**Fluid Power Schematic Symbols**

**Cylinders**

- Double-Acting, Single End Rod
- Single-Acting, Pull
- Double-Acting, Double End Rod

**Compressors and Motors:**

**Compressors**

- Fixed Displacement, Single Rotation
- Fixed Displacement, Bi-Rotational
- Variable Displacement

**Motors**

- Fixed Displacement, Single Rotation
- Fixed Displacement, Bi-Rotational
- Variable Displacement

**Directional Control Valves**

- 2-way, normally closed (NC)
- 2-way, normally open (NO)
- 3-way, 2 position
- 4-way, 2 position

**Directional Control Valve Actuators**

- Cam operated
- Manual lever
- Palm button
- Pedal
- Solenoid
- Spring centered solenoid
- Spring center
- Pilot operated
Miscellaneous Fluid Power Components

- Manual valve
- Fixed restriction
- Variable restriction (needle valve)
- Pressure compensated flow control
- Check valve
- Flow control
- Pressure gauge
- Pressure switch (pneumatic system)
- Gas-charged accumulator
- Pressure intensifier
- Heat exchanger

Typical Complete Pneumatic System

- Double-acting cylinder
- Single-acting spring return cylinder
- Two-position, three-way solenoid valve
- Two-position, four-way, five-port solenoid valve
- Pressure switch
- Air Receiver (tank)
- Pressure regulator
- Strainer
- Compressor
- Pressure relief valve
- Pressure gauge