

Gas Equipment Bulletin: Copper and Corrugated Stainless Tubing for Residential Use

ITS 21-013

Rationale: To explain methods to protect copper and corrugated stainless steel tubing systems from mechanical damage.

The following applies to the installation of semi-rigid tubing and corrugated piping systems in residential and multiple-family dwellings.

Tubing Location and Protection

1. Tubing may be run parallel, diagonal or at a right angle to the floor joist. When run parallel, it is to be fastened to the centre of the vertical face. When run at right angle or diagonally to the joists or partitions, it is to be installed through drilled holes as near as practicable to the centre of the joist. The diameter of the drilled hole should be at least one and one half times as large as the diameter of the tubing. Alternatively, tubing may be run at right angles to the joists by fastening to the underside of every second joist. Protection should be provided by conduit, duct work, or centre beams. Where tubing is run in an open area and where it is subject to mechanical damage, protecting it by running a 1 inch dimensional lumber fastened adjacent to one side of the tubing is recommended.
2. When tubing is installed inside a partition, a steel plate may be used to protect the tubing where it extends through the floor or top-plate or other structural member of the wall.
3. Tubing should be protected with a plate at least 4 inches (10 mm) square, of 16 gauge steel or greater, when it passes through a stud, joist, plate or other structural member and where the tubing is less than 1 ¾ inches (45 mm) from the exposed edge.
4. Concealed piping or tubing should be installed where it can be inspected and tested in its final position prior to being concealed.

Corrugated Stainless Steel Tubing

Where the current CSA B149.1 capacity and pipe sizing tables do not provide information to size corrugated stainless steel tubing, the manufacturer's certified instructions for sizing should be followed.

In all cases, when manufacturer's installation instructions exceed the minimum requirements stated here, manufacture's instructions should be followed.