

AIR CONDITIONING LABORATORY TRAINER

Model Number : GOTT-ACLT-1



* Proposed design only

DESCRIPTION

The Air Conditioning Laboratory is a self-contained and comprehensive educational system with in-depth analyses and experimentation features. Adjustable controls with measurements of air temperatures, humidity factors, and air flow factors provides an easier and more in-depth studies of the thermodynamics processes. The robust system design provides an array of different air conditioning processes, such as preheating, humidity factors, cooling, and air reheating. Data acquisition with data logging is optionally available that provides a further in-depth platform for analyses and test procedures. This system works in conjunction with a psychrometric chart and plots of actual air properties at targeted areas in the ventilation duct that can be observed and studied.

FEATURES

The system is mounted on a heavy-duty bench and is easily moveable on lockable casters. All refrigeration components are clearly visible and all system controls are process orientated. The system is made of corrosion resistant materials including stainless steel fasteners, stainless steel humidification tank, acrylic (plexiglass) see-through panels, polypropylene duct, industrial fan with plastic housing, and the bench is fully powder coat painted. All sensors, thermocouples, meters/gauges, system controls, and electrical systems are industry regulation quality and ISO approved. This provides easy observations of the air conditioning system and the monitoring points along the duct. System controls, monitoring points are front panel displayed with color diagrams for easy reference. Instrumentation includes line voltage, ampere (total current), watt meter, and digital panel meters for temperature, flow, and humidity.

COMPONENTS

- Compressor
- Condenser (Outdoor Unit)
- Chamber
- Duct
- Evaporator
- Wattmeter
- Evaporator Temperature Control
- Re-Heater Control
- Pre-Heater Control
- Re-Heater Temperature Control
- Pre-Heater Temperature Control
- Single Phase Power Control
- AC Volt and AC Current Meter
- Humidity Control
- Blower Fan Speed Control
- Liquid Temperature Meter
- Suction Temperature Meter
- Hot Gas Temperature Meter
- Temperature Meter
- Humidity Meter
- High Pressure Switch
- Low Pressure Switch
- Suction Gauge Meter
- Hot Gas Gauge Meter
- Solid Gauge Meter
- Liquid Temperature Meter
- Capillary Tube
- Filter Dryer

EXPERIMENT TOPICS:

- Familiarization And Operational Function Of Air Conditioning
- Familiarization And Operational Function Of Ventilation System
- Familiarization Of Air Properties
- Demonstrate Air Conditioning Process In A Ventilation Duct System For Humidify
- Demonstrate Air Conditioning Process In A Ventilation Duct System For Dehumidification
- Familiarization With Cooling Load
- Refrigerant Circuit Using A P-H Diagram
- Familiarization With Cooling System
- Familiarization With Humidity Control
- Familiarization With Air Properties In Ventilation Duct With Psychrometric Chart
- Familiarization With Standard Room Humidity

Manuals :

- (1) All manuals are written in English
- (2) Model Answer
- (3) Teaching Manuals

General Terms:

- (1) Accessories will be provided where applicable.
- (2) Manuals & Training will be provided where applicable.
- (3) Designs & Specifications are subject to change without notice.
- (4) We reserve the right to discontinue the manufacturing of any product.

Warranty :

2 Years

ORDERING INFORMATION :

| ITEM | MODEL NUMBER | CODE |
|-------------------------------------|--------------|---------|
| AIR CONDITIONING LABORATORY TRAINER | GOTT-ACLT-1 | 975-907 |

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