Order Code - 52292
Economy model of Hydraulic Trainer kit for ITI

Table Top MS Powder Coated Model Instead Of Aluminium Profile)

The Advanced customized Hydraulic Trainer (52291) is capable of being used to demonstrate the design, construction and application of hydraulic components and circuits.

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.

Industrial components are used in the kit so that the students get hands on practical training in using industrial components.

Objectives

- Function & identification of Hydraulic components & their symbols.
- Direct and indirect manual controls, stroke dependant controls and pressure dependant controls with pressure sequence valves.
- Design & function of hydraulic System.
- Functional diagrams.
- Application and fault findings of Hydraulic controls.
- To empower students to design their own circuits.
- The Trainer is Modular & Upgradable
- Operation & Instruction Manual provided for Operation ease.

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.
- Inbuilt Safety Measures to avoid improper usage.
- Wall mounting assemblies of hydraulic actuator & self-reciprocating cylinder.
- 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.
- Training literature – Instruction & operation manual , troubleshooting & maintenance tips will be provided in soft copy as well as hard copy format

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 Non return Valve
- Study of Pilot operated check valve
- Study of Hydraulic Valves
- Study of cylinder control.
- Study of power pack control characteristics.

Services Required

- Electric supply 1ϕ 230 V AC, 50 Hz suitably used for direct on line starting of an induction motor

Note: Specifications are subject to change.

Tesca Technologies Pvt. Ltd.
IT-2013, Ramchandrapura Industrial Area, Sitapura Extension,
Near Bombay Hospital, Vidhani Circle, Jaipur-302022, Rajasthan, India,
Tel: +91-141-2771791 / 2771792; Email: info@tesca.in, tesca.technologies@gmail.com
Website: www.tescaglobal.com

Technical Specification		
No.	**Item Name**	**Technical Specifications**
1	Hydraulic power pack	MS Powder Coated Oil Tank, Capacity: 25/30 Liters. With Oil Level Indicator, External Gear Pump: 2.5lpm (Approx)@1400rpm, Operating Pressure- 60Bar, Breather, Oil filter & suction, Electric Motor- Single Phase, 230VAC / 3 Phase 415 V AC, ½ HP/ 1 HP, ON-Off switch & Overload Protection Pressure relief valve- Adjustable from 0 -60bar Oil Reservoir ->5 litres Capacity having sight glass, Drain Screw, Air Filter and P& T Ports.
2	Pressure relief valve	Pilot Operated
3	Drip Tray , Steel	Size – 1160mm x 760mm
4	Pressure Gauge	Glycerin damped , indication range-0-100 Kg/cm2, Dial Size: 50/60 mm
5	Four way Distributor	With four port , equipped with a pressure gauge
6	Double Acting Cylinder	With control cam, Piston diameter - 16 mm, Piston rod diameter - 10 mm, Stroke: 200mm, Mounting: Foot.
7	Suitable weight	For vertical loading of hydraulic cylinder
8	Mounting kit for weight	For realizing pulling & Pushing Rod
9	3/2 way valve	Directional control valve , with hand lever actuation
10	4/2 way valve	Directional control valve , with hand lever actuation
11	4/3 way valve	Directional control valve , Closed centre position with hand lever actuation
12	Non return Valve	Connection -1/4”
13	Pilot operated check valve	Pilot to open
14	One way Flow control valve	With integrated check valve
15	T–Connector	With self-sealing coupling nipples -2Nos, and quick coupling socket – 1nos
16	Profile Plate	Anodized aluminum 1100x700mm with carriers mounting frames and mounting accessories (to be fitted Hydraulic workstation)
17	Hydraulic workstation	With 40mm2aluminum/MS profiles legs , wooden work surface and one pedestal drawer unit having 5 drawers each with handles & individual locks , on metallic full panel drawer slide : 1. Work Table – Size Approx. L1200mmxW900mm with four castor wheels including two lockable wheels at front side, 2. Drawer – size Approx – L460mmxW495mmxH158mm each & overall Size of drawer unit (Approx.)- L470mmxW495mmxH825mm 3. Drawer Slide Height (Approx.)-85mm
18	Hose Pipe	10Nos ,With Quick Release Coupling , Connection -1/4”
19	Single Acting Cylinder (Optional)	Bore: 40 mm x Stroke: 75mm/100mm, Mounting: Foot.
20	Pressure Sequence Valve (Optional)-	¼’’ (F), Square Body, 60kg/cm2
21	System Dimension	4 Ft. (L) X 2.5 Ft. ((W) X 6.5 Ft (H)

Note: Specifications are subject to change.

Tesca Technologies Pvt. Ltd.
IT-2013, Ramchandrapura Industrial Area, Sitapura Extension,
Near Bombay Hospital, Vidhani Circle, Jaipur-302022, Rajasthan, India,
Tel: +91-141-2771791 / 2771792; Email: info@tesca.in, tesca.technologies@gmail.com
Website: www.tescaglobal.com