

Introducing the CSi

A Dedicated Handheld LIBS for Carbon and Silicon Measurements

The perfect complement to handheld XRF

Measures C + Si in Steels and L, H-grade Stainless

Ultra-compact size and weight, comparable to XRF



SciAps



Meet the Ultra-Compact Carbon Analyzer: The CSI

It's the world's smallest, lightest weight, sleekest analyzer for carbon analysis in alloys. At 3.5 lbs. (1.6 kg), the CSI rivals the size and weight of most handheld XRF units. It measures carbon content in steels and stainless, including distinguishing L and H grade stainless. The CSI is the perfect complement to your XRF when you need carbon data.

Why the CSI?

Many operators own one or more XRFs for PMI/NDT. It's their preferred tool for high temp alloys, and for elements contributing to carbon equivalents (CE), residuals, and stainless steel grades: V, Mn, Cr, Ni, Cu, Nb, Mo. However, XRF does not measure carbon and therefore no carbon equivalents, no separation of L- and H-grade stainless, nor can you use the more forgiving low RE formula $(Ni + Cu) < 0.15\%$.

The CSI is the perfect tool for operators who own XRF and need the occasional carbon measurement. It delivers fast, reliable carbon results to complement XRF tests, at a lower cost than the full LIBS system for carbon plus alloys. And SciAps cloud-driven data merging and report generation bring it all together in one report.

AVG	1	2	3	
C	0.021	0.021	0.022	0.021

The CSI shows multiple carbon and silicon measurements, and the average. Meets multi-test averaging protocols required by some refineries and pipeline operators.

High-resolution display
rear-facing for easy results viewing.



Intuitive Android
operating system and app-based software.



Full-featured report
generation and cloud data management.



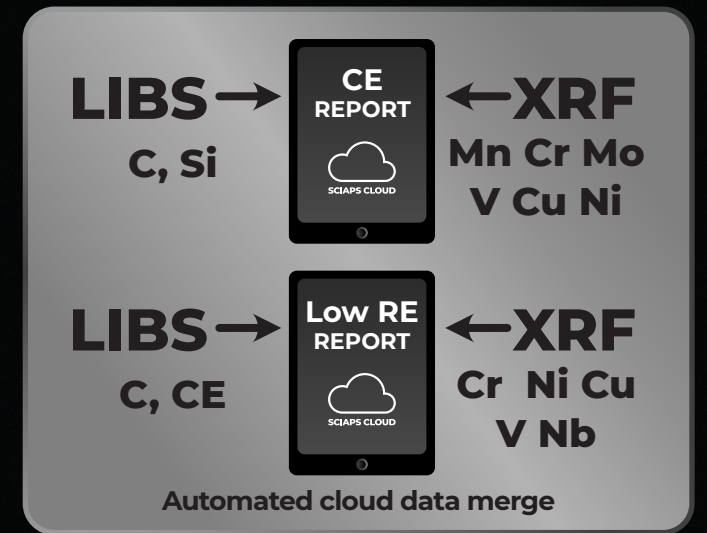
User-replaceable argon

Hundreds of carbon tests at pennies per test.



SciAps breakthrough LIBS technology is now widely accepted for carbon testing.

It's included in API 578 2nd Edition, accepted at most every major refinery, and in use worldwide by fabricators, pipeline owner/operators, power plants and other users of carbon steels and L- and H-grade stainless.



Rugged metal body
for maximum durability.



Internal camera
for precise targeting of analysis locations, especially welds.



Macro camera
for photo documentation of samples, reading barcodes and QR codes.



Patented sensor
sample sensor allows Class 1 operation, subject to LSO approval.



Tapered, narrow snout
for welds or difficult-to-access test locations.

LIBS sensor



Advanced spectrometer design for high resolution and wide range.

SciAps “One Box” Options Combining CSI and XRF Units

Model	Key Elements	Comments
X-550 & CSI	X-550 for fast Mg, Al, Si, P and S, plus transition and heavy metals. CSI adds C and Si.	Best combination for widest variety of PMI and highest throughput.
X-505 & CSI	X-505 offers same element range as above, but test times on “beam 2” elements Mg, Al, Si, P and S are about 2x longer. Still < 10 sec. total.	With X-505, Si in steel at 0.1% requires an 8 second test, versus a 4 second test with X-550.
X-5 & CSI	Measures transition, heavy metals Ti and higher, C and Si. Does not measure P, S, Mg, Al.	This is the ideal package for basic PMI and carbon.

SciAps offers One Box solutions that include our CSI and various XRF models to meet any PMI or NDT requirement.

Don't want to use two analyzers?

Then use our complete LIBS model: the Z-902 verifies carbon, silicon, and a full elemental suite for common alloy bases.

Cloud-based integration of XRF and CSI data



Two analyzers means twice the reporting hassle, right? No. SciAps offers a cloud-based data merge and reporting tool so you can quickly merge CSI and XRF data to produce reports combining carbon and silicon from the LIBS with metals analysis from the XRF.

Are you using a different XRF brand? No problem – ask your supplier for the data structure of their data export and we'll incorporate it into our SciAps Cloud package. The data structure generally follows an industry standard and doesn't involve proprietary software.



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