



**SECTION 083613
SECTIONAL STEEL DOORS
MODELS 216, 220, 2411, 2415**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Upward acting sectional steel doors.

1.02 RELATED REQUIREMENTS

- A. Section << **079200 - Joint Sealants**>>: Sealing joints between frames and adjacent construction.
- B. Section << **087100 - Door Hardware**>>: Cylinder cores and keys.
- C. Section << **260533.13 - Conduit for Electrical Systems**>>: Conduit from electric circuit to operator and from operator to control station, and empty conduit from control units to door operator.
- D. Section << **260583 - Wiring Connections**>>: Power to disconnect.

1.03 DEFINITIONS

- A. DSB: Double Strength Billet.
- B. SSB: Single Strength Billet.

1.04 REFERENCE STANDARDS

- A. ITS (DIR) - Directory of Listed Products; Current Edition.
- B. UL (DIR) - Online Certifications Directory; Current Edition.
- C. UL 325 - Standard for Door, Drapery, Gate, Louver, and Window Operators and Systems; Current Edition, Including All Revisions.

1.05 SUBMITTALS

- A. Product Data: Submit manufacturer's standard literature showing materials and details of construction and finish.<< **Include data on electrical operation.**; or **None - N/A**>>
- B. Shop Drawings: Indicate rough and actual opening dimensions, anchorage methods, hardware locations, and installation details.
- C. Manufacturer's Installation Instructions: Indicate installation sequence and installation, adjustment, and alignment procedures.
- D. Manufacturer's qualification statement.
- E. Installer's qualification statement.
- F. Operation and Maintenance Data: Indicate modes of operation, lubrication requirements and frequency, and periodic adjustments required.
- G. Specimen warranty.

1.06 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in performing work of this section with minimum of << **5 years; or _____ years**>> of<< **documented; _____; or None - N/A**>> experience in fabrication and installation of security closures.
- B. Installer Qualifications: Company specializing in performing work of this section with minimum of << **3 years; or _____ years**>> of<< **documented; _____; or None - N/A**>> experience and approved by manufacturer.

1.07 WARRANTY

- A. Manufacturer Door-Only Warranty: Provide manufacturer warranty for door assembly for duration indicated under individual doors. Complete forms in <<Owner>>'s name and register with manufacturer.

PART 2 PRODUCTS

2.01 MANUFACTURER

- A. Wayne Dalton; www.wayne-dalton.com; 1 (800) 827-3667.
- B. Substitutions: Not permitted.

2.02 UPWARD ACTING SECTIONAL STEEL DOORS

- A. Sectional Steel Doors: Wayne Dalton; << **Model 216; Model 220; Model 2411; or Model 2415**>>.
 - 1. Panels: Steel construction with exterior sheet.

 - 2. Width: << **_____ feet _____ inches (_____ m)**>>.

 - 3. Height: << **_____ feet _____ inches (_____ m)**>>.
 - 4. Mounting: Surface mounted on interior of building.
 - 5. Opening Speed: Door to operate at variable speed of << **6 to 12 inches (152 to 305 mm)**>> per second.
 - 6. Closing Speed: Door to operate at variable speed of << **6 to 12 inches (152 to 305 mm)**>> per second.

 - 7. Operation Cycles: Capable of operating for minimum << **10,000; 25,000; 50,000; 75,000; or 100,000**>> cycles. One operation cycle is complete when door is opened from closed position to fully open position and returned to closed position.
 - 8. Available Warranty:
 - a. Door Only: One year.
 - 9. Panel Material:

- a. Exterior Steel Thickness: << **16 gauge, 0.0635 inch (1.613 mm)**; **20 gauge, 0.0396 inch (1.01 mm)**; **Nominal 24 gauge, 0.0276 inch (0.701 mm)**; or **24 gauge, 0.0276 (0.701 mm)**>> galvanized steel.
 - b. Panel Thickness: << **2 inches (51 mm)**>>.
 - c. Joint Profile: Shiplap.
 - d. Section Height: Manufacturer's standard based on door height.
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- e. Exterior Surface Profile: << **Smooth**; **Ribbed**; or **Stucco embossed**>>.
 - f. Lites: << **Not required**; **Aluminum sash section lites with double strength billet (DSB) glazing**; or **Insulated double strength billet (DSB) vision lites**>>.
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- 1) Glazing: << **1/8 inch (3 mm) DSB glass**; **1/2 inch (13 mm) DSB glass**; **1/8 inch (3 mm) tempered DSB glass**; **1/4 inch (6 mm) tempered DSB glass**; **1/2 inch (13 mm) tempered DSB glass**; **1/8 inch (3 mm) acrylic**; **1/4 inch (6 mm) acrylic**; **1/2 inch (13 mm) acrylic**; **1/8 inch (3 mm) polycarbonate**; **1/4 inch (6 mm) polycarbonate**; **1/2 inch (13 mm) polycarbonate**; or **1/4 inch (6 mm) wired glass**>>.
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- g. Exterior Finish: << **White smooth**; **Brown smooth**; **White stucco**; or **Brown stucco**>>.
- 10. Locking Options to Include: << **None**; **Slide lock**; or **Cylinder**>>.
 - a. Lock Locations: << **Both jambs**; **Left only**; or **Right only**>>.
 - 11. Weatherstripping and Seals: << **Required**; or **Not required**>>.
 - 12. Tracks: Constructed of steel with members fully bolted together.
 - a. Size: << **2 inches (51 mm)**; or **3 inches (76 mm)**>>.
 - b. Finish: Galvanized steel.
 - 13. End Stiles: << **16-gauge, 0.0635-inch (1.613 mm)**>> galvanized steel.
 - 14. Intermediate Stiles: << **16-gauge, 0.0635-inch (1.613 mm)**>> galvanized steel.
 - 15. Brackets: Steel to support counterbalance and curtain.
 - a. Finish: Hot-dip galvanized.
 - 16. Springs: Rated for << **10,000**; **25,000**; **50,000**; **75,000**; or **100,000**>> cycles.
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- 17. Manual Operation: << **Push-up**; or **Chain hoist**>>.
 - 18. Motor Operation: Provide UL-listed electric operator; size as recommended by manufacturer to move door in either direction at minimum << **6 inches (152 mm)**>>, maximum << **12 inches (305 mm)**>> per second.
 - a. Timer to Close: << **Not required**; or **Automatic closing controlled by adjustable hold-open time delay**>>.

- b. Operation Supply Voltage: << **115/208/230V 1 phase 60Hz; 208/230/460V 3 phase 60Hz; 575V 3 phase 60Hz; 220V 1 phase 50Hz; 220V 3 phase 50Hz; or 400V 3 phase 50Hz**>>.
- c. Signaling Device: << **Horn and strobe combination; or Traffic warning light**>>.
- d. Actuation Device: Provide << **push button; key switch; pull cord; loop detector; motion detector; treadle switch; and radio control**>>.
- e. Motor Mounting: << **Wall mounted; or Trolley**>>, << **right-hand side; left-hand side; or center**>>.
- f. Motor Enclosure: << **Not required; NEMA 4-12 watertight and oiltight; NEMA 4X corrosion-resistant; Totally enclosed, fan-cooled motor; or Totally enclosed, nonventilated**>>.
- g. Obstruction Safety Detection: Infrared sensor mounted in-plane to door curtain at greater than or equal to << **6 inches (152 mm)**>> from floor.
- h. Reversing Safety Edge: << **Not required; Door provided with wireless monitored electric safety edge; or Door provided with wired monitored electric safety edge**>>.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify wall openings are ready to receive work and opening dimensions and tolerances are within specified limits.
- B. Verify electric power is available and meets manufacturer's requirements.

3.02 PREPARATION

- A. Prepare opening to permit correct installation of door unit to perimeter air and vapor barrier seal.
- B. Apply primer to wood frame.

3.03 INSTALLATION

- A. Install door unit assembly in accordance with manufacturer's instructions.
- B. Anchor assembly to wall construction and building framing without distortion or stress.
- C. Securely brace door tracks suspended from structure. Secure tracks to structural members only.
- D. Fit and align door assembly, including hardware.
- E. Coordinate installation of electrical service. Complete power and control wiring from disconnect to unit components.
- F. Install << **perimeter trim; closures; and _____**>>.

3.04 TOLERANCES

- A. Maximum Variation from Plumb: << **1/16 inch (1.5 mm); or ____ inch (____ mm)**>>.
- B. Maximum Variation from Level: << **1/16 inch (1.5 mm); or ____ inch (____ mm)**>>.
- C. Longitudinal or Diagonal Warp: Plus or minus << **1/8 inch in 10 feet (3 mm in 3 m); or _____ inch in 10 feet (_____ mm in 3 m)**>> straight edge.

- D. Maintain dimensional tolerances and alignment with adjacent work.

3.05 ADJUSTING

- A. Adjust door assembly for smooth operation and full contact with weatherstripping.
- B. Confirm operation is in accordance with manufacturer's instructions with present field representative. Identify adjustments to door assembly.

3.06 CLEANING

- A. See Section << **017000 - Execution and Closeout Requirements**>> for additional requirements.
- B. Clean doors and frames<< **and glazing;** ____; or **None - N/A**>>.
- C. Remove<< **temporary;** ____; or **None - N/A**>> labels and visible markings.

3.07 PROTECTION

- A. Protect installed products from damage until Date of Substantial Completion.
- B. Do not permit construction traffic through overhead door openings after adjustment and cleaning.

END OF SECTION