

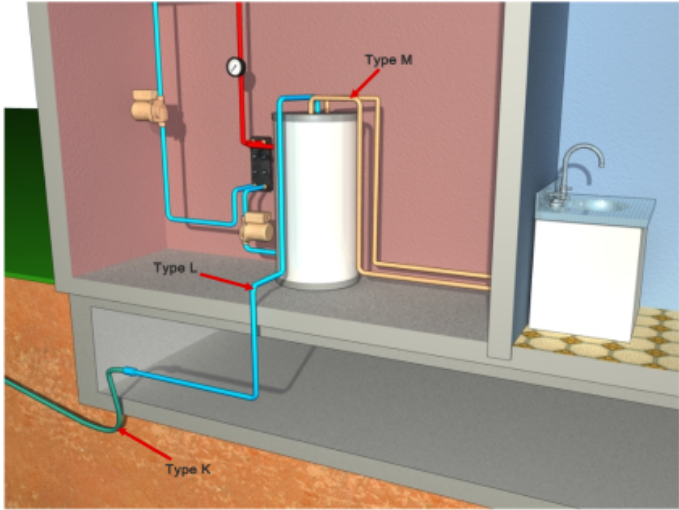
# Solar Thermal Installation eLearning| Tubing and Piping Assembly Training

**Copper Tubing Assembly - WX20103-XB01AEN-E1**

Objective 3: Describe How to Select Copper Tubing for a Solar Thermal System

### Copper Tube Selection

Copper water tubing is selected based on the application. Type K has a thick wall and is used for higher pressure applications, such as supplying water from the main water line to a facility. Type L is typically used for general plumbing because although it has a thinner wall than type K, it is still adequate for both inside and outside use. Type M has the thinnest wall among the three and is normally only used for inside applications, such as connecting a hot water heater to a faucet. Solar thermal systems most commonly use type L while type K is seldom used and type M is typically not used.



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## eLearning Course: M20103

Amatrol's Solar Thermal Installation eLearning teaches how to install solar thermal applications, emphasizing working with copper tubing, considerations in tubing installation, plastic pipe assembly, and installation of the key electrical, mechanical, and fluid systems. Focuses on the preparation needed for success, key skills required like soldering and brazing, tubing selection and insulation, and plastic pipe specifications and installation.

## Teach Solar Tubing

### What is Solar Thermal Copper Tubing?

Copper tubing is available in two types: copper water tubing, and air-conditioning and refrigeration tubing. Copper water tubing is the type used in solar thermal systems. It is available in hard (drawn) straight lengths or in soft (annealed) coils. Sizes range from 1/4 inch to 12 inches in diameter, which 3/4 inch the most commonly used size. Soft tubing can be easily bent to shape, which eliminates the need for fittings to change direction and reduces the potential for leaks. Hard tubing is not bent but uses fittings to change direction. Hard tubing is more desirable than soft tubing because it is easier to work with. Hard copper tubing is usually used in new construction, where it is easy to access the interior of walls to install the tubing. Soft copper tubing is commonly used where flexibility is needed, such as connecting to a faucet or during repair work where it can be bent around an obstruction.

## Interactive eLearning

### Solar Thermal Installation eLearning Features Engaging Multimedia

Amatrol's extensive, thorough [multimedia](#) covers green energy themes such as solar thermal installation. Interactive screens paired with instructive graphics teach an array of solar thermal installation topics from tubing installation to plastic pipe assembly. With the optional hardware, learners can then apply this theoretical knowledge to immediate hands-on skills. For example, learners study pipe preparation and then manually cut and prepare plastic pipe for practice. This combination of theory and practice ingrains concepts in a learner's mind and makes more advanced topics easier to comprehend. (References [950-STF1](#))

## **Additional Info**

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### **Requires:**

- Computer [\(see Computer Requirements\)](#)

### **Options:**

- Solar Thermal Installation Learning System (950-STF1)
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