

## The Strength To Keep Out Noise And Weather

Haas commercial insulated doors stand up to the elements, while dramatically decreasing exterior noise and enhancing the overall aesthetics of your building at the same time. Choosing one of our insulated doors will help increase energy savings, as our CFC-free polyurethane provides one of the highest R values available in sectional doors.

Haas garage doors are made from steel that contains 80% recycled material. They are reinforced with roll-formed galvanized steel struts and double-end hinges, as required to meet wind load specifications and to comply with ANSI/DASM 102-2004. The protective coating system is found on both the interior and exterior steel.



## Weather Seal and Wind Load

A full-length, one-piece heavy vinyl bottom weather seal prevents infiltration of air, rain, snow and debris. The seal reduces impact shocks when the door is closed against concrete flooring.

Haas garage doors are available in a wide range of design pressures for wind load requirements. Contact your local Haas Door dealer for more information about wind load requirements in your area.



## Full Thermal Break

A full Thermal Break is used in the tongue-and-groove construction of all commercial insulated doors. This rigid vinyl extrusion seals the joints and eliminates metal-to-metal contact between door sections, which limits the transfer of temperature. This also provides optimum water and wind resistance.



## CFC-Free Polyurethane Foam Construction

The polyurethane foam in a Haas garage door section is fully enclosed inside the steel skins. This design puts the insulation properties of polyurethane foam far ahead of polystyrene foam for performance and value.

Polyurethane foam is a two-part system. It begins with two chemical blends that when mixed together expand and cure to fill the garage door panel. During the expansion, the foam completely fills the inside of the panel and becomes fully adhered to the steel skins of the garage door panel to form a composite structure that is of exceptional strength and rigidity. Polyurethane foams are very stable when encapsulated inside a garage door section.



Insulating with polyurethane provides a superior product with higher insulation properties and a stronger unitized section.

## Unique Paint System

All Haas steel garage doors include a three-tier, corrosion-resistant protective paint system with a polyurethane primer and durable polyester finish coat on the interior and exterior. Haas Door's paint thickness is one of the highest in the industry and most insulated door models are available in 10 colors.



## Hard Working Hardware

The track is 2" or 3" galvanized steel, depending on door size, with bracket mount for wood jambs or continuous reverse mounting for steel jambs. For angle-mount track, door widths are 2" wider than the opening. Track rollers are 2" or 3" case-hardened inner and outer steel races with 10-ball pre-lubricated bearings. Hinges, brackets, and reinforcing struts are hot-dipped galvanized steel. Fasteners are plated for maximum corrosion resistance. Counterbalancing springs are torsion type, computer calibrated to match door load. This provides a 10,000-cycle life at the minimum; optional spring wires can achieve 25,000, 50,000 and 100,000 cycle requirements. Springs are wound from oil-tempered wire and mounted on a continuous cross header tube or solid shaft, as determined by torque load.



Contact one of our professional dealers for information on additional options, including: exterior cylinder locks, chain hoist operation, safety bottom brackets, and special lift clearance tracks (high lift, vertical lift, low headroom, and those that follow the roof line).



Optional Aluminum Full View sections on the 2000 & 700 Series provide maximum light and visibility with available insulated glazing. Full view sections are available in 7 colors.

Custom pass through doors are also available on the 2000 & 700 Series.



## Commercial Insulated Quick Reference

Series	Thickness	R-Value*
800	3"	25.8
2000	2"	17.66
700	1 <sup>3</sup> / <sub>4</sub> "	16.18
600	1 <sup>3</sup> / <sub>8</sub> "	13.45

\*calculated R-Value