

Product Name :
Computerized Hydraulic Ram

Product Code :
NLAB-MECHANICALAB220015



Description :

Computerized Hydraulic Ram

Technical Specification :

The designed and developed experimental model It can be used to demonstrate the formation and effect of water hammer and to study how a hydraulic ram works. The water is fed to the ram via a long pipe at a gradient. Above certain water velocity the waste valve in the ram closes automatically, due to the flow forces. This happens suddenly, so that the kinetic energy of the water in the pipe is converted into potential pressure energy. The pressure opens a check valve and the water flows into an air vessel. The air cushion in the air vessel dampens the water hammer and ensures a uniform lift into the elevated tank. After the water hammer has subsided, the waste valve opens due to the dead weight, the water in the pipe starts to flow again and the process repeats itself.

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FEATURES

Formation and effect of water hammer.

Pumping using water hammer.

Fixed overflow tank is used as a water source,

Elevated tank with variable pump head.

Waste valve with adjustable lift, closes cyclically due to flow force of the water.

Tank with check valve and air volume is used as an air Vessel.

Air volume in the air vessel is varied by vent valve.

Flow rate measurement using base module.

Closed water supply using base module or via lab supply

Equipped with electronic measurement sensors for pump head pressure, flow rate

Transparent pump head for visibility

Capable of being linked to a PC

Supplied with software providing full instructions for setting up, operating, calibrating and performing the teaching exercises. Facilities for logging, processing and displaying data graphically

SPECIFICATION

Ram:

Max. Head 0.27m.

Max. Flow rate: 90L/h.

Naugralabequipments

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