

Why Trust Anyone Else?

CSST?

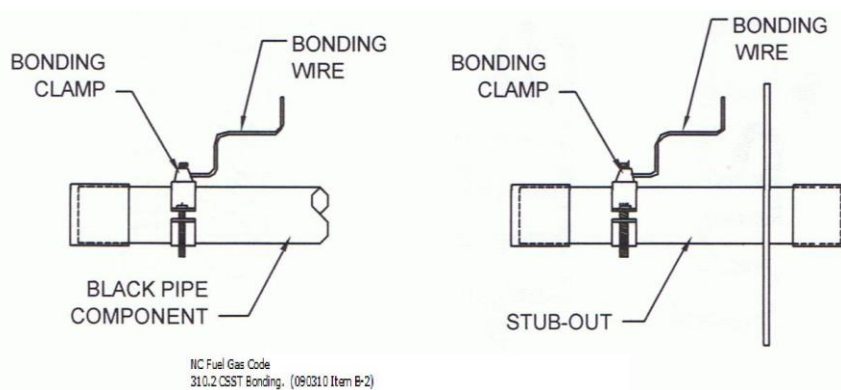
CSST is an acronym for Corrugated Stainless Steel Tubing. We are beginning to see more and more of this yellow covered flexible gas line in residential applications. The line is used more and more in new construction and remodeling since it is easy to run and there are fewer fittings to deal with as used in gas pipe.

Although there are ten major CSST manufactures in the United States Ward Manufacturing (Ward-Flex) and Gastite are the two leading manufactures we see here in Wisconsin.



Since 2011, it has been reported that at least 140 fires involving lightning and CSST have occurred across the United States. CSST is not able to withstand the electrical charge dissipated by lightning strikes due to its corrugated design and thin walls, according to reports. As a result, in the event that CSST becomes energized due to a direct or indirect lightning strike, the current will “arc” or jump across a gap to a less resistant pathway, such as nearby metal piping, in an attempt to reach the ground. Although the arc will only last a fraction of a second, it has been alleged that the temperature of the event is hot enough to melt and penetrate the thin walls of the CSST. If the gas line melts or is punctured, the gas inside can escape and cause a fire or even an explosion.

CSST must be bonded to a house ground to help direct the lightning away from the CSST in case of a strike. Unfortunately it has been our experience that the plumber installs the CSST but rarely lets the electrician know that this tubing must be bonded to the house ground. Bonding is simply adding a minimum #6 ground wire as close to the black pipe entrance in the building as possible to the ground wire of the panel or to the plumbing, if the plumbing is properly grounded (see illustration below).



310.2 CSST Bonding. CSST Gas piping systems shall be bonded to the electrical service grounding electrode system at the point where the gas service enters the building. The bonding jumper shall not be smaller than 6 AWG copper wire or equivalent.

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