

**Product Name :**  
Re-Circulating Air Conditioning Trainer

**Product Code :**  
RLE-0020



**Description :**

Re-Circulating Air Conditioning Trainer

**Technical Specification :**

**Product Details:**

Hermetically Sealed

Capacity

230 W AC.

500 W, 230 V AC

Over High Pressure Safety Switch

Thermostat Thermostat for Room Temperature Control

Pressure Gauge

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

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 the damper to control an 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.

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#### **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

### **Civil Mechanical India**

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

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