

**Product Name :**  
Astra Scientific Single Cylinder Four Stroke Petrol Engine Test Bench

**Product Code :**  
ThermalLab0013



**Description :**

Astra Scientific Single Cylinder Four Stroke Petrol Engine Test Bench

**Technical Specification :**

The experimental test stand, which includes a drive and brake unit, the four-stroke petrol engine is highly suitable for use in teaching the fundamentals of engine functioning and measurement.

The engine used here is an air-cooled single-cylinder four-stroke petrol engine with external carburation. The engine is started and slowed down by an electric motor mounted in the unit. A flywheel fan affects the air-cooling. The brake unit is connected by way of a elastic claw coupling.

The engine is prepared for measurement of the cylinder pressure for indication. It includes a sensor to measure the exhaust gas temperature and a connection to measure the intake pressure. Both sensors, ignition cut-off and fuel supply are connected to the test stand.

The full load and partial load characteristic curves of the engine are plotted in experiments.

**FEATURES:**

- familiarization with a four-stroke petrol engine

- plotting of torque and power curves
- Bhp Measurement
- Brake Thermal Efficiency
- Fuel Consumption Measurement
- Air Intake Measurement
- determination of specific fuel consumption
- determination of volumetric efficiency and lambda (fuel-air ratio)
- determination of the frictional power of the engine

SPECIFICATION:

Air-cooled single-cylinder petrol engine

- power output: 7,5kW at 3000min-1
- bore: 89mm
- stroke: 63mm



**Astra Scientific**

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