Protecting Rolling Steel Fire Doors from Vehicular Traffic Related Damage

Introduction

The primary function of rolling steel fire doors is to close automatically in an emergency situation involving fire related conditions. Damage to these doors can compromise their ability to perform their intended function. This Technical Data Sheet will give recommendations on various items that can be used to protect rolling steel fire doors damage due to vehicular traffic including trucks, forklifts and any other motorized vehicular equipment. NOTE: A trained door systems technician should be contacted for service and inspection if the door has been damaged.

Guard Posts

Guard posts, such as concrete filled steel pipes, can provide both visual and physical protection of door guides from vehicular traffic. The posts should be located in front of the guides, and should be rigidly secured to the floor or foundation.

Horizontal Guard

A heavy steel horizontal guard can help prevent damage caused by raised forklifts or high loads moving toward the door opening. The guard should be located several feet in front of the opening, with the bottom of the guard slightly below the top of the opening. This will result in the raised forklifts or its load hitting the guard and alerting the driver to stop before trying to pass through the opening. A guard can be installed two different ways:

1. Firmly supported directly off the floor and/or the wall. Guards may be attached to the door in accordance with their listing.
2. Suspended from the ceiling. A structural engineer should be consulted for the proper way to support the guard.

The guard should not interfere with normal operation and release of the door.
Guides Mounting

Where possible, guides should be face mounted. When guides are installed between jambs, the width of the opening is reduced accordingly and increases the chance that guides can be damaged by a vehicle. When installing face mounted jambs, try to ensure that the tips of the guides do not extend into the opening. The manufacturer’s written installation instructions should be consulted for properly locating the guides.

Conclusion

DASMA believes that by utilizing any of the precautions above, as deemed applicable either within or around a door opening, damage to the door can be minimized if not prevented. The precautions should be utilized on a door specific basis, and should take into consideration activity in the vicinity of the door. The door manufacturer should be consulted if there are any questions about protecting a rolling steel fire door and especially regarding concerns about the means by which a door should be protected.