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THE FPDA  MOTION & CONTROL NETWORK

## Introduction to Pneumatics Concepts and Components

**Course Description:** This course is designed to introduce the student to how Pneumatic fluid power is used in industry and show students the major components that can be found in pneumatic systems.

**Prerequisites:** None

**Textbook:** 3-ring textbook + Womack Fluid Power Data Booklet

### Learning Objectives:

- Define the term fluid power for pneumatic systems.
- List advantages and disadvantages of a hydraulic system vs. a pneumatic system.
- Define flow rate and the terms CFM.
- Define force and the term PSI.
- Define the main function of receivers.
- Define the main function of compressors and list different types.
- Define the main function of cylinders and motors.
- Define the main function of directional controls.
- Define the main function of pressure controls.
- Define the main function of flow controls.
- Define the term and concepts of filtration and lubricators.
- Define the main function of flow meters, gauges, and pressure taps.
- List the terms and uses of fittings, tube, pipe & hoses.
- Explain the use and look of schematics.