

- ▶ 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)  $\pm 2\text{ }^\circ\text{C}$
- | Temperature stability:  $\pm 2\%$  (or)  $\pm 2\text{ }^\circ\text{C}$
- | 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.
- | 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 (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)

### ▶ 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

### ▶ Ramp Rate:

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

### Elite Thermal Systems Limited

Units F1-F2 and F3, Welland Business Park,  
Valley Way, Market Harborough,  
Leicestershire LE16 7PS, UK

Tel: +44 (0)1858 469834

E-mail: [contact@elitefurnaces.com](mailto:contact@elitefurnaces.com)

Website: [www.elitefurnaces.com](http://www.elitefurnaces.com)

### ▶ 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 (H x W x L in mm): 605 x 665 x 705mm  
Weight: Approximately 150kgs

### ▶ 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.

