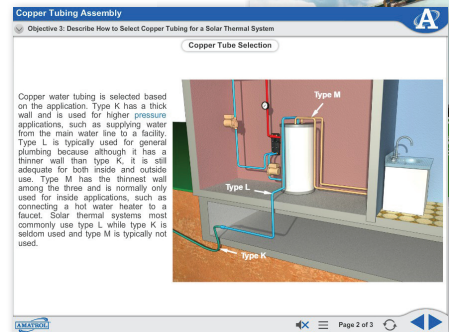


Solar Thermal Installation Learning System

950-STF1



950-STF1



Interactive Multimedia Curriculum and Student Reference Guide

Learning Topics:

- Copper Tubing Assembly
- Tubing Specifications and Preparation
- Soldering
- Tubing Installation
- Tubing Routing and Insulation
- Plastic Pipe Assembly
- Fitting Installation
- Piping Assembly
- Mechanical Installation
- Fluid System Installation
- Electrical Installation
- System Startup

Amatrol's Solar Thermal Installation Learning System (950-STF1) covers important skills for solar energy technicians such as copper tubing and plastic pipe assembly and installation, as well as solar thermal-related installation of mechanical, fluid system, and electrical applications. Solar Thermal Installation supports the NABCEP (North American Board of Certified Energy Practitioners) test for Certified Solar Thermal System Installer.

The Solar Thermal Installation system includes a mobile workstation, two centrifugal pumps, a heat exchanger, differential controller, temperature probes, solar storage tank, and more! These real-world industrial components will be used by learners to study real-world concepts like how to cut and prepare copper tubing; how to solder copper tubing and fittings; types of mounting hardware used for copper tubing; how to install threaded plastic pipe fittings; how to assemble and glue plastic pipe and fittings; and how to install insulation in solar thermal systems.



Technical Data

Complete technical specifications available upon request.

Mobile Technology Workstation
Centrifugal Pumps (2)
Heat Exchanger
Differential Controller
Temperature Probe
Solar Storage Tank
Drainback Tank
Expansion Tank
Valve Package
Instrumentation Set
Solar Collectors (2)
Multimedia Curriculum (M20103)
Teacher's Assessment Guide (C20103)
Installation Guide (D20103)
Student Reference Guide (H20103)
Additional Requirements:

Computer, see requirements: <http://www.amatrol.com/support/computer-requirements>
95-ST51 Solar Thermal Sun Simulator
95-STCS1 Solar Thermal Charging Station
17459 Consumables Package
41206 Hand Tool Package
Gas Torch, Customer Supplied

Additional Recommendations:

95-STW1 Solar Thermal Cold Water Supply
Station for water cooling where utility supply not available
95-STF2 Drawback Installation Package
95-STF3 Open-Loop Installation Package
95-SIP Solar Instruments Package

Utilities:

Electricity (120 VAC/60 Hz/1 phase)

Gain Hands-On Skills for Soldering, Cutting, and Installing Copper Tubing

Using the Solar Thermal Installation system, learners will gain an understanding of copper tubing specification, preparation, length selection, soldering, routing, and fitting installation. Specific skills that learners will practice include: selecting and identifying copper tubing for a solar thermal system; cutting and preparing copper tubing, soldering copper tubing and fittings, and installing threaded fittings in solar thermal components; and installing insulation, as well as brackets and hangers to mount copper tubing for a solar thermal system.



Practice Cutting, Installing, and Assembling Plastic Piping for Solar Thermal Systems

This system will also allow learners to explore plastic piping specification, preparation, fitting installation, and assembly. Learners will practice skills like: selecting, identifying, cutting, and preparing plastic pipe for a solar thermal system; identifying and installing threaded plastic pipe fittings in solar thermal components; and assembling and gluing plastic pipe and fittings

Highly-Interactive Solar Thermal Installation Curriculum for In-Depth Learning

Amatrol's world-class multimedia curriculum features stunning 3D graphics, audio voiceovers, and interactive quizzes and activities. In addition to the topics above, learners will also study:

methods of securing collector arrays to structures; how to weather seal collector roof penetrations; how to mount a solar storage tanks,

solar thermal fluid components, and electrical components in a solar thermal system; how to install conductors in a solar thermal system; and how to perform an initial startup on a solar thermal system.



Interactive Multimedia Curriculum

Student Reference Guide

A sample copy of the Solar Thermal Installation Student Reference Guide is also included with the system for your evaluation, along with Interactive Multimedia. Sourced from the system's curriculum, the Student Reference Guide takes the entire series' technical content contained in the learning objectives and combines them into one perfectly-bound book. Student Reference Guides supplement this course by providing a condensed, inexpensive reference tool that learners will find invaluable once they finish their training making it the perfect course takeaway.

