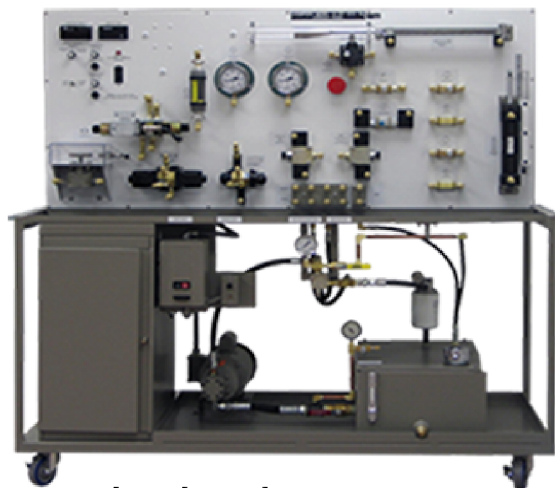


Hydraulic Trainer



hydraulic trainer

Salient Features

Choice of 2 tabletop models Hydraulic (Electro)/Pneumatic (Electro) trainer (optionally PLC may be supplied.)

Use of aluminium profile grooved plate (CD= 25MM) experiment board. Optionally table with drawers (3 Nos.) to store components when not in use & 4 Nos. of castor wheels.

Quick release socket plug arrangement for building circuits, Lighter pneumatic components are mounted using lever operated moulded adapters for quick release & placement.

List of components may be modified as per your requirement.

Top electrical panel row exists in electrohydraulic/Pneumatic only

Technical Specification

Item	Hydraulic Trainer	Qty	Electro-Hydraulic Trainer	Qty
Oil Distribution and manual controls, gages	Subplate (1 station manifold) with 4 ports & 2 gauge ports.	2	Subplate (1 station manifold) with 4 ports & 2 gauge ports each equipped with	2
	Quick Release Male Adaptors	21	Quick Release Male Adaptors	13
	70 bar Glycerine filled pressure gauge to A and B ports.	4	Modular Pressure relief valve (sub plate mounted) with 70 bar Glycerine filled pressure gauge to A & B ports (2x2)	1
			Throttle cum check valves sub plate mounted	4
Direction Control Element	4/2 way DC valve lever operated spring return.	1	4/2 way single solenoid 24VDC spring return	1
	4/2 way DC valve, AC 230V solenoid operated spring return	1	4/3 way double solenoid 24VDC spring return	1
	4/3 way DC valve, lever operated spring return.	1		
	4/3 way DC valve lever operated detented.	1		
Actuating devices (Output)	Single acting cylinder 40mm x 100mm stroke with QR adaptor	1	Single acting cylinder 40mm x 100mm spring return & QR adaptor	1
	Double acting cylinder with in line flow control valve 40mm x 100mm stroke & QR sockets.	1	Double acting cylinder with in line flow control valve 40mm x 100mm stroke & QR sockets.	1
Connections	A) Flexible hoses, R1 type 1/4" ID with Quick release sockets (one end 90° & other straight) Length 2000mm	2	A) Flexible hoses, R1 type 1/4" ID with Quick release sockets (one end 90° & other straight) Length 2000mm	2
		2	Length 1200mm	2
Electrical Connection	Mains cord for 230V AC solenoid with stackable connector	1	Electrical circuit 4mm Banana Patch cord	1mtr,
				500mm,
Resource Panel	NA	-	24VDC power supply, 8 Relay card PLC interfaceable with NONC contact & 24VDC coil, Dual Timer WITH NO-NC contacts or Optionally LG PLC (12 input + 8 output) with CDP & ladder software.	100mm
				10
Power Generation	Power pack (50 bar) consist of: a) Tank 25L tr. b) Gear Pump 3LPM with ball valve for flow measurement in Beaker (optional), c) Electric motor 0.5HP 1440RPM 230VAC, d) Oil Breather Oil level indicator, suction filter/Stainer, Return line filter, 70Bar Gage, e) Relief valve.			
Optional Experiments only for Electro-hydraulic Trainer	1) Servo position control (Close loop) consisting of CIP panel with servo control using relay control circuit, EMT 8 power supply for stroke length display, linear motion (100mm, stroke) potentiometer (5K) as a position sensor coupled to D.A. cylinder. 2) Proportional flow and direction control valve with built in amplifier with +5V/PVolt to get to control flow and direction 5K servopot to sense position coupled to D.A. cylinder, open loop position control, EMT 8 panel to display stroke length. 3) Proportional flow and direction control valve with amplifier card & LVDT feedback close loop control.			