

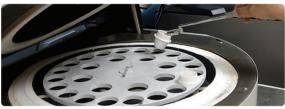
# **TGA701** Features & Benefits





#### Wide range of applications

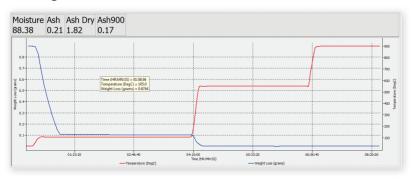
Macro thermogravimetric analysis is a basic requirement in many industries to determine material weight loss as a function of temperature in a controlled environment. From foodstuff, milling products, animal feed to coal, minerals, cement, clinkers, carbon/glass fibres, catalysts... the TGA701 is used in various industries and applications to automate manual routine operations.



## Moisture, Ash, Volatiles and LOI in one analysis cycle

Individual programs can be stored to match the analytical requirements of a wide variety of applications. This allows the automatic determination of moisture, ash, loss on ignition and volatiles from one sample in one testing cycle (see below).

The flexibility of this system also makes it ideally suited to the determination of one parameter at a time, e.g. moisture, volatiles or ash.





# Macro **Thermogravimetric Analyser**

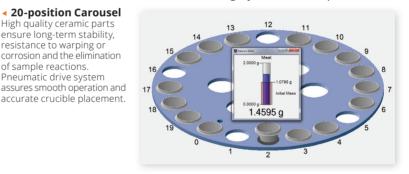
for Organic, Inorganic and Synthetic Samples

#### Up to 38 samples at a time

A single furnace can analyse up to 19 samples. When connected to an external PC, up to 2 furnaces can be controlled, thus allowing simultaneous analysis of 38 samples.

#### True in-situ weighing

The continuous weighing process inside the furnace ensures highly reliable and precise results.



This is a great advantage when determining the moisture content of strongly hygroscopic samples. Using manual methods, the sample is exposed to the surrounding atmosphere where they tend to rapidly absorb moisture.

## High sample weights

True macro sample analysis, with typical sample weights of 1g to 5g can be easily analysed. Large capacity crucibles allow ease of handling and loading. Made from alumina ceramic, the crucibles are chemically inert and are very durable.

## High sensitivity

The very high sensitivity integrated balance ensures a high degree of precision even with small ash residues.





20-position Carousel High quality ceramic parts ensurė long-term stability, resistance to warping or corrosion and the elimination of sample reactions. Pneumatic drive system

# TGA701 Features & Benefits



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#### Operational ease

After the system has automatically tared the crucibles, simply load the sample into the crucible to allow the initial weight to be determined. Unique ID code assigned to each sample. Complete loading of a full carousel takes as little as 10 minutes. After the last sample has been loaded, the pre-programmed analysis cycle starts automatically.

#### Methods compliance

The TGA701 complies with standard AOAC, AACC, ASTM, ISO and DIN methodology. Flexibility of method parameters allows standard and customized procedures increasing versatility. The software supports compliance to strict FDA regulation (21 CFR Part 11) for a closed analytical system.

#### ■ Flexible analysis programs

Customisable methods for your application to manage data and graphs seamlessly. Each step can be individually programmed with your analysis parameters:

- Start and end temperature (up to 1000°C)
- Furnace ramp rate
- Step end mode (timeout or constant weight)
- Furnace atmosphere (air, N<sub>2</sub>, O<sub>2</sub>)
- Gas flow rate
- Number of test phases (steps)
- Method and step names

After method is set and named, the operator can simply select it when this type of analysis is needed.

#### Results documentation

The results can be printed, plotted or even presented in a statistical survey.

The on-screen weight loss plot can either be based on time and/or temperature. In addition, the TGA701 software allows analysis monitoring in real time on the screen (see right).

Customized equations can be added for reporting specific values based on measured results.

## ▼ **Crucibles**Chemically inert large



capacity ceramic crucibles



#### Suited for most locations

The optimized shock absorption of the internal balance makes the system suited for nearly all locations. Special weighing tables or air-conditioning are not required.

#### Self-diagnostics

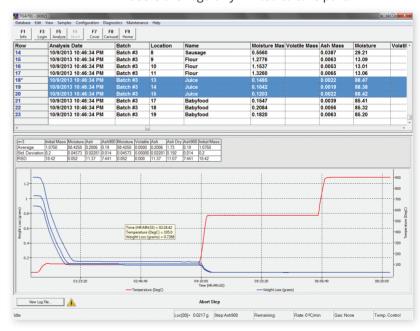
An expanded interactive service diagnostic screen helps troubelshoot problems faster and easier.

#### ■ Robust, compact design

The extremely compact and robust design has stood the test, especially in tough industrial environments. The instrument needs only a minimum of space. The clear arrangement of display and control elements ensures safe continuous operation.

#### ■ User training, service courses

LECO's philosophy also includes intensive application training matched to the personal needs of our instrument users after installation of the analyzer. In addition, we offer service courses for all instrument types in our Technical Service Center. All users are regularly invited to take part.



## Come & see for yourself!

We would be glad to advise you in all your questions about macro-thermogravimetric analysis. We can test your samples and demonstrate all LECO instruments in our Applications Laboratory.



#### Contact us:

LECO Middle East International G040 Technohub, PO Box341289 Dubai Silicon Oasis, Dubai, UAE Phone: +971-4-3209667

Phone: +971-4-3209667 Fax: +971-4-3209668

Email: mena@leco-europe.com