

Product Name :
Re-Circulating Air Conditioning Trainer

Product Code :
NEGEMG148



Description :

Re-Circulating Air Conditioning Trainer

The re-circulating air conditioning trainer is designed to study different air conditioning processes & performance analysis of refrigeration cycle in Air Conditioning. The trainer consists of an air conditioned chamber which houses the electric load bank. The heater load is controlled by a dimmer. There are three ducts, each for Fresh Air, Recirculated Air & Exhaust Air. Each duct is fitted with damper to control amount of air flowing through it. In order to study Humidification process a Steamer is also provided.

The refrigeration system consists of a hermetically sealed compressor, air cooled condenser, expansion device & finned tube evaporator. The evaporator coil is fitted inside the inlet duct. Refrigerant R-22 is used in the trainer.

The measuring instruments are provided to measure Temperature & pressure of refrigerant cycle, Refrigerant Flow, Power Supplied to compressor & Heater Load.

EXPERIMENTAL CAPABILITIES:

- Demonstration of Air Conditioning Cycle.
- Calculation of coefficient of performance in Air Conditioning
- To study effect of recirculation of Air on performance of Air conditioning system
- Plotting Pressure-Enthalpy Diagram
- To study Humidification & Dehumidification Process
- Plotting Air Conditioning Process on Psychometric Chart

SPECIFICATIONS:

- Compressor: Hermetically Sealed, Capacity 1 Ton, 230 V AC.
- Condenser: Finned Copper Tube Condenser with condenser fan & motor
- Evaporator: Finned Copper Tube Evaporator with evaporator fan & motor
- Expansion Device: Capillary Tube
- Steamer: Electrically Heated Steamer for Humidification Process
- Air Pre Heater: 500 W, 230 V AC
- Pressure Switch: Low / High Pressure Safety Switch
- Thermostat: Mechanical Thermostat for Room Temperature Control
- Flowmeter: Glass Tube Rotameter for Refrigerant Flow
- Pressure gauge: 0 to 500 PSI
- Compound gauge: -30 to 150 PSI
- Electric Heater: Capacity 2 kW, Supply 230 V AC
- Dimmer: Range 0-250 V AC, 2 kW
- Digital Voltmeter: Range 0-500 V AC
- Digital Ammeter: Range 0-10 A AC
- Temperature Sensors: Pt 100 temperature sensors – 8 Nos.
- Temperature Indicator: 8 Channel Indicator with Selector Switch, Range 0-199.9 °C

- Frame: Made of M.S. Square Tubes & Sheets, Welded & Powder coated.

Naugra Export

Website: www.naugraexport.com, **Email:** sales@naugraexport.com

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