

# 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.



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



# SECTIONAL DOOR SYSTEMS

## 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

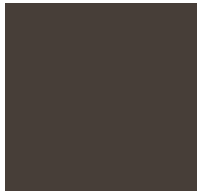
Wayne-Dalton's C-2400 steel sectional doors feature pre-finished interior and exterior skins on nominal 24-gauge hot-dipped galvanized steel sections roll-formed to a full 2" thickness for ultimate strength and durability. 3" wide fully-fitted boxed stiles are adhered with adhesive, preventing rust and 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.

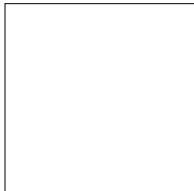
Contact Wayne-Dalton for additional sizes and colors.



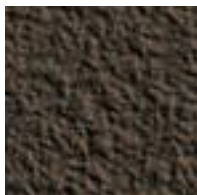
### Color and Finish Options



Brown Smooth Finish\*



White Smooth Finish



Brown Embossed Stucco Finish\*



White Embossed Stucco Finish\*

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

### Operation Options

- Chain Hoist Operation
- Motor Operation

### Performance Options

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

### Window Options



Vision Lites allow for visibility while maintaining security

### Safety Options

- Broken Cable Devices
- Safety Edges
- Safety Photo Eyes

### Special Application Options

- Special Track Designs
- Mullions



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:**



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 2" & 3" track	Center Line of Springs	
	2" track	3" track	2" track	3" track		2" track	3" track
Standard Lift Manual 12"R	12½-17"	NA	4½"	5½"	Opening Height +18"	Opening Height +12"	NA
Standard Lift Manual 15"R	14½-20"	15½-21"				Opening Height +13"	Opening Height +14"
Standard Lift Motor Oper. 12"R	15-19½"	NA			Opening Height +66"	Opening Height +12"	NA
Standard Lift Motor Oper. 15"R	15-19½"	18-23½"				Opening Height +13"	Opening Height +14"
High Lift Manual	Door Height +12"		24" One Side		Opening Height - Lift +30"	Opening Height +Lift +6½"	Opening Height +Lift +7½"
High Lift Motor Oper.							
Vertical Lift Manual 12"R	Door Height +20"		4½"	5½"	Opening Height +18"	Double Door Height +13"	
Vertical Lift Motor Oper. 12"R			24" One Side				
Low Headroom Manual*	6-14½"	6-14½"	6"	9"	Opening Height +20" - 26"	Does Not Apply	
Low Headroom Motor Oper.*	8½-17"	8½-17"			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 9'2"	2	2	Up thru 8'1"	4
9'3" to 12'2"	3	3	8'2" thru 10'1"	5
12'3" to 16'2"	4	4	10'2" thru 12'1"	6
16'3" to 19'2"	5	5	12'2" thru 14'1"	7
19'3" to 20'2"	6	7	14'2" thru 16'1"	8

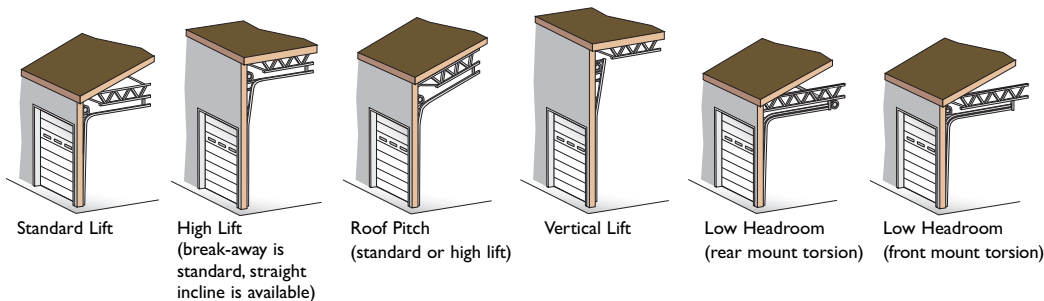
For Larger Sizes - See Model C-24

\* **Note:** Rear mount torsion requirements shown on chart. See drawings for front mount torsion clearances.

\*\* **Note:** 8" sideroom required, one side for doors having chain hoist. 24" side room required, one side for doors having jackshaft operators.

\*\*\* **Note:** Clear headroom is based on cable size so please contact factory for specific headroom for your door.

### Track Selection Guide



# SECTIONAL DOOR SYSTEMS

## 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 [manually] [motor] 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 102-1990.
- 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.
- G. **ASTM E413-87** – Sound transmission class. Acoustical performance value = 23 per.].
- H. **ASTM E1332-90** – Outdoor-indoor transmission class. Acoustical performance value = 19.

#### 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 windload.
  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 Corp.**

#### 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] [0.015" minimum 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 hoists or jack shaft operators on the following track applications.

- 15" radius standard lift with roof pitch less than 2:12
- Hi-lift less than 24"
- Hi-lift between 12" – 23" with roof pitch less than 1:12
- Low headroom track

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 Windload

- A. Windload – 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](http://www.arcat.com), [SpecWizard™](http://SpecWizard™), and [Sweets.com®](http://Sweets.com®).

#### Distributed By:



COMMERCIAL DOORS & OPERATORS

For technical information, visit:

[www.wayne-dalton.com/commercial](http://www.wayne-dalton.com/commercial)

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