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# PROPORTIONAL HYDRAULIC TRAINER KIT MODEL: HYD09



# **FEATURES**

- Compact, comprehensive, sturdy design
- Smooth and silent operation

## DESCRIPTION

Proportional control valve is widely used in oil hydraulics as a cheaper option for accurate and continuous control. This trainer explains the essential principles of proportional hydraulic valve and control theory. It demonstrates the construction and working of proportional hydraulic valve and helps the students in the designing feedback control systems. The trainer is complete with power pack, electronics and others components.



#### **INSTRUCTION MANUAL**

Self -explanatory operating manuals are provided with each system. Detailed theory as well as practical exercises is also included in the manual

#### LIST OF EXPERIMENT

- 1. Study of functions and assembly of proportional valve
- 2. Basic circuits using proportional valve
- 3. Study of closed loop feedback control of angular position, rotational velocity and linear position
- 4. Importance of contamination in hydraulic circuits

\* List of experiment may vary depending on model selected. Some of the experiments are theoretical only.

### SYSTEM COMPONENTS

- 1. Sturdy MS frame to mount all the hydraulic valves
- 2. Hydraulic power pack
- 3. Inlin<mark>e filte</mark>r
- 4. Flow control valve
- 5. Double acting cylinder
- 6. Hydraulic motor
- 7. El<mark>ectro hy</mark>draulic pro<mark>porti</mark>onal valve
- 8. Oil temperature indicator
- 9. Glycerine filled pressure gauges, qty. 4 nos.
- 10. Rotary speed and rotary velocity transmitter
- 11. Linear position transmitter
- 12. Signal converter and controller
- 13. Hydraulic pipes and fittings
- 14. Electronic control panel

#### **OPTIONAL ADDITIONAL**

- 1. Computer based training software (simulation Software) on Oil Hydraulics. An advanced personal computer based software. The Software has facility to study the basic hydraulics to advanced hydraulic circuits. A comprehensive HELP menu makes the system user friendly.
- 2. Hydraulic components cut away models.
- 3. Transparent hydraulic components
- 4. Magnetic Symbols

#### SERVICES REQUIRED

1. Electric Supply

Note: All trainers will be accompanied by component data sheets and student training books.

Dimension	Weight
1000 (W) X 800 (B) X 1700 (H)	300 Kg

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(1) Since research and development is an on-going activity, the specifications mentioned herein are subject to change without notice

(2) Photographs are indicative only