SECTIONAL DOOR SYSTEM C-2400


# C-2400

## SECTIONAL DOOR SYSTEMS

### STRONG, VISUALLY APPEALING DOORS FOR MODERATE COMMERCIAL APPLICATIONS

The Wayne Dalton C-2400 steel sectional door, available in a variety of sizes, is an excellent value. Featuring nominal 24-gauge ribbed steel sections, the C-2400 is available with a number of lite and insulation options.

WAYNE DALTON COMMERCIAL DOOR SYSTEMS

- NOMINAL 24-GAUGE STEEL CONSTRUCTION
- STANDARD SIZES UP TO 20' 2" WIDE & 16' 1" HIGH
- VALUE PRICED CHOICE
- DESIGNED FOR MODERATE COMMERICAL APPLICATIONS

Wayne Dalton Certified windSAFE

Beaton Industrial, Inc. | 800-724-4052 | Support@BeatonIndustrial.com

# C-2400

The Wayne Dalton C-2400 Steel Sectional Door is designed and built to ensure an economical, trouble-free long life for moderate commercial use. Available with an embossed finish in white or brown or a white smooth finish, the exterior of the C-2400 features a ribbed surface for increased strength and added visual appeal. Unique box-stile design with full 2" thickness and 3" width, plus tongue-and-groove construction, add vertical stability and strength. The stiles are continuously bonded to the skin surface with high strength adhesive, resulting in the strongest possible unit.

**Materials & Construction**

Wayne Dalton's C-2400 steel sectional doors feature pre-finished interior and exterior skins on nominal 24-gauge hot-dipped galvanized steel sections roll-formed to a full 2" thickness for ultimate strength and durability. Fully-fitted 3" wide boxed siles are adhered with adhesive preventing rust and leakage associated with rivets. Standard bottom door seal along with optional seals on the perimeter and between sections greatly reduce air leakage, adding to the thermal efficiency of the building.

Additional options include insulation and weather stripping that provide a U-value of 0.13 and an R-value of 7.60; factory installed vision lites or aluminum full view sections; electric operator; and special engineering to meet windload requirements.

Contact Wayne Dalton for additional sizes and colors.

**Operation Options**

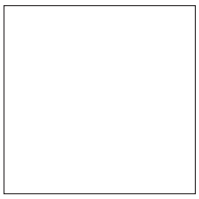
- Chain Hoist Operation
- Motor Operation

**Safety Options**

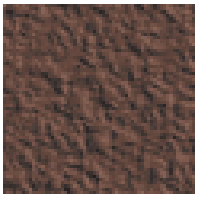
- Broken Cable Devices
- Safety Edges
- Safety Photo Eyes

**Color and Finish Options**

Brown Smooth Finish*



White Smooth Finish



Brown Embossed Stucco Finish*

White Embossed Stucco Finish*

**Note: Portland plant offers White Smooth Finish only. Contact your customer service representative for availability to your location.*

**Performance Options**

- High Cycle Spring (25K, 50K, 100K)
- 3" Track Option
- Solid Shafts
- Perimeter Weatherseal

**Special Application Options**

- Special Track Designs
- Mullions

**Window Options**

Vision Lites allow for visibility while maintaining security

Aluminum full view sections allow for maximum natural light and visibility

**STANDARD SIZES UP TO:**
20' 2" WIDE & 16' 1" HIGH
CALL FOR ADDITIONAL SIZES

**ENERGY EFFICIENCY VALUES:**
U = 0.13
R = 7.60

**WINDLOAD OPTIONS AVAILABLE:**
Wayne Dalton Certified windSAFE

MEET OR EXCEED
ANSI/DASMA 102-2003
IN ACCORDANCE WITH
ASTM E-330-70.

**BEST APPLICATIONS:**
- Economy
- Windload performance

## General Operating Clearances

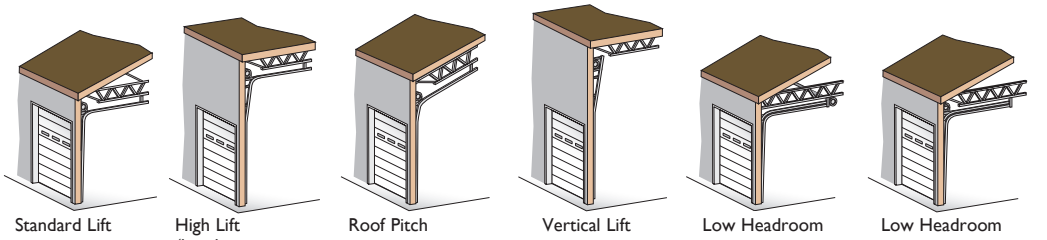
| Type | Headroom | | Sideroom | | Depth Into Room | Center Line of Springs | |
|---|---|---|---|---|---|---|---|
| | 2" track | 3" track | 2" track | 3" track | 2" & 3" track | 2" track | 3" track |
| Standard Lift Manual 12"R | 13"-17" | NA | 4½" | 5½" | Opening Height +18" | Opening Height +12" | NA |
| Standard Lift Manual 15"R | 15"-20" | 16"-21" | | | | Opening Height +13" | Opening Height +14" |
| Standard Lift Motor Oper. 12"R | 15"-20" | NA | | | Opening Height +66" | Opening Height +12" | NA |
| Standard Lift Motor Oper. 15"R | 15"-20" | 18"-24" | | | | Opening Height +13" | Opening Height +14" |
| High Lift Manual | High Lift +12" | | | | Opening Height – Lift +30" | Opening Height +Lift +6½" | Opening Height +Lift +7½" |
| High Lift Motor Oper. | | | 24" One Side | | | | |
| Vertical Lift Manual | Door Height +20" | | 4½" | 5½" | 18" | Double Door Height +13" | |
| Vertical Lift Motor Oper. | | | 24" One Side | | | | |
| Low Headroom Manual | 6"-15" | 6"-15" | 6" | 9" | Opening Height +20" - 26" | Does Not Apply | |
| Low Headroom Motor Oper. | 9"-17" | 9"-17" | | | Opening Height +66" | | |

## Panel/Section Selection Guide

| Door Section and Lite Selection | | | Door Height and Section Selection | |
|---|---|---|---|---|
| Door Width | No. Panels | Max. No. Windows | Door Height | No. Sections |
| Up to 8'3" | 2 | 2 | Up thru 8'1" | 4 |
| 8'4" to 12'3" | 3 | 3 | 8'4" thru 10'1" | 5 |
| 12'4" to 16'2" | 4 | 4 | 10'4" thru 12'1" | 6 |
| 16'3" to 20'2" | 5 | 5 | 12'4" thru 14'1" | 7 |
| | For Larger Sizes – See C-24 | | | |

NOTES:
1. For low headroom, springs must be rear mount to achieve minimum headroom listed. Front mount torsion headroom depends on drum size, and varies over the range listed. See approval drawings.
2. Side-room of 8" required, one side, for doors with chain hoist.
3. Headroom depends on drum size, and varies over the range listed. See approval drawings.

## Track Selection Guide



Standard Lift

High Lift (break-away is standard, straight incline is available)

Roof Pitch (standard or high lift)

Vertical Lift

Low Headroom (rear mount torsion)

Low Headroom (front mount torsion)

# C-2400

**Note to specifiers:** Words in parentheses indicate frequently specified and highly recommended options.

## PART I – GENERAL

**1.01 Section Includes**

A. Sectional overhead doors [manual push-up] [chain hoist] [motor] [motor with chain hoist] operated with accessories and components.

**1.02 Related Work**

A. Opening preparation, miscellaneous or structural steel work, access panels finish or field painting are in the scope of work of other trades and divisions of these specifications.

**1.03 Reference Standards**

A. **ANSI/DASMA 102** – American National Standards Institute [A216.1] Specifications for sectional overhead doors published by Door & Access Systems Manufacturers Association International in bulletin 102-2004.
B. **ASTM A123** – Zinc [hot-dipped galvanized] coatings on iron and steel products.
C. **ASTM A216** – Specifications for sectional overhead type doors.
D. **ASTM A229** – Steel wire, oil-tempered for mechanical springs.
E. **ASTM A-653-94** – Steel sheet, zinc-coated [galvanized] by the hot-dipped process, commercial quality.
F. **ASTM E330** – Structural performance of exterior windows, curtain walls, and doors by uniform static air pressure difference.

**1.04 Quality Assurance**

A. Sectional overhead doors and all accessories and components required for complete and secure installations shall be manufactured as a system from one manufacturer.

**1.05 Systems Description**

A. Sectional Overhead Door: Type: **Model C-2400**
B. Mounting: Continuous angle mounting for [steel] [wood] jambs [bracket mounting for wood jambs]
C. Operation: [manual push-up] [chain hoist] [motor] [motor with chain hoist]
D. Material: Galvanized steel with polyester finish paint
E. Insulation: Optional [polystyrene] [polyurethane]

**1.06 Submittals**

A. Shop Drawings: Clearly indicate the following:
   1. Design and installation details to withstand standard wind load.
   2. All details required for complete operation and installation.
   3. Hardware locations.
   4. Type of metal and finish for door sections.
   5. Finish for miscellaneous components and accessories.
B. Product Data: Indicating manufacturer's product data, and installation instructions.

**1.07 Delivery, Handling, Storage**

A. Deliver products in manufacturer's original containers, dry, undamaged, seals and labels intact.
B. Store and protect products in accordance with manufacturer's recommendations.

**1.08 Warranty**

A. Standard manufacturer's TEN YEAR warranty against cracking, splitting or deterioration due to rust-through.

## PART II – PRODUCTS

**2.01 Manufacturer**

A. Wayne Dalton or approved equal **Model C-2400** insulated sectional overhead doors of steel construction complete as specified in this section and as manufactured by **Wayne Dalton**.

**2.02 Materials**

A. Door Sections: Shall be of roll formed steel type with box shaped 20 ga. [intermediate and end stile construction] and calculated materials "R"- value of 7.60 [optional] in accordance with industry guidelines.
   1. Exterior Skin: Structural quality, hot-dipped galvanized steel, with [embossed stucco] [smooth] finish nominal 24 ga. with baked-on polyester primer and [white] [brown] polyester finish coats with [smooth][non-repeating random stucco texture] and 4 deep pinstripes.
   2. Insulation: Cavity shall be filled with laid-in-place [polyurethane] [expanded polystyrene] and covered with [vinyl] [embossed steel] held in place with polymer clips.
B. Track: Track design shall be [standard lift] [high lift] [vertical lift] [low headroom]. Vertical mounting angles shall be hot-dipped galvanized. Track size shall be [2"] [3"]. Vertical track shall be graduated to provide wedge type weathertight closing with continuous angle mounting for [steel] [wood] jambs, and shall be fully adjustable to seal door at jambs [bracket mount for wood]. Horizontal track shall be reinforced with continuous angle of adequate length and gauge to minimize deflection.

**Note:** Horizontal track applies to standard lift, high lift, low headroom and follow-the-roof designs only.

C. Hardware: Hinge and Roller Assembly:
   1. Hinges and brackets shall be made from hot-dipped, galvanized steel.
   2. Track rollers shall be case-hardened inner steel races with 10-ball [2"] [3"] rollers.
   3. All factory authorized attachments shall be made at locations indicated.
D. Counterbalance:
   1. Springs shall be torsion type, low-stress, helical wound, oil-tempered spring wire to provide minimum [10,000 standard] [25,000] [50,000] [100,000] cycles of use, on continuous steel [solid].
   2. Spring fittings and drums made of die cast, high strength aluminum.
   3. Pre-formed galvanized steel aircraft cable shall provide a minimum of a 5:1 safety factor.

**2.03 Operation**

A. Operation shall be [manual push-up] [chain hoist] [motor] [motor with chain hoist].

**Note:** Manufacturer does not recommend chain hoist or jackshaft operation with the following track systems:
- 12" or 15" radius standard lift with roof pitch < 2:12
- 32" radius standard lift with no roof pitch, unless vertical track is extended 5"
- Low headroom track
- High lift < 24" with no roof pitch

Special chain hoist assemblies (using a trolley rail) are available for the above track systems

**2.04 Locks**

A. Locks shall engage the right-hand vertical track and utilize [an interior side lock] [standard size rim cylinder].

**2.05 Weatherstripping**

A. Doors shall be equipped with vinyl bulb shaped astragal as standard on the bottom section. Optional joint, top head, and jamb seals are available.

**2.06 Glazing**

A. Optional.

**2.07 Wind Load**

A. Wind load – per DASMA 102-2003 and as required by local codes.

## PART III – EXECUTION

**3.01 Installation**

A. General:
   1. Install doors in accordance with manufacturer's instructions and standards. Installation shall be by an authorized Wayne Dalton representative.
   2. Verify that existing conditions are ready to receive sectional overhead door work.
   3. Beginning of sectional overhead door work means acceptance of existing conditions.
B. Install door complete with necessary hardware, jamb and head mold strips, anchors, inserts, hangers, and equipment supports in accordance with final shop drawings, manufacturer's instructions, and as specified herein.
C. Fit, align and adjust sectional overhead door assemblies level and plumb for smooth operation.
D. Upon completion of final installation, lubricate, test and adjust doors to operate easily, free from warp, twist or distortion and fitting for entire perimeter.

**Note:** Architect may consider providing a schedule when more than one sectional overhead door or opening type is required.

**3.02 Materials** (See note above.)

Specifications and technical information also available at www.arcat.com, SpecWizard™, and Sweets.com®.



 Item **332545**