

Hangers Enhance Fire Sprinkler Performance

NFPA 13 Specifies Durability

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A fire sprinkler system is not just another mechanical system. It is an emergency system, whose primary function may be life safety. So, we need to install fire sprinklers like someone's life depends on it. Hangers are an important feature that is critical to reliable future performance of the NFPA 13 fire sprinkler system. The ability of the fire sprinkler system could be compromised if its system components are not at their designed locations.

It's important that fire sprinklers be at precise locations during sprinkler head activation. Hangers guard the reliability and function of a fire sprinkler by durably maintaining installed piping locations. The hangers are part of a system that provides long service life. Accordingly, NFPA 13 has defined its hanging process more thoroughly than that of any other mechanical construction standard in the building industry. NFPA 13 hangers are specified to high standards as evidenced by safety factors in excess of 5 and precise criteria for placement, spacing and attachment. NFPA 13 hangers are UL listed and FM approved to these high standards, further emphasizing their importance.

The ability of the hanger and the quality of its installation go hand in hand. NFPA 13 hanger criterion specifies quality craftsmanship evidenced by both durable components and detailed installation procedures. The hangers provide uniform support to minimize component stress and maximize system stability. They maintain sprinkler head spacing and deflector distance necessary for uniform density and thermal response. Hangers provide seismic resistance and control system flexibility.

Advancement in construction innovation and technology combined with evolving seismic science requiring NFPA 13 to continually modify hanging and bracing criteria and text. The concise text of this standard fortifies intent which helps AHJ's enforce their code.

Accordingly, NFPA 13 appendix text reads as follows:

“To enhance permanence, proper hanger installation is important. Installation procedures shall meet industry standards of practice and craftsmanship. For example, hanger assemblies that are straight, perpendicular to the pipe, uniformly located and snug to the structure with fasteners fully engaged.”



Kraig Kirschner is a third generation fire sprinkler contractor and a journeyman fitter. He is a Principal Member of NFPA 13 - Hanging and Bracing Technical Committee and serves on Standard Technical Panels of UL 203, UL 203A and FM 1950. Kraig is a Life Member of the National Fire Protection Association and was named Person of the Year in 2009 Fire Protection Contractor Magazine. He holds dozens of patents that enhance the installation and application of hangers and sway braces.