

TGA et250D Dual TGA system,

Two Thermogravimetric Analysers with single PC control, 24 samples

▶ The TGA et250D Dual TGA system consists of two independent thermogravimetric analysers, both operated and controlled through a single software interface. It is designed to measure moisture content, ash content, volatile matter, Loss on Ignition (LOI), and fixed carbon across a wide variety of organic, inorganic, and synthetic materials.

▶ Furnace Temperature:

- | Minimum temperature: Ambient
- | Maximum temperature: 1100 °C
- | Temperature control Precision: $\pm 2\%$ (or) $\pm 2\text{ }^{\circ}\text{C}$
- | Temperature stability: $\pm 2\%$ (or) $\pm 2\text{ }^{\circ}\text{C}$
- | Sample size: up to 15 grams based on the sample type and its characteristics
- | Number of samples: 11 samples + 1 reference in a single TGA run.
- | Number of carousels: Single carousel for holding crucibles with manual handling of crucible lids.
- | Up-and-down movement of the carousel using pneumatic control and motorised rotation enables precise and accurate analysis without any oscillation
- | Weighing precision: 0.02% RSD

▶ Gas Pressure & Flow:

- | Gas Flow Rate: Programmable flow up to 10 lpm
- | Gas Pressure: Oxygen (O₂): 2-3 bar (30-45psi)
Nitrogen (N₂): 2-3 bar (30-45psi)
Compressed Air: 3-4 bar (45-60psi)
- | Gas Purity: Oxygen (O₂): 99.5% pure
Nitrogen (N₂): 99.5% pure
Compressed Air (Oil & Water free)

▶ Electrical Power Requirements:

TGA et250D: 230V ($\pm 10\%$), single phase, 50/60Hz, 32A (each TGA)



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▶ Other Features:

- | Temperature Measurement: By High precision thermocouples
- | Number of Thermocouples: Two thermocouples. One thermocouple to monitor the furnace temperature
- | Second thermocouple to monitor the sample temperature.

Note:- Additional third thermocouple for lower furnace and fourth thermocouple for temperature cross verification/calibration are available on request.

- | These third & fourth thermocouples are factory installed option & must be ordered along with TGA et250D
- | TGA calibration with known certified reference material at different temperature points for volatile matter (VM) & Ash

▶ Ramp Rate:

- | Programmable Ramp Rates
- | Ramp Rate: 0 °C/minute to 50 °C/minute

▶ Balance:

- | Integrated Balance
- | Resolution: 0.0001g (0.1mg)
- | Readability: 0.0001g (0.1mg)
- | Weight Loss: 0-100%

Duct Size: 80mm OD

Note: The TGA et250D must be vented to an external exhaust. For moisture-only applications in which the furnace temperature does not exceed 150 °C, and the distance from both sides of the TGA et250D to the external exhaust is less than 10 feet (3 meters), a passive connection to a 3-inch (75 cm) duct is acceptable.

Operating Temperature: 15 °C to 35 °C

Humidity: 20% to 80% (Non-Condensating)

▶ Dimensions:

Dimensions (H x W x L in mm): 605 x 665 x 705mm
Weight: Approximately 150kgs (each TGA)

▶ Required PC Specifications:

Intel core i7 or above, 256GB SSD, 16GB Ram, Windows OS

Note: An electronic flow controller for automatic gas flow rate regulation of oxygen, nitrogen, and compressed air is available as an optional feature. Customers should specify this requirement at the time of placing the order.

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