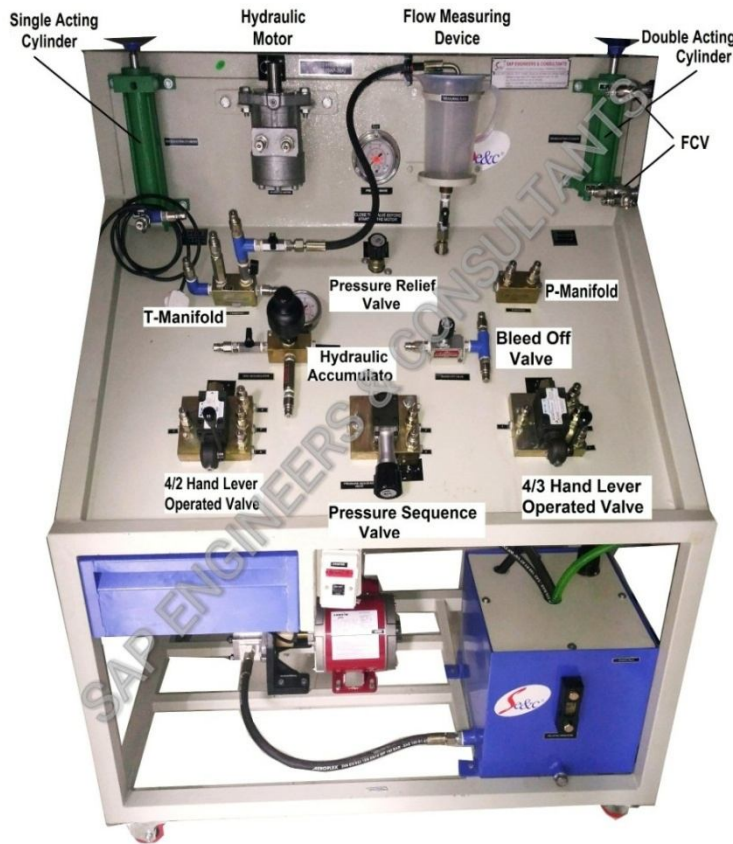


**SAP E & C    ADVANCED HYDRAULIC TRAINER**  
(PRODUCT CODE: SAP – 38A)



The **Advanced Hydraulic Trainer (SAP – 38A)** outlines the basic Principle of Hydraulic Control System, hydraulic Control System Components & its applications.



**Technical Specification:** -

No.	Item Name	Technical Specifications
1	Single Acting Cylinder-	Bore: 40 mm × Stroke: 75/100mm, Mounting: Foot
2	Double Acting Cylinder-	Bore: 40 mm × Stroke: 75/ 100mm, Mounting: Foot
3	Directional Control Valves-	2 No.s, 4/3 way & 4/2, 1/4" Hand Lever Operated
4	Flow Control Valve-	¼" (F), Square Body.
5	Pressure Relief Valve-	¼", 60 Kg/cm <sup>2</sup>
6	Pressure Sequence Valve-	¼" (F), Square Body, 60kg/cm <sup>2</sup>
7	Block Manifold-	¼", 4 ways
8	Male Connector-	¼" Quick Release Couplings
9	Pressure Gauge-	100 Kg/cm <sup>2</sup> , Dial Size: 50 mm, Glycerin Filled.
10	Hydraulic Motor-	3 LPM, 1/4"
11	Drain Plug-	Magnetic type
12	Hydraulic Accumulator-	Capacity 0.075 Ltrs, mWP bar: 250 bar, Weight: 0.62 Kg, Connection: ½" BSP
13	Hydraulic Hoses-	10 Nos.
14	Needle Valve-	1/4", 1 No.
15	Flow Measuring Device	01No. Capacity: 1Litre

16	<b>Oil Hydraulic power pack-</b>	MS Powder Coated Oil Tank, Capacity: 25 Liters. with Oil Level Indicator, Gear Pump: 3-5 LPM, 40-70 Bar, Breather, Oil filter & suction, <b>Electric Motor:</b> Single Phase, ½ HP/ 1HP, 230VAC / 3φ , ½ HP/ 1 HP,415V AC with DOL starter.
17	<b>Transverse &amp; Feed Circuit</b>	
18	<b>Meter-in Circuit &amp; Meter Out Circuit</b>	
19	<b>Bleed-off Circuit</b>	
20	<b>Pulley Arrangement / Circular Weighing Platform to carry load applied to the actuator, i.e., Double Acting Cylinder</b>	
21	<b>Hydraulic Telescopic Cylinder (Optional)</b>	
22	<b>Limited Rotary Actuator (Optional)</b>	

**Range of experiments:**

- ❖ Study of fundamental principles of Hydraulics & its applications.
- ❖ Study of Meter-in Circuit & Meter-out circuit.
- ❖ Study of Bleed-off Circuit.
- ❖ Study of Transverse & Feed Circuit.
- ❖ Study of sequencing operation using Pressure Sequence Valve.
- ❖ Study of Speed Control, Pressure Control & Flow Control.
- ❖ Study of Direction Control.
- ❖ Study of Hydraulic valves
- ❖ Study of Hydraulic Actuators.
- ❖ Study of Hydraulic Power Pack.
- ❖ Study of Hydraulic Accumulator & Hydraulic Motor.
- ❖ Study of operation of Telescopic Cylinder (Optional).
- ❖ Study of operation of Limited Rotary Actuator (Optional).
- ❖ Study of flow rate measurement for speed control circuit

**Features: -**

- ❖ Compact Ergonomic Design.
- ❖ ISO Symbol for each mounted components.
- ❖ 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 & Hydraulic Accumulator.
- ❖ QRC couplings provided, Tubing for circulation of pressure (Hose Pipe Tubing)
- ❖ Manifold for distribution.
- ❖ Oil Hydraulic power pack for power supply.
- ❖ Flow measuring device provided on the kit.
- ❖ Optional component are available to allow fault operation and diagnosis training.

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

**Weight: -** Approx 125Kg

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**Services Required:**

- ❖ Electric supply 1 $\phi$  230 V AC, 50 Hz / 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.

