

## Proximate analysis: Orbit TGA



### Specification:

Furnace Temperature Range	Ambient to 1100 deg C
Temperature Control Precision	$\pm 2\%$ (or) $\pm 2\text{deg C}$
Ramp Rate	10deg C /minute to 50deg C /minute
Balance	Integrated balance
Resolution	0.0001g (0.1mg)
Sample Size	up to 5 grams (Higher range can be offered on request)
Number of Samples	19 Samples +1 Reference
Number of Carousels	Single carousel for Crucibles & placing lids on it

### Applications:

TGA 3000 Thermo gravimetric Analyzer is used for measuring

- Moisture,
- Ash,
- Volatile Matter,
- Fixed Carbon
- LOI.

### User Instructions:

The samples provided by the analyzer should be sufficient amount in case of repetition

The size of sample should be 72mesh size (0.212mm).

The data reported (ASTM standard).

Interpretation would be provided only on request.

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## Bomb Calorimeter: 6400 Parr calorimeter



### **Specification:** Isotherm calorimeter

Automated bucket and jacket fill as well as vessel fill and rinse

Automatic cooling, 6-7 tests per hour, Fixed bomb cylinder with removable head for fast sample loading

Operator time per test is 1 minute, 0.1% precision class instrument, 0.0001 °C Temperature Resolution

5000 – 8000 calorie sample range, 0.05% Linearity across operating range, SD memory and TCP/IP network communications USB Port for balance and printer connections,

**Applications:** The procedure gives the heat of combustion or calorific value of materials which are burned as fuels which includes:

- Production and/or utilization of solid and liquid fuels.
- Disposal of combustible wastes.
- Study of foods and feeds.

### **User Instructions**

User should give sample ash percentage concentration

The sample weight should be approx. 1mg

User should provide the sample at least 5mg incase sample used get misfire.

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