



# Inspections

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## CSST Corrugated Stainless Steel Tubing. Warranty

Some manufacturers warrant their CSST and fitting for a period of one year after installation. There have been reports of fires caused by lightning strikes near homes with CSST flexible gas piping. The root cause of these fires has been attributed to either a lack of or inadequate bonding of the CSST which has resulted in arcing damage to the tubing. This problem resulted in a class action law suit involving four CSST manufacturers: Omegaflex (TRACPIPE or COUNTERSTRIKE); Parker-Hannifin Corp. (PARFLEX); Titeflex Corp. (GASTITE); and Ward Manufacturing, Inc. (WARDFLEX). The parties to the suit have signed a Settlement Agreement that provides class members with a partial to full financial reimbursement for either a lightning protection system or upgraded bonding of their existing CSST system. For further information on the Settlement Agreement, visit [www.CSSTsettlement.com](http://www.CSSTsettlement.com); call the Administrator at 1-800-420-2916; or write to the CSST Settlement Administrator at P.O. Box 4349, Portland, OR 97208-4349.

Also see the following white paper for more information: [Corrugated Stainless Steel Tubing for Fuel Gas Distribution in Buildings and Concerns over Lightning \(PDF\)](#)

As taken from the installation manual of CSST gas tubing>

### 8 ELECTRICAL BONDING, GROUNDING AND CIRCUITS

#### 8.1 Electrical Bonding

Each above ground portion of a gas piping system upstream from the equipment shut off valve shall be electrically continuous and bonded to the grounding electrode system, as required by the National Electrical Code, ANSI/NFPA 70,250-104 (b). Installation of bonding wire, clamps and other bonding materials shall be as required by the local authority having jurisdiction for electrical installations.

#### 8.2 Electrical Grounding

Gas piping shall not be used as a grounding conductor or electrode.

### CSST ALERT

Corrugated Stainless Steel Tubing (CSST) has been found to be susceptible to damage from arcing by direct or nearby lightning strikes. A lightning strike can create holes and/or cracks in the CSST, allowing gas leaks that can result in a fire and or explosion.

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. Titeflex's CSST product is known as "GASTITE," Ward's CSST product is known as "WARDFLEX", OmegaFlex's CSST is known as "TRACPIPE" or "COUNTERSTRIKE," and Parker Hannifin's CSST product is known as "PARAFLEX" Omegaflex's "COUNTERSTRIKE" CSST is covered with a black exterior coating with yellow lettering. CSST does not include gas-appliance connectors (e.g., a connector that runs from a gas outlet to an appliance).

### Typical CSST

Typical CSST



DPS inspectors will inspect bonding of the CSST, if installed, per NEC (2002) Article 110.3 (B), its listing and manufactures' instructions. This will require, at a minimum that a (listed) bonding clamp be installed (on a fitting Not the Tubing), a bonding conductor (sized per table 250-66) be installed and connected to the Grounding Electrode System.

**\* THE CIB NOW REQUIRES OK INSPECTORS TO ID CSST, IF VISIBLE, AND TO STATE THAT ONLY A LICENSED ELECTRICIAN CAN DETERMINE IF IT IS PROPERLY INSTALLED.**

