

**Product Name :**  
Single Cylinder Four Stroke Petrol Engine Test Setup

**Product Code :**  
NEGEMG143



**Description :**

**Single Cylinder Four Stroke Petrol Engine Test Setup**

The test setup consists of Four Cylinder Petrol Engine coupled to a suitable dynamometer. The engine is single cylinder, air cooled engine running at constant speed. The dynamometer provides variable load on engine to study engine performance under variable load conditions. A wide range of dynamometers is available as option for the engine test set up. Exhaust gas calorimeter is used for estimation of heat carried away by exhaust gases for determination of heat balance of the engine. Air is supplied to the engine through an air box, fitted with orifice plate.

The instrumentation console includes measuring instruments for Engine Speed, Torque / Power, Air consumption, Fuel Consumption & temperature of water, gases. Detailed Operation & Maintenance Manual is provided along with the trainer.

**Experimental Capabilities:**

- “ Determination of brake power & mechanical efficiency at different load conditions.
- “ Determination of fuel consumption & brake specific fuel consumption, brake thermal efficiency.
- “ Determination of air consumption & volumetric efficiency, Air/Fuel Ratios.
- “ Calculation of Heat balance of the engine.

### **Technical Specifications:**

#### **· Engine:**

Single Cylinder Four Stroke Petrol Engine, Constant speed, hand start, with carburetor.

Capacity 160 cc, Output Power 5 hp (3.5 kW) @ 3600 RPM

**Note: Other Engines of higher capacity are also available.**

#### **· Dynamometer Options:**

1. Rope Brake Dynamometer
2. AC Alternator with Load Bank: Capacity 3.5 kW, Switching Loads
3. Eddy current dynamometer, Capacity 5 kW with electronic controller

**· Exhaust Gas Calorimeter:** Pipe in Pipe type

**· Air Box:** Made in M.S. with damper & Orifice Plate

**· Instrumentation Console:**

§ Spring Balance for Load Measurement, Range 0-50 Kg

§ Non-contact type sensor with Digital indicator for Engine speed, Range 0-9999 RPM

§ U Tube Differential Manometer for Air, Range 0-300 mm

§ 'K' Type Thermocouples & 8 channel digital temperature indicator, Range 0-600 C

§ Glass burette for fuel consumption

§ Digital Voltmeter & Ammeter (For AC Alternator)

§ Rotameter for water, Range 100-1000 LPH

## Naugra Export

**Website:** [www.naugraexport.com](http://www.naugraexport.com), **Email:** [sales@naugraexport.com](mailto:sales@naugraexport.com)

**Address:** 6148/6, Guru Nanak Marg, Ambala Cantt, Haryana, India, **Phone:** +91-0171-2643080, 2601773