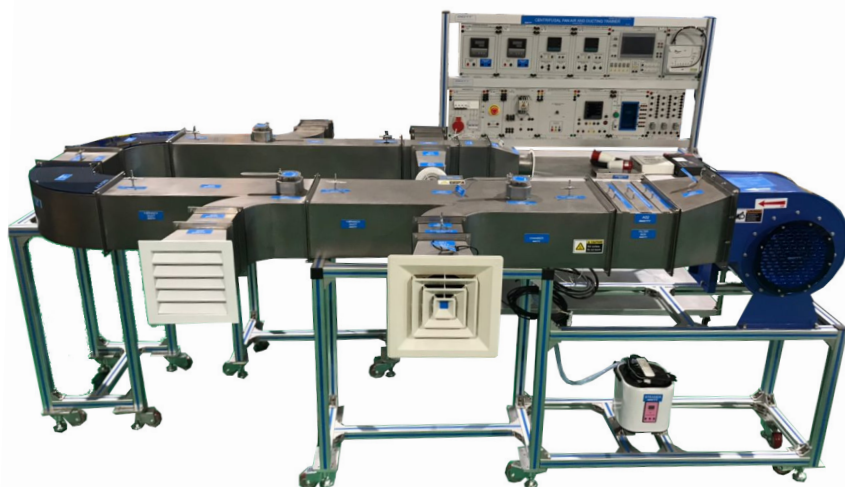


CENTRIFUGAL FAN AIR AND DUCTING TRAINER

Model Number : GOTT-CFADT-HP



FEATURES

The GOTT-CFADT-HP Centrifugal Air fan and Ducting Trainer consists of a multipurpose powder coated steel with internal insulation air duct mounted on a trolley to provide easy access when performing experiment. An Air Handling Unit to which a centrifugal fan is fitted provides air supply to the ducting assembly. Several velocity/pressure measurement points are provided along the air duct to facilitate measurement of air velocity/pressure. The ducting is made from powder coated steel to prevent rust and makes the trainer long lasting. A number of options are available for diffusers, ducting joints, filters, temperature measurement, air flow measurement, humidity measurement. Steam humidity injection, heating elements, cooling elements and variable speed fan.

SPECIFICATIONS

Centrifugal Fan and Air Ducting Trainer with the following specification and components:

- Trainer Configuration
 - The system has a multipurpose centrifugal fan;
 - Air duct unit made of powder coated steel with internal insulation mounted on a trolley;
 - Includes test points for air pressure, air flow, temperature and humidity along the duct.
 - There should be a system to inject/simulate steam humidity, heat and variable air speed.
 - There should be a chamber into which different types of heating or cooling elements and filters may be introduced
- Ducting Joints, Diffusers and Filters
 - Set of 3 types of basic ducting joints such as "Y", 90-degree offset,
 - Set of 4 additional types of ducting joints.
 - Set of 3 types of basic diffusers
 - Set of 3 types of filter elements.
 - Additional parallel branch set with 2 diffusers
 - Additional T branch set with 2 diffusers
 - 3 x 2-meter length duct extensions (6m total)
- Measuring Instruments
 - Air flow velocity meter, vane anemometer type
 - Pitot tube and manometer for measurement of air flow
 - Digital temperature meter, single probe
 - Control console including voltmeter, ammeter, ON/OFF controls, ELCB and miniature circuit breaker. Console can also accommodate variable speed control for fan speed control
- Accessories:
 - Variable speed control for the centrifugal fan.
 - System for cooling simulation
 - System for heating simulation
 - Steam generator for steam simulation

Specification of all sub-components and accessories will depend on the engineering design of the trainer as a system.

- System power: Three Phase 380VAC, 60Hz
- Dimension: The equipment when installed should not consume more than 8 sqm space and not over 1.9m for the overall height.

EXPERIMENT TOPICS

- Examination of typical components, fabrication, installation and assembly techniques used in air handling systems.
- Investigation of pressure losses in bends, branches, changes of section and over straight lengths of duct, together with the variation in pressure drop with velocity.
- Determination of the 'k' factor for the pressure loss of the above components in each particular configuration.
- Investigation of the fan pressure and volume flow characteristics at various fan speeds (a simulation of supply voltage influence to fan performance).
- Examination of standard types of panel and bag filters and their pressure drop against face velocity.
- Measurement of airflow rate using pitot-static traverse, orifice pressure differential and anemometer methods.
- Balancing of airflow distribution in a series or two branch parallel distribution system using either main damper or fan speed flow control.
- Allows an additional parallel branch and two diffusers to be investigated.
- Allows an additional tee branch and two diffusers to be investigated.
- Carry out commissioning leak testing on all of the above components.

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
CENTRIFUGAL FAN AIR AND DUCTING TRAINER	GOTT-CFADT-HP	640-007

*Proposed design only, subject to changes without any notice.