a welded in place steel plaster guard.
- J. Strike jambs shall be mortised and reinforced to receive an ANSI/DHI A115.1 universal 4 7/8" strike, or optional 2 ¾" strike.
- K. Strike jambs shall be prepared to receive three rubber silencers per single frame, and two rubber silencers per double frame.

2.03 FINISH

- A. Door and frame panels shall be chemically cleaned and treated with a Bonderite chemical.
- B. Door and frame panels shall be given a heavy coat of electrostatic-applied finish paint that is baked on.
- C. Paint shall be a durable formulation, providing good resistance to both mar and abrasion tests.
- D. Paint shall be weather and chemical resistant.
- E. The finish shall be in accordance with the ANSI/DHI Standard A250.3

2.04 SUBFRAMES

- A. Subframes create a framed opening and consist of two steel 16 gauge C-channels that match the girth depth of the building and two 12 gauge mounting clips.
- B. All subframe members shall be manufactured of hot dipped material in the 0.40-ounce (A40) coating class conforming to ASTM A924 and A653.
- C. Subframes shall be factory installed and be prepared to meet most any application (curbs, wainscot).
- D. For masonry applications provide wire masonry anchors, or existing opening anchors where openings are finished in lieu of subframing.

2.05 HARDWARE

- A. Hinges
 1. Hinges shall be 4-1/2" X 4-1/2", standard weight, 5 knuckle.
 2. Hinges shall be ball-bearing.
 3. Hinges shall have a non-removable pin.
- B. Locksets
 1. Lockset shall be factory installed
 2. Locksets shall be heavy duty commercial Grade 2 or commercial Grade 1 cylindrical or mortise levers with a US26D (Satin Chrome) finish.
 3. Locksets to be 2 ¾" backset.
 4. Locksets shall comply with ANSI A156.2, Series 4000, Grade 2 or Grade 1
 5. Grade 2 locksets shall exceed 1500 in. lbs. of torque resistance, Grade 1 locks shall exceed 2400 in. lbs. of torque resistance.

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6. Locksets shall be UL/ULC fire rated for up to 3 hours
7. Locksets shall comply with the Uniform Federal Accessibility Standards and ANSI 117.1 requiring ease of accessibility for the handicapped
8. Keyway shall be designed to accept 6 pins

Locks

- Commercial Grade 2 Lever design 5 year warranty
- Commercial Grade 1 Lever design, 8 year warranty
- Commercial Grade 1 Mortise with deadbolt, Lever design, 10 year warranty

C. Exit Devices

1. All exit devices touchbars, rails and integral parts shall be constructed of solid steel with ABS thermoplastic end caps and covers
2. Non fire rated units to have hex key dogging
3. Fire rated exit devices shall be available in the same series.
4. All touchbar exit device shall be certified to meet the requirements of ANSI A156.3 Grade 1
5. Exit device finish shall be 689

D. Door Closers

1. Door closers shall meet the requirements of U.L.
2. Door closers shall meet the requirements of UL10C for positive pressure.
3. Door closers shall have separate sweep and latch speed valves.
4. Door closer shall have a backcheck valve to provide cushioning effect in opening.
5. Door closers shall be factory installed set to 110° opening

E. Thresholds

1. Thresholds shall be factory installed.
2. Thresholds shall be 5 7/8" wide.
3. Thresholds shall be of extruded aluminum.
4. Thresholds shall be of the saddle type, and not to exceed 1/2" high to meet ADA requirements.

F. Weatherstrip

1. Weatherstrip shall be factory installed onto jambs and header.
2. Weatherstrip shall be adjustable.
3. Weatherstrip shall be composed of extruded aluminum with an extra large Qlon Kerf bulb.

G. Door Sweep

1. Door sweep shall be factory installed.
2. Door sweep shall be concealed in the bottom channel of the door leaf.
3. Door sweep material shall be santoprene.

PART 3 – Execution

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3.01 INSTALLATION

- A. Install each pre-assembled door unit in compliance with the suppliers and manufacturers, instructions and recommendations
- B. Set units plumb and square, and true to line and location.

Adjust and reinforce the attachments substrate as necessary for proper installation and operation.