



DASMA
Door & Access Systems
Manufacturers Association
International

COMMERCIAL & RESIDENTIAL GARAGE DOOR DIVISION

TECHNICAL DATA SHEET

#153

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Vertically Reinforcing Sectional Garage Doors for Wind Load Conditions

Introduction

Door manufacturers commonly specify horizontal reinforcement (i.e., struts) to make their doors wind load resistant. In some cases, horizontal reinforcement is not sufficient, and vertical reinforcement (i.e., a post system) is required.

Common Vertical Post Concept Options

Common scenarios of the vertical post concept include:

1. **A post system integrated into the door design.** Here the homeowner is required to secure the post in accordance with the manufacturer's instruction, usually by some mechanical means such as the turning of a crank or movement of a lever.
2. **A post system supplied with the door by the manufacturer.** The door manufacturer supplies the homeowner with instructions, and the homeowner must secure the post by an established assembly procedure.
3. **A post system that a homeowner may purchase as an aftermarket product.** NOTE: A post, or any product, not purchased from or specified by the door manufacturer, may not result in a door that properly resists the wind. Contact the door manufacturer to assess the benefit of an aftermarket post system. A post system purchased aftermarket may constitute a "component substitution". More details on component substitution can be found in DASMA TDS #183.

Note: Technical Data Sheets are information tools only and should not be used as substitutes for instructions from individual manufacturers. Always consult with individual manufacturers for specific recommendations for their products and check the applicable local regulations.

This Technical Data Sheet was prepared by the members of DASMA's Commercial & Residential Garage Door Division Technical Committee. DASMA is a trade association comprising manufacturers of rolling doors, fire doors, grilles, counter shutters, sheet doors, and related products; upward-acting residential and commercial garage doors; operating devices for garage doors and gates, sensing devices, and electronic remote controls for garage doors and gate operators; as well as companies that manufacture or supply either raw materials or significant components used in the manufacture and installation of the Active Members' products.

Compliance With Relevant Standards

Doors using vertical reinforcement posts as a component of a new door system should comply with industry standards such as ANSI/DASMA 102. This standard contains specifications for garage doors. Doors using posts should have been tested in accordance with a nationally recognized uniform static air pressure testing standard and meet the acceptance criteria. DASMA has published ANSI/DASMA 108, which contains a uniform static air pressure testing method and acceptance criteria relevant to garage doors.

Support From Existing Building Structure

Garage door reinforcement in the form of vertical posts transmits wind load forces to the garage door-opening header and to the garage floor. When vertical posts are installed in a garage door, the door still transmits forces to the entire surrounding structural support, including the header and the vertical support members where the track attaches. Because the use of vertical reinforcement may increase the force applied to the garage opening header, it is recommended that a qualified design professional perform an assessment of the building structure prior to the installation of any vertical reinforcement. It is strongly advised that the garage door manufacturer be contacted for any questions or concerns related to sectional garage doors and vertical reinforcement.

Homeowner Responsibility

In all cases the homeowner must accept responsibility for properly securing the vertical post in position in anticipation of a hurricane or other high wind event. For retrofitted doors, the door installer should explain the installation instructions. For new construction, the building contractor should explain these instructions. In most cases, if an electric door opener is installed, it should be unplugged to prevent accidental operation of the door while the vertical post is in place. Contact the door manufacturer for details.

Building Department Involvement

If a building inspector is required to inspect a vertically reinforced door as part of a door permitting process, such reinforcement should be installed and fully engaged at the time of the inspection.

Labeling

Manufacturers may also choose to create labels. One label could be a general instructions-oriented label advising that the post system be installed/engaged when hurricane or other high wind warnings are issued. Another label could contain product-specific instructions for preparing the garage door and for installing/engaging the post system.

Conclusion: Homeowner education is the key to successful use of vertical reinforcement for sectional garage doors to resist high winds. Effective education should result in the use of such reinforcement being no different than homeowners securing doors and windows during such events. Any questions about specific products should be directed to the garage door manufacturer.

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