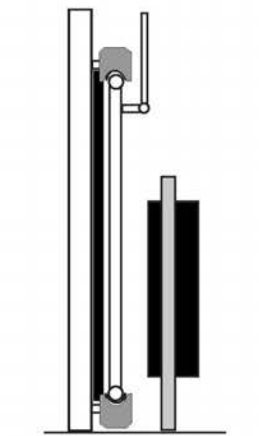
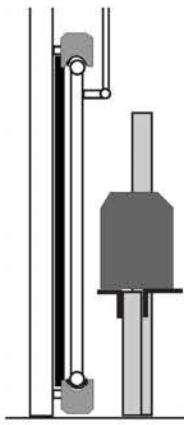


Fall Over Prevention

The UL 325 & ASTM F2200 standards specify that design must prevent the gate from falling over beyond 45 degrees if it becomes disconnected from its mounting posts or hardware. In some instances, a separate post must be added. The added post must be over 16" from the moving part of the gate.



The operator posts here provide the necessary fall over prevention.



One of the operator posts may be extended to provide the necessary fall over prevention.

General

(not required by UL 325 or ASTM F-2200 but highly recommended):

If privacy slats, large or multiple signs, screening or solid panels are to be added now or at a later date, the gate operator & gate design will be quite different from an "open air" gate. Please bring this to our attention, asap.

NOTE: Reference to ASTM & UL standards is not meant to infer or imply that the equipment alone will provide a finished system at the site that is compliant with either. Design components which include compliance from the fencing contractor, the owner and other site vendors may be required.

Submitted by:
Chuck Leavines, CAGSD, DCAV of *Mid-Atlantic Entry Systems, Inc.*

Prepared by:
Dan Cone of *C-GATE ENTRY SYSTEMS, LTD.*

WARNING (requirements of UL 325, Sixth Edition and / or ASTM F-2200-14):

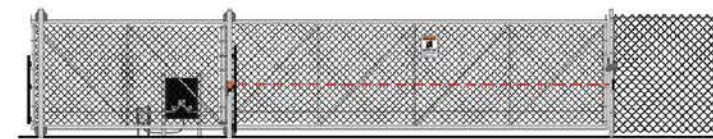
- If manufactured after March 1, 2000, the gate operator must be listed / labeled by a Nationally Recognized Testing Laboratory (NRTL) such as UL or ETL.
- Slide gates must be easily operated manually in order to be automated. An automatic gate operator will not compensate for a gate that is difficult to operate by hand.
- Gates must be level and if disconnected from the operator, the gate cannot move due to the force of gravity alone.
- Slide gates must have permanent stops at the limits of gate travel.
- The gate must be designed with sufficient lateral stability to assure that it enters the receiver (gate catch.) We recommend that slide gates over 24' opening size be built with an outrigger.
- Because motorized gates are for vehicular traffic only, a separate access point or walk through gate must be supplied for pedestrian use.
- Monitored external sensors must be installed for pedestrian protection across the gate opening while CLOSING and for the gate travel while OPENING. The gate will NOT operate without them!
- No gate controls or walk gates can be located within 6' of any moving part of the gate except controls specifically designed for use by First Responders (Knox box, etc.)
- The entire length of a slide gate, including the tail section & any fence beside it, for the entire length of the gate in its open position must be designed or screened to 6' above grade so that a 2-1/4" sphere may not pass through (chain link fabric meets the standard.) Ornamental gates with vertical pickets 2-1/4" apart or more MUST be screened.
- All potential pinch points and areas of potential entrapment must be eliminated by design or guarded. All stationary items like walls, posts, etc. must be less than 2-1/4" or more than 16" away.
- Design must prevent the gate from falling over beyond 45 degrees if it becomes disconnected from its mounting posts or hardware.
- Cantilever gates must have roller covers on exposed, weight bearing rollers less than 8' above grade.
- The gate must have a smooth bottom, no pickets can extend below the bottom rail.
- The gate receiver (gate catch) cannot extend into the gate opening.
- Warning signs must be clearly visible on both sides of the gate.

Slide Gate Design and the UL 325 Standard / ASTM F2200

COMPLIANCE TO THE UL 325 SIXTH EDITION & ASTM F2200-14 STANDARDS, UPDATED JANUARY 12, 2016

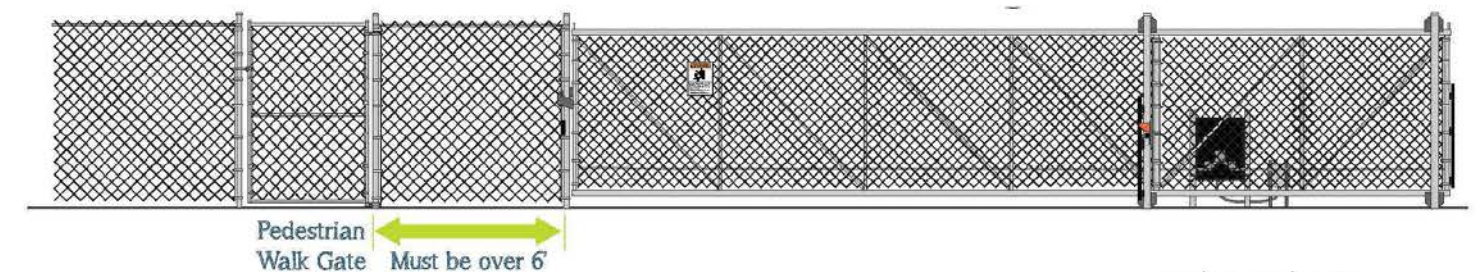
What changes in UL 325 should I be concerned about?

Some of the changes that came into effect January 12, 2016 are simply clarifications. One changes the way an automatic gate installation is made "people safe." Here is a synopsis. If your gate operator was manufactured between March 1, 2000 and January 12, 2016, you must protect pedestrians by adding at least one external safety device like a photo eye or "bump" edge, presumably for the opening and/or closing direction or where serious danger of entrapment exists.



If manufactured after January 14, 2016, at least one external safety device like a photo eye or "bump" edge, MUST be added for BOTH the opening and closing directions. Where the danger of entrapment exists, adding the pictured guarding to the area is required. Additionally, the safety devices must be monitored. This means that if they are absent or not working, the gate operator will not function.

This article is designed to help you understand what is required for an automatic gate installation to comply with the safety standards. The information will also act as a guide for Safety Upgrades to existing slide gates.



An often overlooked item required in the UL 325 & ASTM F2200 standards is a separate access point or walk gate for use by pedestrians. If the gate can be walked around (there is no fence or limiting factor preventing it) no walk gate is required.

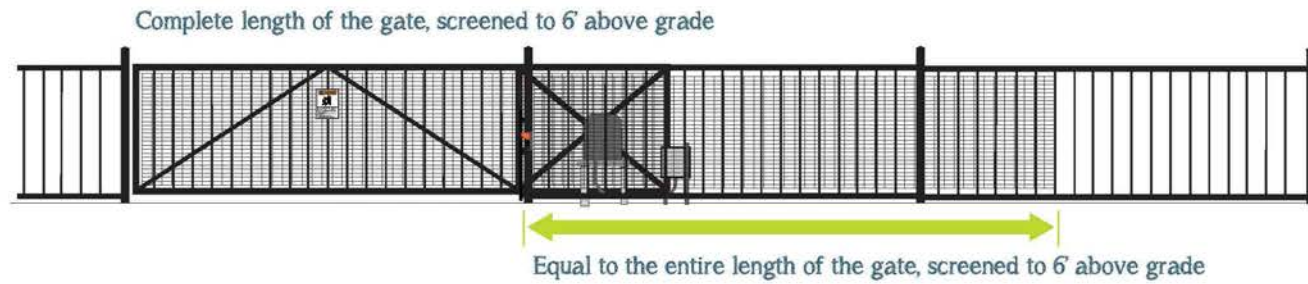
Automatic Gates are for Vehicular use only!

They are NOT intended for use by pedestrians, although they must be guarded to prevent harm to pedestrians. Multiple monitored entrapment protection devices must be a part of the system. No gate or controls can be located within 6 feet of the gate except those controls specifically designed for use by Emergency Responders (like a Knox box.) The gate operator must be listed by UL or another approved testing and listing service. Industry standard warning signs must be visible on both sides of the gate. Rental units, apartment complexes, self storage facilities, etc., should add the information from the sign to their rental agreement and have each tenant sign that they received the Gate Safety information. The inherent and external entrapment protection devices must be tested monthly.

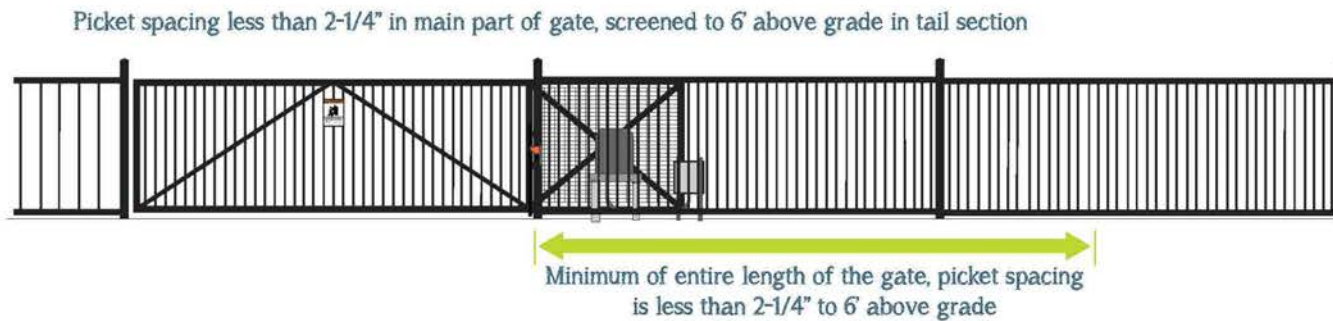


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Screening Requirements



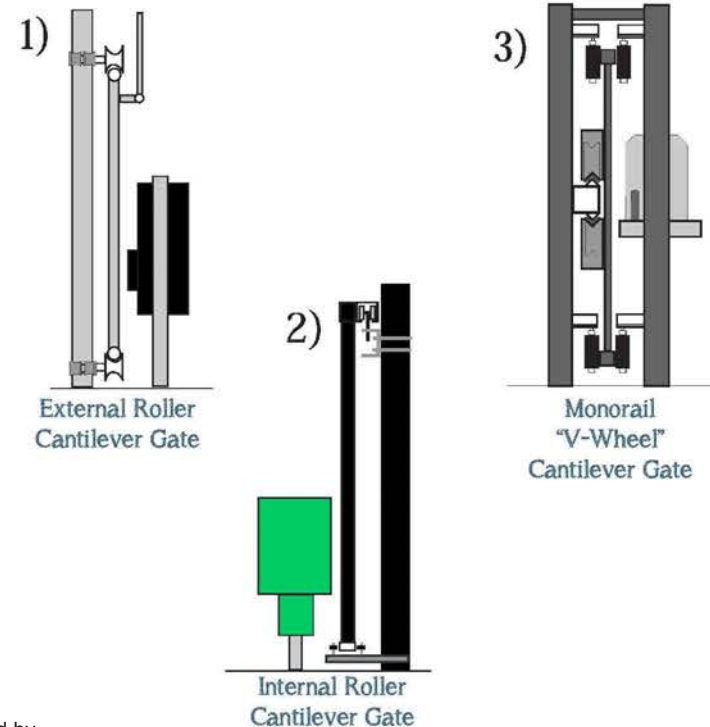
The UL 325 & ASTM F2200 standards specify that any Automatic Slide Gate must be designed or screened so that a 2-1/4" sphere (standard cue ball or racketball) cannot pass through the gate (entire gate including the counterbalance or tail section) and the entire fence next to the gate, for the entire length of the gate in an open position. Chain link fence fabric meets the standard. Where mesh screening is not acceptable for some ornamental picket gates, the picket spacing can be close enough to meet the standard (less than 2-1/4".) In most cases, the tail section of those gates are screened with mesh fabric. This applies to slide gates only (not swing gates.)



Cantilever Slide Gate

It is important to know what type of Cantilever Slide Gate is used at a particular site. The three most common are:

- 1) External Roller Gate (ATMS F1184, Type II, Class 1), typically fabricated from galvanized round, steel pipe.
- 2) Internal Roller Gate (ATMS F1184, Type II, Class 2), usually made from square, tubular aluminum
- 3) Monorail (V-Wheel), typically made from painted, square tubular steel. Monorial Gates are very common at Self Storage Facilities.



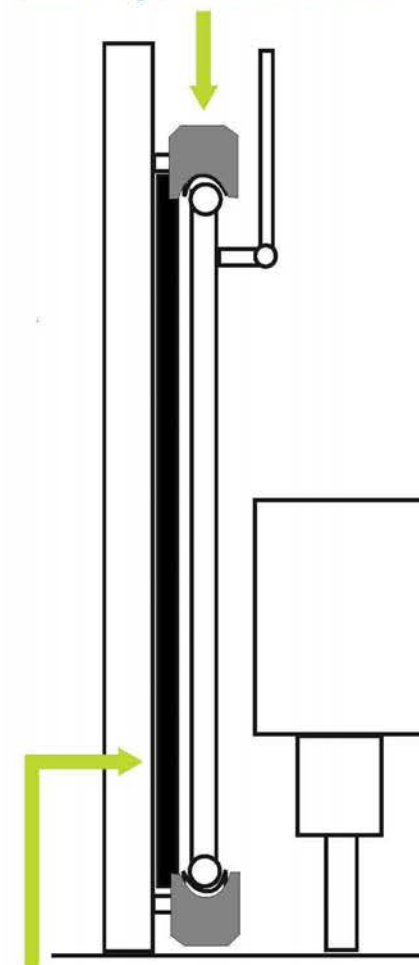
Reprinted from the Summer 2016 issue of Currents Magazine published by Southeastern Virginia Chapter Community Associations Institute.

Roller Covers and "Cavity Bars"

The UL 325 & ASTM F2200 standards specify that any exposed, weight bearing roller below 8' above grade must be covered or guarded. The rollers are guarded by design on Internal Roller and Monorail Gates. Exposed cantilever wheels must be guarded on External Roller gates.

The UL 325 & ASTM F2200 standards specify that potential pinch points and areas of potential entrapment must be eliminated by design or guarded. All stationary items like walls, posts, etc. must be less than 2-1/4" or more than 16" away from the moving part of the gate. Gate operators and their mounting posts are excluded. The most common and overlooked area is between each Gate Roller Post and the gate. 2" galvanized "cavity bars" are typically welded in place once the gate is installed.

Roller covers or guards are required on all exposed, weight bearing cantilever rollers both top (below 8' high) and on bottom rollers.



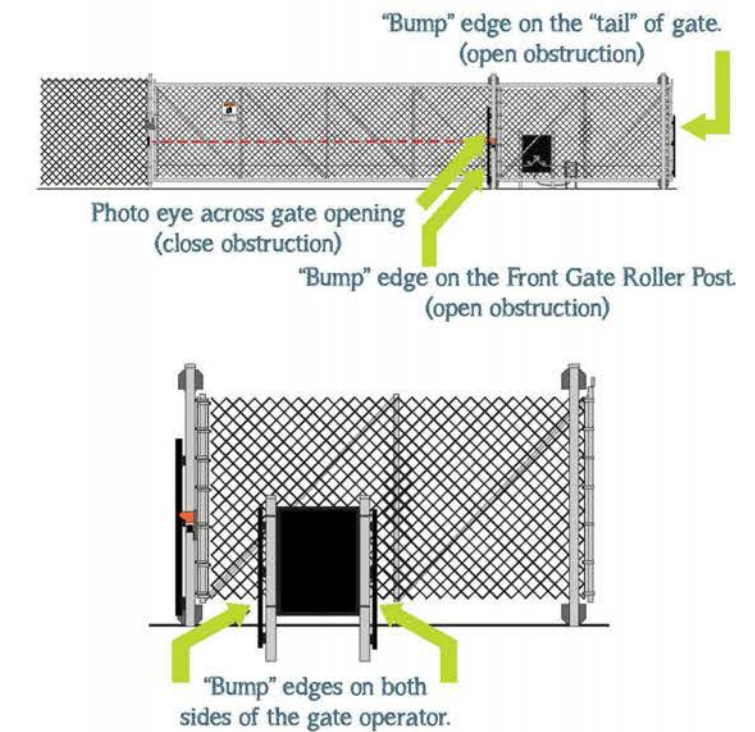
Cavity Bars are required to close off the area between the moving part of the gate and the stationary gate post. The gap must be less than 2-1/4" (or over 16") Roller covers or guards are required on all exposed, weight bearing cantilever rollers both top (below 8' high) and on bottom rollers.

Entrapment Devices

In addition to the Inherent Entrapment Devices built into each gate operator by the manufacturer, UL 325 requires that one or more Monitored contact or non-contact sensors shall be utilized for both the opening and closing directions, located where the risk of entrapment or obstruction exists. Please refer to the diagrams below for possible locations.

Actual site conditions will determine the number of External Entrapment Devices required. At least two are required (one for opening and one for closing.) Each site may be different.

Recommendations for placement of External Entrapment Devices vary widely from manufacturer to manufacturer. Please contact a Professional Gate Operator Installation firm to assure that your system meets the UL325 Standard and ASTM F2200 recommendations. Possible locations:



541 Eastpark Ct, Sandston, VA 23150
800-653-6879
www.midatlantictory.com