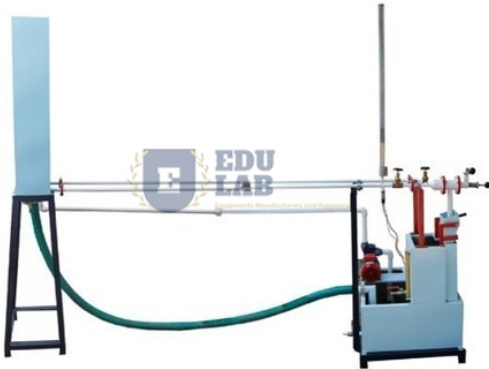


Product Code . EL-HAP-11928

Pipe Surge and Water Hammer Apparatus



Description

Pipe Surge and Water Hammer Apparatus

Description:-

The equipment is self-contained and is closed circuit system.

The water enters the test pipe via the constant head tank and discharges into the measuring tank.

It consists of two test sections, one for pipe surge and other for water hammer phenomenon.

Two electronic Pressure sensors with the current output of 4 - 20mA are installed on the unit.

The whole system incorporates a head tank, measuring tank, sump tank, circulating pump, a lever operated gate valve and flow control valve.

This software is compatible with interfacing unit designed by Educational Lab Equipments.

This software package provides a comprehensive educational software environment within which the investigations can be performed.

This software is capable to tabulate the sample readings according to the requirement of the experiment under study and results obtained can be compared.

The present set-up has a facility to interface the system with a computer which enables to log the experimental data using a computer.

The educational software and data-logging package has been developed for the unit.

The real-time data acquisition can be done by interfacing the set-up with the computer using the software.

The software allows the user to have control on data logging, printing the stored data, preparing spreadsheets in Excel etc.

Experimentation:-

To demonstrate the surge phenomenon in the pipe.

To demonstrate the oscillatory characteristics of surge shaft.

Utilities Required:-

Electricity Supply: Single phase, 220 V AC, 50 Hz, 5-15 Amp combined socket with earth connection.

Water supply: (Initial Fill)

Floor Drain required.

Computer P-IV, with the DVD drive, Windows 7 and MS Office preloaded.

One USB slot free for hardware.

Technical Details:-

Test Section: Material Stainless Steel

Size: 20 mm ID (approx.), Length : 3m (approx.).

Surge Shaft: Material Clear Acrylic.

Size : 40mm ID (approx.),

Control Panel consists of: Standard make On/Off Switch, Mains Indicator, etc.

An English instruction manual will be provided along with the Apparatus.

Height: 800mm (approx.) with graduated scale.

Water Circulation: Centrifugal Pump

Flow Measurement: Flow Sensor Output 4-20 mA.

Constant Head Tank: Material Stainless Steel, Suitable Capacity.




Sump Tank: Material Stainless Steel, Suitable Capacity.

Pressure Measurement: Pressure Sensor 0-7 Bar, output 4-20 mA (For Water Hammer)

Level Measurement: Level sensor, output 4-20 mA (For Pipe Surge)

The whole set-up is well designed and arranged on a rigid structure painted with industrial PU Paint.

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