

TGA801

Thermogravimetric Analyser



LECO
EMPOWERING RESULTS

TGA801 – Thermogravimetric Analyser

The TGA801 is the latest generation of automated macro thermogravimetric analysers to enter our line-up. The TGA801 maintains the core capabilities and reliability of previous generations of LECO macro TGA instruments, while providing key improvements in performance and robustness.

By incorporating state-of-the-art hardware with an on-board touch-screen software platform and a rugged design, the TGA801 provides accurate, high-precision thermogravimetric constituent analysis – moisture, ash, volatile content, and LOI in various organic, inorganic, and synthetic materials. Complying with ASTM standardised methods, the TGA801 is applicable to many industries and applications including coal, cement, catalyst, foods, and feeds.

Maximise Productivity and Improve Work Flow

- Automated thermogravimetric analysis batch of up to 19 samples
- Eliminate the handling, transfer, and cooling time required of traditional gravimetric methods
- Determine multiple constituent analysis such as moisture, volatile matter, and ash from a single sample and analysis batch sequence
- Optimise analysis time using automatic end point recognition based upon sample mass constancy

Macro thermogravimetric analysis replaces the often slow, labour-intensive, traditional manual gravimetric techniques that require multiple sample weighing and transfer steps involving ovens, muffle furnaces, and desiccator equipment. The flexible method settings, automation, and hardware capabilities of the TGA801 deliver an automated analysis process while requiring only the manual measurement of the initial sample mass, saving you time in your lab.



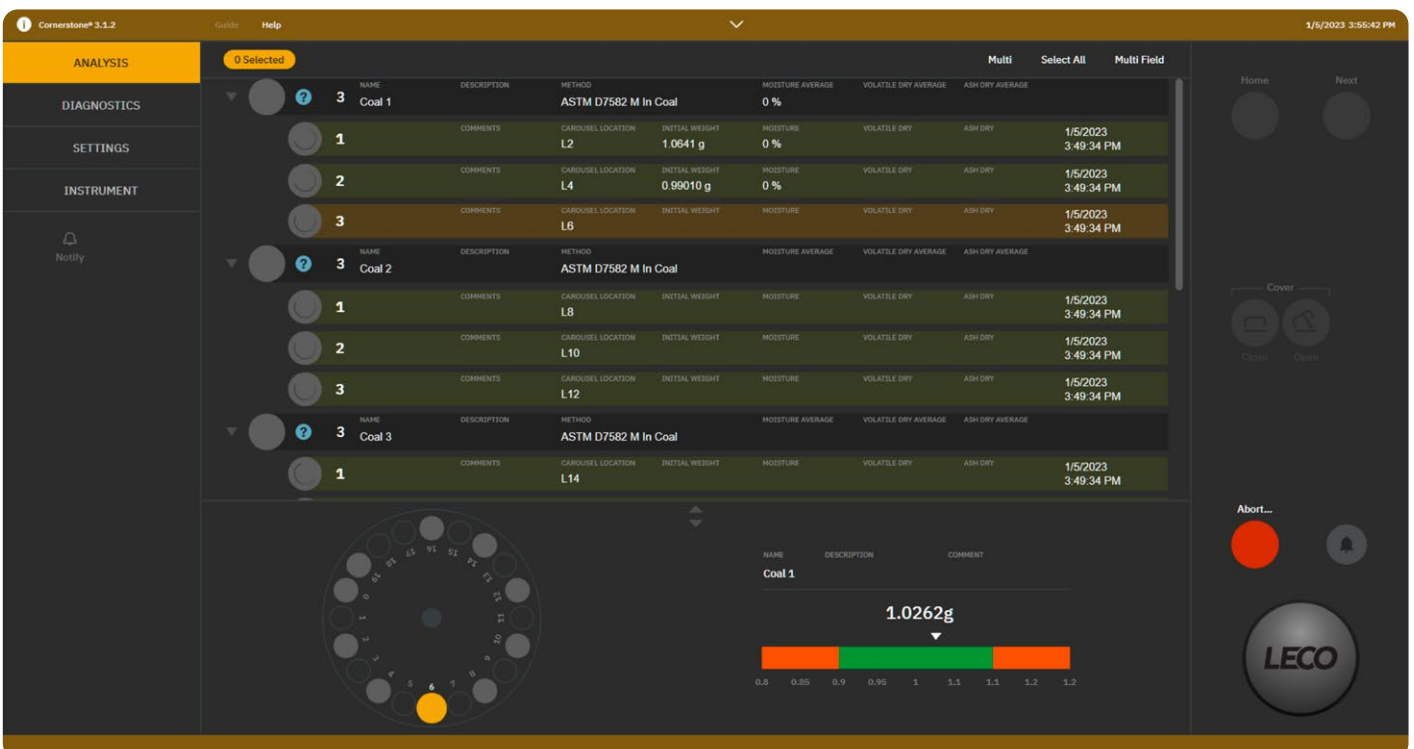
User-friendly CORNERSTONE® Brand Software

LECO's exclusive Cornerstone brand software with touch-screen interface enables complete access to analysis control, method settings, diagnostics, reporting, and more in a highly organised, intuitive, and immersive environment. Designed through a collaboration of customer feedback and innovative engineering,

Cornerstone features all of the routine day-to-day operations within a single Analysis screen designed for speed and ease-of-use. Our innovative grouping of sample data into sets and replicates simplifies the data output and automatically calculates relevant statistics, alleviating the need for additional data processing.



Analysis



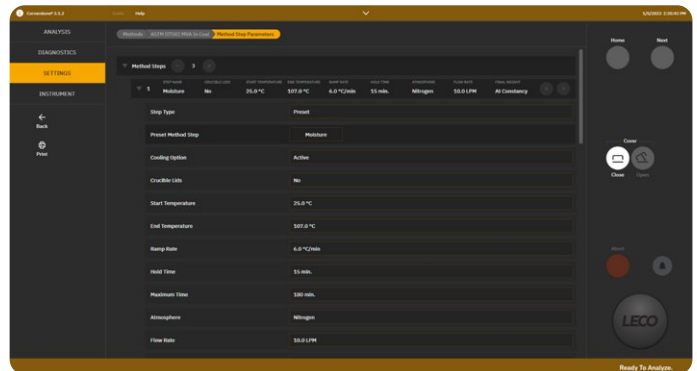
Loading Screen

Software Features and Benefits

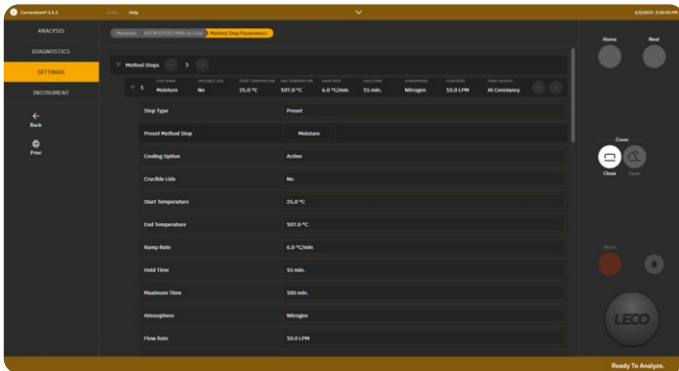
- CORNERSTONE® software is divided into four main sections – Analysis, Diagnostics, Settings, and Instrument – for simplified navigation and organisation
- Toolbars, sliders, and drop-down menus make it easy to set parameters for calibration and data processing
- The software also includes real-time monitoring of ambient parameters, with fully animated system diagrams
- Advanced interactive diagnostic features include a thorough digital on-board manual, maintenance animations, photo illustrations, and screen captures that quickly provide the direction needed without having to refer to multiple manuals
- *Cornerstone* also supports a multilingual interface, user permissions, extended data archiving and filtering, compatibility with various Laboratory Information Management Systems (LIMS), and flexible reporting capabilities. Compliance to FDA regulations 21 CFR Part 11 for a closed analytical system is also supported



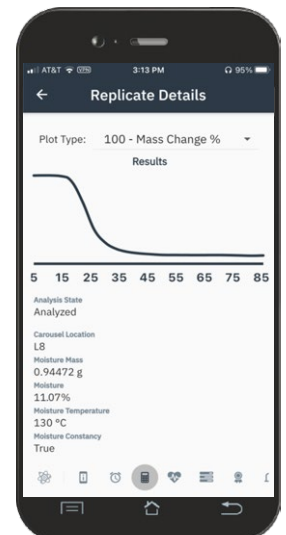
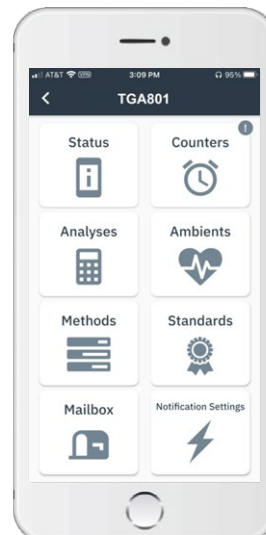
Diagnostics > Ambients



Settings > Calibration



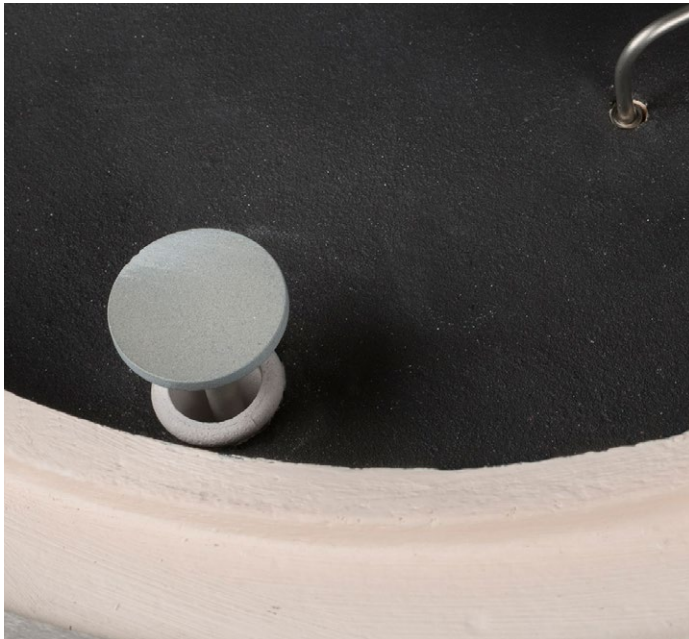
Instrument > Furnace



An optional *Cornerstone Mobile* application feature enables remote viewing of the instrument software from a smart phone, tablet, or PC.

It can also be programmed to set automatic notifications from the instrument against predefined software conditions using e-mail, text message, or the *Cornerstone Mobile* application.

Instrument Highlights and Features



Superior Analytical Performance

- Stable and precise mass measurements throughout the analysis cycle using an integrated, thermally isolated 0.0001 g low drift balance
- Precise furnace temperature ramping and set point control provides excellent temperature accuracy with low temperature overshoot
- Rotating automation sequence provides uniform exposure of all samples to the furnace conditions
- Automated control of furnace atmosphere and gas flows (air, nitrogen, or oxygen)



Unparalleled Versatility

- Automated multi-sample analysis batch, up to 19 samples
- Macro sample mass capabilities, nominal 1 g
- Flexible method settings enable configuration of system to emulate classic gravimetric test method requirements
- Optimised analysis time with the automatic end point recognition using sample mass constancy





Innovative System Design

- Rugged, high-performance ceramics enable operation temperature up to 1,000 °C
- Robust and reliable motor-driven rotary system automation mechanism provides versatility and speed
- External ventilation system provides reliable removal of furnace exhaust while eliminating possible balance vibration interference
- Software provides seamless sample login and loading process with real time graphical displays of analysis cycle data



Reliability with Trusted Service and Support

- Knowledgeable sales force with a customer-centred focus dedicated to helping you understand and identify the best instrumentation fit for your application
- State-of-the-art Technical Service Laboratory with experienced technical application chemists to assist in method development and other application related requests
- Global and regional LECO service network comprised of regional support centres and over 25 international LECO subsidiaries, dedicated to providing service and support offerings, including field service visits over the lifetime of the instrument



LECO – Your Source for Total Analytical Solutions



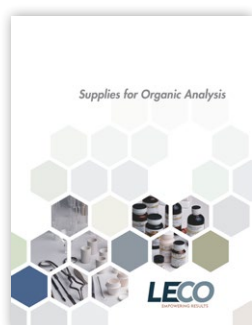
832 Series

- Simple, fast, accurate sulfur/carbon determination in organic materials
- High-efficiency furnace with intelligent control lowers operating costs and optimises furnace reliability
- Individual wide-range IR detection
- Operator-centred design with touch-screen CORNERSTONE® brand software promotes an ergonomic workspace and optimised workflow
- Optional Performance Package (P) and Dual-Range (DR) 832 model also available



TGM800 Moisture

- High precision, automated thermogravimetric moisture determination, which utilises a direct method for replacing tedious manual loss-on-drying techniques
- Measure up to 16 samples at a time with drying time end-point recognition
- Intuitive Cornerstone brand software with flexible method settings and touch-screen operation
- Precise oven temperature ramping and set point control up to 150 °C
- Remote access through Cornerstone Mobile provides access to data, plots, and instrument status from smart phone, tablet, or desktop computer



Organic Consumables

Get the best results from your LECO instrument by using genuine LECO consumables.

Visit eu.leco.com for featured items, specials, and ordering information (Form number 203-828).

A Commitment to Quality and Service



Our global network of sales and support includes over 25 subsidiaries worldwide, and is dedicated to customer service and satisfaction. Our commitment to quality is further underscored with ISO-9001:2015 certification. We conform to CE quality and safety specifications, fully testing instruments at our on-site Compliance Testing Centre.

European Application and Technology Center, Berlin – Germany

Training Classes



Get the most out of your LECO instrument with instrument-specific training classes offered from LECO. Typical classes feature a comprehensive overview of the theory of operation, method development, method optimisation, and proper maintenance for each instrument class. A variety of advanced features are also presented, including quantitation, user library creation, and reporting. Classes also allow for networking opportunities and the ability to learn from other users of our products. Currently available workshops and training courses are listed on our website:

eu.leco.com/events/tradeshows-conferences

eu.leco.com/events/workshops

“Everyone is very knowledgeable (brilliant, if I may say!) and willing to help with any questions/problems. I am amazed at and extremely happy with the high level of service LECO provides.”

LECO Customer and Class Participant

LECO, Cornerstone are registered trademarks of LECO Corporation. ISO-9001:2015 Q-994

LECO Corporation
3000 Lakeview Avenue | St. Joseph, MI 49085
Phone: 269-985-5496
info@leco.com | www.leco.com

LECO Europe
eu.leco.com

LECO
EMPOWERING RESULTS