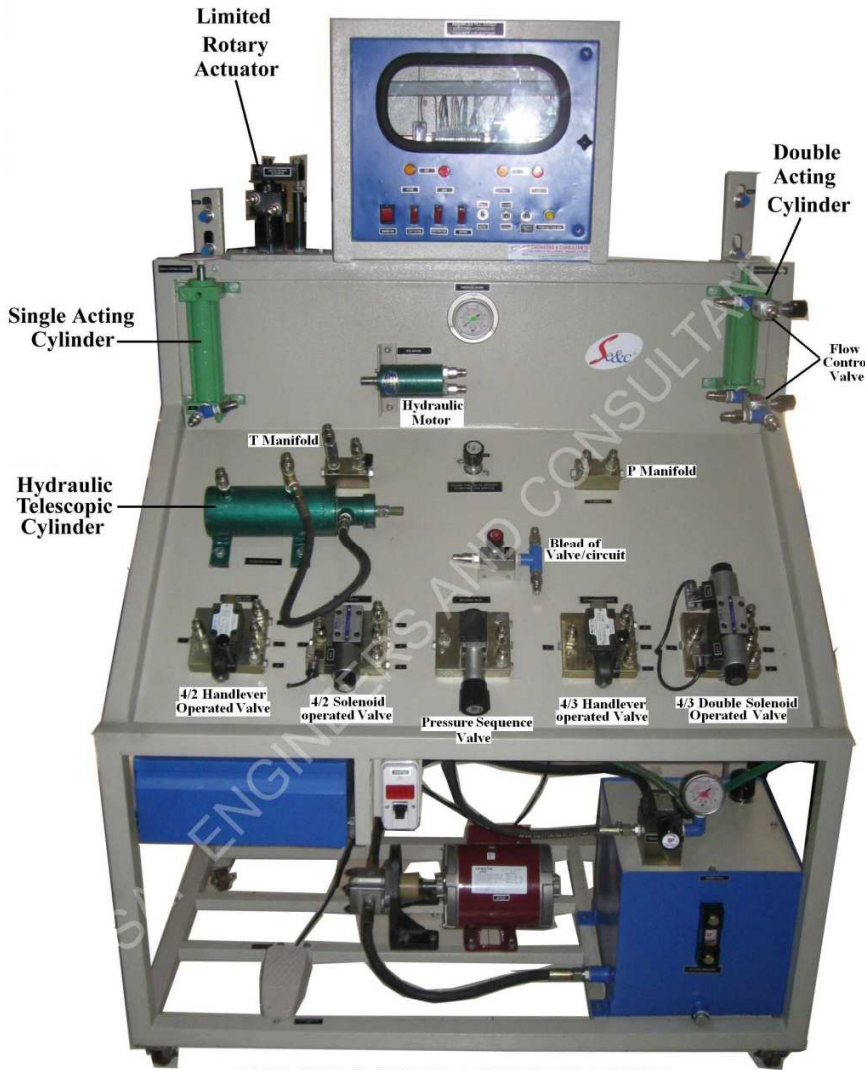


**SAP E & C ELECTRO-HYDRAULIC TRAINER**  
(PRODUCT CODE: SAP - 38)



The **Electro-Hydraulic Trainer (SAP – 38)** outlines the basic Principle of Hydraulic Control System, Hydraulic Control System Components & its applications using electronic proximity position sensor & electro-mechanical actuators (solenoid valves).

**ELECTRO HYDRAULIC TRAINER**

**Technical Specification: -**

No.	Item Name	Technical Specifications
1	Relay Module-	4 Relays, 24V DC supply, 2 NO/NC contacts, panel mounting type.
2	Single Acting Cylinder-	Bore: 40 mm × Stroke: 75mm/100mm, Mounting: Foot.
3	Double Acting Cylinder-	Bore: 40 mm × Stroke: 75mm/100mm, Mounting: Foot.
4	Solenoid Valve-	2 No.s, 4/3 way, ¼", 230VAC & 4/2 way, ¼", 230 VAC
5	Pressure Relief Valve-	¼", 60 Kg/cm <sup>2</sup>
6	Flow Control Valve-	¼" (F), Square Body
7	Block Manifold-	¼", 4 ways
8	Male Connector-	¼" Quick Release Couplings
9	Indicator-	24 VDC Operated
10	Proximity Sensors-	4 nos. Type: Inductive 2 wire, Diameter: 18 mm, Sensing Distance: 5 mm.
11	Pressure Gauge-	100 Kg/cm <sup>2</sup> , Dial Size: 100 mm.

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12	<b>Oil Hydraulic power pack-</b>	MS Powder Coated Oil Tank, Capacity: 25/30 Liters. With Oil Level Indicator, Gear Pump: 3-5 LPM, 40-70 Bar, Breather, Oil filter & suction, <b>Electric Motor-</b> Single Phase, 230VAC / 3 Phase 415 V AC, ½ HP/ 1 HP, DOL starter.
13	<b>Hydraulic Motor (Optional)-</b>	3 LPM, Flange mounting type.
14	<b>Hydraulic Accumulator (Optional)-</b>	Capacity : 0.075 Liters, mWP bar: 250 bar, Weight: 0.62 Kg, Connection: ½" BSP
15	<b>Pressure sequence valve (Optional)-</b>	¼" (F), Square Body, 60kg/cm <sup>2</sup> .
16	<b>Meter-in Circuit &amp; Meter Out Circuit</b>	
17	<b>Bleed-off Circuit</b>	
18	<b>Pulley Arrangement to carry load applied to the actuator, i.e., Double Acting Cylinder (Optional)</b>	
19	<b>Transverse &amp; Feed Circuit (Optional)</b>	
20	<b>Hydraulic Telescopic Cylinder (Optional)</b>	
21	<b>Limited Rotary Actuator (Optional)</b>	

**Range of experiments:**

- ❖ Study of pressure control.
- ❖ Study of direction control.
- ❖ Study of fundamental principles of Hydraulics & its applications.
- ❖ Study of Meter-in circuit, Meter-out circuit and Bleed-off circuit.
- ❖ Study of flow control.
- ❖ Study of hydraulic valves.
- ❖ Study of cylinder control.
- ❖ Study of power pack control characteristics.
- ❖ Study of electro-hydraulic control.
- ❖ Study of sequencing operation of two cylinders using electro-hydraulic components.
- ❖ Study of hydraulic Motor (optional).
- ❖ Study of Hydraulic Accumulator (optional).
- ❖ Study of sequencing of two cylinders using sequence valve (optional).
- ❖ Study of operation of Telescopic Cylinder (Optional).
- ❖ Study of operation of Limited Rotary Actuator (Optional).

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**Features: -**

- ❖ Compact Ergonomic Design.
- ❖ User Friendly, Self Explanatory Systems.
- ❖ Leak proof Safety Measures, sturdy piping & Robust Construction.
- ❖ Training Manuals mimic Charts for Operation Ease.
- ❖ System Frame with Caster Wheel Arrangement for ease in movement.
- ❖ M.S. powder coated cubical plant with standard Instrument Mountings.
- ❖ Inbuilt Safety Measures to avoid improper usage.
- ❖ Wall mounting assemblies of hydraulic actuator & self-reciprocating cylinder.
- ❖ Hydraulic motor (optional), Solenoid Valves (electro-hydraulic), Limit Switches.
- ❖ Proximity type sensors (electro-hydraulic),
- ❖ QRC Couplings provided Tubing /hose pipes for circulation of pressure.
- ❖ Manifold for distribution.
- ❖ Oil Hydraulic power pack for power supply.
- ❖ Optional components are available to allow fault operation and diagnosis training.

**System Dimension-** 3.5 Ft. (L) X 2Ft. ((W) X 4.5 Ft (H)

**Services Required:**

- ❖ Electric supply 1 $\phi$  230 V AC / 3 $\phi$  supply of 415 V, 50 Hz suitably used for direct on line starting of an induction motor

**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.

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