



**Product Code . JL-HM-10037**

## Hydraulic Ram Test Setup

### Description

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The Set-up is designed to study the Hydraulic Ram.

Hydraulic RAM is used for pump little quantity of water to high head from a large quantity of water available at low head.

It works on a principle of water hammer stating that “When flowing water is suddenly stopped in a long pipe a pressure wave travels along the pipe creating an effect of water hammer”.

The Set-up consists of a pipe section fitted with a pulse valve and non-return valve, a supply reservoir on a stand which is connected to an overhead tank, an air vessel above the valve chamber smoothes cyclic fluctuations from the Ram delivery.

Different pressure may be applied to the pulse valve to change the closing pressure and hence the operating characteristic.

The flow rate of useful and waste water is measured using measuring tank and stop watch provided.

Pressure and Vacuum Gauge are connected on delivery and suction side for the purpose of measurement.

#### Experiment:-

To find out discharge of useful water and waste water.

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To find out the efficiency of the Hydraulic RAM

**Features:-**

Closed loop water circulation

Compact & stand alone set-up

MS Excel sample calculation program on demand

Stainless Steel tanks and wetted parts

Superb painted structure

Simple to Operate & Maintain

**Utilities Required:-**

**Electric Supply:-** Provide 230 +/- 10 VAC, 50 Hz, Single Phase Electric Supply with proper earthing.

(Neutral - Earth voltage less than 5 VAC) 5 A, three pin socket with switch for pump.

Water Supply: Tap water connection ½ “ BSP Distilled water @ 90 Ltrs. (Optional)

**Technical Specifications:-**

**Product:- Hydraulic RAM**

**RAM:-** Size 50 x 15 mm, Supply Head 2.5m, Delivery Head 10 m (max.)

**Air Vessel:-** Suitable Capacity MOC SS

**Delivery Line:-** For RAM, Dia 50 mm Length 6 m.

**Pump:-** Capacity 1 HP, Crompton / Sharp / Hero make

**Supply Tank:-** Capacity 150 Ltrs.

**Overhead Tank:-** Capacity 100 Ltrs.

**Measuring Tank:-** Suitable Capacity one each for useful and waste MOC SS fitted (2 Nos.) with Piezometer Tube & Scale

**Piping:-** GI / PVC

**Stop Watch:-** Electronic

**Pressure Gauge:-** Bourdon Type

**Control Panel:-** Comprises of Standard make On/Off Switch, Mains Indicator etc.

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Tanks will be made of Stainless Steel.

The whole Set-up is well designed and arranged in a good quality painted structure.

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