STEEL SECTIONAL DOORS

2415

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

2415 STEEL SECTIONAL DOORS

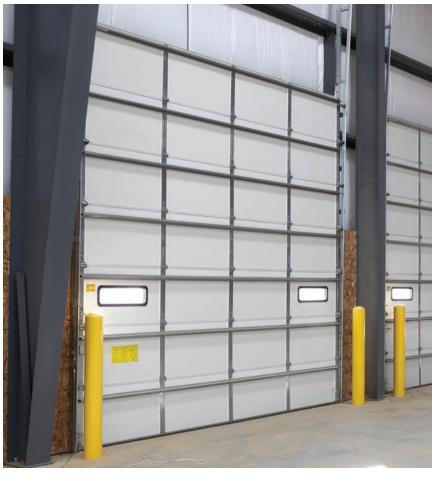
The Wayne Dalton 2415 Steel Sectional Door features heavy-duty 16-gauge vertical interior end stiles and 20-gauge center stiles for increased strength. The "C"-shaped stiles, secured with No. 8 screws and adhesive, have prelocated, extruded holes for quick, secure mounting of hinges. The 2415 offers 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 I 9/16" expanded polystyrene or urethane and covered 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 factoryinstalled vision lites or complete aluminum full-view sections for maximum visibility.

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

Safety Options

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

Special Application Options

- Special Track Designs
- Mullions

Window Options - Images below reflect window style only

Color Options



Brown Smooth Finish



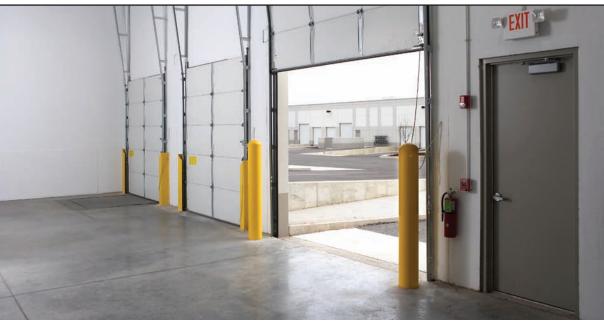
White Smooth Finish



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 OPTIONS AVAILABLE: wind SAFE

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	13"-17"	NA			Osanina Haiaht +10"	Opening Height +12"	NA
Standard Lift Manual 15"R	15"-20"	16"-21"]		Opening Height +18"	Opening Height +13"	Opening Height +14"
Standard Lift Motor Oper. 12"R	15"-20"	NA	4½"	5½"	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				Opening Height – Lift +30"	Opening Height	Opening Height
High Lift Motor Oper.	+12"		24" One Side		Opening meight — Lift +30	+Lift +6½"	+Lift +7½"
Vertical Lift Manual	Door Height		4½"	5½"	18"	Double Door Height	
Vertical Lift Motor Oper.	+20"		24" One Side		10	+13"	
Low Headroom Manual	6"-15"	6"-15"	6" 9"		Opening Height +20" - 26"	ing Height +20" - 26" Does Not Apply	
Low Headroom Motor Oper.	9"-17"	9"-17"	6	9"	Opening Height +66"	Does Not Apply	

Panel/Section Selection Guide

Door :	Section and	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	6	14'2" thru 16'1"	8
24'3" & up	Cal	l Factory	16'2" & up	Call Factory

NOTES:

- $\label{eq:local_local_local_local_local} \textbf{I. For low headroom, springs must be rear mount to achieve minimum headroom listed.}$ 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)







(rear mount torsion) (front mount torsion)



TONAL DOOR SYSTEMS

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

PART I - GENERAL

I.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

 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.

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
- 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 = 24 for insulated product.
- H. ASTM E1332-90 Outdoor-indoor transmission class = 20 for insulated product.

Ouality 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]
- Material: Galvanized steel with polyester finish paint
- 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.
 - Hardware locations.
 - Type of metal and finish for door sections.
 - 5. Finish for miscellaneous components and
- 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 2415 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 with "c" shaped 16 ga. end stiles and [20 ga.] intermediate stiles, a smooth finish, and calculated materials "R"- value of 7.64 [optional], in accordance
 - with industry guidelines.

 I. 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
 - 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:
- I. Hinges and brackets shall be made from hotdipped, 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].
 - 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 cylinder1

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
- 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
- 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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