

Pneumatic design systems

Pre-request: Have good knowledge with mechanics and fluids

Course duration: 36 Hours

On completing this course you will be able to:

- Understand the Physical fundamentals of pneumatics
- Able to Designation and drawing of pneumatic symbols
- Fault finding in pneumatic control systems
- Safety Regulations in pneumatic control systems
- Control system with vacuum components
- Program control system with stepper modules
- Time-program control
- process-controlled sequence controls

Course Content:

- Physical fundamentals of pneumatics
- Function and application of pneumatic components
- Designation and drawing of pneumatic symbols
- Representation of motion sequences and switching statuses
- Drawing pneumatic circuit diagrams in accordance with standards
- Direct and indirect stroke-dependent control systems
- Logical AND/OR function of input signals
- Time-dependent control systems with time delay valve

- Pressure-dependent control systems with pressure sequence valves
- Fault finding in simple pneumatic control systems
- Safety Regulations
- Function and application of pneumatic components
- Stroke-dependent control systems with different sensors
- Control system with start and setting-up conditions (Automatic , Manual , Single Cycle/Continuous Cycle ,Manual step mode , stop at end of cycle)
- Control system with vacuum components
- Step diagram control system/process-controlled sequence controls
- Program control systems with stepper
- Control systems with safety conditions(Emergency-Stop/Emergency-Stop reset)
- Program control system with stepper modules (Quick stepper)
- Pneumatic counting , storing, adding
- Resetting of components (e.g. back pressure valve, proximity switch)
- Time-program control/Time-oriented sequential control
- Fault finding in extensive pneumatic control systems