



**SECTION 083613
ALUMINUM SECTIONAL DOORS
MODELS 451, 452, 453, 464, K-AL**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Upward acting sectional aluminum 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 OVERHEAD SECTIONAL ALUMINUM DOORS

- A. Aluminum Sectional Doors: Wayne Dalton; << **Model 451; Model 452; Model 453; Model 464; or Model K-AL**>>.
 - 1. Panels: Aluminum construction and reinforcement.
 - 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. U-Factor: << **Not required; 0.30; or 0.28**>>.
 - 8. R-value (RSI-value): << **2.60 (0.46); 2.75 (0.48); 2.87 (0.51); 2.93 (0.52); 3.17 (0.56); 3.21 (0.57); 3.43 (0.60); 3.48 (0.61); or 4.09 (0.72)**>>.

9. 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.
10. Available Warranty:
 - a. Door Only: One year.
11. Panel Material: Extruded 6063-T6 aluminum.
 - a. Panel Thickness: << **1-3/8 inches (35 mm); 1-3/4 inches (45 mm); or 2 inches (51 mm)**>>.
 - b. Joint Profile: << **Tongue and groove; Shiplap; or Manufacturer's standard with weather seal**>>.
 - c. Section Height: Manufacturer's standard based on door height.
 - d. Glazing: << **Not required; 1/8 inch (3 mm) DSB glass; 1/8 inch (3 mm) tempered DSB glass; 1/4 inch (6 mm) tempered DSB glass; 1/8 inch (3 mm) acrylic; 1/4 inch (6 mm) acrylic; 1/8 inch (3 mm) clear polycarbonate; 1/4 inch (6 mm) clear polycarbonate; 1/4 inch (6 mm) wired glass; 1/2 inch (13 mm) DSB glass; 1/2 inch (13 mm) tempered DSB glass; 1/2 inch (13 mm) acrylic; 1/2 inch (13 mm) polycarbonate; 1/4 inch (6 mm) opaque white; 1/4 inch (6 mm) opaque black; 1/4 inch (6 mm) mirrored gray; 1/4 inch (6 mm) mirrored bronze; or 1/4 inch (6 mm) translucent black**>>.
 - e. Glazing: << **Not required; 1/4 inch (6 mm) opaque white; 1/8 inch (3 mm) DSB glass; 1/4 inch (6 mm) opaque black; 1/8 inch (3 mm) tempered DSB glass; 1/4 inch (6 mm) mirrored gray; 1/4 inch (6 mm) tempered DSB glass; 1/4 inch (6 mm) mirrored bronze; 1/8 inch (3 mm) acrylic; 1/4 inch (6 mm) translucent black; 1/4 inch (6 mm) acrylic; 1/8 inch (3 mm) clear polycarbonate; 1/4 inch (6 mm) clear polycarbonate; 1/4 inch (6 mm) wired glass; 1/2 inch (13 mm) DSB glass; 1/2 inch (13 mm) tempered DSB glass; 1/2 inch (13 mm) acrylic; or 1/2 inch (13 mm) polycarbonate**>>.
 - f. Glazing: << **Not required; 1/8-inch tempered glass, clear; 1/8-inch tempered glass, obscure P-62; 1/8-inch tempered glass, bronze; 1/8-inch tempered glass, satin etch; 1/8-inch polycarbonate, clear; 1/8-inch acrylic, clear; 1/4-**>>.

inch tempered glass, bronze plate; 1/4-inch tempered glass, clear; 1/4-inch polycarbonate, clear; 7/32-inch laminated glass, white opaque; 1/2-inch IGU, annealed SSB glass, clear; 1/2-inch IGU, annealed SSB glass, Low-E; 1/2-inch IGU, annealed DSB glass, clear; 1/2-inch IGU, tempered DSB glass, Low-E; 1/2-inch IGU, tempered DSB glass, bronze; 1/2-inch IGU, tempered DSB glass, clear; 1/2-inch IGU, tempered DSB glass, gray; or 1/2-inch IGU, tempered DSB glass, satin etch>>.

- g. Exterior Finish: << **Clear anodized; Light bronze anodized; Medium bronze anodized; Dark bronze anodized; Black anodized; or Powder coat; color: _____>>**>>.
- 12. Locking Options to Include: << **None; Slide lock; or Cylinder>>**.
- a. Lock Locations: << **Both jambs; Left only; or Right only>>**.
- 13. Weatherstripping and Seals: << **Required; or Not required>>**.
- 14. Tracks: Constructed of steel with members fully bolted together.
 - a. Size: << **2 inches (51 mm); or 3 inches (76 mm)>>**.
 - b. Finish: 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.

- 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 << **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