FACT SHEET » Understanding NFPA 13

What You Need to Know

NFPA® 13, Standard for the Installation of Sprinkler Systems, provides the minimum requirements for the design and installation of automatic fire sprinkler systems and exposure protection sprinkler systems.

The purpose of NFPA 13 is to provide a reasonable degree of protection for life and property from fire through standardization of design, installation, and testing requirements for sprinkler systems (including private fire service mains) based on sound engineering principles, test data, and field experience.

What NFPA 13 Covers

NFPA 13 applies to the following:

- Character and adequacy of water supplies
- Sprinklers
- Fittings
- Piping
- Valves
- All materials and accessories, including the installation of private fire service mains
FAQs

Do I need sprinklers in my building?
NFPA 13 is an installation standard and does not specify which buildings or structures require a sprinkler system. NFPA 13 specifies how to properly design and install a sprinkler system using the proper components and materials after it has been determined that a sprinkler system is required. The administrative authority for requiring sprinklers within buildings rests with any of the following: the local building code; NFPA 5000®, Building Construction and Safety Code®; NFPA 101®, Life Safety Code®, International Building Code; or insurance regulations that typically specify which buildings and structures require sprinkler systems. Where the building code does not require a sprinkler system but one is installed voluntarily, the requirements of NFPA 13 still apply to the portion of the building being protected.

If there are no hose racks inside a building that is sprinklered in accordance with NFPA 13, does a hose stream allowance still need to be added to the hydraulic calculations?
Yes. An outside hose stream demand would be required in accordance with Table 11.2.3.1.2 in NFPA 13 (2016 edition). The table specifies an option for 0, 50, or 100 gpm for inside hose demand. Regardless of the inside hose demand, the total combined inside and outside hose demand must meet the flow specified in the table.

Are sprinklers required to be installed above a dropped ceiling?
This is a common question and the answer can be very simple or very complex depending on the nature of the building construction above the ceiling. The simple answer is no, sprinklers are not required if the construction above the ceiling is noncombustible. For buildings where the construction is combustible, sprinklers are required both above and below the ceiling. There are many exceptions to these simple rules that require careful scrutiny and are too lengthy to discuss here. A thorough review of Section 8.15 of NFPA 13 (2016 edition) is necessary to determine if sprinklers are required in specific cases.

How should the distance be measured from a heating source to a sprinkler?
When evaluating the distance from a heating source (such as a diffuser) to a sprinkler, the distance should be measured from the edge of the diffuser to the sprinkler. The proximity of the sprinkler to the heating source will also determine the temperature rating of the sprinkler. See Table 8.3.2.5(a) in NFPA 13 (2016 edition) for specific temperature ratings of sprinklers based on distance from heat sources.

For More Information
- Access the full text of NFPA 13 online at www.nfpa.org/13.
- Enroll in NFPA 13 training at www.nfpa.org/training-and-events/ to learn more about how to apply the requirements.
- Learn more from our experts on NFPA Xchange™ at https://community.nfpa.org/.