Mechatronics Orientation-Processing Station

87-MS3

AUTOMATION

87-MS3, compatible with either Siemens or Allen Bradley processors

Multimedia Curriculum and Processor Specific Student Reference Guide

Learning Topics:

- Part Transfer Module Sequencing
- Homing Sensor Adjustment
- Stepper Motor Controller Programming
- Capacitive Sensor Adjustment
- Fiber Optic Sensor Adjustment
- Station Operation
- Electrical Sensors
- Electrical Pick and Place
- Pneumatic Pick and Place
- Mechatronics Safety
- Control Systems Concepts
- Mechatronics Introduction
- Stepper Motor Index Table Sequencing
- Parts Orientation Sequencing
- Station Sequencing

Amatrol's Orientation-Processing Station (87-MS3) is station 3 of the 870 Mechatronics Learning System and allows learners to gain valuable product testing skills used in automated processes by studying topics like part transfer module sequencing, capacitive sensor adjustment, mechatronics safety, and more. This learning system will allow learners to practice and study how products are tested on an automated line, how these skills are integrated within a larger automated process, and an example of how orientation-processing is utilized on an automated line. The 87-MS3 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 stepper motors, inductive sensors, giant magnetoresistive sensors, parts orientation, 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®

Technical Data

Complete technical specifications available upon request.

Mobile Workstation
Operator Station
- 8-Station Rotary Index Table
- Pick and Place Pneumatic Robot
- Fiber Optic Gauging Module
- Parts Transfer M0dule
- Finished Parts Storage Module
- Pneumatic Distribution Module
- Electrical Distribution Module
- Electro-Pneumatic Valve Manifold
- Digital I/O Interface Module

Acrylic Valve Body, 1 ¼-in. x 1 ¼-in. x 15/16-in.
Lockout/Tagout
- Safety Lock Hasp
- Lockout Safety Tag
- 2-Key Padlocks
- Cable, DB9 Male-DB9 Male, 3-in.
- Power Cord Jumper

Multimedia Student Curriculum (M25084)
Teacher's Assessment Guide (C25084)
Install Guide (D25084)
Student Reference Guide (H25084)
Additional Requirements:
- Mechatronics Learning System (870-AB):
  - Allen-Bradley CompactLogix or (870-PS7)
  - Siemens S7300
- Computer, see requirements: http://www.amatrol.com/support/computer-requirements

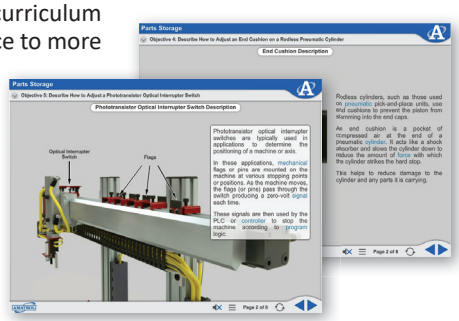
Utilities:
- Electricity (120 VAC/60 Hz/1 phase)
- Compressed Air

Industrial Grade Components for Real-World Training

The 87-MS3 is a mobile workstation with slotted work surface that contains an operator station, ultrasonic measurement module, proximity gauging module, part transfer module, part reject module, 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 capacitive and fiber optic sensors, sequencing parts orientation and stepper motor index tables, programming stepper motor controllers, and more.

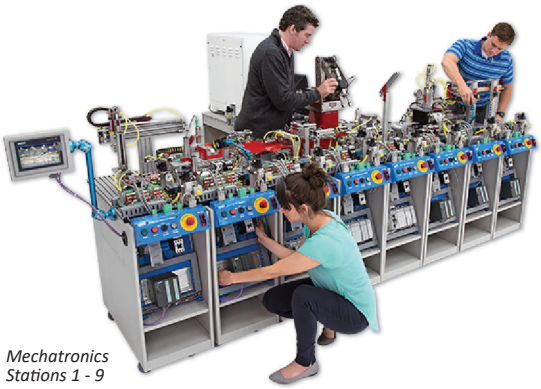
Basic to Advanced Mechatronics Orientation-Processing Curriculum Offers Unparalleled Training

Amatrol's world-class curriculum, which comes with the selected PLC, 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 the basics and steadily advance to more complex concepts and skill. The Inventory Storage station teaches interfacing, problem solving, programming, sequencing and operation for pick and place storage, pneumatic grippers and brakes, infrared sensors, and a programmable pneumatic traverse module. This station sorts the completed assemblies of working industrial directional control valves. Interactive multimedia is included for select Allen Bradley and Siemens processors.



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

The 87-MS3 is just one of the world-class mechatronics training options offered by Amatrol. Other mechatronics stations include Pick and Place (87-MS1), Gauging (87-MS2), 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 Student Reference Guide is also included with the system for your evaluation. 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.

AMATROL®

2400 Centennial Blvd. Jeffersonville, IN 47130 USA 800.264.8285 812.288.8285 www.amatrol.com