

Heatscreen™ Oven Panels and Enclosures

a McGill AirSilence™ product

United McGill® products



Heatscreen oven panels have excellent thermal properties

McGill AirSilence's Heatscreen oven enclosures are an excellent choice where the process requires controlled application of heat for baking, drying, or curing. They have low leakage, excellent thermal properties, and a large selection of design options and accessories to meet a customer's specific needs. Applications include designs for the paint finishing, powder coating, food processing, baking, pharmaceutical industries, and others.

Design Features

- The Heatscreen oven panel is designed for internal temperatures up to 600°F. The tongue-and-groove joint allows easy on-site assembly.
- The oven enclosure's roof is designed to vent and relieve excessive internal pressures.
- The panel's no penetration design eliminates places where debris, bacteria, mold, vermin, or insects can enter, collect or grow.
- Enclosures do not exceed the L/200 deflection limit for a 10-foot panel with a 600-pound load applied.

Options

- Pre-hung safety doors
- Glass ceramic windows
- Custom profile cutouts
- Enclosures can be preassembled

Oven Panel Construction

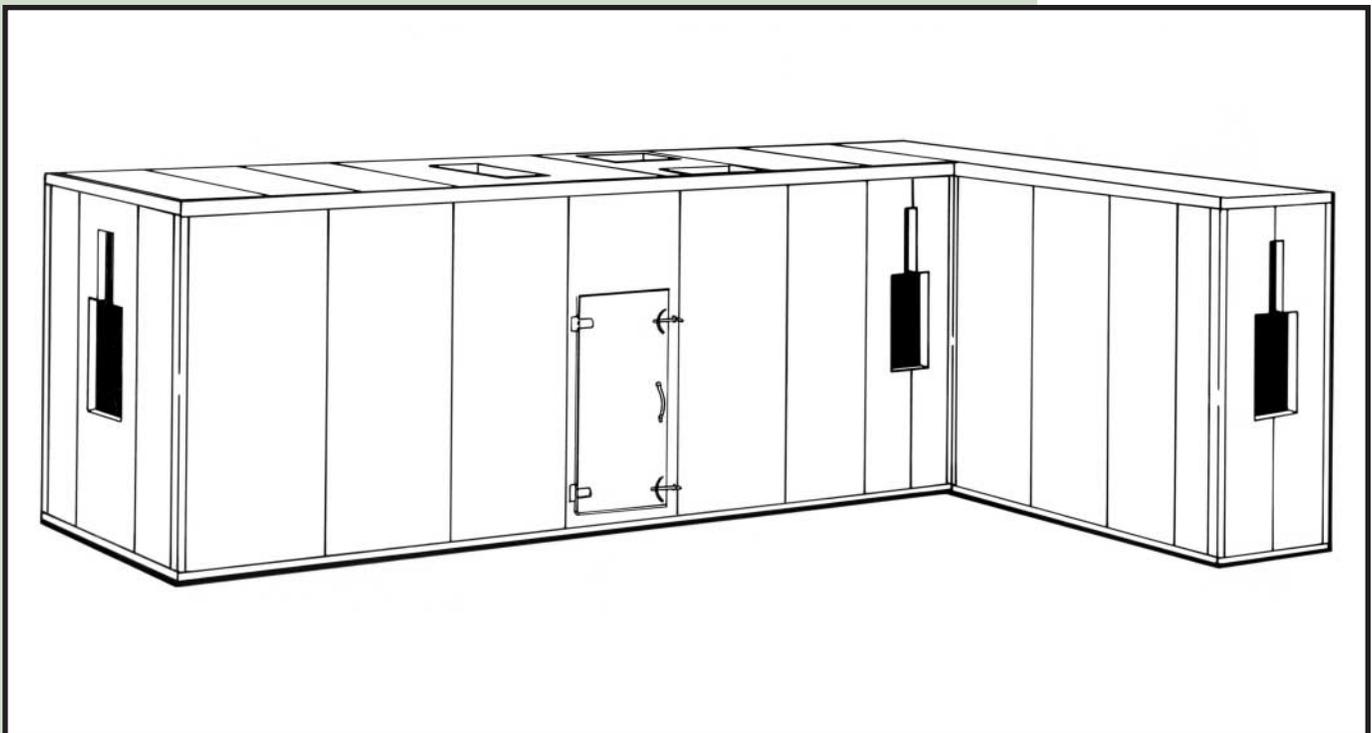
The McGill AirSilence Heatscreen oven enclosures are constructed from our oven panels (Figure 1) that are designed to minimize heat transfer. The standard wall, roof, and floor oven panels consist of a sandwich construction of an outer metal shell, thermal insulating fill, and an

Heatscreen Oven Panel Standard Dimensions

Panel Type	Thickness	Width ¹	Length ²
Wall and Roof	4 or 6 inches	24 inches	Up to 10 feet
Floor	4 inches	24 inches	Up to 10 feet

¹ Custom widths are available by special order.

² Longer lengths are available by special order.



Typical Heatscreen oven enclosure

inner metal liner. The wall panels can be manufactured from galvanized, stainless steel, or aluminized metals in 16- through 20-gauge thicknesses. All longitudinal joining channels and internal reinforcing members in Heatscreen oven panels are fabricated from a minimum of 18-gauge steel.

Insulation

The thermal insulating fill used in all standard Heatscreen oven panels is mineral wool insulation. It will not settle or promote the growth of bacteria, mold, vermin, or insects.

Surface Burning Characteristics

All insulating materials, inner and outer surfaces, and sealer used in Heatscreen oven panels and enclosures meet the requirements of NFPA-90A.

Joint Construction

The Heatscreen oven panel features an easy to install slip-fit, tongue-and-groove joint (Figure 2).

Panel Assembly

The panel assembly sequence illustrated in Figure 2 shows the assembly of the oven panel system. First, a panel is placed in the base made of two angles that allow a thermal break. A second adjoining panel is then placed in the base and aligned with the first panel. The tongue end of the second panel is started into the groove end of the first panel and maneuvered into place. Top and bottom of the panels are secured mid-span to the trim to allow small thermal expansion to occur at the joint. A bead of non-hardening, thermal sealer is then run along the entire length of the outside surface in the recess formed by the mating of the tongue-and-groove ends of the two panels.

Roof panels are connected with explosion relief screws.

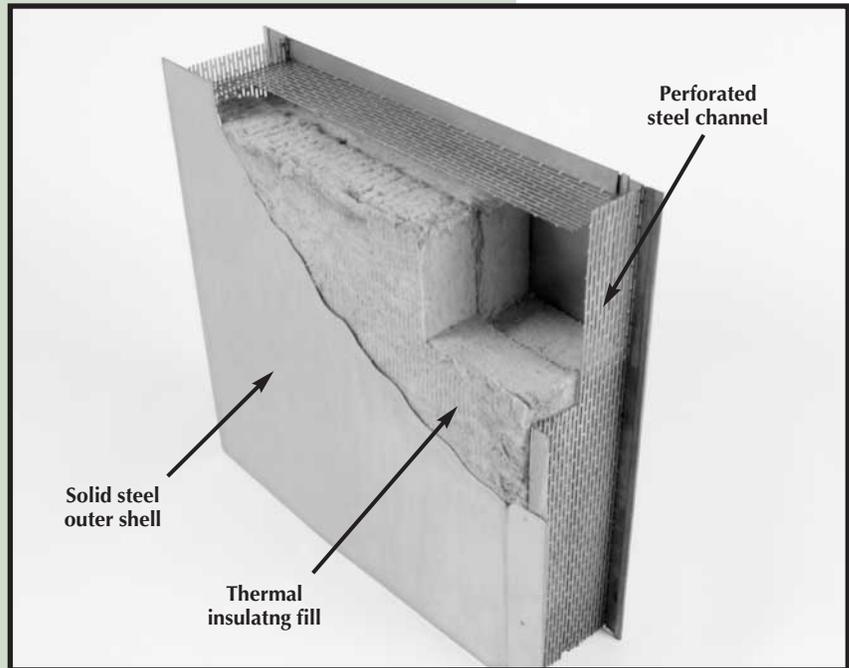


Figure 1—Oven panel construction

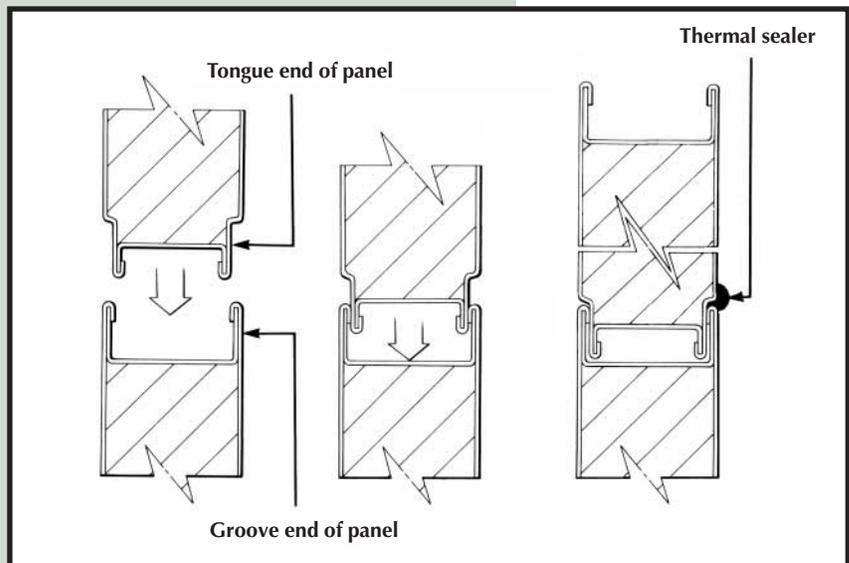


Figure 2—Assembly oven panel

Products depicted in this brochure were current at the time of publication. As a quality-conscious manufacturer, McGill AirSilence is continually seeking ways to improve its products to better serve its customers. Therefore, all designs, specifications, and product features are subject to change without notice.

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