

# THERMOSPAN® 150

## SECTIONAL DOOR SYSTEMS

### INSULATED SECTIONAL STEEL DOORS CUT YOUR TOTAL COST

Wayne-Dalton's Thermospan 150 polyurethane insulated door provides excellent thermal efficiency. Featuring an R-value of 14.16 and a U-value of .0706, the Thermospan 150 is an excellent value when energy efficiency is important but strength, rigidity and durability can't be compromised.

The Wayne-Dalton Thermospan Series doors are the only doors in the industry with patented, roll-formed integral struts on each section, making them the most rigid doors available.



- EXCELLENT THERMAL QUALITIES (R-VALUE = 14.16, U-VALUE = 0.0706)
- STANDARD SIZES UP TO 26' 2" WIDE AND 20' 1" HIGH
- COMMERCIAL/INDUSTRIAL DURABILITY
- INTEGRAL STEEL STRUTS FOR SUPERIOR STRENGTH

# SECTIONAL DOOR SYSTEMS

# THERMOSPAN® 150

Popular in a wide variety of commercial and industrial applications, the Thermospan 150 offers a strong combination of characteristics, including strength, rigidity, longer life and energy efficiency at a highly competitive price.

The Thermospan 150 is manufactured using our patented, continuous foamed-in-place technology, in which the polyurethane core is securely bonded to hot-dipped galvanized inner and outer skins. This process gives the Thermospan 150 outstanding thermal, strength, and bonding characteristics while creating a door that is significantly more efficient than conventional insulated steel doors. A designed-in joint seal also helps save energy by preventing air filtration. Optional factory glazed windows and aluminum full view panels, combined with two standard finishes (white and brown), can help ensure that the Thermospan 150 meets your aesthetic requirements as well.

### Materials & Construction

The Thermospan 150 is designed for easy installation, rugged durability and longer life. Features such as 18-gauge steel end caps and two 1 3/4" roll-formed struts on each section give the Thermospan 150 increased rigidity, while the factory finished interior and exterior hot-dipped, galvanized skins make installation easier, add life to the door and provide greater durability. The Thermospan 150 also features hardware plates at all fastener points to add durability and extend the life of the door.

Contact Wayne-Dalton for additional sizes and colors.

**Flush door embossed pinstriping** (grooves) on outer skin adds strength and non-repeating random stucco exterior enhances appearance.

**Prepainted inner and outer skins** for added corrosion-resistance.

NOTE: Both skins are also hot-dipped galvanized steel for further protection against corrosion.

### Integral struts

Two 1 3/4" roll-formed struts per section add rigidity and strength.

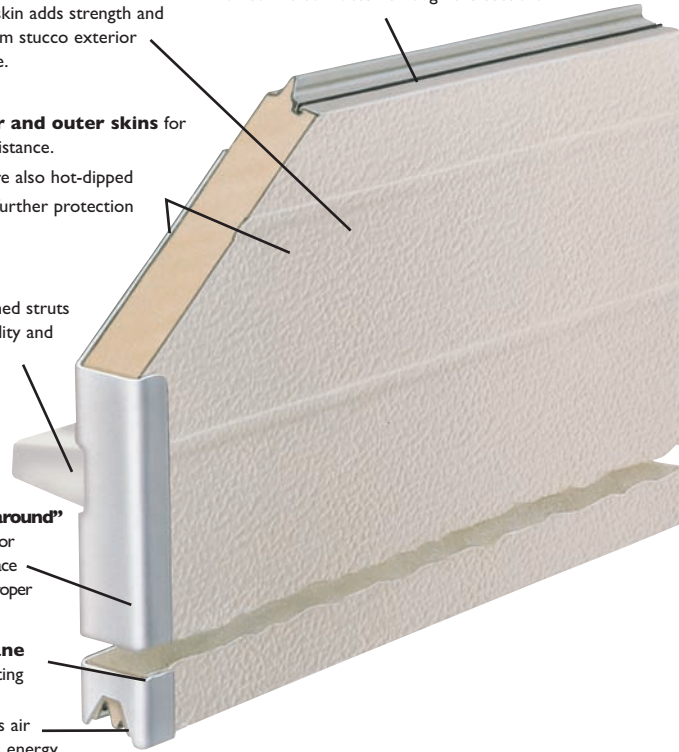
### 18-gauge "wrap-around" end caps

offer interior hinge attachment surface and exterior leg for proper seal against jamb.

**Solid polyurethane core** adds to insulating efficiency.

**Joint seal** prevents air infiltration and saves energy.

**Thermal break** separates inner & outer skins at top and bottom so virtually no heat or cold is conducted through the section.



### Extended Limited Warranty

TEN (10) YEARS against cracking, splitting or deterioration due to rust.

SEVEN (7) YEARS against separation of polyurethane from the steel skin of the panel.

### Window Options



Vision Lites allow for visibility while maintaining security



Aluminum full view sections allow for maximum natural light and visibility

### Operation Options

- Chain Hoist Operation
- Motor Operation

### Safety Options

- Broken Cable Devices
- Safety Edges
- Safety Photo Eyes

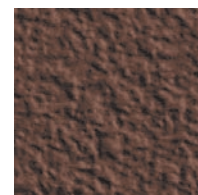
### Performance Options

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

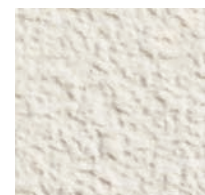
### Special Application Options

- Special Track Designs
- Mullions
- Windload

### Color Options



Brown Embossed Stucco Finish



White Embossed Stucco Finish





**STANDARD SIZES UP TO:**  
26' 2" WIDE & 20' 1" HIGH

**ENERGY EFFICIENCY VALUES:**

U = 0.0706  
R = 14.16

**WINDLOAD:**



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

**BEST APPLICATIONS:**

Where thermal performance and rugged durability are key

U.S. Patent Nos. 4238544 and 4339487

**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**

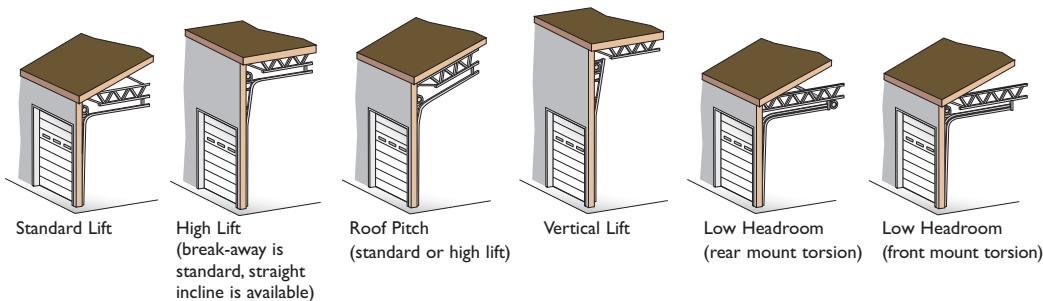
Door Section and Lite Selection			Door Height and Section Selection	
Door Width	No. Panels	Max. No. Windows	Door Height	No. Sections
Up to 9'2"	2	2	Up thru 8'1"	4
9'3" to 12'2"	3	3	8'2" thru 10'1"	5
12'3" to 16'2"	4	4	10'2" thru 12'1"	6
16'3" to 19'2"	5	5	12'2" thru 14'1"	7
19'3" to 24'2"	6	7	14'2" thru 16'1"	8
24'3" & up	Call 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 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

# THERMOSPAN® 150

**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 102-2003**—American National Standards Institute Specifications for sectional overhead doors published by Door & Access Systems Manufacturers Association International.
- B. **ASTM A229** – Steel wire, oil-tempered for mechanical springs.
- C. **ASTM A-653-9A** – Steel sheet, zinc-coated [galvanized] by the hot-dipped process, commercial quality.
- D. **ASTM D1929** – Ignition temperature test to determine flash and ignition temperature of foamed plastics.
- E. **ASTM E84-91A** – Tunnel test for flame spread and smoke developed index.
- 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 = 21.
- H. **ASTM E1332-90** – Outdoor-indoor transmission class acoustical performance value = 19.
- I. **ASTM E283-91** – Air infiltration = 0.23 CFM/FT<sup>2</sup> at 15MPH
- 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.
- B. Sectional overhead doors shall be tested and labeled certifying compliance with **ASTM D1929** and **ASTM E84-91A** standards.
- 1.05 Systems Description**
- A. Sectional Overhead Door: Type: **Thermospan 150** [flush]
- B. Mounting: Continuous angle mounting for [steel] [wood] jambs [bracket mount to wood]
- C. Operation: [manual push-up] [chain hoist] [motor] [motor with chain hoist]
- D. Material: Galvanized steel with polyester finish paint
- E. Insulation: 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. Provide manufacturer's standard SEVEN YEAR warranty against separation/degradation of the polyurethane foam from the steel skin of the panel under provisions of Section 01700. 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 **Thermospan 150** insulated sectional overhead doors of steel construction complete as specified in this section and as manufactured by Wayne-Dalton Corp., Mt. Hope, Ohio.

### 2.02 Materials

- A. Door Sections: Shall be of steel/polyurethane/steel sandwich type construction with thermal break and calculated materials "R"-value of 14.16, in accordance with industry guidelines.
1. Exterior Skin: Structural quality, hot-dipped galvanized steel, .022" minimum embossing, factory finished with baked-on polyester primer and [white] [brown] polyester finish coats with [non-repeating random stucco texture and 1/4" wide pinstriping].
  2. Interior Skin: Structural quality, hot-dipped, galvanized steel, factory-finished with a polyester primer and white finish coat. Interior skin shall have two 1 1/4" roll-formed integral struts per section.
  3. Ends of section shall be sealed with [16-gauge] [18-Gauge] hot-dipped galvanized steel full-height end caps.
  4. Insulation: Cavity shall be filled with formed in-place CFC free polyurethane core separated by a factory extruded thermal break.
  5. Insulated sections shall be tested by an I.C.B.O. certified laboratory in accordance with ASTM E-84-91A and shall achieve a Flamespread Index of 10 or less, and a Smoke Developed Index of 210 or less.
  6. Insulation material shall be tested by an I.C.B.O. certified laboratory in accordance with ASTM D-1929 and shall achieve a minimum Flash Ignition temperature of 734 degrees F, and a minimum Self Ignition temperature of 950 degrees F.
  7. Insulated sections shall be tested and meet all requirements of the UBC 17-5 corner burn.
- B. Track: Track design shall be [standard lift] [high lift] [vertical lift] [low headroom]. Vertical mounting angles and brackets shall be hot-dipped galvanized. Track size shall be [2"] [3"]. Vertical track shall be graduated to provide wedge type weather-tight closing with continuous angle mounting for [steel] [wood] jambs, and shall be fully adjustable to seal door at jambs. Horizontal track shall be reinforced with continuous angle of adequate length and gauge to help prevent 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 and reinforced with backup plates.
- D. Counterbalance:
1. Springs shall be torsion type, low-stress, helical wound, oil-tempered spring wire to provide minimum [10,000] [25,000] [50,000] [100,000] cycles of use, on continuous steel [solid CRS] shaft.
  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 factory-applied co-polymer joint seals between sections and vinyl "bulb" shaped astragal provided for bottom section. Optional top head seal and jamb seals are also available.

### 2.06 Glazing

- A. Optional.

### 2.07 Windload

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

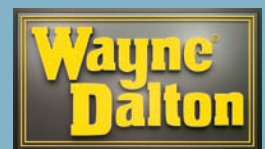
## PART III – EXECUTION

### 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 over-head door or opening type is required.

Specifications and technical information also available at [www.arcad.com](http://www.arcad.com), [SpecWizard™](http://SpecWizard™), and [Sweets.com®](http://Sweets.com®).

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COMMERCIAL DOORS & OPERATORS

For technical information, visit:  
[www.wayne-dalton.com/commercial](http://www.wayne-dalton.com/commercial)

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Printed in U.S.A.  
Item #332535 Revised 9/2007