

Choice and Quality

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

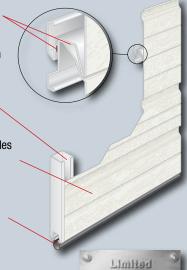
Two thicknesses are available: **25 gauge (.019" min.)** steel for H-225P and **24 gauge (.022" min.)** for H-224P, both are hot-dipped and galvanized. No matter which door suits your needs best, all H-225P and H-224P doors are manufactured to the highest quality standards and come with FingerGuard™ pinch-resistant section joints as standard.

Deep tongue and groove section joint contribute to the door's **excellent strength**. Intermediate seals prevent air infiltration, which enhances the **insulation** properties.

Fully boxed end and center stiles add additional structural integrity.

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

The heavy duty aluminum retainer and bottom weather seal limits corrosion and keeps out wind, rain, debris and other elements for added energy savings.



10 Year Warranty

Energy-efficient vinyl back

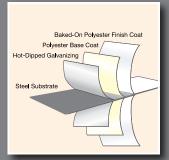


The optional full cavity HCFC-free polystyrene insulation with vinyl back cover provides enhanced energy efficiency R value 7.4 and sound-dampening qualities. This improves overall energy savings while contributing to a quiet working environment.



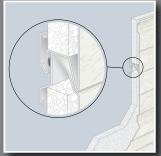
Engineering Excellence

- Fully boxed end and center stiles provide structural integrity for trouble-free operation
- Unique precision steel hinges with solid pivoting shaft to minimize wear on moving parts to provide long service life
- Deep tongue and groove section profile adds to the door's overall structural integrity and its long term performance



Durability

H-225P and H-224P 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. First, hot-dipped galvanizing is applied to the steel substrate, followed by a baked-on polyester base coat and a durable baked-on polyester finish coat



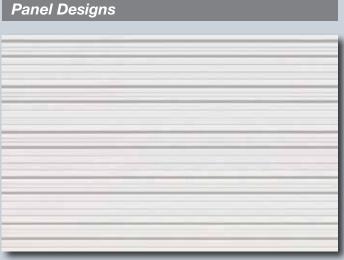
Against Elements

A commercial grade material was carefully selected to maximize protection from outside elements. The between section seal is constructed of a special heavy duty material that acts as a gasket between sections to reduce the air infiltration while further enhancing the insulation properties of a door.



Safety

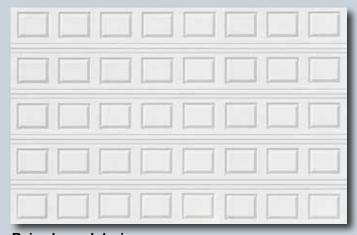
The uniquely designed FingerGuard™ pinchresistant section joints prevent fingers from getting caught between the door sections. This increases the safety of your facility and reduces the risk of injuries which may result in worker's compensation claims.



Ribbed design



Flush design (H-224P only)



Raised panel design

Surface Finishes



Stucco (Ribbed & Flush)

Woodgrain (Raised panel)

Regardless of the color you choose, all of our surface finishes provide a durable baked-on polyester finish coat offering a long-lasting, attractive appeal.

Colors



All colors shown as accurately as printing technology allows. *Not available for H-224P Series

Window Options



Window 24" X 6"



Window 24" X 12"

Single pane is standard for non-insulated doors. Insulated glass is standard for both vinyl back insulated and sandwich doors.

The number of windows available per section depends on the door width. For raised panel designs, see dealer for window options.

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



Opti-View Windows (Not available for raised panel design)

Hörmann Opti-View is the optimum choice for commercial applications where maximum light and visibility is required. The Opti-View window design offers similar features as other full view window designs.

Clear single pane tempered glass is standard for both insulated and non-insulated doors. The number of windows available per section depends on the door width.

Window Arrangements (Opti-View)

Door Width	Maximum No. of Windows
8', 8'2", 9' & 9'2"	2
10', 10'2", 12' & 12'2"	3
14', 14'2", 16' & 16'2"	4

Series	H-225P	H-224P	
Steel Thickness	25 ga.	24 ga.	
Section Thickness	2 in.	2 in.	
R - Value	Up to 7.4 with Optional Insulation		
Polystyrene Core Insulation	Optional	Optional	
Panel Designs			
Ribbed	Standard	Standard	
Flush	N/A	Standard	
Traditional Raised Panel	Standard	Standard	
External Textures			
Ribbed	Stucco	Stucco(Smooth Opt.)	
Flush	N/A	Stucco	
Raised Panel	Woodgrain	Woodgrain	
Available Colors			
White	Standard	Standard	
Sandstone	Standard	Standard	
Brown	Standard	Standard	
Industrial Grey	Optional	N/A	
Windows Options			
24" X 6"	Optional	Optional	
24" X 12"	Optional	Optional	
Opti-View	Optional	Optional	
Warranty			
Sections	10 years		
Hardware	1 year		

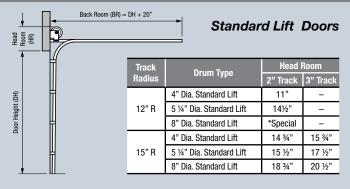
Section Arrangements

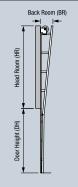
Door Height	No. of Sections	
Up to 8'0"	4	
8'9" to 10'0"	5	
10'6" to 12'0"	6	
12'3" to 14'0"	7	
14'3" to 16'0"	8	
16'3" to 18'0"	9	

Additional Options

- · Various track options
- Full perimeter weatherseal
- Top header seal
- Keyed locks
- Extended cycle springs 25k, 50k & 100k
- · Special windload ratings
- Chain hoist operation
- Full range of electric openers and safety devices

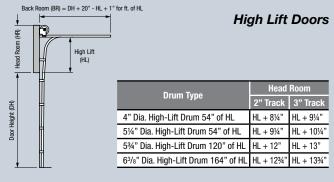
Head Room and Side Room Dimensions (typical)

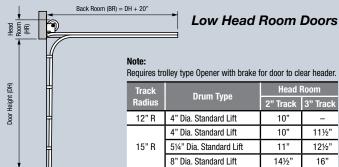


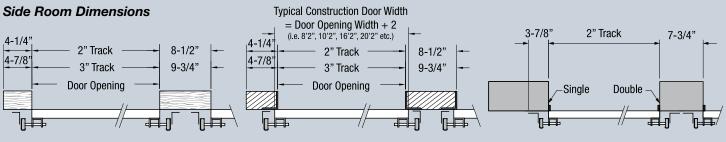


Head Room Back Room 2" Track 3" Track 2" Track 3" Track DH + 9" 16" 16"

Vertical Lift Doors







Continuous Angle Track Wood Jambs Reverse Angle Track Steel / Masonry Jambs **Bracket Mounted Track**

CSI Product Specifications

SECTION 08360 - SECTIONAL DOORS

H-225P (H-224P) Series 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

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
- 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

ACCEPTABLE MANUFACTURER

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

- A. Trade Reference: H-225P (H-224P) Series Steel Doors by Hörmann LLC.
- B. Sectional Door Assembly: Non-insulated or optional Insulated steel door assembly with pinch resistant rabbeted 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: Ribbed. (Also available in flush or raised panel)
 - 3. Section Joint: Sections to form a weather tight tongue and groove pinch resistant fit.
 - Material: Hot-dipped galvanized steel, complying with ASTM A-929, A-653.
 - 5. Exterior Steel: Minimum 24 (25) gauge exterior.
 - 6. Center and End Stiles: 20 gauge galvanized steel.
 - 7. Standard Springs: 10,000 cycles. (Higher cycles available)
 - 8. Insulation: Optional HCFC-free Polystyrene, R-value 7.4 with optional Polystyrene with vinyl backcover.
 - Partial Glazing of Steel Panels: (Insulated or non-insulated double strength glass available.) (Not Required.)
 - 10.Full Glazing Requiring Aluminum Sash Panels: (Acrylic glazing.) (1/8" double strength glass.) (Insulated double strength glass.) (Not Required.)
- Finish and Color: Factory-applied baked-on White (or Brown). (Series 225P also available in Sandstone or Industrial Grey) polyester.
- Wind load Design: ANSI/DASMA 108 and 115 standards and as required by code.

Hardware: 13 Gauge 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.)
- 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

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AVAILABLE FROM:

Call us ▶ 1 877 OK HORMANN (1-877-654-6762)

Hörmann LLC, 5050 Baseline Road, Montgomery, Illinois 60538 Phone: 630-859-3000 Fax: 630-859-8122 Email: info@hormann.us www.hormann.us







