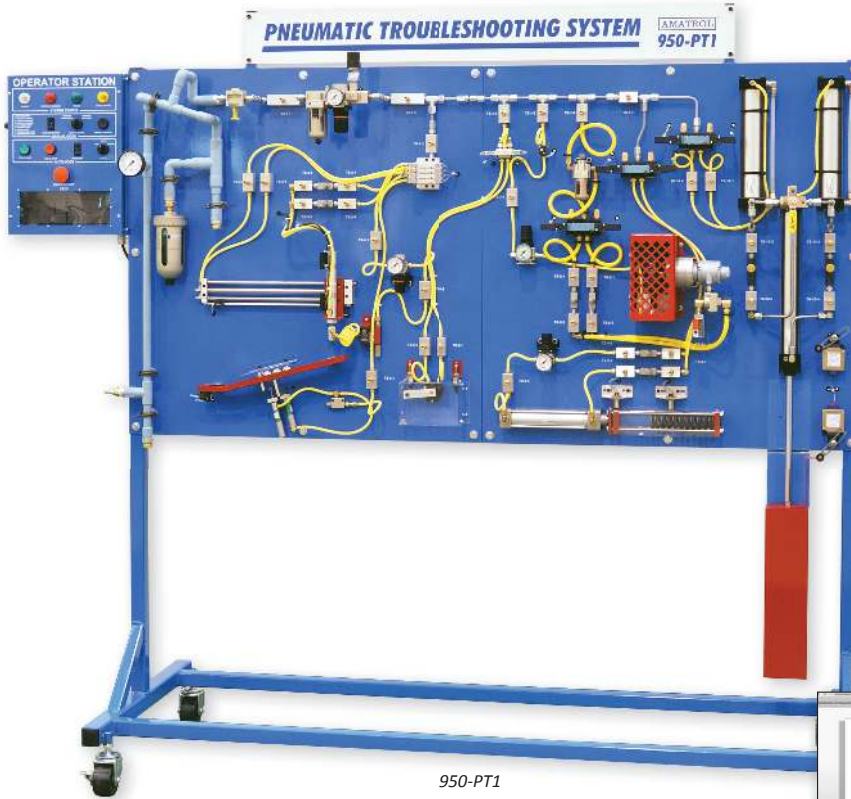


# Pneumatic Troubleshooting Learning System

950-PT1

Fp

FLUID  
POWER



950-PT1



Student Reference Guide, FaultPro, and Optional eBook

## Learning Topics:

- In-Circuit Pneumatic Component Testing
- Air Preparation Troubleshooting
- Troubleshooting Pneumatic Cylinders
- Air-Over-Oil System Operation
- Motor and Rotary Actuator Troubleshooting
- Rotary Actuator Operation
- Troubleshooting DCV and Flow Control Valves
- Quick Exhaust Valves
- Troubleshooting Vacuum Systems
- Vacuum Switch Operation
- Troubleshooting Pneumatic Systems

Amatrol's Pneumatic Troubleshooting Learning System (950-PT1) models a real-world electro-pneumatic machine, driven by an Allen-Bradley MicroLogix 1200 programmable logic controller, and features over 30 electronically-inserted pneumatic, mechanical and electrical faults using FaultPro, Amatrol's state-of-the-art fault insertion software. Understanding how to troubleshoot problems that arise in pneumatic systems is a vital industrial skill that is irreplaceable for maintenance technicians and others in industries like packaging, pharmaceutical, automotive, and more. The system is set up with realistic loads, pressures, and heavy-duty pneumatic components, just like learners will see in the workplace. The features also make the 950-PT1 an excellent system for teaching advanced pneumatics, system tuning, installation, and maintenance.

The 950-PT1 includes real-world components such as pressure gauges, pneumatic cylinders, pneumatic motor, directional control valves, flow control valves, limit switches, and more. These components will be used to cover major topics like vacuum pick-and-place, rotary actuator operation and troubleshooting, air-over-oil system operation and troubleshooting, and quick exhaust valves. Learners will immediately practice applicable hands-on skills after studying each topic to increase understanding of how theoretical concepts are directly related to the real-world pneumatic troubleshooting applications.



## Technical Data

Complete technical specifications available upon request.

### Mobile Workstation

#### Header System

- Main Header Line
- System Inlet Pressure Gauge
- Branch Line Drop Leg

#### Overrunning Load Circuit

- DCV, 5-way, 3-position
- Hydraulic Flow Control Valves (2)
- Hydraulic Cylinder

#### Compression Load Circuit

- DCV, 5-way, 3-position
- Cylidner, JIC type
- Inductive Limit Switches (2)

#### Running Load Circuit

- DCV, 5-way, 3-position
- Lubricator
- Flow Control Valves (2)

#### Radial Load Circuit

- DCV, 5-way, 2-position
- Flow Control Valves (2)
- Limit Switches (2)

#### Vacuum Load Circuit

- DCV, 5-way, 2-position (4)
- Flow Control Valves (3)
- Pressure Regulator w/ Gauge

#### PLC Control Unit

- Allen-Bradley MicroLogix 1200 PLC
- Indicator Lights (4)
- Emergency Stop Pushbutton

#### FaultPro USB 4.0 Electronic Troubleshooting Software

#### USB Cable and Interface

#### Student Curriculum (BB546)

#### Optional eBook Curriculum (EB546)

#### Instructor's Guide (CB546)

#### Installation Guide (DB546)

#### Student Reference Guide (HB546)

#### Additional Requirements:

- Hand Tool Package (41221)
- Computer: See requirements: <http://www.amatrol.com/support/computer-requirements>

#### Utilities:

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

## Practice Real-World Skills for Pneumatic Troubleshooting, Maintenance, and Installation

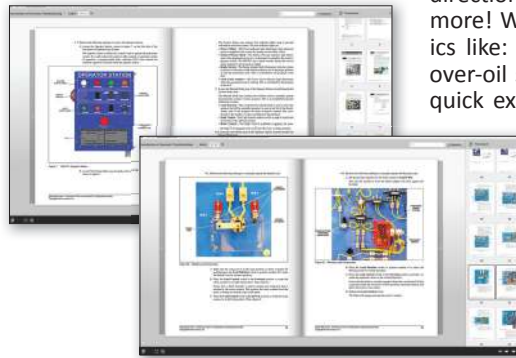
The 950-PT1 teaches troubleshooting effectively because the pneumatic system operates under actual load conditions. Each application exposes learners to a different type of load including inertial, friction, compression, and static loads. The 950-PT1 gives learners experiences they normally could get only on the job. Each of the major circuit panels replicates a common application. The PLC control offers a variety of thumbwheel selectable programs to change sequences, presenting learners with different troubleshooting scenarios.



950-PT1 Operator Station

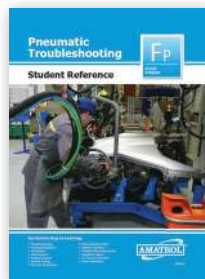
## World-Class Pneumatic Troubleshooting Curriculum with an Optional eBook Format

The comprehensive curriculum included with the 950-PT1 provides a strong understanding of troubleshooting areas such as air preparation, pneumatic cylinders, motor and rotary actuator, directional control and flow control valves, and much more! Within this curriculum, learners will study topics like: in-circuit pneumatic component testing; air-over-oil system operation; rotary actuator operation; quick exhaust valves; vacuum switch operation; and troubleshooting machine performance faults. Optionally, this curriculum is available in an online eBook format. This eBook includes all of the content from the printed version, but provides an efficient online alternative with enhanced features such as keyword searches and zoom controls that enable a user to quickly locate and view information.



## Pneumatic Troubleshooting Using FaultPro, Amatrol's Electronic Fault Insertion Software

The 950-PT1 System includes Amatrol's unique FaultPro computerized troubleshooting system, which automatically inserts faults and tracks learners troubleshooting efforts. FaultPro features online control of the troubleshooting activity through menu-driven screens, making it easy for learners to set up and perform their own troubleshooting exercises for both practice and testing sessions. The computerized fault insertion system avoids damage to the equipment that is normally associated with manual fault insertion because it inserts faults electronically. The 30 faults that make up the fault insertion system present learners with realistic troubleshooting experiences. Faults can be inserted into the electrical system, loads, and pneumatic system.



## Student Reference Guide

A sample copy of the Pneumatics Troubleshooting Student Reference Guide is also included with the system for your evaluation. 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.

