

Industrial Pneumatics

Industrial Pneumatics is a three-day course designed to give maintenance personnel a complete understanding of the operation and maintenance principles involved with pneumatic systems. Topics such as compressed air safety, component design and installation, and system cleanliness will be the primary focus of this course. All maintenance personnel who work on compressors or are involved with the daily repair and operation of pneumatic systems are strongly encouraged to attend this course.

I. Introduction

- Industrial Safety
- Accident Prevention
- Stored Energy System Safety

II. Pneumatic Theory

- Advantages of Fluid Power
- Transmission of Forces
- Force and Pressure
- Computing Force, Pressure, and Area
- Force and Pressure in Fluid Power Systems
- Multiplication of Forces
- Compressibility and Expansion of Gases
- Work and Energy
- Work and Power
- Factors Involved in Flow
- Bernoulli's Principle
- Advantages of Pneumatics
- Pneumatic Applications
- Pneumatic Symbols

III. Pneumatic Components

- Purification Equipment
- Piping and Connectors
- Pneumatic Cylinders
- Pneumatic Control Valves
- Compressors
- Pneumatic Motors
- Pneumatic Tools

IV. Pneumatic Circuits

- Basic Pneumatic System
- Simple Circuits
- Pneumatic Circuits