



Door & Access Systems
Manufacturers Association
International

ROLLING DOOR DIVISION

TECHNICAL DATA SHEET

#2502

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Rolling Steel Fire Door Repair and Parts Replacement

Introduction

Rolling steel fire doors (RSFD) require ongoing maintenance and occasional parts replacement, just like any door, gate, or operable window. Many RSFD serve a dual purpose: regulation of access and fire protection. Due to this dual purpose, questions arise about how to handle some repairs, and whether both purposes can be served throughout the time of repair and parts replacement. This Technical Data Sheet addresses common questions from technicians and maintenance personnel on these issues. The information that follows is in accordance with NFPA 80.

What does it mean to repair an RSFD?

“Repair” is defined in NFPA 80 as “Any action that restores a door to its original approved condition.” Repair can be accomplished by replacement of components, or by restoration of damaged components to their original condition.

When can a technician restore damaged components without replacing parts?

Examples may include dents, scratches, or other minor deformation due to slight impact. All restoration should be done with the permission and under the guidance of the original manufacturer.

When should an RSFD be repaired?

Whenever there is apparent damage to components or operational difficulty, an RSFD should be inspected and, if necessary, repaired. In addition, whenever counterbalance spring tension is released when the door is in the closed position, the door should be inspected afterwards for damaged parts, and if necessary, repaired. Release of tension when the door is closed may cause breakage or yielding in headplate assembly components. RSFD should be periodically inspected and drop-tested according to the manufacturer’s instructions and the requirements of NFPA 80. See DASMA TDS 269-271 and 299.

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.

What does it mean to modify an RSFD?

“Field modifications” are defined in NFPA 80 as “Changes, not otherwise permitted by this standard, made to a listed assembly or component after it has been manufactured.” Prior to being undertaken, a modification of an RSFD should be arranged with, and approved by, the door manufacturer, the listing agency, and the Authority Having Jurisdiction (AHJ). The AHJ is “the organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure” (NFPA 80). A field inspection after the modifications are made may also be required by any of the three approving parties.

Who should perform repairs and modifications on an RSFD?

All repairs and modifications to RSFD should be made by a trained rolling steel fire door systems technician, defined as “A technician, qualified through experience with the inspection, testing and maintenance of rolling steel fire doors, and with documented training of such by a manufacturer of a listed rolling steel fire door or by an organization acceptable to the AHJ.

Where can a technician find replacement parts for an RSFD?

All RSFD shall be repaired with parts obtained from the original manufacturer of the fire door needing repair.

What if the parts are no longer available from the original manufacturer?

When parts are not available from the original manufacturer of the fire door needing repair, it is required that the complete fire door be replaced.

Is there any exception to the “original manufacturer” rule?

As an alternative, a fire door operator, governor, and automatic closing device may be replaced with a labeled retrofit fire door operator when it is installed in accordance with its installation instructions and is acceptable to the AHJ. A retrofit operator may be provided by other than the original manufacturer of the fire door needing repair provided the retrofit operator listing allows it to be used on the manufacturer's door.

Can the original manufacturer replace a part with a different part?

In some cases, yes. If both parts serve the same purpose, and are both part of the manufacturer's listing, then such a replacement could be made, with the manufacturer's approval. An example is replacing an oscillating governor with a viscous governor.

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How long is it acceptable for an RSFD to be out of service?

Repairs should be made and defects that could interfere with door operation should be corrected without delay. Fire safety is a critical matter and fire door repair should be handled with urgency.

Can a fire door be used as a service door while waiting for parts replacement?

No. The door should be closed and remain closed until fully repaired, inspected, and drop-tested. Any deviations from this policy should be based on an evaluation by a trained RSFD systems technician and must be approved by the AHJ. In all such cases, the door should be left closed when not in operation. Under no circumstances should a fire door be propped open.

What should be done after the repair or field modification?

All RSFD that are repaired or field modified shall be drop tested to ensure the repairs have been completed properly. Two consecutive successful drop tests are required – one to demonstrate proper operation and full closure, and a second to verify that the door was properly reset. The trained RSFD systems technician’s company and building owner should retain a written record of the drop test results, including the names of witnesses. Refer to DASMA TDS 271, the door’s installation manual, and drop test procedures provided by the door manufacturer.

Are any components subject to additional rules and requirements when being repaired or replaced?

Bottom bars and guides of rolling steel fire doors are subject to additional rules. Listing agencies often mandate a detailed method for replacement of bottom bars. Rules vary by listing agency, and may also vary based on the size of the door (“label size” versus “oversize”). See DASMA TDS 257 and 275 for bottom bar replacement on UL- and FM-approved fire doors, respectively. Damaged guide angles on FM-listed fire doors should be replaced with angles that exactly match the original, due to the critical clearances that must be maintained within, and beneath or above, guide assemblies. If this is not possible, the entire guide assembly should be replaced. See TDS 275.

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