



Thermogravimetric Analyzer TGA 3000

For Organic and Inorganic Samples

ASTM D7582 ASTM D5142 ISO 562 ASTM D734 DIN 51718 ASTM E1755



TGA 3000



Coal



Coke



Food grains



Ore



Tobacco



Cement



Orbit Technologies Pvt. Ltd.

Orbit Technologies Pvt. Ltd., India is an ISO 9001 certified manufacturer of Thermogravimetric Analyzers, Carbon & Sulfur Analyzers, Ash Fusion Analyzers, Fast Pyrolysis Analyzers & Other Analytical Instruments.

Orbit's high performance analytical instruments are used for precise and reliable results.

Reliable and Fast Proximate Analysis

Orbit's Thermogravimetric Analyzer is used for the determination of Moisture content, Ash content, Volatile content, Loss on ignition (LOI) and Fixed carbon content in a wide range of Organic, Inorganic & Synthetic materials.

Orbit's TGA 3000 is suitable for analysis of materials such as Coal, Coke, Cement, Lime, Feed and Foodstuffs.

Maximum Efficiency & Enhanced Precision

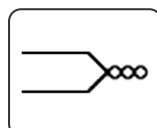
- High performance Thermogravimetric Analyzer
- Automated Analysis of upto 19 samples
- Capable to accept maximum sample weight up to 5 grams
- Programmable heating ramp rates as per test methods
- Automatic placement & removal of crucible covers
- Windows based control software for operation of the analyzer
- Integrated balance with 0.1 mg readability for robust and accurate mass determination.

Robust & High Capacity Heating Furnace

- Embedded Heating Elements within bottom and top furnaces for faster heating rates and excellent temperature stability.
- Automatic control of furnace atmosphere and programmable gas flow rates (Air, Nitrogen and Oxygen)



Resistance
Furnace



Thermocouple

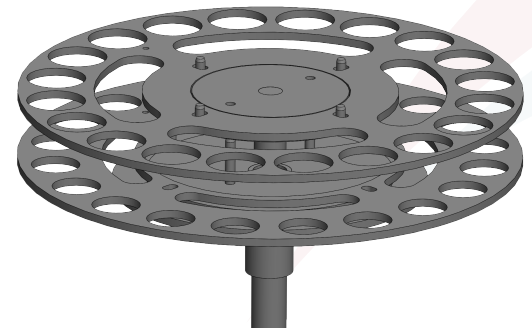


Dual
Carousel



Dual Carousel for Automatic Operation

- TGA 3000 uses dual carousel – One for holding crucibles and One for crucible covers.
- Second carousel allows automatic placement and removal of crucible covers inside the furnace without opening the furnace lid.
- This provides superior volatile matter accuracy in addition to automation & avoids sample oxidizing.
- Eliminates the risk of operator burns at elevated temperature (600 deg C).
- Avoids the risk of the operator dropping crucible covers into the furnace.
- Crucibles and Crucible covers can be pre-weighed using an external balance to accelerate the changeover between runs.



Dual Carousel



Furnace Temperature Control

- Uses four thermocouples: Two thermocouples for furnace temperature control and safety, 3rd thermocouple for precise sample temperature measurements & 4th thermocouple for furnace temperature calibration and cross verification.
- Perfect temperature precision and stability across wide temperature range
- Improved ramp rate control to reduce temperature overshoots.

Integrated Precision Balance

- Integrated analytical balance with 0.0001 gram (0.1 mg) readability for precise weight measurements.
- High precision balance that is internally isolated.

Windows Based Control Software

- Ensures precise control and operation of the analyzer
- Tracks the samples and measurement data throughout the analysis process
- Graphic display of temperature vs. weight loss measurements
- Retrieval of sample related information at any given time during analysis
- During analytical cycle, display of current parameters such as the real time furnace temperature, sample status and time remaining
- Individual, customer-specific calculations based on raw data



Computer loaded with software

Other analyzers from Orbit for Coal, Mineral and Material analysis:



CSBox Tube Analyzer

Carbon and Sulphur Analyzer for Organic Samples



CSBox HFA Analyzer

Carbon and Sulfur Analyzer for Inorganic Samples



Ash Fusion Analyzer



Fast Pyrolysis Analyzer



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