Manufacturing Excellence: Mastering Equipment Troubleshooting

written by Lauri Moon | October 2, 2025

Mastering Equipment Troubleshooting

(3-day, in-person)

This program starts in:

Overview

This intensive, interactive program provides participants with skills, methods, and confidence to systematically identify, diagnose, and resolve equipment problems. Using real-world examples and shop-floor exercises, the training builds troubleshooting capability that minimizes downtime, improves equipment reliability,

and increases productivity.

Register now for only $1,295 per person!

Register

Learning Objectives

By the end of the training, participants will be able to:

- Apply a **structured troubleshooting methodology** to equipment issues.
- **Identify root causes** of mechanical, electrical, pneumatic, and hydraulic problems.
- Use **diagnostic tools and job aids** effectively.
- **Document** and **communicate** troubleshooting steps and outcomes.
- Strengthen **cross-functional teamwork** between operators, maintenance, and engineering.
- **Reduce** unplanned **downtime** through proactive problem-solving.

Course Outline

Day 1 – Foundations of Troubleshooting

- Introduction to Equipment Troubleshooting
    - Purpose and benefits of structured troubleshooting
    - Link to TPM, OEE, and reliability goals
- Systematic Troubleshooting Process
    - Define the problem clearly
    - Safety considerations before troubleshooting
    - Understanding sequences of operations
    - Isolating vs. identifying root cause
- Tools and Techniques Overview
    - Visual inspection, sensory checks
    - Use of checklists, logs, and job aids

        - Communication between operators and technicians
    - Troubleshooting Workshop 1
        - Basic troubleshooting exercises (mechanical focus)

Day 2 – Diagnostic Skills Development

- Mechanical Systems Troubleshooting
    - Common failure modes (bearings, belts, gears, lubrication issues)
    - Case study and interactive exercise
- Electrical Systems Troubleshooting
    - Basics of electrical safety and lockout/tagout (LOTO)
    - Common electrical faults (circuits, fuses, sensors, wiring)
    - Fundamental electrical testing procedures
- Pneumatic & Hydraulic Systems
    - Recognizing leaks, pressure losses, and actuator failures
    - Practical lab exercise with simulated faults
- Team-Based Problem-Solving Exercise
    - Group challenge troubleshooting simulations

Day 3 – Application and Continuous Improvement

- Root Cause Analysis in Troubleshooting
    - 5 Whys, fishbone diagrams, and fault tree analysis
    - Documenting findings for prevention
- Integrating Troubleshooting into TPM
    - Operator involvement and autonomous maintenance
    - Standardizing troubleshooting steps and checklists
- Troubleshooting Workshop 2
    - Basic troubleshooting scenarios (electrical focus)
- Measuring Success
    - Linking troubleshooting performance to OEE and downtime metrics
    - Establishing KPIs for ongoing improvement
- Action Planning & Closing Discussion
    - Participant action steps for applying skills on the job
    - Q&A, lessons learned, and next steps

Register now for only $1,295 per person!

Register

Who Should Attend

This program is ideal for machine operators, technicians, maintenance staff, supervisors, and engineers.

Meet Your Instructor

Larry Bouvier, CRL, CMRP
Vice President, Fuss & O'Neill Manufacturing Solutions, LLC

Larry Bouvier is a dynamic and hands-on leader in plant engineering and maintenance with over 14 years as Vice President at Fuss & O'Neill Manufacturing Solutions. With certifications in reliability (CRL) and maintenance (CMRP), Larry brings decades of experience mentoring and training manufacturers to improve workplace safety, asset performance, and operational excellence. He specializes in world-class asset management, TPM, RCM, CMMS implementation, and maintenance optimization. Through his practical, shop-floor approach, Larry helps clients build sustainable culture change and long-term value across their operations.

This program is WEDnetPA eligible.