

# CKD

## Control Technology Trainings



**CKD** provides a range of comprehensive & professional trainings to help enhance the knowledge & skills needed for Pneumatic & related system in Automation Industries.



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## Introduction to Pneumatics Technology

### Training Contents

1. Fundamental Principles of Compressed Air
2. Compressed Air Production, Purification and Distribution system
3. Construction and principle of operations of Cylinders & Pneumatic valves
4. ISO & JIS Symbols of Pneumatic Components
5. Designing of Simple Pneumatic circuit

## Introduction to Electro-Pneumatic System

### Training Contents

1. Fundamental Principles of Electrical circuit
2. Construction and principle of operations of Electrical components
3. Construction and principle of operations of Cylinders & Solenoid valves
4. ISO & JIS Symbols of Pneumatic & Electrical Components
5. Designing of Simple Electro-Pneumatic circuit

## Introduction to Basic PLC Control System

### Training Contents

1. Structure and principle of operations of PLC
2. Understanding how the Input & Output (I/O) Units work
3. Connection of I/O devices (e.g.: solenoid valves, auto switch, etc) to the I/O units
4. Reading & Understanding of simple Ladder Diagram
5. PLC Selection

## Who should attend?

Technical or relevant staffs who are involved in the assembly, maintenance or design of automation machine with Pneumatic system.

## Where & When will the training be held?

Training could be held in CKD or in customers' premises on the agreed date.



## Introduction to Advance Pneumatics Circuit Design

### Training Contents

1. To understand & design Pneumatic circuits with:
  - a) Safety conditions
  - b) Logic control
  - c) 2 hands no-tie down requirement
  - d) Continuous cycle operation with counter
  - e) Sequential control using cascading design method
  - f) Additional conditions such as:  
Single/Continuous cycle  
Manual/Automatic Mode & E-Stop conditions

## Maintenance on Electro-Pneumatic System

### Training Contents

1. Fundamental Principles of Compressed Air
2. Compressed Air Production, Purification(CAPS) and Distribution System
3. Troubleshooting & Maintenance for CAPS
4. Construction and principle of operations of Cylinders & Solenoid valves
5. Troubleshooting & Maintenance for Cylinders, Valves and Auto switches

## Introduction to Vacuum Technology

### Training Contents

1. Introduction of Vacuum Technology & it's applications
2. Fundamental Principles of Vacuum Theory
3. Understanding Vacuum Generation using Vacuum Pump or Ejector
4. Understanding of Vacuum Components & it's functions
5. Vacuum Components' Selection
6. Reading of Vacuum Circuit

### How long Is the training?

The duration of the trainings varies from HALF to TWO days depending on the requirement of hands on practices and the class size. For more information, kindly contact our CKD Sales Engineers.



## CKD Training Panels

CKD light & portable training panels allows hands-on practices on Pneumatic, Electro-Pneumatic & PLC system at your convenience.



Part Number: CKD-TRNG1

For practical hands-on of basic Pneumatic circuit on Aluminium panel



Part Number: CKD-TRNG4

For practical hands-on of basic Pneumatic circuit on panel in portable box



Part Number: CKD-TRNG3

For practical hands-on of basic /complex Electro-Pneumatic circuits or PLC control system.

To be used with CKD-TRNG1 or CKD-TRNG4.