

Safety Bracket

Purpose

Safety brackets may be used if it is difficult to install a safety post. As with the safety post, the function of the safety bracket is to prevent the gate leaf from toppling in the event of derailment (that is, if it runs off the track). Derailment can occur due to a failure of the guide assembly, detachment of the gate leaf, debris on the track, or if the moving gate leaf comes into contact with a person or object.

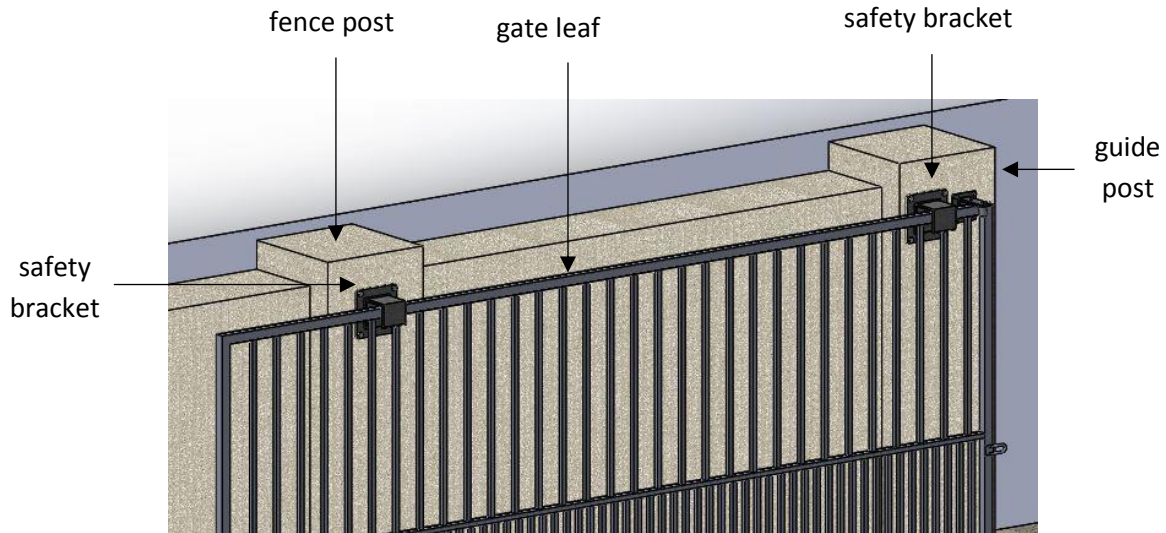


Figure 1– Illustration showing end view of sliding gate with safety bracket

Location

A minimum of two safety brackets shall be installed; one located adjacent to the guide post and the other located near to the end of the gate leaf in the fully opened position (see figure 1). If a third bracket is employed, it shall be located adjacent to the receiver post (see figure 2). Any additional brackets shall be located between the guide post and the end of the gate leaf in the fully opened position.

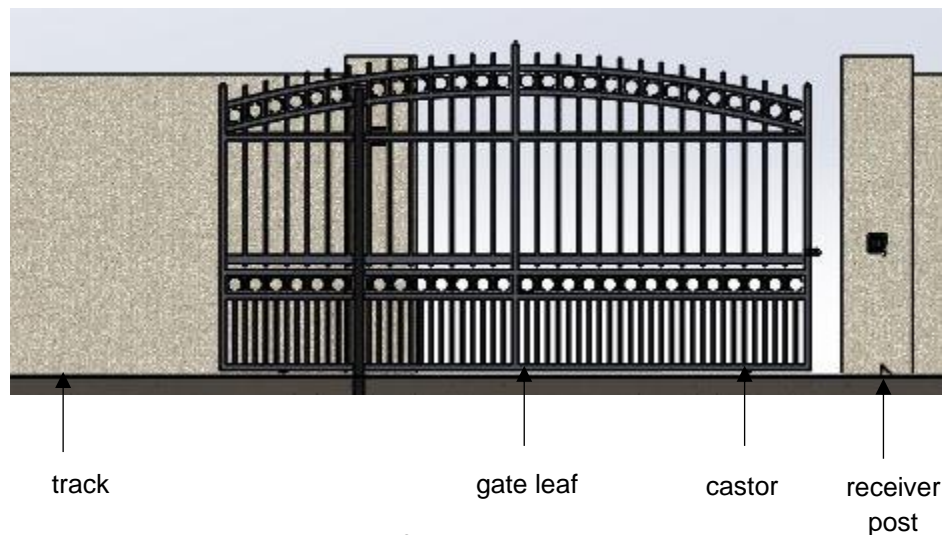


Figure 2 – Typical components of a sliding driveway gate

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Construction

Safety brackets can only be used if the top of the gate is flat or relatively flat. They are to be positioned so that they overhang the gate leaf (see Figure 3), with the vertical leg extending for 101 mm (4 in) to 152 mm (6 in) to ensure that they can intercept and restrain the gate from falling in the event of derailment.

The brackets shall:

- a) be constructed of steel or similar durable material;
- b) be designed with a cross-section and dimensions capable of restraining the gate leaf; and
- c) be securely attached (by bolting or welding) to steel posts or adequately anchored to concrete posts;

If the gate post or fence post is constructed of concrete, the bracket should be welded to a metal plate which is then fastened to the post as follows:

- d) for new construction - casting into the concrete with high tensile J-bolts, high tensile smooth reinforcing bar (with one threaded end), or bolts with anchor plates; or
- e) for existing posts and fence – by the use of expansion bolts.

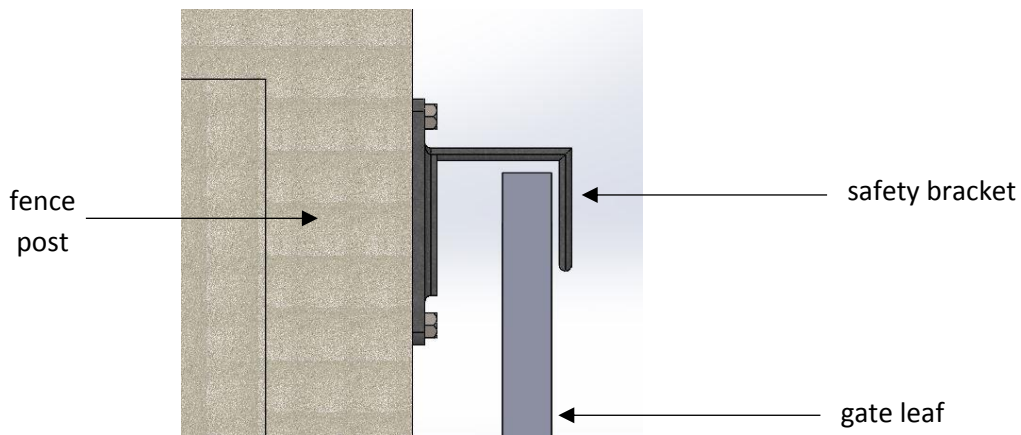


Figure 3 – Sliding gate with safety bracket – side view