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## Rolling Steel Fire Doors: Periodic Inspection and Drop-Testing

### General

This Technical Data Sheet provides facility managers with guidelines for evaluation of rolling fire doors designed and tested to provide the automatic closing fire protection indicated on the fire door label. The automatic closing of the door must be tested at the time the door is installed. In addition, the door shall be inspected and drop-tested not less than annually by a Trained Rolling Steel Fire Door Systems Technician, defined as “a technician with documented training and who is qualified through experience with the inspection, testing, and maintenance of rolling steel fire doors,” as required by NFPA 80. This requirement applies to **all fire doors** – even those that are not used and remain in the closed position. DASMA recommends that facility managers establish a contract with a rolling door service provider for an annual, or more frequent, inspection and drop test. It should be acknowledged that components may fail during the drop test due to no fault of the service provider and that the cost to repair them may not be included in the cost of the drop test. DASMA recommends that the following four-step procedure be observed in order, with the results documented on the attached “DASMA Rolling Steel Fire Door Drop Test Form.”

### Pre-Test Visual Inspection

- Block access to the area around both sides of the door using caution tape
- Follow the “Guidelines for Visual Inspection” on the next page
- Refer to DASMA Technical Data Sheet #270 (“Recommended Rolling Door Maintenance Practice”)
- Refer to NFPA 80 (*Standard for Fire Doors and Other Opening Protectives*)
- Recommend to the facility contact to relocate any flammable substances near the firewall opening

### Operational Test

- Deficiencies identified during the Pre-Test Visual Inspection should be corrected before the operational test
- Clear the doorway of any items that may impede door motion
- Open and close the door using normal operation while observing carefully for any indications of abnormal operation or damaged parts. Refer to DASMA Technical Data Sheet #272.

### Drop Test #1

- Deficiencies identified during the Operational Test should be corrected before the drop test
- Use the manufacturer's drop test instructions
- **The door must be fully open before drop test**

**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.

ROLLING DOOR DIVISION  
**TECHNICAL DATA SHEET**  
**#271**

- When subjected to drop testing, the door must close completely and rest on the sill or floor. NFPA 80 states that the average closing speed must not exceed 24 inches per second and must be at least 6 inches per second.
- Reset the door per manufacturer's instructions. Open the door by normal operation.
- The door must be drop-tested a second time to verify that the automatic closing device was properly reset. Test each automatic closing option for the fire door. Ensure that detectors and release devices function properly.

### **Drop Test #2**

- Perform a quick visual check to identify any components that may have failed during Drop Test #1. Replace any damaged components with parts from the original manufacturer.
- Repeat the procedure under Drop Test #1
- Reset the door per manufacturer's instructions. Open the door by normal operation.

### **GUIDELINES for PRE-TEST VISUAL INSPECTION**

Conduct a visual inspection for anything that may cause a hazard during testing or affect proper operation or resetting. Verify that:

1. Mounting and assembly bolts are not missing or loose.
2. Welds and weld locations comply with manufacturer's installation instructions.
3. Fusible links are located per manufacturer's instructions.
4. Guide assemblies have the required fire expansion clearance per manufacturer's instructions.
5. Fusible links and sash chain/cable links are not painted or coated with dust or grease, cable is not kinked or pinched, chain is flexible and not twisted, and raceways are not obstructed.
6. Nothing that is not a part of the fire door assembly is attached to any part of the fire door assembly (suspended ceiling, light fixtures, ducting, conduits, framing or any other building materials).
7. Ensure that the door's operating mechanisms and automatic-closing features are not painted, coated with dust or grease, and/or covered with debris.

Check for damaged or missing components:

1. Slats – bent; tears or holes; metal fatigue.
2. Endlocks – missing; broken; bent; loose.
3. Bottom Bar – bent angles; loose bolts; missing listing agency label.
4. Guide Assembly – bent angles or channels; loose bolts; curtain entry misalignment.
5. Hood (and Flame Baffle where required) and Fascia (where present) – bent; rubbing curtain; holes; loose fasteners; metal fatigue; missing intermediate supports (where required).
6. Automatic Closing Mechanism – missing, broken parts; drop or release arms tied, blocked or wedged.
7. Operating Mechanism – worn, misaligned or poorly meshed gears; worn roller chains; misaligned or loose sprockets; loose bearings; broken parts; bent shafts.

The ultimate acceptance of a fire door is the decision of the authority having jurisdiction, as defined in NFPA 80.

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# DASMA ROLLING STEEL FIRE DOOR DROP TEST FORM<sup>®</sup>

## General

NFPA 80 and Model Codes require the inspection and testing of fire doors to demonstrate proper operation, full closure, and proper reset. Perform the visual inspection before the operational check and drop tests.. Use the form below to record the Visual, Operational, and Drop Test results. Check Pass or Fail in the boxes. See the Guidelines for additional information.

<b>⚠ WARNING</b>
<b>Door could close rapidly and could result in death or serious injury. Perform drop test and reset per manufacturer's instructions.</b>

The drop tests, reset, repairs and maintenance should be performed by a Trained Rolling Steel Fire Door Systems Technician with complete knowledge of this type of fire door and the manufacturer's instructions. Repair parts must be obtained from the original door manufacturer. After repairs are completed, the door must be tested to assure proper door operation and automatic closing capability. The fire door must be in the fully open position before the drop test. Reset the door following the drop test and test again.

## FACILITY INFORMATION

Project: \_\_\_\_\_ Company: \_\_\_\_\_  
Phone: \_\_\_\_\_ Address: \_\_\_\_\_

Door Location	Opening Size		Door Mfr.	Door Mfr. Serial No.	Visual Inspection		Operational Check		Drop Test #1		Drop Test #2	
	Width	Height			Pass	Fail	Pass	Fail	Pass	Fail	Pass	Fail

## Comments (attach additional page if needed):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Tested By: \_\_\_\_\_  
Company: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone #: \_\_\_\_\_  
Signature/Date: \_\_\_\_\_

Witnessed By: \_\_\_\_\_  
Representing: \_\_\_\_\_  
Title: \_\_\_\_\_  
Phone #: \_\_\_\_\_  
Signature/Date: \_\_\_\_\_

Training or Certification Date\*: \_\_\_\_\_ (Documentation verifying training required per NFPA 80 available upon request)

\* Required only for periodic inspection and drop-testing

For more information, visit: [www.dasma.com/forms-labels](http://www.dasma.com/forms-labels)