

## Motion & Control Involvement Training Pneumatic Circuitry Description and Course Outline

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### I. Program Description

SNO-Motion's Pneumatic Circuitry course is a completely integrated three-day program during which the student discusses and works with the designing and layout of pneumatic applications. Schematic symbology is the main focus of this course along with practical hands-on circuit building lab work.

#### A. Aims/Objectives

##### In this course we:

- are given an in-depth look at graphic symbols based on the ISO 1219 standard
- receive help in reading and understanding system schematics of typical pneumatic circuits
- will be able to use system schematics for effective troubleshooting

#### B. Major Topics Covered

- Air preparation circuits
- Pressure control circuits
- Speed control circuits
- Sequencing circuits
- Air logic control circuit
- Electropneumatic control circuits
- Vacuum circuits

### II. Who Should Participate

Maintenance, engineering and sales personnel who have a thorough understanding of how pneumatic components operate and relate to each other within a system. A prerequisite of attending the Basic Pneumatic Technology Course or the former Industrial Pneumatic Technology Course has been established to provide the student with the most efficient use of the class time

### III. Session Information

Classes are conducted several times per year. For scheduled dates, contact our offices.

**SNO-Motion Solutions**  
41 West Guest Avenue  
Salt Lake City, UT 84115  
Phone: 801.281.4SNO(4766)  
Fax: 801.263.6404

**To Apply for Training Class on Line:**  
<http://www.sno-motion/trainingsignup.html>  
and choose the appropriate class title.

# Motion & Control Involvement Training

## Pneumatic Circuitry

### Course Outline

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Note: This course outline is presented to show the areas of discussion contained in the three-day training program. During the course, variations in the outline may occur – this would be at the discretion of the instructor and would only be changed to improve the class.

#### **A. First Day of Class**

- A. Introductions
- B. Basic pneumatic graphic symbols – ISO 1219
- C. Air preparation – compressors, filters and lubricators
- D. Video – “Aftercoolers, Driers, Receivers and Air Distribution Systems”
- E. Pressure control circuits – regulators and intensifiers
- F. Pressure control lab work

#### **B. Second Day of Class**

- A. Speed control circuits
- B. Fluid stabilization circuits
- C. Speed control lab work
- D. Sequencing circuits
- E. Sequencing lab work

#### **C. Third Day of Class**

- A. Pneumatic air logic control circuits
- B. Grafcet design problems
- C. Electropneumatic control circuits
- D. Understanding ladder diagrams
- E. Safety circuits
- F. Vacuum circuits
- G. Vacuum lab work