Pick and Place Feeding Station Learning System

87-MS1

AT AUTOMATION

87-MS1
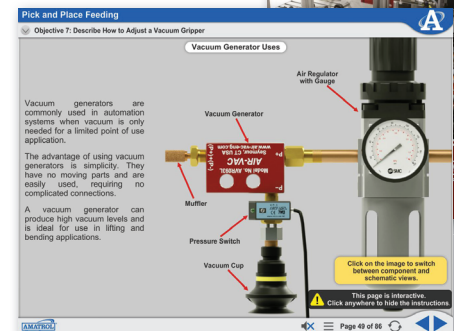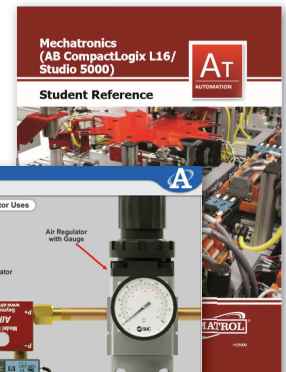
Interactive Multimedia Curriculum and Student Reference Guide

Learning Topics:

- Powered Parts Feeder Operation
- Vacuum Gripper, Vacuum Switch, and Shock Absorber Adjustment
- Material Feeding Systems
- Station Operation
- Electrical Sensors
- Electrical and Pneumatic Pick and Place
- Mechatronics Safety
- Control Systems Concepts
- Pneumatic Manipulator Operation
- Powered Parts Feeder Sequencing
- Pneumatic Manipulator Sequencing
- PLC Program Design for Station Sequencing

Amatrol's Pick and Place Feeding Station (87-MS1) is station 1 of the 870 Mechatronics Learning System and allows learners to gain valuable product testing skills used in automated processes by studying topics like control systems concepts, powered parts feeder sequencing, and vacuum switch and gripper adjustment. This learning system will allow learners to practice and study how products are tested on an automated lined, how these skills are integrated within a larger automated process, and an example of how pick and place is utilized on an automated line. The 87-MS1 requires either an Allen-Bradley CompactLogix or Siemens S7300 Mechatronics Learning System (870-MPC) and the Torque Assembly (87-MS6) and Inventory Storage (87-MS7) Stations.

This mechatronics learning system features vacuum dropper, pneumatic robot, magnetic and photoelectric sensors, and more! Learners will use these and other components to practice operating, programming, and adjusting real-world mechatronics equipment. Amatrol uses components that learners will find on-the-job in order to give the best opportunity to build confidence and industrial competencies.

AMATROL®

## Real-World Training in Sequencing and Operation for Robots

The 87-MS1 is a mobile workstation with slotted work surface that contains an operator station, powered feed module, pneumatic pick and place manipulator, finished parts storage module, parts set, a pneumatic distribution module as well as an electrical distribution module, an electro-pneumatic valve manifold, and a digital I/O interface module. Learners will use these components to practice vital mechatronics skills, such as: adjusting, programming, and operating a programmable electronic pressure transducer; designing PLC programs that sequence a pick-and-place manipulator and hydraulic clamp module; and operating an electro-hydraulic test system.

World-Class Pick and Place Curriculum and Hands-On Skills

The learning system also includes Amatrol's world-class curriculum, which combines strong theoretical knowledge and concepts with hands-on skills for the best industrial competency-building on the market. This thorough, exceptionally detailed curriculum is built to begin with basics and steadily advance to more complex concepts and skill. The Pick and Place Feeding station teaches interfacing, problem solving, programming, sequencing and much more. This station starts the process of assembling a working industrial directional control valves. The 87-MS1's curriculm covers major objectives like mechatronics safety, control systems concepts, the sequence of operation of a pick and place station, and the operation of a pneumatic manipulator.
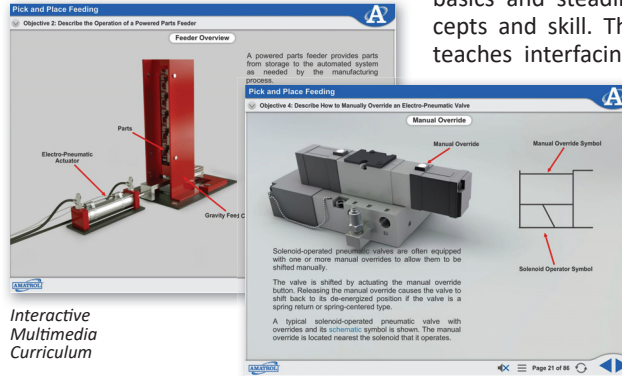
Interactive Multimedia Curriculum

Amatrol's World-Class Mechatronics Training with Siemens and Allen-Bradley PLCs

The 87-MS1 is just one of the world-class mechatronics training options offered by Amatrol. Other mechatronics stations include Gauging (87-MS2), Orientation Processing (87-MS3), Sorting/Buffering (87-MS4), Servo Robotic Assembly (87-MS5-P2), Torque Assembly (87-MS6), Inventory Storage (87-MS7), and CNC Mill-Denford CNC Micromill (87-MS8M60), and Mechatronics Hydraulic Press Learning System (87-MS9).
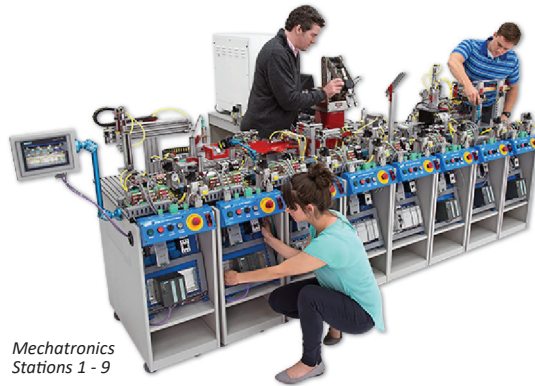
Mechatronics Stations 1 - 9

Additionally, Amatrol offers Mechatronics PLC training with both Siemens S7300 and Allen-Bradley CompactLogix PLCs. While an Amatrol Mechatronics line can feature just Allen-Bradley or Siemens PLCs, this automated line also allows for a mix so that learners can train on industry's two most widely-utilized PLCs simultaneously.

Student Reference Guide

A sample copy of the Mechatronics Barcode Identification Student Reference Guide is also included with the system for your evaluation. Sourced from the system's multimedia 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.