

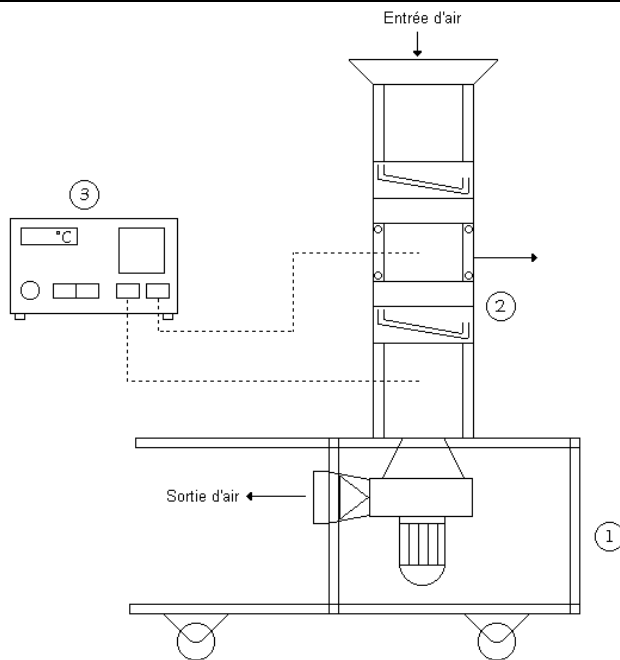
## CONVECTION HEAT EXCHANGER STUDY UNIT



### Experimental capabilities

- Determination of heat transfer and of the exchange coefficient for a transversely placed tube in a flux
- Determination of the coefficient of exchange for a tube placed in a bundle of tubes in staggered rows
- Determination of the exchange coefficient for a cross exchanger tubes in staggered rows
- Determination of the numbers REYNOLDS PRANDTL, NUSSELT
- Same applications for a finned tube in an exchanger in staggered rows.

## Illustrations



## Technical details

### 1. fan-motor ensemble

Equipped with an output damper for control of the flow rate

### 2. Measuring duct equipped with a manometer for flow rate measurement, two thermocouples for temperature measurement.

This duct can be equipped with one of the three arrangements described above.

### 3. Control panel with:

- A power on button
- Fan control
- The heater control of the heating cylinder (the cartridge is equipped with a thermocouple) with indication of the power

The display of the temperature of the air duct

## Services required

- Electrical supply : 230 Vac – 50 Hz
- Dimensions: (LxWxH mm): 800 x 500 x 1800
- weight (Kg): 50

Note : if the equipment installation is operated by our staff, all supplies and exhaust connections required must stand at less than 2m from the machine

## Documentation

- User's manual
- Pedagogical manual
- Technical documentation of the components
- Lab exercises
- Certificate of conformity CE