450U

COMMERCIAL SECTIONAL DOORS
25 GAUGE / 2” SECTIONS

HÖRMANN

450U

Urethane Insulated 2” Commercial 25 Gauge Steel Door

SUPERIOR INSULATION
- UNRIVALED -

Hörmann 450U offers 2” thick two sided steel sections and 100% CFC-free polyurethane foam core insulation for maximum protection against the elements. (R-value 18.4) Manufactured to the highest quality standards in the industry, all 450U doors come with proven tongue and groove section joints.

Hörmann commercial steel doors are available in a wide range of sizes and design options. Sophisticated engineering and state-of-the-art manufacturing provide the basis for durable, reliable and long-lasting quality products.

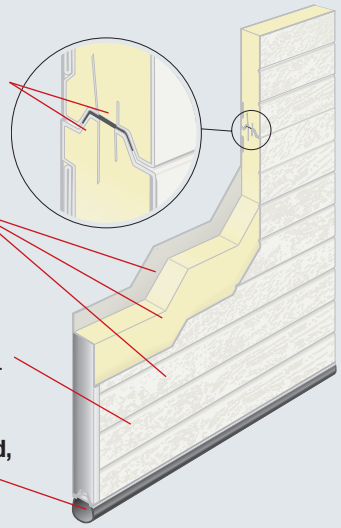
R-VALUE 18.4

Precisely designed thermally broken **tongue and groove section joints** reduce air infiltration and creates weather-tight seal.

Environmentally friendly **polyurethane foam core** is injected between **25 gauge galvanized steel** front and back. This provides maximum insulation for substantial energy savings.

Galvanized **finished painted steel** provides superior corrosion resistance for years of trouble-free performance.

The bottom weather seal **keeps out wind, rain, debris and other elements** for added energy savings.

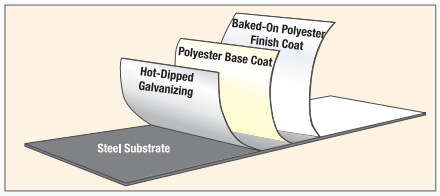


Hörmann Innovations

Safety

Hörmann 450U doors utilize safety fixtures on their bottom sections for added safety for your peace of mind.

Durability



450U door panels are prepared inside and out to offer maximum protection against the adverse effects of the elements to provide you with a long-lasting surface finish and reduced maintenance cost.

Engineering Excellence

Double end stile design adds to the door’s overall structural integrity and its long term performance.
Note: Double end stile is available as an upgrade for all door sizes, but standard for doors over 16’2” wide.

Panel Designs

Microgroove design

Colors

White

Sandstone

Metallic Silver

All colors shown as accurately as printing technology allows.

Surface Finish

Stucco

Series	450U
Steel Thickness	25 ga.
Section Thickness	2 in.
R - Value	18.4
Polyurethane Core Insulation	Standard
Panel Designs	
Microgroove	Standard
External Textures	
Microgroove	Stucco
Available Colors	
White	Standard
Sandstone	Standard
Metallic Silver (RAL 9006)	Optional
Windows Options	
24" X 6"	Optional
24" X 12"	Optional
Warranty	
Sections	10 years
Hardware	1 year

Window Options

Insulated glass is standard on all 450U doors.

Window 24" X 6"

Window 24" X 12"

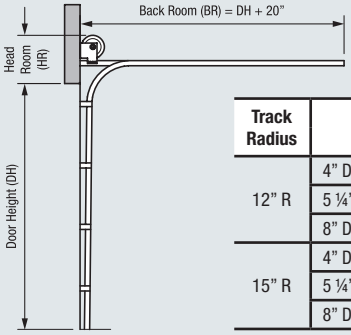
Note: All window sizes listed designate entire window fixture including the frame.

Window Arrangements (24" X 6" & 24" X 12")

Door Width	Maximum No. of Windows
Up to 9' 2"	2
9' 3" to 12' 2"	3
12' 3" to 16' 2"	4
16' 3" to 19' 2"	5
19' 3" to 24' 2"	6

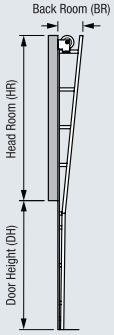
Head Room and Side Room Dimensions (typical)

Standard Lift Doors



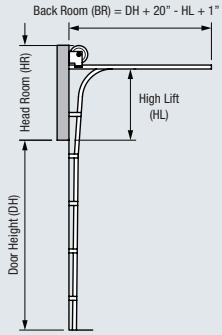
Track Radius	Drum Type	Head Room	
		2" Track	3" Track
12" R	4" Dia. Standard Lift	11"	–
	5 ¼" Dia. Standard Lift	14½"	–
	8" Dia. Standard Lift	*Special	–
15" R	4" Dia. Standard Lift	14 ¾"	15 ¾"
	5 ¼" Dia. Standard Lift	15 ½"	17 ½"
	8" Dia. Standard Lift	18 ¾"	20 ½"

Vertical Lift Doors



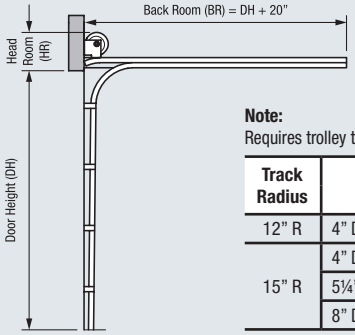
Head Room		Back Room	
2" Track	3" Track	2" Track	3" Track
DH + 9"	DH + 9"	16"	16"

High Lift Doors



Drum Type	Head Room	
	2" Track	3" Track
4" Dia. High-Lift Drum 54" of HL	HL + 8¼"	HL + 9¼"
5¼" Dia. High-Lift Drum 54" of HL	HL + 9¼"	HL + 10¼"
5¾" Dia. High-Lift Drum 120" of HL	HL + 12"	HL + 13"
6⅜" Dia. High-Lift Drum 164" of HL	HL + 12¾"	HL + 13¾"

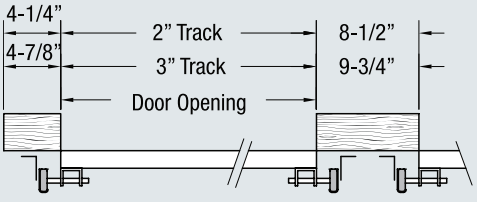
Low Head Room Doors



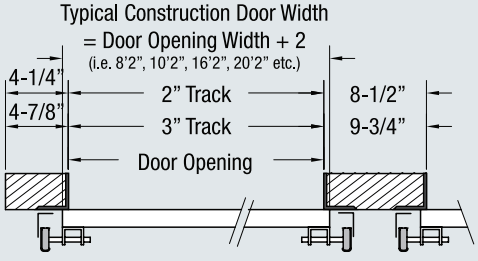
Note:
Requires trolley type Opener with brake for door to clear header.

Track Radius	Drum Type	Head Room	
		2" Track	3" Track
12" R	4" Dia. Standard Lift	10"	–
15" R	4" Dia. Standard Lift	10"	11½"
	5¼" Dia. Standard Lift	11"	12½"
	8" Dia. Standard Lift	14½"	16"

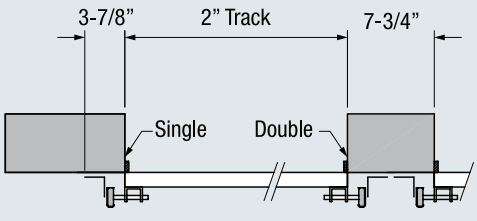
Side Room Dimensions



Continuous Angle Track
Wood Jambs



Reverse Angle Track
Steel / Masonry Jambs



Bracket Mounted Track

Please contact us for further details.

CSI Product Specifications

SECTION 08360 - SECTIONAL DOORS
450U Series Insulated Steel Sectional Doors
PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. All of the Contract Documents, including General and Supplementary Conditions, and Division 1 General Requirements, apply to the work of this Section.

1.02 SUMMARY

A. The work of this Section includes upward-acting sectional doors.
B. Related Sections: Other specification sections which directly relate to the work of this section include, but are not limited to, the following:
   1. Section 05500 - Miscellaneous Metal; metal framing and supports.
   2. Section 08710 - Finish Hardware; key cylinders for locks.
   3. Section 09900 - Painting; field painting.
   4. Section 16100 - Electrical; wiring.

1.03 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each type of sectional door. Include both published data and any specific data prepared for this project.
B. Shop Drawings: Submit shop drawings for approval prior to fabrication. Include detailed plans, elevations, details of framing members, required clearances, anchors, and accessories. Include relationship with adjacent materials.

1.04 QUALITY ASSURANCE

A. Manufacturer: Sectional doors shall be manufactured by a firm with a minimum of five years experience in the fabrication and installation of sectional doors. Manufacturers proposed for use, which are not named in these specifications, shall submit evidence of ability to meet performance and fabrication requirements specified, and include a list of five projects of similar design and complexity completed within the past five years.
B. Installer: Installation of sectional doors shall be performed by the authorized representative of the manufacturer.
C. Single-Source Responsibility: Provide doors, tracks and accessories from one manufacturer for each type of door. Provide secondary components from source acceptable to manufacturer of primary components.
D. Pre-Installation Conference: Schedule and convene a pre-installation conference just prior to commencement of field operations, to establish procedures to maintain optimum working conditions and to coordinate this work with related and adjacent work.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials and products in labeled protective packages. Store and handle in strict compliance with manufacturer's instructions and recommendations. Protect from damage from weather, excessive temperatures and construction operations.

PART 2 – PRODUCTS

2.01 ACCEPTABLE MANUFACTURER

A. Provide sectional doors by Hörmann LLC, Montgomery, Illinois; Telephone 877-654-6762 or 630-859-3000; Fax 630-859-8122.

2.02 INSULATED STEEL SECTIONAL DOORS

A. Trade Reference: 450U Series Insulated Steel Doors by Hörmann LLC.
B. Sectional Door Assembly: Insulated steel door assembly with tongue and groove meeting rails to form weather tight joints and provide full-width interlocking structural rigidity. Units shall have the following characteristics
   1. Panel Thickness: 2"
   2. Exterior Surface: Microgroove
   3. Section Joint: Sections to form a weather tight tongue and groove fit.
   4. Material: G-40 galvanized steel, complying with ASTM A-929, A-653, exterior and interior skins bonded with polyurethane foam.
   5. Exterior Skin: Minimum 25 gauge exterior steel face sheet.
   6. Interior Skin: 25 gauge interior steel face sheet with stucco texture. Color: white.
   7. End Caps: 20 gauge galvanized steel primed with white baked-on polyester top coat. (Thicker gauges available if needed.)
   8. Standard Springs: 10,000 cycles. (Higher cycles available)
   9. Insulation: Polyurethane, R-value 18.4
   10. Partial Glazing of Steel Panels: (Insulated or non-insulated double strength glass available.) (Not Required.)
C. Finish and Color: Factory-applied baked-on White, Sandstone or Metallic Silver polyester.
D. Wind load Design: ANSI/DASMA 108 and 115 standards and as required by code.
   Hardware: 13 Gauge or greater galvanized steel two pieced hinge assembly and fixtures. Ball bearing rollers with hardened steel races.
   Lock: Interior mounted slide lock. (Keyed lock.)
   Weatherstripping: Flexible PVC on bottom section. (Header seal and jamb weatherstripping.)
   Track: Provide track as recommended by manufacturer to suit loading required and clearances available. Note: Select type of operation
E. Manual Operation: Manual pull rope. (Chain hoist.)
F. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second.
   1. Entrapment Protection: (Pneumatic sensing edge up to 18' wide) (Electric sensing edge.) (Photoelectric sensors.)
   2. Operator Controls: (Push-button) (Key) (Push-button and key) operated control stations with open, close, and stop buttons for (flush) (surface) mounting, for (interior) (exterior) (both interior and exterior) location. Note: Select from below as applicable
   3. Special Operation: (Pull-rope release automatic opening device, vehicle detector operation, radio control operation, card reader control, photocell operation, door timer operation, commercial light package, explosion and dust ignition proof control wiring.)

PART 3 – EXECUTION

3.01 PREPARATION

A. Take field dimensions and examine conditions of substrates, supports, and other conditions under which this work is to be performed. Do not proceed with work until unsatisfactory conditions are corrected.

3.02 INSTALLATION

A. Strictly comply with manufacturer's installation instructions and recommendations. Coordinate installation with adjacent work to ensure proper clearances and allow for maintenance.
B. Instruct Owner's personnel in proper operating procedures and maintenance schedule.

3.03 ADJUSTING AND CLEANING

A. Test sectional doors for proper operation and adjust as necessary to provide proper operation without binding or distortion.
B. Touch-up damaged coatings and finishes and repair minor damage. Clean exposed surfaces using non-abrasive materials and methods recommended by manufacturer of material or product being cleaned.

AVAILABLE FROM:

Eastern & Central Time Zones
Hörmann, LLC
450 Airport Road, Sparta, TN 38583
Email: info1@hormann.us
website: www.hormann.us

Mountain & Western Time Zones
Hörmann Northwest Door, LLC
19000 Canyon Road East, Puyallup, WA 98375
Email: info@northwestdoor.com
website: www.northwestdoor.com

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