

Corrugated Stainless Steel Tubing (CSST) for Fuel Gas Distribution in Buildings and Concerns over Lightning Strikes

What is CSST?

CSST is used to transmit gas in residential, commercial and industrial structures. CSST consists of a continuous, flexible, stainless steel pipe, and typically is covered with a yellow exterior plastic coating. CSST typically is routed beneath, through and alongside floor joists, inside interior wall cavities and on top of ceiling joists in attic space from a gas source to an appliance. The piping should be stamped with a manufacturer's mark. Names include: "**GASTITE**", "**WARDFLEX**", "**TRACPIPE**", "**COUNTERSTRIKE**", and "**PARAFLEX**".

The primary issue is safeguarding against an electric potential in metallic piping. In the case of proximity lightning, a high voltage can be induced in metallic piping that may cause arcing; and for CSST there is concern that arcing may cause perforation of the CSST wall and therefore cause gas leakage.

Recently updated CSST manufacturer's installation instructions now include the requirement to directly bond the CSST system to the electrical system grounding system. The bonding attachment must be near the service entrance to the building and the connection must be made with a 6 AWG copper wire. This method of bonding will provide additional protection to the CSST system when it is energized by an indirect lightning strike. All CSST manufacturers have issued either Technical Bulletins or other documents to describe the new requirements.

If you have CSST installed in your home and are unsure if your system has been bonded or grounded, you should contact a licensed electrician immediately.

If you have any questions, please contact our office for further information.