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Special Considerations for Rolling Fire Doors on Exterior Openings

Rolling fire doors are sometimes found in locations such as loading docks, trash enclosures, transformer vaults, parking garage entrances, or even over windows. The need for rolling fire doors in these locations is usually because of an opening's proximity to a property line or extensions of the same building structure, or a need to protect a building from the risk of exterior fire exposure. This Technical Data Sheet describes special considerations that should be made for rolling fire doors with respect to wind load, automatic closing function, high cycle operation, fusible link location and weather protection.

When fire doors are installed in openings on outside walls, please note the following considerations.

- **Wind Load**
Since fire doors are used primarily for the protection of interior openings, they are generally not specifically designed for wind load. The manufacturer should be contacted if a fire door requires a wind load rating.
- **Automatic Closing Function**
Wind pressure may affect the ability of a door to close automatically in a fire condition. It is the responsibility of the building owner to ensure that the doors are closed prior to high wind events.
- **High Cycle Operation**
Because of a series of gears and drop-out mechanisms, many fire door operating/closing systems may not be intended for the demands of frequent usage such as that commonly required on a parking garage entrance or loading dock. The manufacturer should be contacted if a fire door requires high cycle operation.
- **Fusible Link Location**
Fusible links (or detectors) need to be installed on the inside and the outside of the building unless otherwise approved by the Authority Having Jurisdiction (AHJ). If there is no exterior fire exposure or hazard, the installer should ask the AHJ to approve interior-only mounting of fusible links or detectors. Exterior-mounted fusible links should be inspected regularly for any effect on performance from exterior environmental factors.
- **Weather Protection**
Per the requirements of NFPA 80, when a fire door is installed on the exterior of a building, it needs to be protected from exposure to weather conditions that could ultimately affect its operation or performance. Mechanisms should be covered, and other precautions should be taken to eliminate the potential effects of corrosion or other factors that could prevent the door from closing in a fire condition.

The rolling fire door manufacturer should be consulted when a fire door is to be used on an exterior opening in order to make sure it is suitable for all the conditions required for that application. If there is a question about what is required for an exterior opening application, the AHJ should also be consulted.

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.