

# Model: TGA et250



## Data Sheet

- ▶ TGA et250 is used for the determination of Moisture content, Ash content, Volatile content, Loss on Ignition (LOI) and Fixed Carbon in a wide range of Organic, Inorganic & Synthetic materials.
- ▶ Automatic Analysis with manual handling of crucible lids.

### Furnace Temperature:

Minimum temperature: Ambient  
Maximum temperature: 1100 °C  
Temperature control Precision:  $\pm 2\%$  (or)  $\pm 2^\circ\text{C}$   
Temperature stability:  $\pm 2\%$  (or)  $\pm 2^\circ\text{C}$   
Sample size: up to 10 grams based on the sample type and its characteristics  
Number of samples: 19 Samples +1 Reference  
Number of carousels: Single carousel for holding crucibles with manual handling of crucible lids.  
Weighing precision: 0.02% RSD

### Gas Pressure & Flow:

Gas Flow Rate: Programmable flow up to 10 lpm  
Gas Pressure: Oxygen (O<sub>2</sub>): 2-3 bar (30-45psi)  
Nitrogen (N<sub>2</sub>): 2-3 bar (30-45psi)  
Compressed Air: 3-4 bar (45-60psi)  
Gas Purity: Oxygen (O<sub>2</sub>): 99.5% pure  
Nitrogen (N<sub>2</sub>): 99.5% pure  
Compressed Air (Oil & Water free)

### Electronic Flow Controller:-

Automatic gas flow rate control through software for Oxygen, Nitrogen and Compressed air gases.

**Note:-** This is a factory installed option & must be ordered along with TGA et250 instrument.

### Electrical Power Requirements:

TGA et250: 230V ( $\pm 10\%$ ), single phase, 50/60Hz, 32A

### 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 forth thermocouple for temperature cross verification/ calibration are available on request.
- | These third & fourth thermocouples are factory installed option & must be ordered along with TGA et250
- | TGA calibration with known certified reference material at different temperature points for volatile matter (VM) & Ash
- | Large volume crucibles (~45CC) can be offered on request

### 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 et250 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 et250 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: 603 X 674 X 577mm  
Weight: Approximately 150kgs

### Required PC Specifications:

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



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