



628 Series: Elemental Analysis by Combustion

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By incorporating state-of-the-art hardware and software technology with key improvements in overall instrument performance and reliability, the 628 Series allows you to achieve rapid and precise results in diverse organic matrices from food to fuels. For optimum versatility, this instrument is available in flexible configurations—nitrogen/protein, carbon/nitrogen, and carbon/hydrogen/nitrogen. Sulfur and micro oxygen module configurations are also available.



Shown with optional Sulfur Module.

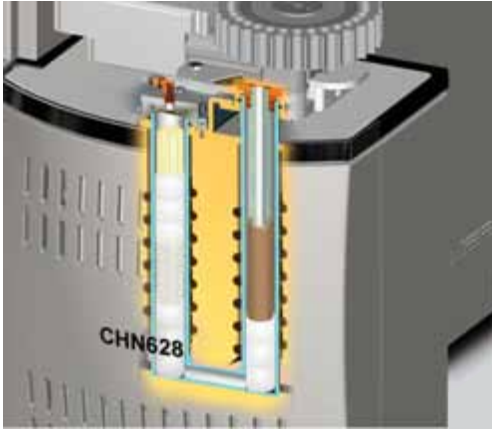
Rapid Analysis Times and Integrated Automation

Maximize Throughput While Keeping Cost-Per-Analysis Low

- Unique combustion gas handling and aliquot dosing system significantly extends the lifetime of the reagents used, lowering cost-per-analysis and instrument downtime, while eliminating the need for chromatographic separation, trap and purge techniques, and other costly whole gas analyses
- Independent detectors used for simultaneous elemental determination, resulting in rapid 4.5 minute analysis times
- Simple, gravity-fed autoloader allows for unattended analysis, while increasing long-term reliability of loader



Instrument Highlights and Features

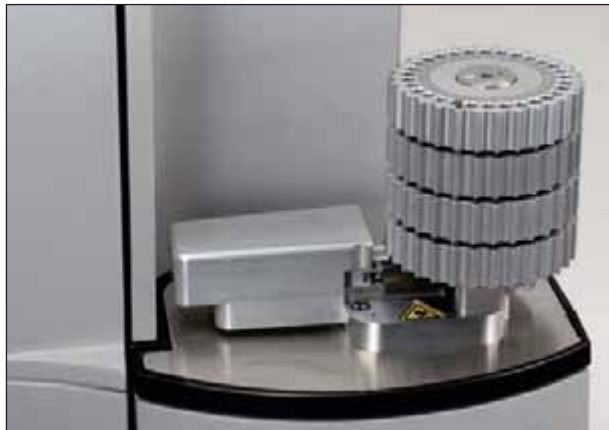


Pure Oxygen Combustion System

- Dual-stage furnace system operates at temperatures up to 1050°C using only pure oxygen to ensure the complete combustion of all organic samples, without requiring additional metal oxidizing reagents or other carrier gases
- Quartz lance directs oxygen flow directly onto the sample, accelerating the combustion process and providing superior recovery
- Large, porous crucible aids combustion process and extends maintenance intervals

Improved Design and Accessibility for Maintenance Areas

- To enhance safety and convenience, reagent and reduction tubes are located on the front side of the instrument behind a cabinet door, along with specially designed tools and storage to aid in performing maintenance tasks
- Open access to ballast and pinch valve assembly areas with quick-release features simplify preventive maintenance routines
- Replacement tubing kit available with sealed unions and fittings for fast, simple, and long-lasting replacement of ballast flow path area



Additional Features and Benefits

- Low-maintenance autoloader with optional capacity for up to 120 samples
- Complies with AOAC, ASTM, ISO, AACC, AOCS, and ASBC-approved methods of analysis
- Nitrogen and carbon/nitrogen configurations utilize a stainless-steel pre-chiller block and thermoelectric cooler to eliminate use of anhydrous for removal of moisture in the furnace combustion gases

Options

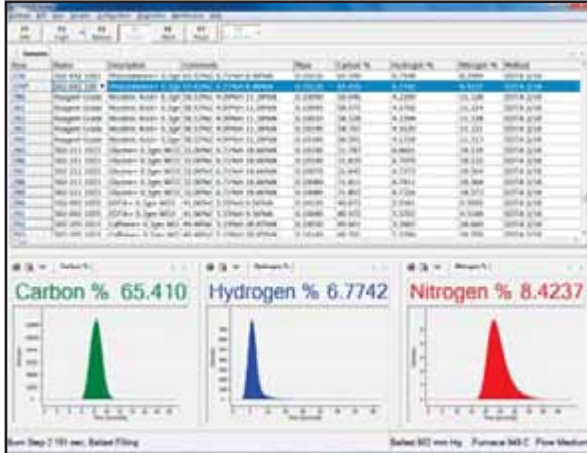
- Nitrogen and carbon/nitrogen configurations available with liquid autosampler to provide seamless operation for liquid sample analysis up to 1 mL
- Sulfur add-on module provides independent sulfur determination on macro samples (350 mg)
- High-temperature combustion technique allows for sulfur analysis times of less than two minutes
- Oxygen add-on module for micro oxygen capabilities compatible with carbon/hydrogen/nitrogen configuration



Shown with optional Liquid Autosampler.

Easy-to-Use Operating Software

Simplified data handling, customizable data reporting/exporting, and a number of user-defined settings make the 628 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 operator or 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 to ~~SmartLine~~® Remote Diagnostics application.



Seamlessly manage data and plots



Expanded interactive diagnostic screens to aid in troubleshooting and improve serviceability

Model Availability

Available in various models, the 628 Series can be utilized for your most challenging applications.



FP628

The FP628 offers accurate detection of nitrogen/protein in a wide range of foods, and other organic matrices, within four to five minutes.

- Foods
- Feeds
- Milled Products

CN628

The CN628 is an efficient and reliable solution for carbon and nitrogen analysis in environmental and agricultural samples.

- Soils
- Plant Tissues



CHN628

The simultaneous detection of carbon, hydrogen, and nitrogen in energy and fuel samples can be done quickly and conveniently using the versatile CHN628.

- Coal
- Coke
- Oils