

TruMac® Series Macro Determinator



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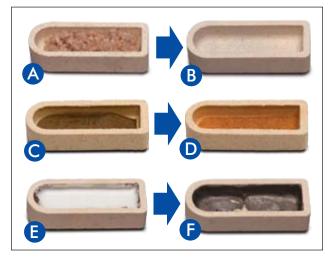
Designed to meet your goals for analyzing true macro samples

Easily handle characteristically heterogeneous, difficult-to-prepare, or low-level samples with the *TruMac* carbon/nitrogen/sulfur determinator. Macro sample sizes (up to 3 grams for nitrogen; up to 1.5 grams for carbon/nitrogen; up to 0.3 grams for carbon/nitrogen/sulfur) are quickly and simultaneously analyzed with a low cost-per-analysis.

A unique ceramic horizontal furnace, combined with LECO's carbon/nitrogen/sulfur determinator design, make the *TruMac* ideal for a variety of applications including soils, feeds, meats, starches, slurries, or wastewater. In addition, the *TruMac* complies with AOAC, AACC, AOCS, and ASBC-approved methods of analysis.



Rapid Analysis Times & Integrated Automation for Macro Samples

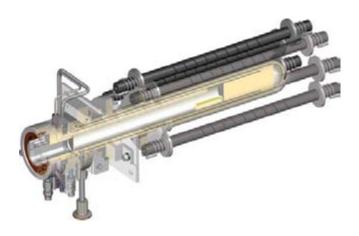


Oversized sample boats are perfect for solid (A, C) or liquid (E) macro samples. Following combustion, sample ash is retained in the boats (B, D, & F) for easy clean-up.



Autoloader increases sample throughput.

Instrument Highlights and Features



Unique Ceramic Horizontal Furnace

- Pure oxygen environment ensures the complete oxidation of macro samples with maximum temperatures up to 1450°C
- Ceramic lance directs oxygen flow directly onto the sample
- Robust design utilizes six heating elements for increased reliability and efficiency
- Purge chamber eliminates atmosphere entrainment in samples

Easy and Convenient Sample Handling

- Large, reusable sample boats facilitate the handling of macro samples
- Open ceramic boats provide ample surface area for the efficient purge and combustion of macro samples
- Sample ash retained in boat for post-analysis removal
- Nickel liners and/or nickel boats available for the analysis of liquid samples in *TruMac* nitrogen configurations





Seamless Integrated Automation

- Autoloader for sequential and non-sequential analysis of up to 50 pre-weighed samples
- Rugged design for improved reliability and minimal maintenance requirements
- Full automation of analysis cycle simplifies operator workflow and increases productivity

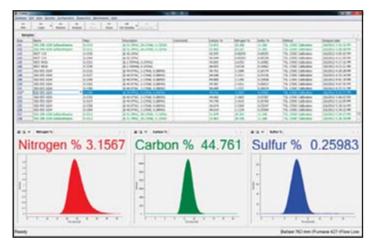
Improved Design and Accessibility for Maintenance of Combustion Gas Handling and Aliquot System

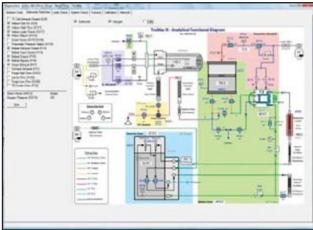
- Nitrogen and carbon/nitrogen configurations utilize an efficient thermoelectric cooler to remove moisture from combustion gas, eliminating the need for chemical anhydrone
- Ballast and aliquot system extending reagent lifetimes ensure a low cost-per-analysis and superior instrument uptime for maximum throughput regardless of the sample matrix or mass, eliminating the need for wholegas analysis
- Nitrogen/protein models feature a 2000 sample reduction reagent lifetime
- Quick-release ballast assembly and exterior-mounted pinch-valve assembly simplifies preventive maintenance routines



Easy-to-Use Operating Software

Simplified data handling, customizable data reporting and exporting, and a number of user-defined settings make the *TruMac* software flexible and easy to operate. With virtually unlimited storage space and compatibility with various Laboratory Information Management Systems (LIMS), this software is designed for seamless interaction with any customer environment. A convenient on-board help manual allows quick access to information without leaving the instrument. The software also supports compliance to FDA regulations 21 CFR Part 11 for a closed analytical system. Compatible with —*Smart/Line** Remote Diagnostics.





Seamlessly manage data and plots

Expanded interactive diagnostic screens to aid in troubleshooting and improve serviceability

Model Availability

Available in various models, the TruMac Series can be utilized for your most challenging applications.



TruMac N

From raw foods to final consumer-ready products, the TruMac N determines nitrogen/protein in food samples up to 3 grams.

- Meats
- Feeds
- Petfood
- · Milled products

TruMac CN

Quickly and easily analyze carbon and nitrogen for your difficultto-prepare environmental and agricultural samples.

- Soil
- · Plant tissue





TruMac NS and TruMac CNS

Both the TruMac NS and the TruMac CNS offer innovative solutions for simultaneous carbon, nitrogen, and sulfur analysis in environmental and agricultural samples.

- · Plant tissue
- Fertilizers

LECO Corporation

Delivering the Right Results

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