

## HYDRAULIC TRAINING SYSTEM

MODEL: HYD17



### FEATURES

- **No Oil** only **Tap Water** used
- Compact, comprehensive, sturdy design
- Smooth and silent operation

### DESCRIPTION

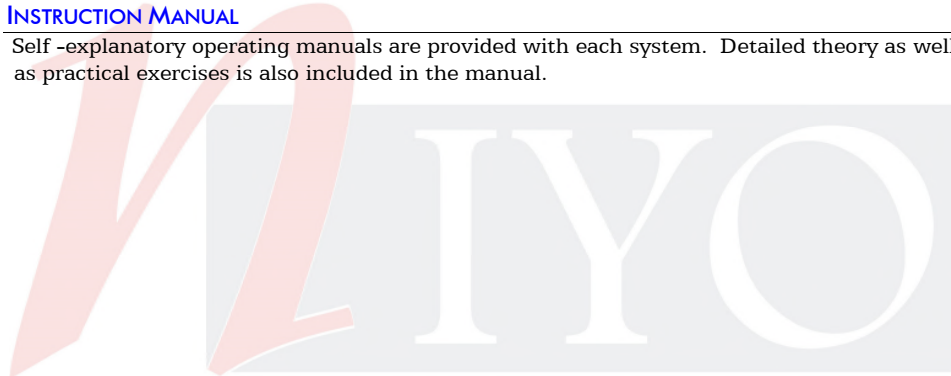
In the training laboratory oil can be messy. Maintaining oil operated hydraulic trainer is a big task and its operating costs are high. NiYo Engineers has come out with a trainer that solves all these problems – **Oil Hydraulic Trainer that operates on tap water – NOT Oil.** The components used are capable of operating up to 160 bar pressure. However, for training purposes the operating pressure of the trainer is 30 bar. Typical industrial application of this includes Food, Textile, Nuclear, Off-shore, Luxury Boat, etc.

The trainer is exactly the same as any typical Oil Operated Hydraulic Trainer except for the fact that oil is used in the trainer. The trainer explains the essential physical principles of hydraulics. It demonstrates the construction and working of basic as well as advanced components and helps the students in the designing and building of basic and advanced hydraulic circuits. It can be upgraded to learn the advanced theories and comparatively complicated circuits. The trainer aims at helping the students to make complex hydraulic circuits.

Optionally, sliding arrangement for in-use component mounting can be provided along with component storage facility.

### 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

Fundamental principles of hydraulics	Application of hydraulics
Study of symbols, schematic diagrams and standards	Study of pressure measurement and control
Study of sources of hydraulic power	Study of flow control
Application of hydraulics	Study of direction control valve
Building of hydraulic circuits	Study of hydraulic actuators
To study the speed control of the Double Acting Cylinder	Study of Pressure compensated Flow Control Valve
Study of safety aspects in hydraulic circuits	

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

## COMPONENTS

- 4/3 Way hand-lever lever Operated Valve, 1 no.
- Double Acting Cylinder, 1 no.
- Pressure gage, Glycerine filled, 1 no.
- Pressure Relief Valve, 1 no.
- Electrical Limit Switch, 2 no.
- Bi-directional Flow Control Valve, 1 no
- Hydraulic Power pack (Water as medium – no oil), 1 no.
- Non Return Valve, 1 no.
- Distributor Block, 1 no.
- Shut Off Valve, 1 no.
- Hose Set with Quick Release Coupling, 1 set



## OPTIONAL ADDITIONAL

- 4/2 Way Solenoid Valve
- 3/2 Way Hand Lever Operated Valve
- 4/2 Way Hand Lever Operated Spring Return Valve
- Accumulator
- Non Return Valve Pilot Operated
- Motor Bi-directional
- 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.
- An interface device for interface of trainer with Simulation software.
- Magnetic Symbols

## MODELS

HYD17-Q: Sliding type component mounting. No storage facility. Table top mode  
 HYD17-R: Sliding type component mounting. With storage facility & with table  
 HYD17-S: Flexible type component mounting, With storage facility & with table

Model No.	Dimension	Weight
HYD17-Q	1000 (W) X 800 (B) X 900 (H)	300 Kg
HYD17-R	1000 (W) X 800 (B) X 1700 (H)	300 Kg
HYD17-S	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.