

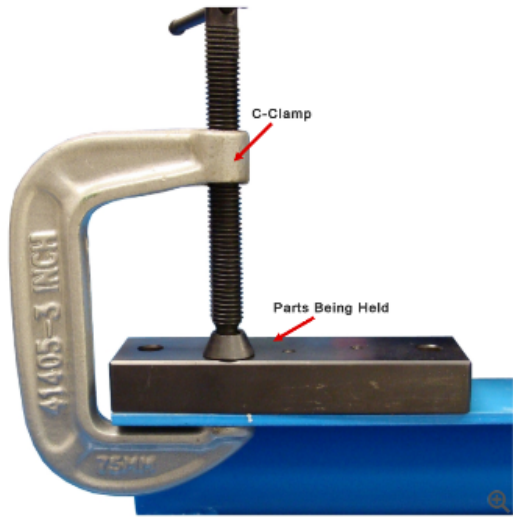
Advanced Mechanical Fabrication Training | eLearning Course

Pliers and Locking Devices - W12245-XA01UEN-E1

Objective 1: Describe How to Use a C-Clamp to Hold Parts during Assembly

C-Clamps

A C-clamp is a device that applies a clamping force to temporarily hold parts together while a more permanent adhesive or threaded fastener can be applied. The C-clamp is shaped like the letter "C" or a half loop of metal with two flat surfaces at each end that face toward the center and each other. These surfaces press against the part being clamped together.



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eLearning Course: M12245

The foundations of mechanical fabrication rest upon advanced assembly skills, including the proper use of a wide variety of hand tools. Amatrol's Multimedia Courseware – Mechanical Fabrication 2 (M12245) teaches learners essential advanced assembly skills applicable throughout modern industry. Learners using Amatrol's advanced assembly skills eLearning course begin by studying pliers, mallets, locking devices, and non-threaded fasteners. From these building blocks, learners begin practicing industry-relevant assembly skills, such as using hand tools like torque wrenches and portable power tools.

Hands-On Mechanical Fabrication Skills

Pliers and Locking Devices

Learners begin with an introduction to pliers and locking devices, including clamps, vises, and rings. Individual lessons focus on topics like how to use a C-clamp to hold parts during assembly, the operation of a cotter pin, and how to use twisted safety wire to lock a nut. Learners will also practice skills, such as using a vise to hold parts during assembly, identifying a nut locking device given a sample, and installing a snap ring.

Mallets and Non-Threaded Fasteners

Learners will study the components and operation of mallets and non-threaded fasteners, including fasteners, pins, and press fit assembly. Individual lessons focus on topics like types of hammers, how keys and keyseats are sized, and the operation of various types of pins. Learners will also practice skills, such as using a dead blow hammer to perform an assembly task, assembling two parts using a key fastener, and identifying a pin type given a sample.

Torque Wrench

Learners using Amatrol's advanced assembly skills eLearning course will study basic principles of torque wrenches, including process control concepts and applications. Individual lessons focus on topics like how torque is calculated, categories of torque-controlled tools, and common errors that result in improper fastener torque. Learners will also practice skills, such as calculating torque using the torque formula, using a manual torque wrench to tighten a fastener to a specified torque, and using a torque wrench and backup wrench to tighten fasteners.

Portable Power Tools

Learners will study various aspects and components of portable power tools, including portable drills/drivers. Individual lessons focus on topics like portable power tool safety, types of battery-operated tools, and how to install tooling in a drill/driver. Learners will also practice skills, such as identifying portable power tool hazards, operating a battery-operated drill/driver, and using a portable drill/driver to tighten fasteners.

Interactive eLearning

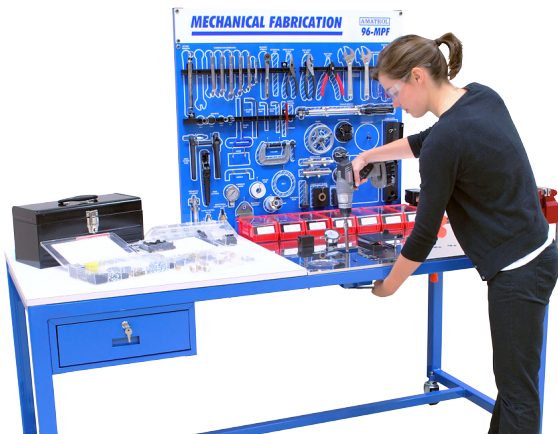
Highly-Interactive Multimedia Format Appeals to All Learning Styles

Amatrol's advanced mechanical fabrication eLearning course features interactive eLearning curriculum that integrates various types of learning methods to create an engaging, effective learning experience. Amatrol's multimedia [eLearning](#) curriculum includes text with voiceovers, videos, 3D animations, pictures, and interactive activities, quizzes, and self-reviews.

Free Learning Management System (LMS)

Amatrol eLearning is easy-to-use for both students and instructors. Its web-based interface is simple to navigate and available on any WebGL-compatible Internet browser. Instructors love Amatrol eLearning for its simple, yet sophisticated Learning Management System (LMS). The LMS allows instructors to create custom courses, monitor student participation, track course progress, assess knowledge levels prior to a course, and test knowledge levels after completion. Learners appreciate the fact that they can start and stop as needed, moving through each Amatrol course at their own pace. If a self-review reveals that they didn't understand a particular topic as well as they thought they did, they can revisit it before moving on.

Additional Info



Requires:

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

Options:

- Mechanical Fabrication 2 Learning System ([96-MPF2](#))

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