



P9080 ENERGY BALANCE APPARATUS

EXPERIMENTAL OBJECTIVES

- ◆ Energy balance and the first law of thermodynamics
- ◆ Entropy and the second law of thermodynamics
- ◆ Compressed volumetric efficiency

SERVICES

Electric supply :- 230/240 volt, single phase, 50 Hz

TENDER SPECIFICATION

Metal frame bench mounted single stage compressor set consists of a rotary vane type air compressor coupled to a trunnion mounted electric motor and attached to a spring balance.

The compressor runs at 1440 rpm max. providing 1hp output.

The air intake includes a filter, air flow adjustment and plenum chamber with vacuum gauge scaled -1.0 to 0 bar. The air flow meter used has a range of 40-400 l/min with a pressure limit of 10 bar at 20°C.

The air outlet pressure chamber includes a 0-4 bar pressure gauge, pressure relief valve and exhaust silencer.

Type K thermocouples measure air inlet and outlet temperatures with a continuous operating range of 0-1100°C.

The instrument control box measures speed, temperature torque and power.