



## Description

The Pneumatic Trainer Kit is a comprehensive educational system designed to provide hands-on training in pneumatic control systems. The kit enables the study of pneumatic actuation, directional control, flow control, logic circuits, and electro-pneumatic applications. All components are industrial-grade, modular, and mounted on an anodized aluminum profile plate integrated with a dedicated pneumatic workstation.

## Technical Specifications

### I. Pneumatic Actuators

Component	Specification	Quantity
Single-acting cylinder	Stroke: 50 mm, Bore: 20 mm	01 No.
Double-acting cylinder	Stroke: 100 mm, Bore: 20 mm, Magnetic type	01 No.

### II. Manually & Pneumatically Actuated Valves

Component	Specification	Quantity
3/2-way valve	Manually actuated, Normally Closed	02 Nos.
3/2-way valve	Pneumatically actuated, Spring return	01 No.
5/2-way valve	Manually operated switch	01 No.
5/2-way valve	Pneumatically actuated, Spring return	01 No.
5/2-way valve	Pneumatically actuated, Double pilot	01 No.
3/2-way roller lever	Direct actuation, Normally Closed	02 Nos.

*Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.*



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Component	Specification	Quantity
valve		

### III. Flow Control & Logic Elements

Component	Specification	Quantity
One-way flow control valve	—	02 Nos.
Shuttle valve (OR logic)	—	01 No.
Two-pressure valve (AND logic)	—	01 No.

### IV. Measuring & Distribution Components

Component	Specification	Quantity
Pressure gauge	Range: 0–16 bar	01 No.
Manifold	6-way with self-closing non-return valve (NRV)	01 No.

### V. Electrical & Electro-Pneumatic Components

Component	Specification	Quantity
Pushbutton station	3 illuminated momentary switches (1NO + 1NC) and 1 illuminated maintained switch (1NO + 1NC), Contact load: 2 A	01 No.
Relay station	3 relays, each with 4 contact sets (3NO + 1NC) / Changeover type, Rating: 5 A	01 No.
3/2-way solenoid valve	Single solenoid with LED indication	01 No.
5/2-way solenoid valve	Single solenoid, manual override, LED indication	01 No.
5/2-way solenoid valve	Double solenoid, manual override, LED indication	01 No.
Power supply unit	Input: 85–265 V AC, Output: 24 V DC, Max. current: 4.5 A, Short-circuit protected	01 No.

### VI. Mounting Structure

- Profile plate:
  - Material: **Anodized Aluminum**
  - Size: **1100 × 700 mm**
  - Supplied with carriers, mounting frames, and mounting accessories
  - Designed to be fitted on the pneumatic workstation
- Carriers for mounting auxiliary components such as pushbutton and relay stations.

### Pneumatic Workstation

#### Construction

- Frame: **40 × 40 mm aluminum profile legs**

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- Work surface: **Wooden tabletop**
- Drawer unit: **One pedestal with 5 drawers**, each with handle and individual lock
- Drawer slides: **Full-panel metallic slides**

### Dimensions (Approx.)



#### Work table:

- Length: 1200 mm
- Width: 900 mm
- Height: 900 mm
- Equipped with four caster wheels, including two lockable front wheels



#### Drawer size (each):

- 460 × 495 × 158 mm (L × W × H)



#### Overall drawer unit:

- 470 × 495 × 825 mm (L × W × H)



#### Drawer slide height:

- 85 mm

### Cut-Section Models

Cut-section models are provided for visual understanding of internal construction and operating principles.

- Single-acting cylinder, Stroke 50 mm, Bore 20 mm – **01 No.**
- Double-acting cylinder, Stroke 100 mm, Bore 20 mm, Magnetic type – **01 No.**
- 5/2-way pneumatically actuated valve, Double pilot – **01 No.**
- 3/2-way roller lever valve, Direct actuation, Normally Closed – **01 No.**
- Pressure gauge – **01 No.**
- 6-way manifold – **01 No.**
- 3/2-way single solenoid valve with LED – **01 No.**

### Air Supply System

#### Compressor Unit

- Type: **Direct-driven**
- Maximum pressure: **8 bar**
- Air delivery: **≥ 50 LPM**
- Air receiver capacity: **≥ 24 litres**
- Motor rating: **≥ 1.5 HP**
- Power supply: **230 V AC, 50 Hz**

#### • Accessories included:

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- Safety valve
- Drain plug
- Pressure regulator
- Water separator
- Air filter
- 10-meter hose pipe
- All necessary fittings and accessories

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