

The **Pneumatic Training Set (Double Sided) (Product Code: SAP-20 B)** is capable of being used to demonstrate the design, construction and application of pneumatic components and circuits.

The Kit is capable of being used to demonstrate the following:

- ❖ Design & function of a Pneumatic System Basic
- ❖ Function & identification of Pneumatic components & their symbols.
- ❖ Direct and indirect manual controls, stroke dependant controls, time dependant with time delay valves and pressure dependant controls with pressure sequence valves.
- ❖ Logic AND/OR function of start signals.
- ❖ Application and fault findings of Electro Pneumatic controls.
- ❖ Functional diagrams.
- ❖ Sequence Controls
- ❖ All Components are **JEL PC/AEROFLEX/ SAP E & C /Equivalent** make.



PNEUMATIC TRAINING KIT

Photograph: Pneumatic Training Kit

- The components are capable of being mounted on an appropriate profile plate with grooves for secure and flexible positioning so that the components can be clamped firmly, quickly and safely through quick fix adaptors.
- All Pneumatic Connections are with Quick Connectors for Plastic Tubing 4mm X 0.75mm and for internal & External calibrated tubes. Safety Clamping AND PLUG-IN LOCKING SYSTEM FOR PROFILE PANELS-Profile Plate.
- Nominal Size 4mm (Unless Specified Otherwise)
- Basic Pneumatic Training Kit consists of Following Components.

TECHNICAL SPECIFICATIONS

MAIN COMPONENTS:

1] Double sided work station, with drawers for Storage Quantity : 1 no

Profile Plate with Stand: 1 No., Material: Anodized Aluminium Profile

All of the Components fit securely and safely onto the profile plate

Grid Dimensions: 50mm, Dimensions: 1000 X 700mm

2] Air Distributor: ¼” Connection, 6 ways, Quantity: 1 No

3] Single Acting Cylinder : Quantity: 1 No.

Piston Cylinder, Piston Rod, Pressure 1.5-9.5 kg/cm², Stroke Length : 75mm / 100mm

4] Double Acting Cylinder With Speed Control: Quantity: 1 No.

Piston Cylinder, Piston Rod, Pressure 1.5-9.5 kg/cm², Stroke Length : 75mm / 100mm

5] Double Acting Cylinder With Position Sensor: Quantity: 1 No.

Piston Cylinder, Piston Rod, Pressure 1.5-9.5 kg/cm², Stroke Length : 75mm / 100mm

6] Air Compressor: 1 no.

1 HP, Single Phase, 220 V AC, Working Pressure: 6-10Kg/cm², Capacity: 25Ltr., With Pr. Switch

7] Air Hoses: 1 Set: Sufficient shall be provided

8] Air Filter Regulator Unit with Pressure Gauge – Pressure: 0-9.5kg/cm²- Quantity: 1 No.

Pressure Regulator Valve with Pressure Gauge,

Nominal Flow Rate: 800 Litres / min., ¼”, 0-10 Kg/cm² with Pressure Gauge

PNEUMATIC COMPONENTS:

1] Relay valve : Pressure: 1-8 kg/cm² , Quantity: 1 No

Spool valve relay actuated, normally closed with spring return & manual override,

Pressure range : 1-8 bar , ¼” Connection

2] 3/2 Hand Valve with Return Pressure Switch NC (Pressure: 1-9.5kg/cm²) - Quantity: 3 No.

3/2 Way Hand Valve directly actuated with Spring Return, ¼” Connection

3] 3/2 Hand Valve with Position Control Switch (Pressure: 1-9.5kg/cm²) - Quantity: 1 No.

3/2 Way Hand Valve directly actuated with Spring Return, with Position Control Switch, ¼” Connection

4] 5/2 Hand Valve with Position Control Switch (Pressure: 1-9.5kg/cm²) - Quantity: 1 No.

5/2 Way Hand Valve directly actuated with Position Control Switch, ¼” Connection

5] 3/2 valve with hinged arm with position Control Switch - Quantity: 6 No.

Pressure Range: 0-9.5 kg/cm², ¼” Connection

Poppet Valve directly actuated with Spring Return, with Position Control Switch

6] 3/2 valve with hinged arm unidirectional left with position Control Switch

Pressure Range: 0-9.5 kg/cm² - Quantity: 3 No.

Poppet Valve with hinged arm unidirectional left, with Position Control Switch, ¼” Connection

7] 3/2 valve with control signal NC, Pressure Range: 1.5-9.5 kg/cm² - Quantity: 1 No

Poppet Valve directly actuated with Control Signal, NC, ¼” Connection

For More Details Visit Our Website At: www.sapengineers.com, E-mail:- pravinsdeode@vsnl.net

SAP Engineers & Consultants, Kothrud, Pune-411 038. Ph-(020) 25384737

8] 4/2 valve with 2 control signals, Pressure Range: 1.5-9.5 kg/cm² - Quantity: 2 No

Poppet Valve directly actuated with 2 Control Signals, ¼" Connection

9] 5/2 valve with 2 control signals, Pressure Range: 1.5-9.5 kg/cm² - Quantity: 4 No

Poppet Valve directly actuated with 2 Control Signals, ¼" Connection

10] 4/3 way hand valve with control arm, Pressure Range: 1.5-9.5 kg/cm² - Quantity: 1 No

¼" Connection, Poppet Valve directly actuated with Spring Return, ¼" Connection

11] Non- return valve. - Quantity: 1 No

¼" Connection Pressure Range: 1.5-9.5 kg/cm²

12] OR VALVE: OR-Logic Function (Shuttle valve) Quantity: 2 No

¼" Connection Pressure Range: 1.5-9.5 kg/cm²

13] AND VALVE.: i.e. Dual Pressure Valve - Pressure Range: 1.5-9.5 kg/cm² - Quantity: 2 No

¼" Connection, Pressure Range: 1-9.5 kg/cm²

14] Pressure Meter : Quantity: 1 No Pressure Range: 0-10 Kg/cm², Connection : ¼" , Bourdon Type, Dial Size: 4",

15] Quick exhaust valve - Quantity: 2 No

¼" Connection Poppet Valve, Exhaust Noise reduced by Silencer, Pressure Range: 0.5-10 Bar,

16] Pressure Regulator Valve with Pressure Gauge – Pressure Range: 1-8kg/cm²- Quantity: 1 No.

Pressure Regulator Valve with Pressure Gauge, Nominal Flow Rate: 800 Litres / min., ¼", with Pressure Gauge

17] Time valve with control signal NC- Pressure Range: 0-8 kg/cm² -Quantity: 2 No

Poppet Valve with Spring Return, Pressure Range: 0-8 Bar, ¼" Connection, Time Delay: Adjustable

18] Time valve with control signal NO – Pressure Range: 0-8 kg/cm² Quantity: 2 No

Poppet Valve with Spring Return, Pressure Range: 0-8 Bar, ¼" Connection Time Delay: 0.25 to 5 sec. Adjustable

19] Unidirectional flow control valve - Pressure Range: 0-9.5 kg/cm² - Quantity: 3 No

Adjustable , controls the speed of Cylinder Piston, effects short delay in Signal Transmission.

Pressure Range: 0 -9.5 Bar,

20] Pneumatics Experiment Book - Quantity: 1 No

Range Of Experiments:

- ❖ Study of pneumatic actuator & cylinders with different Logical Circuits such as OR, AND etc.
- ❖ Study of pneumatic cylinders: single acting, double acting.
- ❖ Study of construction & operation of pneumatic equipments such as Hand Lever Operated Valves etc
- ❖ Study of Pneumatic Circuits.
- ❖ Study of pneumatic control systems.
- ❖ Study of Pneumatic Control of Actuators
- ❖ Study of Time Delay Valves

Services Required:

- ❖ Single phase supply of 230 V 50 Hz
- ❖ Clean, Dry Air Supply of 5-6 Kg/cm² .

System Dimensions: Approx. 4 Ft. (L) X 2.5 Ft. ((W) X 6.5 Ft (H)

Note:

All descriptive matter and illustrations are intended to give only a general idea of the equipment. Detailed specifications may be altered at the company's discretion without any notice.

Manufactured/Marketed By	
SAP ENGINEERS & CONSULTANTS	
	
Regd. Off.	: Shop No. 26-27,'Srushti', Survey No.82, Near Guru Ganesh Nagar, Eklavya College Road (D.P.Road), Kothrud, Pune - 411 038
Telephone	: (020) 2538 4737
Mobile	: 94220 88946, 95524 75082
Fax	: (020) 2538 3544
Email	: pravinsdeode@vsnl.net , sapengineerspune@gmail.com
Website	: www.sapengineers.com / www.sapengineers.co.in