



**TELEDYNE LEEMAN LABS**  
Everywhere you look™



**Stable**



**Intuitive**



**Versatile**



**QuickTrace® M-7600**  
CVAA Mercury Analyzer

The QuickTrace® M-7600 Cold Vapor Atomic Absorption (CVAA) mercury analyzer combines the proven technologies from its predecessors along with TCP/IP communication. TCP/IP technology guarantees that data collection performance will be a stable format for years to come.

The QuickTrace® M-7600 is used to analyze samples that include water and waste-water, soil and sediment, and biological tissues and fluids. The QuickTrace® M-7600 is ideal for ultra-trace to sub-mg/L mercury quantitation. The QuickTrace® 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.



# Key Features of the QuickTrace® M-7600

- Patented non-foaming Gas Liquid Separator (GLS) with overflow prevention system
- TCP/IP communications per laboratories preferences
- Prevent carryover with Smart Rinse and detector saturation prevention feature
- Superior baseline stability with patented double beam optics
- Ozone free low vapor pressure mercury excitation lamp
- Analyze samples with or without an autosampler
- Unlimited QC sample positions
- Automatic end of run and inactivity standby routines
- 12-roller 4-channel peristaltic pump
- Sample volume 0.5 mL to > 20 mL
- High capacity mode of < 60 seconds per sample
- Intuitive QuickTrace® software
- EPA 245.7 compliant



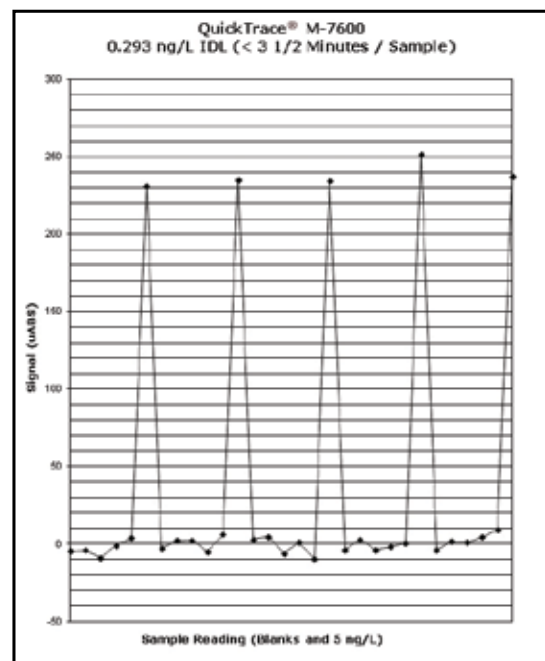
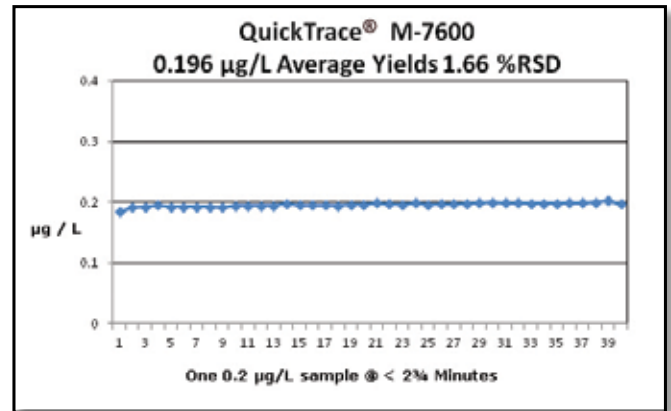
## Performance

The QuickTrace® M-7600 mercury analyzer easily achieves the ultra-trace mercury detection limit of < 0.5 ng/L demanded by customers employing performance based EPA method 245.7. It is also versatile enough to analyze samples > 500 µg/L without dilution. The QuickTrace® M-7600 is capable of switching between low mg/L and ng/L analysis without hardware or tubing configuration changes. Using the proven and reliable CVAA technique combined with multi-tasking Windows-based software package, the QuickTrace® M-7600 is the most stable and sensitive mercury absorbance analyzer available today. For ultra-trace analysis we recommend our autosampler enclosure (ENC-500) to protect the samples from determinate errors such as dust particles. The ENC-500 will also protect your investment from the harsh acid gases normally present in and around digested samples.

- Ultra-trace detection limits (< 0.5 ng/L IDL)
- Linearity greater than 4 orders of magnitude
- Dynamic range < 0.5 ng/L to > 500 µg/L
- Without employing our smart rinse technology the system is ready to accurately measure a sample within four minutes following the ingestion of a 1 mg/L sample
- Short term precision (%RSD @ 95% Confidence) < 6.0% @ 5 ng/L, n=5
- Short term precision (%RSD @ 95% Confidence) < 1.2% @ 20 ng/L, n=5

## Applications

EPA Method 245.1, 245.5, 245.7, SW 846-7470 and SW 846-7471

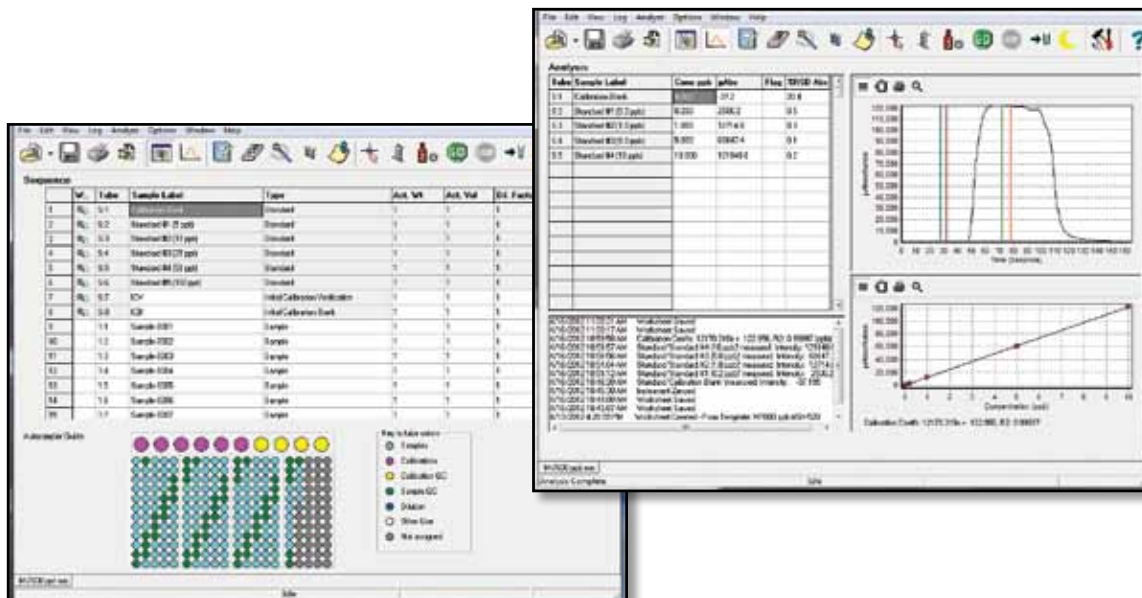


# QuickTrace®

Teledyne Leeman Labs has designed the multi-tasking QuickTrace® software package to be easy to learn, yet provide valuable features and flexibility while continuously adding customer requested features, truly making the software designed by the customer for the customer.

## Features of the QuickTrace® Software platform:

- Microsoft® Windows® 7 and Windows® 8.1
- User defined method threshold for detector saturation and smart rinse technology
- User defined smart rack technology within a given method. This technology allows the autosampler the use of racks varying in size from 90, 60, 40, 24 or 21 tube position racks for samples, standards or quality control
- True Multi-tasking
- Simultaneously run analyses, develop methods, and print reports
- EPA 245.7 and 1631 quality control compliant
- User defined blank acceptance criteria for EPA 245.7 and 1631
- Customizable quality control features
- User defined one or two point baseline offset correction
- Integrate via peak height or peak area
- Scheduled consumable maintenance tracking
- Data files are efficiently exported to a network via the Ethernet port for convenient linking to a LIMS system
- Data files can be emailed to, and opened by, a Teledyne Leeman Labs representative on a PC
- Online help for immediate software support
- Automatic detection limit calculation - determine EPA defined IDL/MDL
- Real time exportable data-tracking log
- Individualized reports - customize printouts by selecting from several parameters
- Master worksheets - ready-to-run worksheets allow quick operation for new users





## Freedom of Choice

Teledyne Leeman Labs provides customers the freedom to choose an autosampler for their mercury analyzer that will meet their laboratories sample load requirements. The ASX-260 and ASX-520 The choice of autosamplers are available for any QuickTrace® Mercury Analyzers. Manual sampling is also available with the option to add autosamplers as sample demand increases.

ASX Standard Autosampler Specifications		
	ASX-260	ASX-520
Tray	10 Standards, 2 Sample Racks	10 Standards, 4 Sample Racks
Capacity	180 samples	360 samples
Dimensions (H x W x D)	61 cm x 33 cm x 51 cm (24" x 13" x 20")	61 cm x 52 cm x 48 cm (24" x 20.5" x 19")
Weight	8.4 kg (18.5 lbs)	10.5 kg (23 lbs)
Computer Interfaces	RS-232 and/or USB	RS-232 and/or USB
Power Requirements	100-240 VAC ± 10%, 50/60	100-240 VAC ± 10%, 50/60





## Technical Specifications

Minimum Computer Requirements	
Microsoft® Windows® 7 (32 and 64-bit) and Windows® 8.1 (64-bit only)	
2 GB RAM for Microsoft® Windows® 7 and Windows® 8.1	
Video running 1024 x 768 with 24-bit color	
Pentium Dual Core 2.3 GHz	
One available USB port	
One standard factory installed Ethernet connection, if a network connection is desired. One available slot for the supplied Network Interface Card (NIC) for the analyzer connection.	
Internet Explorer 4 or higher must be installed for the online Help to function	

Technical Specifications	
Carrier Gas (N <sub>2</sub> or Ar)	Supplied at 120 psi
Power Requirements	100-240 VAC ±10%, 50/60 Hz
Height	46 cm
Width	20 cm
Depth	56 cm
Weight	35 lbs (16 Kg)
Computer Interfaces	Ethernet
Autosampler	ASX-260, ASX-520
Warranty	12 month limited

## Leeman Labs and Elemental Analysis

Our experience isn't limited to Mercury analysis alone. It extends to a variety of other techniques, with the same quality, precision, functionality and thorough engineering we've built our reputation on. If you're seeking elemental analysis for your specific application or industry, Teledyne Leeman Labs is the solution.

### Inductively Coupled Plasma – Optical Emission Spectrometers (ICP-OES)

ICP-OES is ideal for low to trace level analysis of metals, metallic components in a very wide variety of sample matrices. Whether you need to measure sodium content of sea water or trace levels of toxic elements in drinking water, ICP is a powerful and effective tool for the job.

### DC Arc Spectrometer

Our DC Arc Spectrometers are the ultimate solution for elemental analysis of the most challenging solid samples. The DC Arc can perform elemental analysis on samples that are difficult or nearly impossible to digest, or samples in their native form without digestion.



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27

28

Ni

Cu

Zn

