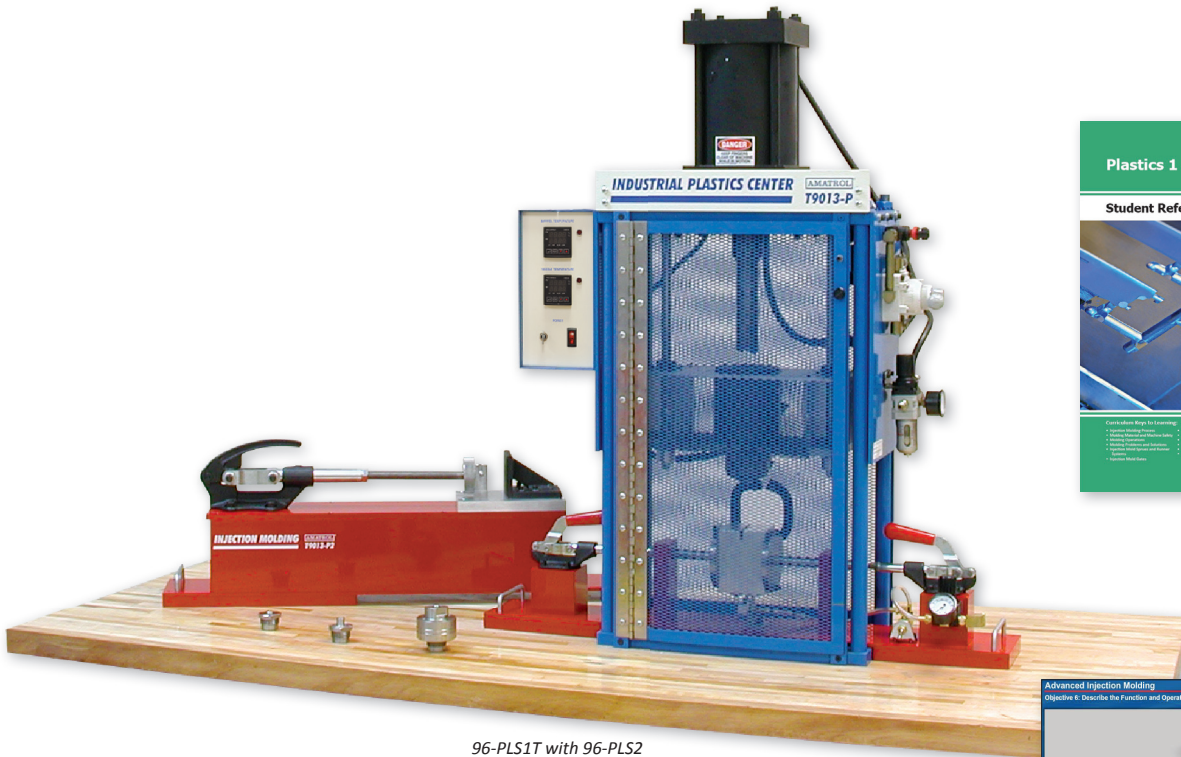
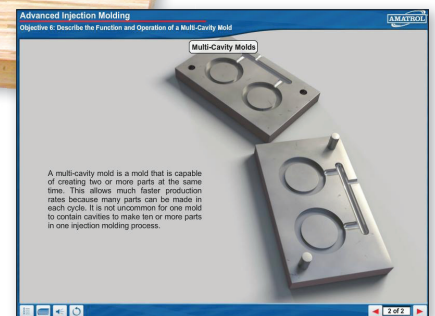


# Plastics Technology 1 and 2 Learning Systems

96-PLS1T  
96-PLS2



96-PLS1T with 96-PLS2



Multimedia Curriculum and Student Reference Guide

## Learning Topics:

- Injection Molding Operation
- Injection Mold Sprues and Runner Systems
- Injection Mold Gates and Vents
- Inserts in Injection Molds
- Integral Hinges
- System Purging
- Blow Molding Operations
- Blow Mold Design
- Extrusion Process
- Extrusion Troubleshooting

Amatrol's Plastics Technology 1 and 2 Learning Systems (96-PLS1T and 96-PLS2) cover plastics and the processes used to create plastics parts, such as injection molding, blow molding, and extrusion. It is imperative to understand each process to meet the needs of most employers because it is common for companies to have several different types of plastics processing operations at one facility. The Plastics Technology 1 and 2 Learning Systems were specifically designed for Amatrol's Project Based Learning program, which give high school students the opportunity to build vital teamwork, STEM, and problem-solving knowledge and skills.

The Plastics Technology 1 system includes an industrial plastics center and an injection molding module, and Plastics Technology 2 includes a blow molding kit and extrusion kit that can be used with the 96-PLS1T's industrial plastics center. Learners will use these industrial-grade components to study topics like: designing molds for basic injection molding plastics operations; showing how CAD/CAM software can be used to create a CNC program that will make a mold; integrating special features like inserts, threads, hinges, and snap fits; purging a plastics machine; and blow molding and extrusion processes.



## Technical Data

Complete technical specifications available upon request.

### Plastics Technology 1 Learning System (96-PLS1T)

- Industrial Plastics Center (T9013-P1-H)
  - Pneumatic Cylinder and Press
  - Plastic Press Accessories
  - Mounting Hardware for Press to Table
- Injection Molding Module (T9013-P2-ITC)
  - Injection Molding Assembly
  - ITC Key Chain Mold
  - Screwdriver Mold
  - Storage Case Mold
  - Checker Mold
  - Mold Shim Set
  - Chains for Key Chain
  - Screwdriver Kit
- Multimedia Curriculum (MB767)
- Instructor's Guide (CB767)
- Installation Guide (DB767)
- Student Reference Guide (HB767)
- Mobile Technology Workstation with Solid Maple Work Surface (82-612)
- Additional Requirements:
  - Computer: See Requirements: <http://www.amatrol.com/support/computer-requirements>
- Utilities:
  - Electricity (120 VAC/60 Hz/1 phase)

### Plastics Technology 2 Learning System (96-PLS2)

- Blow Molding (T9013-P3)
  - Blow Molding Assembly
  - Blow Molding Nozzle
  - Air Line Assembly
- Extrusion (T9013-P4)
  - Extrusion Nozzle
- Multimedia Curriculum (MB768)
- Instructor's Guide (CB768)
- Student Reference Guide (HB768)
- Additional Requirements:
  - Plastics Technology 1 Learning System (96-PLS1T)
  - Computer: See Requirements: <http://www.amatrol.com/support/computer-requirements>
- Utilities:
  - Uses electricity from 96-PLS1T

## Use a Multi-Cavity Mold to Create Parts with Plastics Technology 1

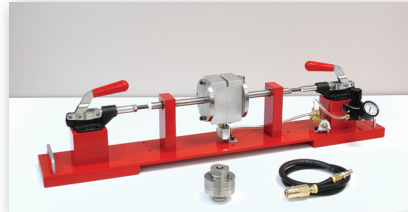
The Plastics Technology 1 Learning System is comprised of industrial-grade components including a pneumatic cylinder and press, a mobile workstation, and a variety of molds used to create plastics products like key chains, screwdrivers, and storage cases. This system's curriculum covers plastics materials, machine safety, injection mold sprues and runner systems, system purging, and much more. Learners will apply this knowledge to hands-on skills like: mounting and aligning a mold; designing an injection mold using CAD/CAM software; and using a multi-cavity mold to create parts.



Injection Molds

## Use Plastics Technology 2 to Perform Wall Thickness and Weld Strength Tests

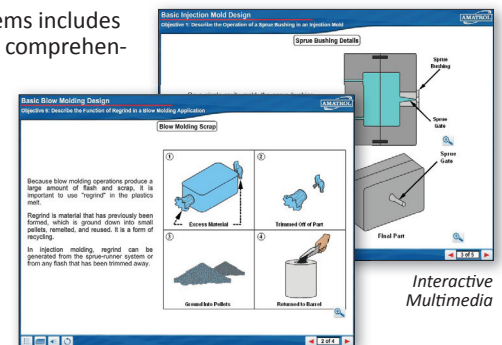
Plastics Technology 2 includes a blow molding assembly and nozzle, an air line assembly, and an extrusion nozzle. Learners will use the curriculum to study industry-relevant topics like: blow molding safety, operation and troubleshooting; blow molding materials and advanced design; and extrusion safety, operation, and troubleshooting. Learners will use this knowledge to practice skills such as: performing a wall thickness test and weld strength test; modifying a blow mold design to improve its performance; and testing an extrusion for uniform diameter.



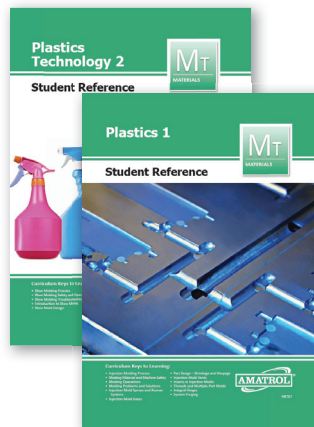
Blow Molding Assembly

## Interactive Plastics Technology Curriculum with 3D Graphics, Videos, and More!

Each of these Plastics Technology Learning Systems includes interactive multimedia curriculum, full of the comprehensive, detail-oriented course material for which Amatrol is well known. However, this multimedia format enhances the curriculum by adding 3D graphics, videos, interactive quizzes and exercises, and voiceovers of the text. This interactive approach allows Amatrol to reach every learner with a variety of teaching methods. Amatrol's multimedia is designed for either self-paced or classroom learning and can be used anywhere with a computer.



Interactive Multimedia



## Student Reference Guide

Sample copies of the Plastics Technology 1 and Plastics Technology 2 Student Reference Guides are also included with each system for your evaluation. Sourced from the curriculum, these Student Reference Guides take the entire series' technical content contained in the learning objectives and combines them into perfectly-bound books. Student Reference Guides supplement this course by providing a condensed, inexpensive reference tool that learners will find invaluable once they finish their training, making them the perfect course takeaway.

