

Torque Off Fasteners

Liability May Exceed Perceived Advantages

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While features that provide evidence of proper product application are desirable, they must be practical. In fire sprinkler sway brace installation, AFCON believes that bolts with torque-off heads are impractical when compared to tightening by hand. Many contractors and fitters view these fasteners negatively, deeming them as a solution to a problem that never existed.

Many contractors express serious reservations about the necessity of these heads. They state that NFPA 13 fire sprinkler history has proven existing fastener installation techniques as perfectly reliable. Contractors state that while torque-off may be expedient, its perceived benefits do not outweigh the problems it creates.

AFCON agrees with their comments and believes this feature creates potential liability. The mechanics of torque-off create a moment of release that is unpredictable. The actual moment of shear is problematic because most installers must pull a wrench toward their face, exposing them to potential contusions and facial damage. Further, this sudden moment of release may affect loss of balance and result in serious injury or fall. While the potential for personal injury is the most troublesome, the shear creates a slug that may be difficult to control and hard to retain in the wrench. Possible negative consequences include a dangerous projectile, debris on the floor and potential damage to equipment.

NFPA 13 specifies that proper fastener installation is important to hanging and bracing and directs that their installation shall evidence good craftsmanship. NFPA 13 fasteners that mount the sway brace assembly to the structure or are adjacent to each other in the assembly are not torque-off nor required to be.

Listed sway brace fittings will soon celebrate 50 years of excellent performance without the inclusion of the torque-off fasteners. **WHY START NOW?**



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.