

Maintenance Training

Material Handling System Mechanical and Controls Maintenance

General Information

Course Number: 2-112
Format: Instructor Led
Length: 4 days
Maximum Students: 8

Audience

This course is for technicians who maintain the material handling system.

Customer Equipment Requirements

- Dedicated training room with a projector and a white board with markers.
- Access to on-site Dematic equipment.

Prerequisites

- A general knowledge of mechanical and electrical systems and drawing sets.
- A general knowledge of safety and lockout/tagout procedures.
- A basic knowledge of mechanical and electrical test and repair equipment.

Benefits

Participants in this course will learn to safely perform mechanical, electrical, and controls maintenance procedures. Knowledge gained on common system anomalies can be used to increase system uptime.

Course Objectives

Upon completion of this course, the student should be able to:

- Identify information and components in the system mechanical and electrical drawings.
- Explain the function of the mechanical, electrical, and controls system components.
- Identify operational issues affecting system uptime.
- Safely perform mechanical, electrical, and controls maintenance procedures.

Topics

1. General

- a. Safety
- b. System Overview
- c. Electrical Terminology and Circuits
- d. Nomenclature and Abbreviations
- e. Drawing Sets Reading and Numbering
- f. System Documentation Access and Contents
- g. Identification of Replacement Parts

2. Components

- a. Variable Frequency Drives (VFDs)
- b. Programmable Logic Controllers (PLCs)
- c. Motorized Drive Rollers (MDRs)
- d. Scanners and Sensors
- e. Drives, Belts, Rollers, Sorters

3. Controller Hardware

- a. Induction
- b. Sortation
- c. Sort Controllers

4. Conveyor Theory

- a. Theory and Rules
- b. Product Flow
- c. Modes
- d. Conveyor Controls
- e. Control Hardware
- f. Recovery

5. Processes and Operations

- a. Control Levels
- b. Networking
- c. Accumulation
- d. Pick/Put Systems

6. Preventive Maintenance Program

- a. Components of a Good Maintenance Program
- b. Program Development
- c. Inspections