



**52288 Transparent Hydraulic Trainer** outlines the basic Principle of Hydraulic Control System, hydraulic Control System Components & its applications.

### 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 for circulation of pressure (Hose Pipe Tubing)
- Manifold for distribution.
- Oil Hydraulic power pack for power supply. .
- Optional component are available to allow fault operation and diagnosis training.
- Max Pressure 10 bar
- Mounted on a base plate
- Prismatic body made of transparent methacrylate.
- Two NW4 plugs self-sealing 1/8"

### Experiments

01. Study of fundamental principles of Hydraulics & its applications.
02. Study of source of hydraulic power, its transmission methods and conditioning of oil used in hydraulic system
03. Study of single acting & double acting cylinders.
04. Study of Transverse & Feed Circuit.
05. Study of sequencing operation using Pressure Sequence Valve.
06. Study of Speed Control, Pressure Control & Flow Control.
07. Study of Direction Control.
08. Study of Hydraulic Solenoid Valve
09. Study of electrical components
10. Study of Hydraulic valves
11. Study of Hydraulic Actuators.
12. Study of Hydraulic Power Pack.
13. Study of Hydraulic Accumulator.

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

**Specification:-**

No.	Item Name	Technical Specifications
1	Profile Plates & Stand-	The anodized Aluminum profile plate having slots on both sides is the basis for training. All components fit securely & safely onto the profile plate with safe fixing arrangement. Grid Dimensions- 50mm, Size: 1000X700mm
2	Single Acting Cylinder-	01 No. Single acting cylinder D20/D10 x 40mm of stroke. Spring return. Bore: 40 mm Stroke: 75/100mm, Mounting: Foot
3	Double Acting Cylinder-	01 No. Double acting cylinder D20/D10 x 58mm of stroke. Bore: 40 mm Stroke: 75/ 100mm, Mounting: Foot
4	Directional Control Valves-	4/2 way Hand Lever Operated, spring return 1 No. 4/3 way Hand Lever Operated , 2 Nos. 3/2 way Hand Lever Operated , 1 No.
5	Flow Control Valve-	¼" QRC Connection, 2 Nos.
6	Pressure Relief Valve-	¼" QRC Connection, 1 No. Pressure relief valve (ball), direct control. - Manual adjustment using the twist handle.
7	Pressure Sequence Valve	¼" QRC Connection, 1 No.
8	Pressure Reducing Valve	¼" QRC Connection, 1 No.
9	Block Manifold-	2 Nos.
10	Male Connector-	¼"Quick Release Couplings
11	Pressure Gauge-	Glycerin Filled, 1 No.
12	Check valve	¼" QRC Connection, 1 No.
13	PO Check valve	¼" QRC Connection, 1 No.
14	Hydraulic Accumulator-	Capacity 0.075 Ltrs, mWP bar: 250 bar, Weight: 0.62 Kg, 1 No.
15	Branch Tee	2 Nos.
16	Hydraulic Hoses-	10 Nos. transparent polyurethane tubes as required
17	Needle Valve-	¼" QRC Connection, 1 No.
18	Measuring Flask 2 Ltrs With Drain Arrangement	1 No.
19	Pulley Arrangement Suitable To Load	1 No.
20	Oil Hydraulic power pack-	Hydraulic pump: 3 LPM, Motor: 0.5 HP, 3 Phase Foot/Flange Motor, Suction Strainer Filter, Oil Level Indicator, Oil Tank 20 Ltr. Capacity, 1 No.
21	Hydraulic oil	20 Ltr.
22	Rolling table with twinpost	The entire rolling frame system can be disassembled for transportation. - The vertical panel means you can work on both sides. - It should have a laminated top for horizontal work. - The lower section features a metal shelf supporting the component storage Drawers, the silent compressor, etc. - 4 high-load wheel support with brake - Total dimensions: 1200x800x1600mm (approx.).
23	Drawer unit for rolling table	Compact 4-drawer block with slide guides to house the component trays. - External dimensions: 500x725x650mm.
24	Portable hydraulic pump for transparent hydraulic kit	01 No. Transparent tank holding 6 liters. - Single-phase motor 0.12 hp, 220v, 50Hz. - Gear pump. Q= 1 l/min. - Start - stop switch. - Filling lid and filter. - Pressure relief valve - Pressure gauge with diameter 40 mm, with scale from 0 to 16 bars. - 3 quick connector couplings (P + 2T) - Power supply cable, length of 3 meters, with single-phase plug. -Air bubble insertion system

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

		in the circulation oil.
25	Oil with special red colouring 01 No. -	Specially coloured oil for using with transparent elements. - Quantity required for portable hydraulic pump.
26	One-way restrictor	01 No. On a base plate with three NW4 plugs self-sealing 1/8"
27	Two-way flow control valve	01 No. - Two-way flow control valve, with two ports, needle. - Manual adjustment by rotary knob.
28	3 way pressure relief valve with damping	01 No. Spool-type pressure relief valve, direct control. - Manual adjustment by rotary knob.
29	Pressure reducing valve, 3 way Direct control	01 No. - Manual adjustment by rotary knob.
30	Solenoid Valve	01 No. each 4/2 Solenoid valve, spring return; 4/3 Solenoid valve with closed mid-position
31	Manual Shut-Off Valve, 2 Way; Piloted Check Valve; One-Way Flow Control Valve;	01 No. each
32	Set Of Push-Buttons, Set Of Three Relays, Electrical End Of Stroke (Right & Left)	01 No. each
33	Power Supply:	01 No. Input: 110 - 240 VAC - Output: 24 VDC, I= 5A. - Protection against short circuit and overload. Input switch and LED display. - Supply cable included. - 4 mm terminals for snap connection cables.
34	4 Connection Dividers; 6 Connection Distributors On Manifold; Cross Distributor With Pressure Gauge	01 No. - Distributor with 3 connections with pressure gauge from 0 to 16 bars.
35	Set Of Connectors For Solenoids. 2 Gray + 1 Black	01 NO. Connector (2 gray and 1 black colour) + LED + cable + 4 mm terminals (1 red and 1 blue colour).
36	Set of electrical connectors	As required with different colors and length and with 4 mm security terminals
37	Warranty :	3 years

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