



**SECTION 083613  
CX-SERIES SECTIONAL WAREHOUSE DOORS  
MODELS CX-20, CX-24, CX-2400**

**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 Warehouse Doors: Wayne Dalton; << **Model CX-20; Model CX-24; or Model CX-2400**>>.

1. Panels: << **Steel construction with exterior sheet, interior sheet, and core reinforcement; or 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: << **20 gauge, 0.0396 inch (1.01 mm)**; **24 gauge, 0.0276 inch (0.701 mm)**; or **Nominal 24 gauge, 0.0276 inch (0.701 mm)**>> galvanized steel.
  - a. Panel Thickness: << **2 inches (51 mm)**>>.
  - b. Joint Profile: Tongue and groove.
  - c. Section Height: << **19 inches (483 mm)**; **21 inches (533 mm)**; or **24 inches (610 mm)**>>.
  - d. Insulation: << **Not required**; or **Expanded polystyrene**>>.
    - 1) Panel R-value (RSI-value): << **7.64 (1.35)**>>.
    - 2) Interior Backer: << **Not required**; **High impact polystyrene**; or **Steel**>>.
  - e. Exterior Surface Profile: Ribbed.
  - f. Lites: << **Not required**; **Vision lites**; or **Full-view lites**>>.  
- g. Exterior Finish: << **White smooth**; **Brown smooth**; **White stucco embossed**; or **Brown stucco embossed**>>.
- 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: Mill finish.
- 13. Brackets: Steel to support counterbalance and curtain.
  - a. Finish: Hot-dip galvanized.
- 14. Springs: Rated for << **10,000**; **25,000**; **50,000**; **75,000**; or **100,000**>> cycles.
  
- 15. Manual Operation: << **Push-up**; or **Chain hoist**>>.
- 16. 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**