

Entrapment: Objects or people?

Editor's note:

In this installment of the Tech Corner, DASMA Technical Director Dave Monsour discusses the entrapment provisions in codes and standards relating to door operators and gate operators and details what they apply and do not apply to.

A common question that arises in our industry can be paraphrased as: "The gate hit my car, but the property manager says nothing is wrong with the gate. Does DASMA agree with that?"

Let's examine the elements and follow-up topics that stem from such a question.

Q – Where are the rules for entrapment protection for automated gates and doors written down?

A – The ANSI/CAN/UL 325, "Standard for Safety, Door, Drapery, Gate, Louver, and Window Operators and Systems" is the main document for this information. Refer to Chapters 31 and 33 for door operators and Chapter 32 for gate operators. The ASTM F200, "Standard Specification for Automated Vehicular Gate Construction," is another source for gate operators.

Q – Are these documents the law?

A – The residential garage door operator provisions have been in the Code of Federal Regulations for over 30 years. The rules for commercial door operators and gate operators have become law in many states through the adoption of building codes.

Q – What is "entrapment"?

A – Entrapment is defined as "The condition when an object is caught or held in a position that increases the risk of injury."

Q – So, UL 325 protects objects?

A – It can, but that is not the intention. The intention, as stated in the definition, is to protect persons from injury.



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The rules are designed to protect people because the safety of people is the top priority for the manufacturers of these products and the industry as a whole.

Q – How are the rules designed to protect people?

A – In many ways. For example, the required height of photo-eye is set at 6" in order to detect a child laying on the floor. The contact reversal test uses a 2 x 4 board laid flat for a similar reason. Rules for gates also contain many built-in features to protect people, such as a 2-1/4" maximum gap spacing to keep out arms and legs.

Q – Why can't the rules protect property as well as people?

A – The rules are designed to protect people because the safety of people is the top priority for the manufacturers of these products and the industry as a whole. The safety rules in UL 325 and ASTM F2200 offer excellent protection for users of automated gates and doors – provided they are followed by manufacturers, dealers, installers, and end users.

Contact us

If you have questions about this topic or suggestions for future content, please email Dave Monsour at dasma@dasma.com. ■

