

INDUSTRIAL AIR EXTRACTOR



Experimental capabilities

- Verify the suitability of the student BTEC "Jobs of electrotechnical" at:
- Perform functional tests and commissioning of the installation
- Verify, by measures, the electric quantities and mechanical characteristics of the installation
- Practice trials and the measures necessary to justify the dimensioning, of the setting of an equipment component.

Operating principle

The operative part consists of an instrumented electric motor, of an industrial ventilation helical with flow rate control valve;

Motor connections terminal, speed sensors, torque are achieved by means of cords type banana on sockets double insulation in accordance with the international standard IEC 1010

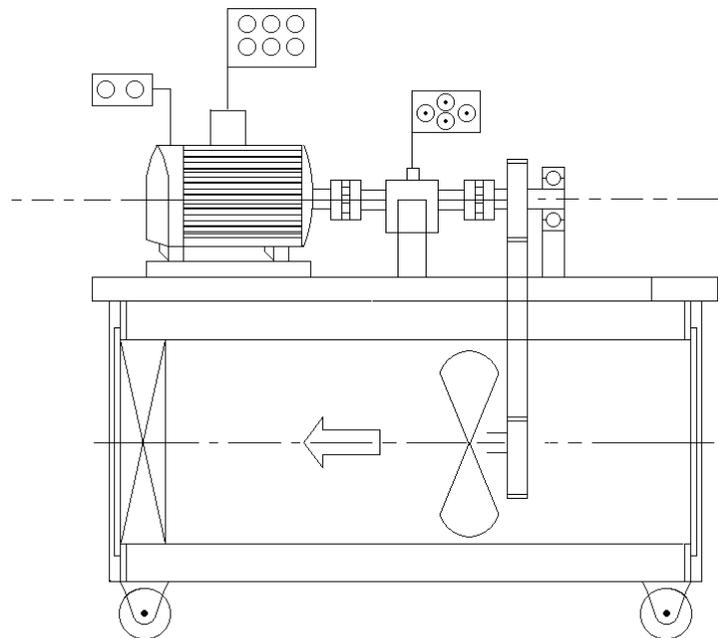
The robust design of this device makes it suitable for use in schools.

The equipment is set up on an Anodized aluminium frame on casters wheels. This gives it great strength and a flexibility of integration into your premises.

The manufacture of this equipment complies with the European standard for machinery manufacturing.

This equipment can be used alone or with other compatible equipment from our range (see last section of this document).

Illustrations



Technical details

- **Asynchronous motor**
 - Three-phase 230/400 V - 4 poles - feet B3
 - 1.5 kilowatts at 1500 rev/min
 - Equipped with a tachogenerator 10 V/1000 rev/min
- **Rotary torquemeter**
 - Rated torque: 50 Nm
 - Maximum speed: 1500 rev/min
 - Accuracy class: 0.1% of rated torque
 - Sensitivity: 2 mV / V
 - Maximum torque without damage: 130% of rated torque (65 Nm)
- **Ventilator**
 - Of helicoidal type - long ferrule in painted steel Ø 500 mm
 - Injected aluminum propeller - 10 blades
 - V-belt transmission
 - Wells and protective casing of the transmission
 - Protection grid at the entrance
- **Anti-vibration mounts**
 - Flexible sleeve at the blowing
 - Manual control valve of flow rate
 - Straight length in Ø500 mm at the blowing
- **Two indicators for the torque and rotational speed**
- **Motor wiring, sensors outputs, inputs indicators on dual socket, insulation, connection by banana leads provided**
- **Anodized aluminum chassis with self-directional braked casters**

Electrical box with differential circuit breaker at the head, disconnecter, switch to the motor control

Services required

- Electrical supply : 400 Vac – 50 Hz – 6 A
- Dimensions: (LxWxH mm): 1500 x 1000 x 1850
- weight (Kg): 250

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