**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.

**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.

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**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™ pinch-resistant 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.
**Panel Designs**

- 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**

- White
- Sandstone
- Brown
- Industrial Grey *(optional)*

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”)**

<table>
<thead>
<tr>
<th>Door Width</th>
<th>Maximum No. of Windows</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 9’ 2”</td>
<td>2</td>
</tr>
<tr>
<td>9’ 3” to 12’ 2”</td>
<td>3</td>
</tr>
<tr>
<td>12’ 3” to 16’ 2”</td>
<td>4</td>
</tr>
<tr>
<td>16’ 3” to 19’ 2”</td>
<td>5</td>
</tr>
<tr>
<td>19’ 3” to 24’ 2”</td>
<td>6</td>
</tr>
</tbody>
</table>

**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)**

<table>
<thead>
<tr>
<th>Door Width</th>
<th>Maximum No. of Windows</th>
</tr>
</thead>
<tbody>
<tr>
<td>8’, 8’2”, 9’ &amp; 9’2”</td>
<td>2</td>
</tr>
<tr>
<td>10’, 10’2”, 12’ &amp; 12’2”</td>
<td>3</td>
</tr>
<tr>
<td>14’, 14’2”, 16’ &amp; 16’2”</td>
<td>4</td>
</tr>
</tbody>
</table>
Please contact us for further details.

<table>
<thead>
<tr>
<th>Series</th>
<th>H-225P</th>
<th>H-224P</th>
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<tbody>
<tr>
<td>Steel Thickness</td>
<td>25 ga.</td>
<td>24 ga.</td>
</tr>
<tr>
<td>Section Thickness</td>
<td>2 in.</td>
<td>2 in.</td>
</tr>
<tr>
<td>R - Value</td>
<td>Up to 7.4 with Optional Insulation</td>
<td></td>
</tr>
<tr>
<td>Polystyrene Core Insulation</td>
<td>Optional</td>
<td>Optional</td>
</tr>
</tbody>
</table>

**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 |

**Head Room and Side Room Dimensions (typical)**

### Standard Lift Doors

<table>
<thead>
<tr>
<th>Track Radius</th>
<th>Drum Type</th>
<th>Head Room</th>
</tr>
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<tbody>
<tr>
<td>12&quot; R</td>
<td>4&quot; Dia. Standard Lift</td>
<td>11&quot;</td>
</tr>
<tr>
<td></td>
<td>5 ¼&quot; Dia. Standard Lift</td>
<td>14½&quot;</td>
</tr>
<tr>
<td></td>
<td>8&quot; Dia. Standard Lift</td>
<td><em>Special</em></td>
</tr>
<tr>
<td>15&quot; R</td>
<td>4&quot; Dia. Standard Lift</td>
<td>14 ¼&quot;</td>
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### Vertical Lift Doors

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<td></td>
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<td>5 ¼&quot; Dia. High-Lift Drum 54&quot; of HL</td>
<td>HL + 10¼&quot;</td>
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<tr>
<td>5½&quot; Dia. High-Lift Drum 120&quot; of HL</td>
<td>HL + 12½&quot;</td>
</tr>
<tr>
<td>8½&quot; Dia. High-Lift Drum 164&quot; of HL</td>
<td>HL + 13½&quot;</td>
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### Low Head Room Doors

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<td>10&quot;</td>
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**Side Room Dimensions**

- Continuous Angle Track
  - Wood Jambs
- Reverse Angle Track
  - Steel / Masonry Jambs
- Bracket Mounted Track
  - Single
  - Double

**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

**Series H-225P H-224P**

<table>
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<tr>
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**Panel Designs**
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- Ribbed | Stucco | Stucco (Smooth Opt.) |
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**Available Colors**
- White | Standard | Standard |
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- Brown | Standard | Standard |
- Industrial Grey | Optional | N/A |

**Windows Options**
- 24" X 6" | Optional | Optional |
- 24" X 12" | Optional | Optional |
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**Head Room and Side Room Dimensions (typical)**

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**Side Room Dimensions**

- Continuous Angle Track
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- Bracket Mounted Track
  - Single
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**Please contact us for further details.**
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 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 STEEL SECTIONAL DOORS
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.
   7. Standard Springs: 10,000 cycles. (Higher cycles available)
   8. Insulation: Optional HCFC-free Polystyrene, R-value 7.4 with optional Polyisocyanurate with vinyl backcover.
   9. Door 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.)

C. Finish and Color: Factory-applied baked-on White (or Brown). (Series 225P also available in Sandstone or Industrial Grey) polyester.

D. Wind load Design: ANSI/DASMA 108 and 115 standards and as required by code.

E. Hardware: 13 Gauge galvanized steel two piece hinge assembly and fixtures. Ball bearing rollers with hardened steel races. Lock: Interior mounted slide lock. (Keyed lock.)

F. Weatherstripping: Flexible PVC on bottom section. (Header seal and jamb weatherstripping.)

G. Track: Provide track as recommended by manufacturer to suit loading required and clearances available. Note: Select type of operation

H. Operator: Manual pull rope. (Chain hoist.)

I. 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 Control: 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

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 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.

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