THERMOSPAN® 200-20

WAYNE-DALTON COMMERCIAL DOOR SYSTEMS

THERMOSPAN® 200-20

SECTIONAL DOOR SYSTEMS

INSULATED SECTIONAL STEEL DOORS CUT YOUR TOTAL COST

Wayne-Dalton Thermospan® 200-20 offers premium thermal efficiency combined with a heavy-duty 20-gauge flush exterior surface. Featuring continuous foamed-in-place insulation and a non-conductive thermal break between the inner and outer skins, the Thermospan 200-20 provides a U-value of .057 and an R-value of 17.50, making it the ideal door for energy-conscious architects, engineers, contractors, and building owners.

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.

Wayne Dalton

- PREMIUM THERMAL QUALITIES (R-VALUE = 17.50, U-VALUE = 0.057)
- STANDARD SIZES UP TO 24' 2" WIDE AND 16' 1" HIGH
- INDUSTRIAL/COMMERCIAL DURABILITY
- SMOOTH, FLUSH EXTERIOR FINISH
- INTEGRAL STEEL STRUTS FOR SUPERIOR STRENGTH
- 25K CYCLE SPRINGS STANDARD

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The Thermospan 200-20 outperforms other conventional insulated steel doors in the area of energy efficiency. The Thermospan 200-20 offers a U-Value of .057 (R-value of 17.5) – a dramatic improvement over most conventional insulated steel doors, which typically have U-values between .33 and .51. At the heart of the Thermospan 200-20's excellent insulation qualities is a patented manufacturing process during which the polyurethane core is continuously foamed-in-place between the outer and inner skins, forming a homogenous sandwich of steel/polyurethane/steel. This process creates outstanding thermal, strength, and bonding characteristics which combine to make the Thermospan 200-20 an ideal choice for commercial and industrial applications. Additionally, a non-conductive thermal break virtually stops hot or cold outside temperatures from being transmitted to the inside.

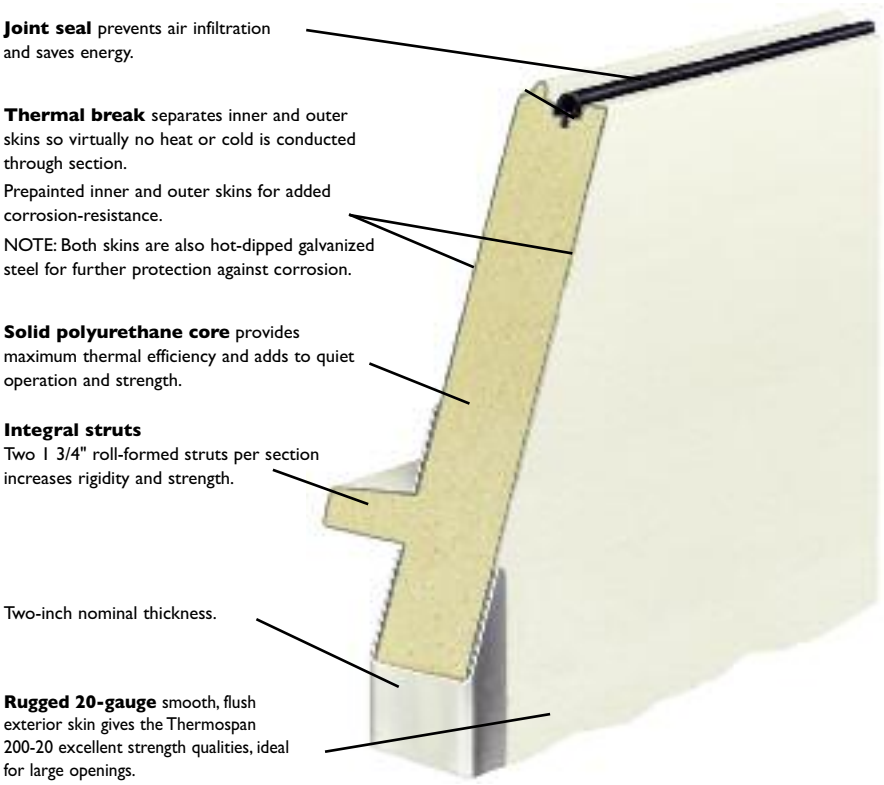
Materials & Construction

The Thermospan 200-20 also features two patented 1 3/4" integral roll-formed struts per section providing the highest strength-to-weight ratio.

Part of what makes the Thermospan 200-20 virtually maintenance free is the pre-painted flush exterior surface. This outer skin of hot-dipped galvanized, structural quality steel is factory finished with baked-on corrosion-resistant primer and a white polyester finish coat. The inner skin is also hot-dipped galvanized steel factory finished with the same corrosion-resistant primer and polyester finish coat.

The Thermospan 200-20 features an innovative thermal break that keeps the interior skin at room temperature, preventing condensation and frost and thereby resisting corrosion. A flexible vinyl bulb seal and non-corrosive polymer retainer prevent water and air filtration at the bottom of the door. Reinforcement plates are located at all hardware attachment locations, and industry standard commercial-grade, heavy-duty, hot-dipped galvanized hardware also contribute to the Thermospan 200-20's long service life.

For the same energy efficiency with a pinstriped, pebbled outer skin, see Wayne-Dalton's Thermospan 200. Contact Wayne-Dalton for additional sizes and colors.



OMEGA POINT LABORATORIES *Listed*

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.

Operation Options

- Chain Hoist Operation
- Motor Operation

Performance Options

- High Cycle Spring (50K, 100K)
- 3" Track Option
- Windload

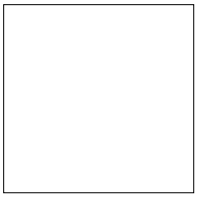
Safety Options

- Broken Cable Devices
- Safety Edges
- Safety Photo Eyes

Special Application Options

- Special Track Designs
- Pass Doors
- Mullions

Color Options



White Smooth Flush Finish

Window Options

Vision Lites allow for visibility while maintaining security

Aluminum full view sections all for maximum natural light and visibility

STANDARD SIZES UP TO:
24' 2" WIDE & 16' 1" HIGH

ENERGY EFFICIENCY VALUES:
U = 0.057
R = 17.50

WINDLOAD:
WindSAFE

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

BEST APPLICATIONS:
– Extra Heavy-Duty Applications
– Where High Insulation Value Is Desired

U.S. Patent Nos. 4238544 and 4339487

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 Manual12"R	12½-17"	NA	4½"	5½"	Opening Height +18"	Opening Height +12"	NA
Standard Lift Manual15"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"				Opening Height – Lift +30"	Opening Height +Lift +6½"	Opening Height +Lift +7½"
High Lift Motor Oper.			24" One Side				
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

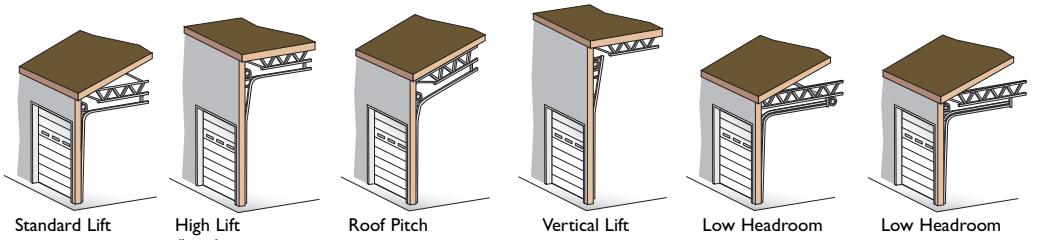
Door Section and Lite Selection			Door Height and Section Selection	
Door Width	No. Panels	Max. No. Windows	Door Height	No. Sections
Up to 9'2"	2	2	Up thru 8'1"	4
9'3" to 12'2"	3	3	8'2" thru 10'1"	5
12'3" to 16'2"	4	4	10'2" thru 12'1"	6
16'3" to 19'2"	5	5	12'2" thru 14'1"	7
19'3" to 24'2"	6	7	14'2" thru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

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)

Wayne Dalton
COMMERCIAL DOORS & OPERATORS

THERMOSPAN® 200-20

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 D1929** – Ignition temperature test to determine flash and ignition temperature of foamed plastics.

G. **ASTM E84-91A** – Tunnel test for flame spread and smoke developed index.

H. **ASTM E330** – Structural performance of exterior windows, curtain walls, and doors by uniform static air pressure difference.

I. **ASTM E413-87** – Sound transmission class. Acoustical performance value = 23

J. **ASTM E1332-90** – Outdoor-indoor transmission class. Acoustical performance value = 22.

K. **ASTM E283** – Air infiltration for = .07CFM/FT^2 at 15 MPH.

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** 200-20

B. Mounting: Continuous angle mounting for [steel] [wood] jambs

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. TEN YEARS on insulation value.

PART II – PRODUCTS

2.01 Manufacturer

A. Wayne-Dalton or approved equal **Thermospan 200-20** 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 17.50, in accordance with industry guidelines.

1. Exterior Skin: Structural quality, hot-dipped galvanized steel, 20 gauge white flush smooth.
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$^3/_4$" roll-formed integral struts sealed with polypropylene rib caps per section.
3. Ends of section shall be sealed with 18 or 16 [14 GA.] gauge hot-dipped galvanized steel full height end caps.
4. Insulation: Cavity shall be filled with foamed-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 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. 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 and reinforced with backup plates.

D. Counterbalance:

1. Springs shall be torsion type, low-stress, helical wound, oil-tempered spring wire to provide minimum [25,000 standard] [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]. 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 top and side seals to seal against header, co-polymer joint seals between sections, and vinyl "bulb" shaped astragal provided on the bottom section.

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, SpecWizard™, and Sweets.com®.

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Wayne Dalton
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For technical information, visit:
www.wayne-dalton.com/commercial

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