



Email : sales@laboratoryinstrumentindia.com

**Product Name :**  
Solar And Heat Source Vapour Turbine

**Product Code :**  
LBNY-0005-18400033



#### **Description :**

The coil is immersed in an insulated tank containing hot water provided by either an electric resistance heater which is housed within the tank, or by the optional solar energy collector mounted in a suitable position outside. The Solar And Heat Source Vapour Turbine consists of a coiled copper tube through which pressurised solvent flows.

#### **Experimental Capabilities:**

Clear and easily observed demonstration of a classic Rankine Cycle. Production of Torque/Speed and Power/Speed curves for a single stage impulse turbine. Use of property charts or tables and the application of the First Law of Thermodynamics to produce energy balance. In addition, With Optional Solar Panel Demonstration of the production of shaft work from solar radiation. Determination of thermal efficiency at a range of turbine inlet and exhaust pressures. Comparison of performance with the Rankine Cycle Estimation of total frictional losses in turbines. Measurement of solar energy collection at a range of mean water temperatures.

#### **Technical Specification :**

Condenser: Water cooled coil housed in glass walled cylindrical chamber.

Feed Pump: Positive displacement pump.

Panel: High quality reinforced plastic panel on which all components are mounted.

Vapour Generator: Copper generating coil in water filled stainless steel tank fitted with thermostatically controlled \*1.5W heater.

Circulating Pump: To circulate water through vapour generator tank and solar panels

Turbine: Single stage impulse turbine typical output approximately \*20W at 15,000 rev. min<sup>-1</sup>.



**Laboratory Instrument India**