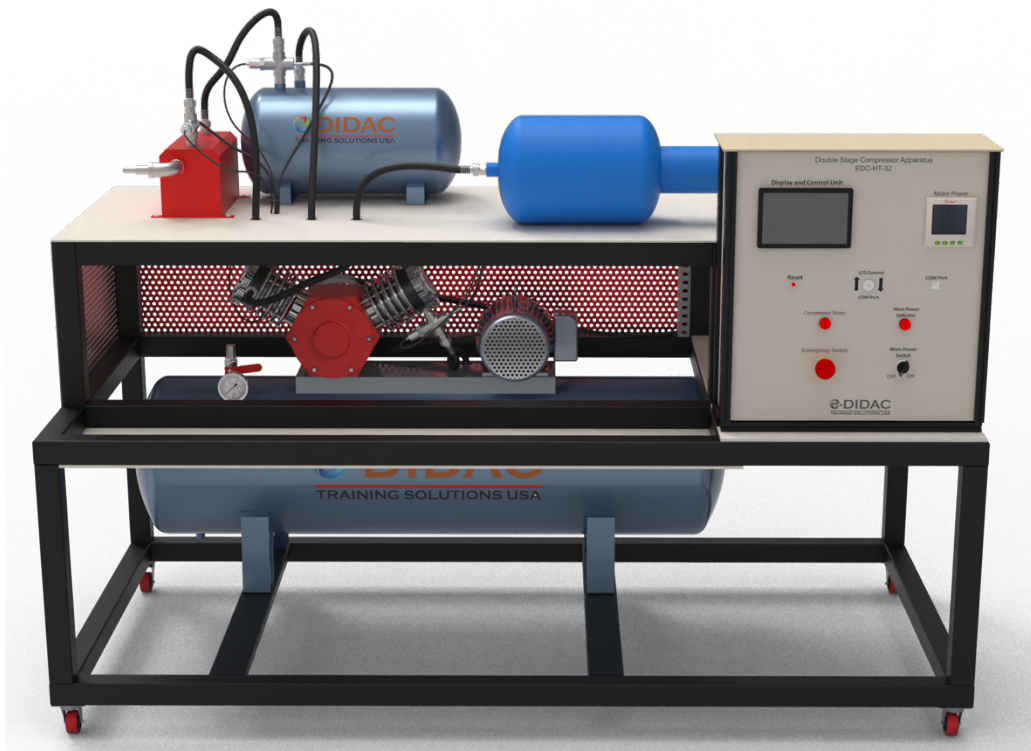


Two Stage Air Compressor Study Unit (EDC-HT-32)

EXPERIMENTAL DATA:

- Study of construction and working of Two Stage Air compressor.
- Determining of the intake and delivery pressure.
- Determining of the Mechanical, Volumetric and isothermal efficiency.
- Determining of the air flow rate, compressor speed and temperatures at different points.
- Effect of intercooler and two stage compression.



DESCRIPTION:

This Unit investigates the behavior during operation of a system with Two Stage Air Compressor. The two-cylinder two stage air compressor driven by a motor takes air from the outside environment, compresses it and then air passes through intercooler and then it is stored in air tank cylinder. A pressure switch with motor ON/OFF switch is used to limit the pressure in the air tank.

The differential pressure sensor is used at intake to find out the volumetric flow rate of intake air. Sensors record the pressure of front and behind the compressor, intercooler and also of the tank. The temperature change is also measured by temperature sensors. There is panel for measuring and control equipment with Touch LCD Display.

The unit has Touch LCD display for visualization of process and the measurements. The speed, temperatures, pressures and the mass flow rates of the air are recorded and displayed using sensors. Typical characteristic variables are determined.

A PC data acquisition (EDHT-32S) is also available (Optional).

TECHNICAL DATA:

- **Compressor**
- Two cylinders
- Two-stage
- Power Consumption: 4hp
- Max. Pressure: 12 Bar
- Operating Pressure: 10 Bar

- **Intake Vessel:**
- 16L

- **Pressure Vessel:**
- First stage: 16L
- Second stage: 100L
- Max. Pressure: 16 Bar

- **Safety Switch:**
- Set at 10 Bar, having range up-to 16 Bar.

- **Instrumentation:**

The speed, temperatures, pressures and the mass flow rates of the air are recorded and displayed using sensors.

The unit has Touch LCD display for visualization of process and the measurements

DIMENSIONS AND WEIGHT:

L x W x H (mm):1800 x 800 x 1500

Weight: 260 kg

SCOPE OF DELIVERY:

- 1 x EDC-HT-32
- 1 x Instructional Manual

