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## **Rolling Door Jamb Construction:** Steel Reinforcement in Concrete and Masonry Walls

Rolling door contractors and installers sometimes encounter steel reinforcement in walls where rolling door jamb fasteners have been designed for specific vertical locations in the walls. Manufacturers of rolling doors have expressed concern over reinforcement in walls. Altering existing wall reinforcement may reduce a building's structural performance. Alternately, installing rolling door jamb fasteners in locations other than those recommended by the manufacturer may reduce the structural performance of the rolling door or will void the fire rating. In some instances, the rolling doors have been designed for specific wind load applications and are heavily dependent on the structural integrity of the door jamb members to which they are attached. [Note: To obtain information on jambs and specific load applications, refer to TDS #251]. DASMA has recommendations for both new and existing wall construction that may help alleviate structural concerns about both the rolling door and the building.

## Information for Architects and Specifiers

DASMA has created a "typical jamb detail" (see figures attached to this TDS) indicating recommended steel reinforcement locations for concrete and masonry jambs. The detail shows a "reinforcement-free zone" to allow for fasteners of either face-mounted or jamb-mounted rolling doors. DASMA recommends that vertical reinforcement should be within two inches of either corner of the wall at the jamb, and should be at least six inches from the edge of the opening as well. If rolling door drawings are not available, locating vertical reinforcement a minimum of 8 inches from the edge of the door opening is recommended if the overall structural integrity of the wall can be accommodated.

NOTE: Where structural drawings or reinforcement placement drawings show horizontal reinforcement in the "reinforcement-free zone", the reinforcement must be installed as shown unless the registered design professional responsible for the design modifies the design to permit the reinforcement to terminate outside the reinforcement free zone. Horizontal reinforcement typically does not create an obstruction for fastener installation, but if it does, the door manufacturer should be contacted.

## Existing Construction

DASMA suggests that rolling door contractors and installers consider the following steps in locating the steel reinforcement:

- If the building has structural drawings, obtain these drawings and have an engineer review the drawings to determine where the wall steel reinforcement is located in the vicinity of the jambs. The engineer should compare the reinforcement location with where the rolling door jamb fasteners are to be located.
- If the building's structural plans cannot be obtained, during the field inspection process, where existing wall opening dimensions are obtained, either drill representative "pilot holes" or use a device similar to an electronic wood stud locator to determine the steel reinforcement locations.

Once the steel reinforcement locations have been established, and it is concluded that the reinforcement will interfere with installing jamb fasteners, DASMA recommends that one of the following courses of action be taken:

- 1. Consider an alternate door jamb mounting or door size where the reinforcement will not interfere with jamb fasteners.
- 2. If an alternate door jamb mounting or alternate door size cannot be accomplished, consult a structural engineer to determine a workable solution. One solution may include permitting the reinforcement to be cut or drilled through without needing additional wall reinforcement. A second solution may involve requesting specific hole patterns from the door manufacturer. A third solution may involve steel being added to the jambs such that jamb reinforcement is not jeopardized. Door guides may then be mounted to the steel.

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 Rolling 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.







Not to Scale

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Figure 2 Typical Jamb Detail - Concrete Wall Face & Jamb Mounted Rolling Slat Doors Not to Scale

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