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**Product Name :**  
Superheated Steam Plant Performance

**Product Code :**  
LBNY-0005-1120008



#### **Description :**

The boiler produces steam to turn a two-cylinder steam motor. The used steam from the motor outlet passes through a mains water-cooled condenser, then down to a waste tank or to a measuring vessel (supplied). The equipment includes all instruments needed for the experiments. A mobile frame contains all the parts of the test set. An electric pump draws from a reservoir to deliver water to an electrically-heated boiler. The boiler includes a safety valve, water level gauge and blow-downcock. Thermocouples connect to a digital temperature display to measure and display temperatures at key points in the test set. A throttling calorimeter allows students to measure the dryness fraction of the steam. Two mechanical gauges show the boiler and engine inlet pressures. These include a band-brake dynamometer with a digital torque and speed display, to measure and display motor speed, torque and power. A meter shows the electrical power supplied to the heaters in the boiler.

A mobile laboratory-scale steam plant for experiments in thermo dynamic principles. It helps students to understand:

- Steady flow energy equation
- Thermal efficiency and the control surface
- Thermodynamic laws of energy conservation
- The Willans line
- Rankine Cycle Analysis.

#### **Technical Specification :**

Superheated Steam Plant Performance



**Laboratory Instrument India**