



TELEDYNE LEEMAN LABS
Everywhereyoulook™

Product Descriptions and Offerings



Teledyne Leeman Labs is a leading innovator of analytical instrumentation for elemental analysis. Laboratories in industries ranging from environmental science, oil and gas, food, agriculture, earth sciences, clinical chemistry, and industrial materials rely on our instrumentation due to their exceptional accuracy, reliability, and durability. Teledyne Leeman Lab's analytical instruments play a vital role in protecting the environment, maintaining the integrity of our food and water supply, ensuring the safe operation of our factories and the quality of manufactured goods.



Leeman Labs is best known for its first use of the echelle spectrometer for Inductively Coupled Plasma (ICP) Spectrometers, and for its innovations in stand-alone mercury analysis equipment. In the area of Hg analysis, they pioneered groundbreaking ways to automate both sample preparation and testing, enabling the chemist to get more done in less time.



Family of Mercury Analyzers

Teledyne Leeman Labs family of Mercury Analyzers are fully automated instruments that address the analysis of solids, semi-solids and liquids. They are equipped to assist today's laboratory technician, chemist or lab manager in meeting the myriad of challenges that face today's modern laboratory. These high-performance fully automated analyzers are the number one choice for laboratories searching for a mercury analyzer with a proven track record.

Hydra II_{AA} - Atomic Absorption Detection – for Liquid Samples

Delivers both the performance needed to meet tightening regulatory demands and the productivity needed for laboratories to operate efficiently. Its ≤ 5.0 ng/L detection limits, exceptional stability and unique over-range protection easily satisfy the most stringent QCs. Its high capacity autosampler with extra large CCV/CCB containers permits long periods of unattended operation.

- High sampler capacity (up to 270 sample locations)
- Large reservoirs for recurring QCs
- Easily handles difficult sample matrices
- Automatic over-range protection



Hydra II_c - Atomic Absorption Detection – Direct Analysis of Solid and Semi Solid Samples

Eliminates the complicated chemistry and hazardous waste associated with conventional mercury techniques. The *Hydra II_c* is ideal for analysis of solid to semi-solid samples in a myriad of settings.

- 70 position autosampler
- "On-the-fly" sample programming
- Exceptionally easy to maintain



Family of Mercury Analyzers

QuickTrace® M-7600 - CVAA mercury analyzer system - ranges from ultra-trace to sub mg/L analysis

Easily achieves the ultra-trace mercury detection limit of < 0.5 ng/L demanded by customers employing performance based EPA method 245.7. The QuickTrace® M-7600 is ideal for ultra-trace to sub-mg/L mercury quantitation. The M-7600 is designed for routine and research use in a variety of settings, including environmental laboratories, industry, and research institutes, for virtually any aqueous acidified sample.

- U.S. EPA 245.7 compliant
- ≤ 0.5 ng/L instrument detection limits
- Usable range, 0.5 ng/L – 500 μ g/L
- Advanced contamination control, over range and smart rinse features
- “Smart Rack” technology



QuickTrace® M-8000 - VAF system for triple mode, no enrichment, single or double gold amalgamation

Ideal for ultra-trace to sub-mg/L mercury quantitation. It easily achieves the ultra-trace mercury detection limit of < 0.05 ng/L demanded by customers employing EPA method 1631. The QuickTrace® M-8000 is also versatile enough to analyze samples > 400 μ g/L in a research or industrial setting without dilution.

- U.S. EPA 1631 and 245.7 compliant
- ≤ 0.05 ng/L instrument detection limits
- Advanced contamination control, over range and smart rinse features
- Intuitive pump and carrier gas controls eliminating air infusion into the system during sample probe movements
- “Smart Rack” technology



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Inductively Coupled Plasma Optical Emission Spectrometers (ICP-OES)

At Teledyne Leeman Labs atomic spectroscopy is our business, our only business. We are deeply committed to providing technically superior products and the highly responsive support you need to meet or exceed your elemental analysis needs. Teledyne Leeman Labs ICP-OES instruments offer industry leading performance, a wide range of sample introduction options, high throughput automation, the ability to analyze samples with reduced gas consumption.

Configurations for any sample type:

- Radial for ppm to percent level analysis
- Axial for ultra-trace measurements
- Dual View for the widest possible concentration ranges

Prodigy7

- Low Format, Advanced CMOS Array Detector
- Full Wavelength Coverage
- Full Spectral Access
- Twist-n-Lock, Auto-Aligning Sample Introduction System
- Compact Design
- Reduced Gas Consumption



Inductively Coupled Plasma Optical Emission Spectrometers (ICP-OES)

Prodigy

- Advanced Analysis Capability
 - Halogen, Time Resolved Spectroscopy and Laser Ablation Options
- Large Format Programmable Array Detector
- Suitable for the most basic applications to the most complex

Prodigy XP

- Composite Programmable Array Detector (C-PAD)
- Image Stabilized Plasma
- Full Wavelength Coverage
- Low Stray Light Optics



DC Arc

Fast, quantitative, elemental analyses of difficult samples are hallmarks of the DC Arc approach. Few other techniques can challenge the ease-of-use or productivity of DC Arc when it comes to samples that are difficult or impossible to digest. Prodigy DC Arc performs elemental analysis of samples in their native form without sample digestion. When it comes to copper analysis, DC Arc continues to be the preferred technique for the routine analysis of trace elements in a high purity copper matrix.

Typical applications:

- Acquires the full high resolution spectrum in a single burn
- Uses half the number of electrodes which cuts your cost and analysis time in half
- High purity metals: ex. copper
- High purity powders: ex. oxides, carbides, graphite
- Precious metals
- Nuclear materials
- Geologicals





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