

### **Technical Description**

The THPQD-E1 is designed for the experiments covering courses of "Pneumatic Drive Technology" and "Hydraulic and Pneumatic Drive", which addresses the requirements of colleges or vocational schools. It is available to pneumatic demonstration, pneumatic control technology simulation and pneumatic curriculum design in addition to the basic control circuits of pneumatic with multi-control modes. The bench-station is made from aluminum and all the pneumatic components are brought out to the special sockets to facilitate connection. Safety has been paramount during the development of this equipment (current type leakage protection, over current protection and over pressure protection) and every effort has been made to protect both the user and instruments.

### Product Introduction

### **Specification**

- Power supply: single-phase AC 220V  $\pm 10\%$  50Hz
- Power capacity: <1kVA
- Air compressor: Power 125W Cubage 10L

Max working pressure 1.3MPa

• Dimensions: 162×73×152cm

#### **Experiments**

#### Pneumatic & PLC-controlled basic circuits

- Continuous circulation motion pneumatic control circuit controlled by limit valve
  - Automatic door ON/OFF control
  - •Fundamentals of pneumatic & PLC control principle

#### **Basic circuits**

More than fifty kinds of basic pneumatic circuit

# Relay-controlled pheumatic system

- Cylinders buffer circuit
- Cylinders feeding system (Rapid-traverse feed→slow feed→rapid back)
  - Double-cylinder circuit
  - A. A feed $\rightarrow$ A back $\rightarrow$ B feed $\rightarrow$ B back
  - B. A feed $\rightarrow$ B feed $\rightarrow$ A back $\rightarrow$ B back
  - C. A feed→B feed→B back→A back circulatory
  - Electric car, bus pneumatic equipment
  - Blast furnace feeding equipment

### **PLC-controlled circuit**

- PLC instructions programming training
- Simulation of drill action of the drill press
- Umbrella tester

## Practical pneumatic system design

• Design of furniture tester pneumatic system