

Fire Door Maintenance

Does your company conduct **annual fire door inspections?**

Annual inspections are required by NFPA 80 to remain compliant.

NFPA 80 also mandates:

- Self-closing devices must be in working condition.
- All horizontal or vertical sliding and rolling fire doors must be annually inspected and tested for operation and full closure.
- The release mechanism must be reset according to the manufacturer's instructions.
- Two drop tests must be performed when conducting the annual test for operation and full closure on rolling steel fire doors. The first test checks for operation and full closure; the second test verifies the automatic-closing device has been reset.
- Fusible links or other heat-actuated devices and release devices should not be painted. Do not paint over or damage the label.
- Prevent paint from accumulating on movable parts.
- Facilities must use labeled fire doors, and a label must be affixed permanently to the door. Open fire doors must be configured for automatic release and close when fire and smoke conditions occur.

The NFPA claims *failure to close* as the most common failure mode of fire doors in actual fires. Contributing factors include lack of maintenance; physical damage to the door, guides, or tracks; and blocked doorways.

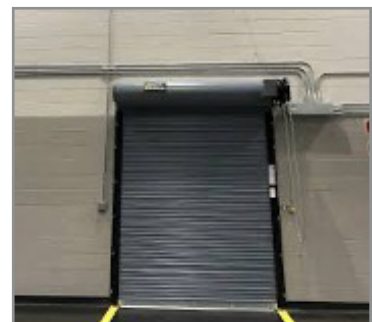
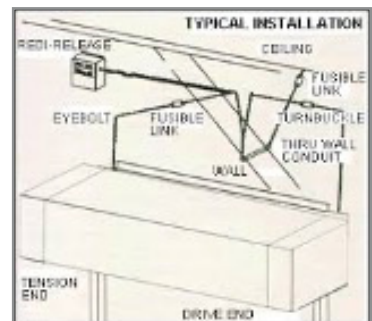
Fire doors are a crucial factor to the success of passive fire protection systems.

The main function of a fire door is to help restrain the fire, acting as a barrier between it and the next room. Regular doors typically cannot withstand the heat of a fire and, therefore, can be the entryway for the fire to spread. On the other hand, a fire door can withstand these temperatures from 20 minutes up to 180 minutes.

Fusible link systems connected to other warning systems will automatically trigger closing fire doors to restrict the fire's spread, slow smoke dispersion, and reduce oxygen supply to the fire.

To minimize failures and improve reliability, NFPA 80 states, "Fire door assemblies shall be inspected and tested not less than annually, and a written record of the inspection shall be signed and kept for inspection by the Authority Having Jurisdiction (AHJ)."

NFPA 80 further explains these annual fire door inspections can be performed by a "qualified person" who is "thoroughly knowledgeable of the various components and systems that are used to create fire-rated assemblies."



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Common Fire Door Deficiencies



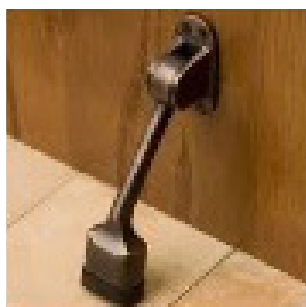
Missing or broken fire door components. Even if a fire door appears to work with broken or missing parts, the door may not be working correctly.

Fire doors must be able to latch securely on their own to help stop the spread of fire and smoke. If broken hardware prevents the door from self-closing and latching securely or if there are holes/gaps in the door or the door spacing, the fire door will be in violation and not protect occupants or property during a fire.

Propped open or blocked fire doors. Fire doors **must** remain closed until being used and then must self-close behind the person passing through to ensure fire safety.

Fire doors cannot be blocked. There are specialized electromagnetic devices (EMR) that are approved to hold the doors open because they are connected to the fire alarm system and will automatically release when the alarm is activated.

Preventing door blockage is critical to minimizing the spread of fire and smoke. Door openings and the surrounding areas must be clear of *anything* that could obstruct or interfere with the door's operation. Fire doors must not be propped open for any reason. Clearly marking the floor or area surrounding a fire door can help reduce the potential of someone interfering with the opening.



Unapproved hardware. Have you ever seen a kick down door stop on a fire door? It's not safe or code compliant.

To properly protect a building, you should implement preventative maintenance, proactive maintenance, and annual fire door inspection programs in accordance with NFPA 80.