

## SINGLE STAGE AIR COMPRESSOR TEST RIG (EE-1620)

### DESCRIPTION:

Single Stage Air Compressor Test Rig consists of a single stage reciprocating type air compressor driven by 1 HP Motor through a belt. The outlet of the air compressor is connected to reservoir (Tank) and suction is connected to another air tank with a calibrated orifice plate and a water manometer. Bellow is fitted on one side of the air tank to regulate the flow. Pressure in reservoir can be measured by pressure gauge. RPM can be measured with the help of RPM Indicator provided in the panel box.

### EXPERIMENTS:

- To calculate the volumetric efficiency
- To calculate isothermal HP
- To calculate compression ratio

### UTILITIES REQUIRED:

- Electricity 1.5 kW, 220V AC, Single Phase
- Floor Area 1.5 x 0.75 m



### TECHNICAL DETAILS:

- Compressor : Single Stage, Single Cylinder Capacity 5 CFM max.  
Working Pressure 8 kg/cm<sup>2</sup> max.
- Make : Standard available
- Motor : 1 HP driven by Belt Drive
- Manifold Tank : Suitable capacity.
- Flow Measurement : Orifice meter with Manometer
- Air Tank : Capacity 100 liters with safety valve, shut off valve
- Pressure Gauge : Bourdon type
- Control Panel : Energy meter, On/off switch, Mains Indicator, RPM Indicator, etc.
- The whole set-up is well designed and arranged in a good quality painted structure