**LAP 6 Pneumatic Power Systems**

**Objectives**

1. Define pneumatics and give an application
2. Describe the functions of basic components of a pneumatic system
3. Define pressure and give its units of measurement
4. Describe the function of a pneumatic schematic
5. Explain six pneumatic safety rules
6. Describe the function of a pressure regulator valve and give an application
7. Describe the operation of a pressure regulator and give its schematic symbol
8. Describe the function of an air filter
9. Describe the operation of an air filter and give its schematic symbol
10. Describe the function of a pneumatic quick connect fitting and give its schematic symbol
11. Describe the function of a tee and a cross and give their schematic symbols
12. Describe the function of a pneumatic cylinder and give an application
13. Describe the operation of a double-acting pneumatic cylinder and give its schematic symbol
14. Describe the function of a 3-position, 4-way pneumatic DCV and give an application
15. Describe the operation of a 3-position, 4-way pneumatic DCV and give its schematic symbol

**Skills**

1. Read a pneumatic pressure gage
2. Connect and adjust a pressure regulator
3. Drain a pneumatic filter
4. Connect a pneumatic hose that uses quick-connect fittings
5. Use a tee to connect two circuit branches together
6. Use a cross to connect three circuit branches together
7. Connect and operate a double-acting pneumatic cylinder using a 3-position, manually-operated DCV
8. Design a multiple cylinder pneumatic circuit