

# STEEL SECTIONAL DOORS

# STRONG, VISUALLY APPEALING DOORS FOR MODERATE TO HEAVY-DUTY COMMERCIAL APPLICATIONS

Wayne-Dalton's 2415 steel sectional overhead doors are available in a wide variety of sizes and configurations. The design provides high strength at an excellent value. Featuring 24-gauge ribbed steel sections and 16-gauge vertical end stiles, the 2415 is available with a number of lite and insulation options.



- 24-GAUGE STEEL CONSTRUCTION
- STANDARD SIZES UP TO 32' 2" WIDE & 22' I" HIGH
- HEAVY DUTY 16-GAUGE END STILES

# SECTIONAL DOOR SYSTEMS 2415 STEEL SECTIONAL DOORS

The Wayne-Dalton 2415 Steel Sectional Door features heavy-duty 16-gauge vertical interior end stiles and 20-gauge center stiles for increased strength. The "C"-shaped stiles, secured with No. 8 screws and adhesive, have prelocated, extruded holes for quick, secure mounting of hinges. The 2415 offers a ribbed exterior skin that also helps to increase strength while enhancing the building's visual appearance. End stiles wrap around the exterior of each section to protect the section face from wear caused by the door jambs.

#### **Materials & Construction**

Wayne-Dalton's 2415 features true 24-gauge ribbed steel sections with 16-gauge vertical end stiles and 20-gauge center stiles attached to the interior. The exterior ribbing consists of two deep and two shallow ribs in each section, making it ideal for moderate use. The bottom section features a vinyl bulb-shaped astragal, held by a roll-formed, hot-dipped galvanized steel retainer.

Additional options include top head seal, joint seals and jamb seals. Optional insulation, consisting of 1 9/16" expanded polystyrene or urethane and covered with .015" minimum embossed pre-painted white steel provides an R-value of up to 7.64 and a U-value as low as 0.13. Lite options include insulated or non-insulated factory-installed vision lites or complete aluminum full-view sections for maximum visibility. Operators can also be specified for use with the Wayne-Dalton 2415.

Contact Wayne-Dalton for additional sizes and colors.



# **Operation Options**

- Chain Hoist Operation
- Motor Operation

# **Performance Options**

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

Window Options

# **Safety Options**

- **Broken Cable Devices**
- Safety Edges
- Safety Photo Eyes

## **Special Application Options**

- Special Track Designs
- Mullions

# **Color Options**



Brown Smooth Finish



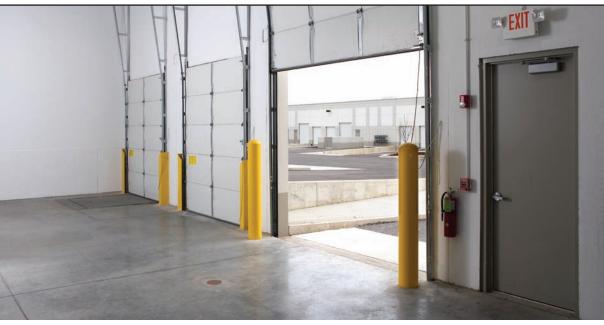
White Smooth Finish



Vision Lites allow for visibility while maintaining security



Aluminum full view sections allow for maximum natural light and visibility



**STANDARD SIZES UP TO:** 32' 2" WIDE & 22' I" HIGH CALL FOR ADDITIONAL SIZES

TRUE 24-GAUGE STEEL SECTIONS

WINDLOAD:

wind SA

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

## **BEST APPLICATIONS:**

Where rugged durability is needed.

## **General Operating Clearances**

	Headroom***		Sideroom**		Depth Into Room	Center Line of Springs	
Туре	2" track	3" track	2" track	3" track	2" & 3" track	2" track	3" track
Standard Lift Manual 12"R	12½-17"	NA		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	4½"		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	Door Height			Opening Height – Lift +30"	Opening Height	Opening Height
High Lift Motor Oper.	+12"		24" One Side		Opening Fleight - Lift 130	+Lift +6½"	+Lift +7½"
Vertical Lift Manual 12"R	Door Height		4½"	5½"	Opening Height +18"	Double Door Height	
Vertical Lift Motor Oper. 12"R	+20"		24" One Side		Opening Height +16	+13"	
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 I	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'I"	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 24'2"	6	7	14'2" thru 16'1"	8
24'3" & up	Cal	l Factory	16'2" & up	Call Factory

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

\*\* Note: 8" sideroom required, one sidefor 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**



Standard Lift

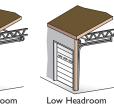


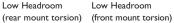
standard, straight incline is available)

Roof Pitch (standard or high lift)











# SECTIONAL DOOR SYSTEMS

# MODEL 2415

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

## PART I – GENERAL

#### 1.01 Section Includes

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
- C. ASTM A216 Specifications for sectional overhead type doors.
- D. ASTM A229 Steel wire, oil-tempered for mechanical springs.
- 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 = 24 per. J.
  H. ASTM E1332-90 Outdoor-indoor
- H. ASTM E1332-90 Outdoor-indoor transmission class. Acoustical performance value = 20.

#### 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 2415
- 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:
   I. Design and installation details to withstand
  - standard windload.

    2. All details required for complete operation and installation.
  - 3. Hardware locations.
  - Type of metal and finish for door sections.
  - Finish for miscellaneous components and accessories.
- B. Product Data: Indicating manufacturer's product data, and installation instructions.

# 1.07 Delivery, Handling, Storage

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

#### 1.08 Warranty

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

#### PART II - PRODUCTS

#### 2.01 Manufacturer

A. Wayne-Dalton or approved equal **Model 2415** 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 with "c" shaped 16 ga. end stiles and [20 ga.] [16 ga.] intermediate stiles, a smooth finish, and calculated materials "R"- value of 7.64 [optional], in accordance with industry guidelines.
  - Exterior Skin: Structural quality, hot-dipped galvanized steel, with smooth finish, and with baked-on polyester primer and [white] [brown] polyester finish coats, and 2 deep and 4 shallow pinstripes.
- Insulation: Cavity shall be filled with laid-in-place [polyurethane] [expanded polystyrene] and covered with [vinyi] [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 thell be to disease the lift.
- B. Irack: Irack 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:

  I. 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:
  - 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].
  - Spring fittings and drums made of die cast, high strength aluminum.
  - Pre-formed galvanized steel aircraft cable shall provide a minimum of a 5:1 safety factor:

#### 2.03 Operation

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"
- $^{\bullet}$  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 viryl 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

Windload – per DASMA 102-2003 and as required by local codes.

#### PART III - EXECUTION

#### 3.01 Installation

A. General:

- Install doors in accordance with manufacturer's instructions and standards. Installation shall be by an authorized Wayne-Dalton representative.
- Verify that existing conditions are ready to receive sectional overhead door work.
- 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.
- 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®.

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For technical information, visit:

www.wayne-dalton.com/commercial

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