Return Bend

The purpose of a return bend, also known as gooseneck, is to prevent the accumulation of sediment, mineral deposits, and pipe scale in the pipe drop to a fire sprinkler. If these materials collect, the drop pipe or sprinkler orifice could be obstructed and impaired.

Return bends shall be utilized where pendent sprinklers are supplied from a raw water source, a mill pond, or open-top reservoir. These water sources have the potential of containing excessive sediment.

Pendent and sidewall sprinklers utilized in dry or preaction systems are permitted to be installed on return bends provided the sprinklers, return bend, and branch line piping are in an area maintained at or above 40°F.

Return bends are not required for deluge systems or where dry-pendent sprinklers are utilized. Return bends are also not necessary on wet systems that use a potable water supply.

Since the objective of a return bend to avoid accumulation of sediment in the drop nipples, the return bend is required to be connected to the top of branch lines.

Another common use of a return bend is where exact positioning of a sprinkler head is desired, such as positioning of a sprinkler head in the center of a ceiling tile.