Flexible Sprinkler Piping

Q: I have recently heard about flexible sprinkler piping. Can you advise what it is, where it can be used, what are its limitations, and is it UL Listed?


Flexible hose length is limited to a maximum of 6 feet so as to minimize the potential for inadequate support and undesirable movement of a sprinkler after installation. UL’s Listing information includes additional information relative to proper use such as allowable number of bends, minimum bend radii, pressure loss, type of flexibility and maximum temperature rating. The manufacturer’s installation instructions include additional information such as anchoring device installation procedures and sprinklers to be attached to the outlet fitting.

As indicated in the individual Listings, these products may have high flexibility or limited flexibility. Products having high flexibility are intended for use in applications where frequent movement between the two ends of the hose is expected after installation. Products having limited flexibility are intended for use in applications where little or no movement between the two ends is expected after installation.

These products are intended for use in hydraulically-designed sprinkler systems. The hydraulic pressure loss associated with these devices needs to be included in the hydraulic design calculations. Pressure loss is published in equivalent length, in feet of 1-in. diameter Schedule 40 steel pipe (where the Hazen-Williams coefficient of friction is C equals 120).

The basic standard used to investigate products in this category is UL 2443, “Flexible Sprinkler Hose with Fittings for Fire Protection Service.” Authorities Having Jurisdiction should be consulted before installation.