

**An Ounce of Prevention**

Elisha Graves Otis invented the "safety elevator" in 1853, and since then safety has been at the heart of Otis equipment and maintenance.

Although the public may take it for granted, passenger safety is the result of countless details in the equipment's design, manufacture and preventive maintenance.

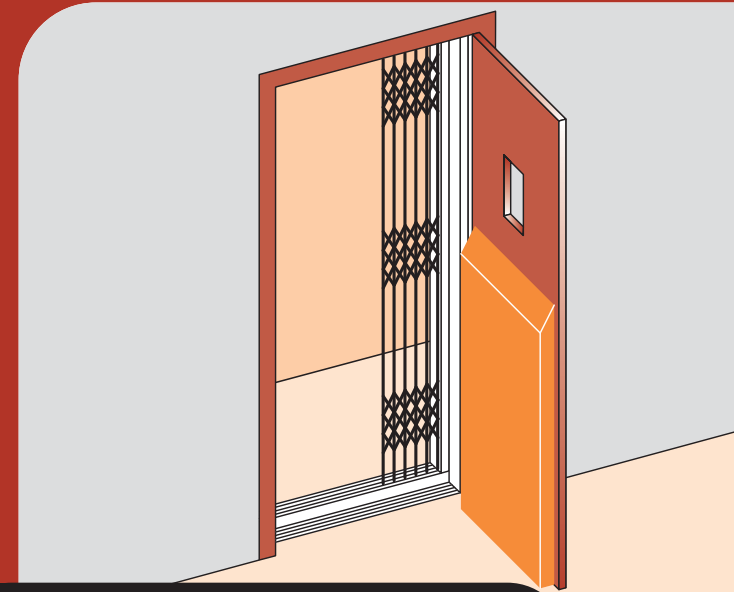
**This Otis Safety Guide was created to help you prevent situations that can pose safety risks.**



**WARNING**

**THE SPACE BETWEEN THE ELEVATOR AND HOISTWAY DOORS MAY RESULT IN A CHILD OR SMALL ADULT BECOMING ENTRAPPED, SERIOUSLY INJURED, OR KILLED IF THE ELEVATOR MOVES.**

**INSTALLATION OF SPACE GUARDS CAN GREATLY REDUCE THE RISK OF SERIOUS INJURY.**



**Swing Doors**

**the safety risk**



**WARNING**  
**IMPORTANT ELEVATOR SAFETY INFORMATION BULLETIN: READ ENCLOSED WARNINGS AND SAFETY INFORMATION.**



**Otis**

A United Technologies Company

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## Swing Doors—the safety risk

Elevators often last as long as the buildings in which they are installed. Consequently, while they met safety codes and standards of their era, many elevators have not been updated to meet today's codes.

In particular, many elevators installed with swing-type hoistway doors do not meet the current ASME and CAN/CSA-B44 elevator Codes requiring that the space between the hoistway door and the elevator car gate be no more than 4 inches (100mm), or 5-1/2 inches (140mm) if the car has a door. This space requirement first appeared in the ASME A17.1-1937 and CAN/CSA-B44 – 1938 Codes for new elevators, and was adopted in the 1986 ASME A17.3 Code for existing elevators.\* However, since many local authorities have not yet adopted the Codes, there are still many elevators in use today that have a much wider space between the doors.

In many of these elevators, the space between the car gate (often a scissors-type or collapsible gate) and the hoistway door can be as wide as 7 inches (178mm) or greater. This space is wide enough for a child or small adult to become entrapped between the car gate and the hoistway door when the hoistway door closes.

**There have been multiple deaths and serious injuries on elevators equipped with swing-type hoistway doors, in which children who were trapped in this space were crushed or killed when the elevator car moved.**

\* Canada does not have a code for existing elevators equivalent to A17.3.

## Space guards—the solution

Otis strongly recommends that swing-door elevators be fitted with a space guard in accordance with the ASME A17.3 - 2002 Code. The Code requires that when the distance between the hoistway door and the car gate is greater than 4 inches (100mm), or 5-1/2 inches (140mm) for a car door, three conditions must be met:

1. **A space guard made of sheet metal must be provided. This space guard, sometimes known as a “baffle,” must be attached to the hoistway door (see illustration A). The guard is to be mounted on the door by tamper-proof means.**
2. **The vertical face of the space guard should extend at least 40 inches (1,016mm) up from the bottom of the door (see illustration B). Some earlier space guard designs are ineffective because they only fill the space at the bottom of the door. Consequently, a child or small adult can stand on the guard, still be trapped, and crushed or killed when the car moves.**
3. **The top face of the space guard should be set at a 60 to 75 degree angle (see illustration B).**

**With the appropriate space guards installed, the room for a child or small adult to be trapped is greatly reduced, thus decreasing the risk of serious injury or death.**

*If the space between the car door or gate and hoistway door is less than what is permitted by Code, then a space guard is not required per ASME A17.3 - 2002.*

## For Additional Information

Call 1-888-458-OTIS (6847) or visit [www.otis.com](http://www.otis.com)

Illustration A

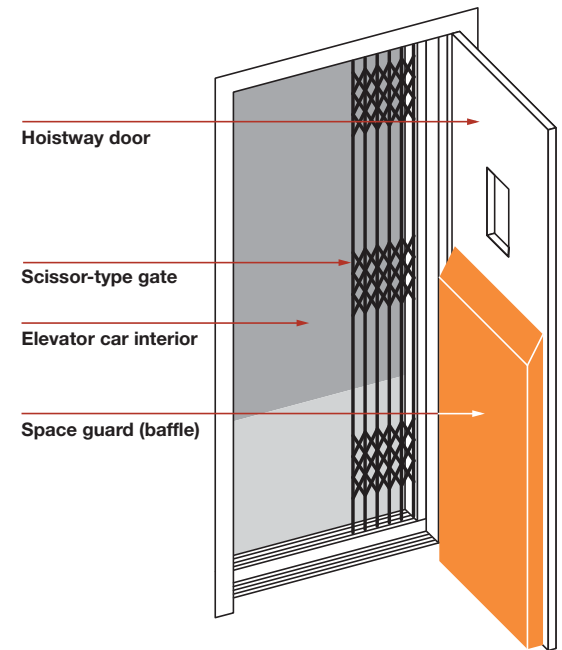


Illustration B

