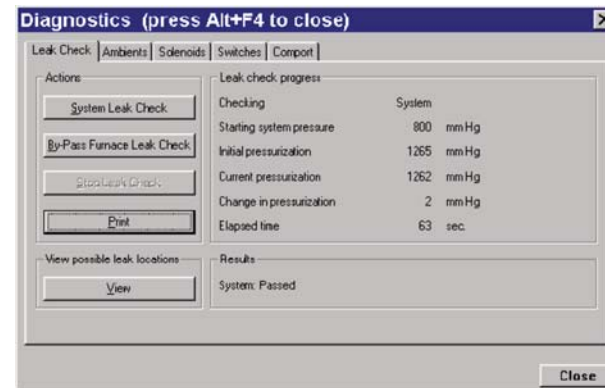
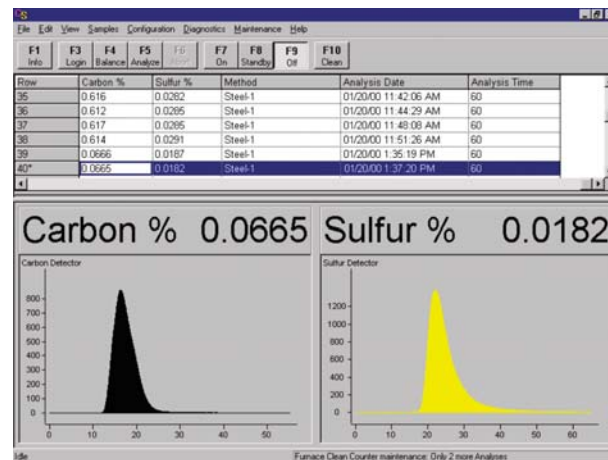
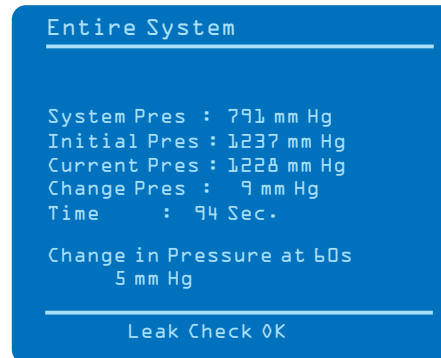
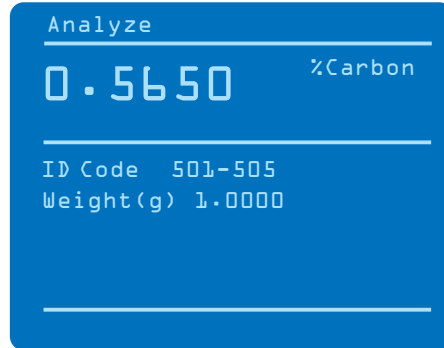


DSP or Windows®-Based Control

The standard DSP software package includes complete on-board diagnostics, alphanumeric entry, and statistical reporting capabilities. As your needs change, you can simply upgrade your instrument to Windows®-based control. This familiar software platform combines easy-to-use program features with advanced database capabilities.



Custom-designed software for DSP (top) and Windows® (bottom) allows access to previously defined ID codes through the sample log-in and analysis screen.

On-board diagnostics ensure minimum downtime. Free service training classes enhance your operator's capabilities.

LECO—Your source for total analytical solutions.

TCH600 Nitrogen/
Oxygen/Hydrogen
Determinator



GDS500A
Glow Discharge
Spectrometer



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Delivering the Right Results

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Form No. 209-173

R2.511-REV1

LECO
CS230 Carbon/Sulfur Series



CS230 Carbon/Sulfur Series

Since 1936 LECO has remained the authority in rapid elemental determination by combustion/fusion. Today our field-tested instrumentation features the latest technology and conveniences that have made LECO synonymous with elemental determination in metals.

The LECO CS230 Series is ideal for the smaller, lower-volume laboratory looking for a cost-effective solution without sacrificing precision, reliability, and accuracy. Add the optional Windows®-based software and fully automatic autoloader to expand usability even further for higher-volume laboratories. Each instrument can be configured to meet your individual lab needs including carbon-only, sulfur-only, high-carbon/sulfur, low-carbon/sulfur, and high-sulfur determination.



Easily Upgradable

With the unique ability to change infrared (IR) cell configurations, the CS230 Series is available with high and low cell range options. Carbon-only and sulfur-only models can be easily upgraded to dual carbon/sulfur determination.

CS230-Series

CS230 Carbon/Sulfur Determinator

Not every lab requires high-end, multi-element detection instrumentation. For dependable accuracy and precision, combined with upgrade flexibility for carbon and sulfur results, LECO recommends the CS230. This instrument effectively covers ranges from ppm to high-weight % levels for both carbon and sulfur. For more information request Specification Sheet 209-173-001.

C230 Carbon Determinator

LECO's most basic carbon-only determinator for steel, cast iron, ferroalloys, and nonferrous metals. Results are available in as little as 45 seconds. For more information request Specification Sheet 209-173-002.

S230 Sulfur Determinator

For accurate sulfur-only determination, choose the S230 Series. Measurement by solid-state infrared absorption is complete in less than one minute. For more information request Specification Sheet 209-173-003.

Standard Features

- Automatic leak check and barometric pressure control
- Powerful 18 MHz, 2.2 kW furnace
- Simultaneous carbon/sulfur calibration; blank calculation for each cell and method
- Cleaning counters for reagent changes
- System set-up and checks
- Easy accessibility to calibration, linearization, blank factors, and analysis data
- Approved, recommended method of analysis

Applications

CS230-Series instruments can easily handle most sample forms including solid pieces, powders, millings, and chips.

Carbides	Ferro Alloys
Catalysts	Refractory Metals
Cast Iron	Steels
Ceramics/Sands/Glass	Mold Powders
Copper Alloys/Brass	Lime/Limestone/Ores
Aluminum Alloys	Inorganic Materials

Typical Results

Instrument	Sample		% Carbon	% Sulfur	
CS230	White Iron	Avg.	3.33	0.0150	
		NIST 338	Std. Dev.	0.004	0.0006
		3.33% C	RSD	0.12	4.00
	0.015% S				
	Stainless Steel	Avg.	0.311	0.0354	
NIST 73C		Std. Dev.	0.001	0.0003	
0.310% C		RSD	0.39	0.73	
0.036% S					
C230	Sand	Avg.	0.0309	—	
		Std. Dev.	0.0009	—	
		RSD	2.9	—	
	Tool Steel	Avg.	0.720	—	
NIST 50C	Std. Dev.	0.0014	—		
	0.719% C	RSD	0.20	—	
	S230	Fly Ash	Avg.	—	0.154
NIST 2690			Std. Dev.	—	0.0006
0.15% S			RSD	—	0.39
Clay		Avg.	—	0.0062	
	Std. Dev.	—	0.0002		
	RSD	—	3.22		



CS230 Carbon/Sulfur Determinator

Shown above with optional Windows®-based software. DSP version (left) is standard.



Sample Autoloader

Optional 60-position carousel with integrated crucible load/unload (Windows® version only).