

Features:

- 2 interchangeable rotors¹
- Transparent delivery pipe and intake pipe¹
- Software for data acquisition, visualization and operation¹

Radial fans are used to transport gases with non-excessive pressure differences. The medium is drawn axially to the drive shaft of the radial fan and is deflected by 90° by the rotation of the rotor and discharged radially.

Tesca Radial Fan test Apparatus the experimental unit provides the basic experiments to get to know the operating behavior and the most important characteristic variables of radial fans. features a radial fan with variable speed via a frequency converter, an intake pipe, and a delivery pipe. The transparent intake pipe is fitted with guide plates for flow guidance and with a flow straightener to calm the air. This enables precise measurements even with the heavily reduced operation.

The airflow is adjusted by a throttle valve at the end of the delivery pipe.

To demonstrate the effect of different blade shapes two rotors are included in the scope of delivery: one rotor with forwarding curved blades and one with backward curved blades. The rotors are easily interchangeable.

The experimental unit is fitted with sensors for pressure and temperature. The flow rate is determined via differential pressure measurement on the intake nozzle.

The microprocessor-based measuring technique is well protected in the housing. All the advantages of software-supported experiments and evaluation are offered by the software and the microprocessor. The connection to a PC is made by USB.

The well-structured instructional material sets out the fundamentals and provides a step-by-step guide through the experiments.

Specifications:

- Functioning and operating behavior of a radial fan
- Radial fan with 3-phase AC motor
- Variable speed via frequency converter
- Transparent intake and delivery pipes
- Throttle valve to adjust the airflow in the delivery pipe
- Interchangeable rotors: 1 rotor with forwarding curved blades and 1 rotor with backward-curved blades
- Determination of flow rate via intake nozzle

Note: Specifications are subject to change.

Tesca Technologies Pvt. Ltd.

IT-2013, Ramchandrapura Industrial Area, Sitapura Extension,
Near Bombay Hospital, Vidhani Circle, Jaipur-302022, Rajasthan, India,
Tel: +91-141-2771791 / 2771792; Email: info@tesca.in, tesca.technologies@gmail.com
Website: www.tescaglobal.com



Order Code - 32079

- Display of differential pressure, flow rate, speed, electrical power consumption, and hydraulic power output, temperature, and efficiency
- Microprocessor-based measuring technique
- Optional unit-specific software for data acquisition and operation via USB under Windows Vista or Windows 7

Technical Specifications:

Intake pipe

- Inner diameter: 90mm
- Length: 430mm

Delivery pipe

- Inner diameter: 100mm
- Length: 530mm
- Radial fan
- Power consumption: 110W
- Nominal speed: 2800min⁻¹
- Max. flow rate: 480m³/h
- Max. differential pressure: 300Pa

Displayed / measuring ranges

- Differential pressure: 0...1800Pa
- Flow rate: 0...1000m³/h
- Temperature: 0...100°C
- Speed: 0...3300min⁻¹
- Electrical power consumption: 0...250W

Experiments:

- Operating behavior and characteristic variables of a radial fan
- Recording the fan characteristic (differential pressure as a function of the flow rate)
- Effect of the rotor speed on the pressure
- Effect of the rotor speed on the flow rate
- Effect of different rotor shapes on the fan characteristic and efficiency
- Determination of hydraulic power output and efficiencies

Services Required:

- Mains power supply: 220-240V, 1Ph, 50Hz

Note: Specifications are subject to change.

Tesca Technologies Pvt. Ltd.

IT-2013, Ramchandrapura Industrial Area, Sitapura Extension,
Near Bombay Hospital, Vidhani Circle, Jaipur-302022, Rajasthan, India,
Tel: +91-141-2771791 / 2771792; Email: info@tesca.in, tesca.technologies@gmail.com
Website: www.tescaglobal.com

