

Gauging Station Learning System

87-MS2



87-MS2
(Shown with Siemens S7300
Allen-Bradley PLCs also available)



Multimedia Curriculum and Student Reference Guide

Learning Topics:

- Station Operation
- Go/No-Go Gauging
- Analog Sensors
- Actuator Adjustment
- Non-Servo Linear Traverse Axis Travel
- Synchronous Belt Drive
- Module Sequencing
- Part Reject Module
- Station Sequencing
- Manual/Auto/Reset Functions

Amatrol's Gauging Station (87-MS2) is the second station of the 870 Mechatronics Learning System and allows learners to gain valuable product testing skills used in automated processes by practicing the operation, adjustment, and programming of a go/no-go gauging system. 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 examples of how automated gauging is utilized in real-world environments. The 87-MS2 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 real-world components like a non-servo electric traverse axis, limit switches, ultrasonic sensor, go/no-go gauging, and more! Learners will use these and other components to study station operation, actuator adjustment, module sequencing, and station sequencing. Amatrol uses components that learners will find on-the-job in order to give the best opportunity to build confidence and industrial competencies.

Technical Data

Complete technical specifications available upon request.

Mobile Workstation

Operator Station

- Traverse Shuttle
- Ultrasonic Measurement Module
- Proximity Gauging Module
- Part Transfer Module
- Part Reject Module
- Finished Parts Storage Module
- Pneumatic Distribution Module
- Electrical Distribution Module
- Electro-Pneumatic Valve Manifold
- Digital I/O Interface Module

Acrylic Valve Body, 1 1/4-in. x 1 1/4-in. x 15/16-in. (4)

Lockout/Tagout

- Safety Lock Hasp (2)
- Lockout Safety Tag (2)
- 2-Key Padlocks (4)
- Cable, DB9 Male-DB9 Male, 3-in.
- Power Cord Jumper

Student Curriculum (Processor Specific)

Instructor's Guide (Processor Specific)

Install Guide (Processor Specific)

Student Reference Guide (Processor Specific)

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)

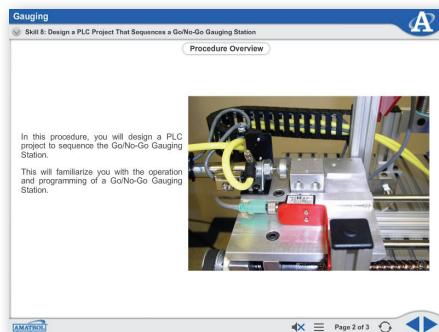
Compressed Air

Adjust Synchronous Belts Using Industrial Grade Components

The 87-MS2 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 ball screw drives and synchronous belts; designing PLC programs for sequencing; adjusting an analog sensor with a discrete output; and more.

Unmatched Pick and Place Curriculum

This 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 the basics and steadily advance to more complex concepts and skill. The Gauging station teaches interfacing, problem solving, programming, sequencing and operation for go/no-go gauging, analog sensor adjustment, non-servo electric traverse axis, synchronous belt drive, ball screw drives and part rejection/transfer. This station adds the step of quality inspection in the automated process of assembling a working industrial directional control valve.



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

The 87-MS2 is just one of the world-class mechatronics training options offered by Amatrol. Other mechatronics stations include Pick and Place (87-MS1), 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).



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.

