MANTECH

OPTIMIZE YOUR RESULTS. PROTECT OUR ENVIRONMENT.
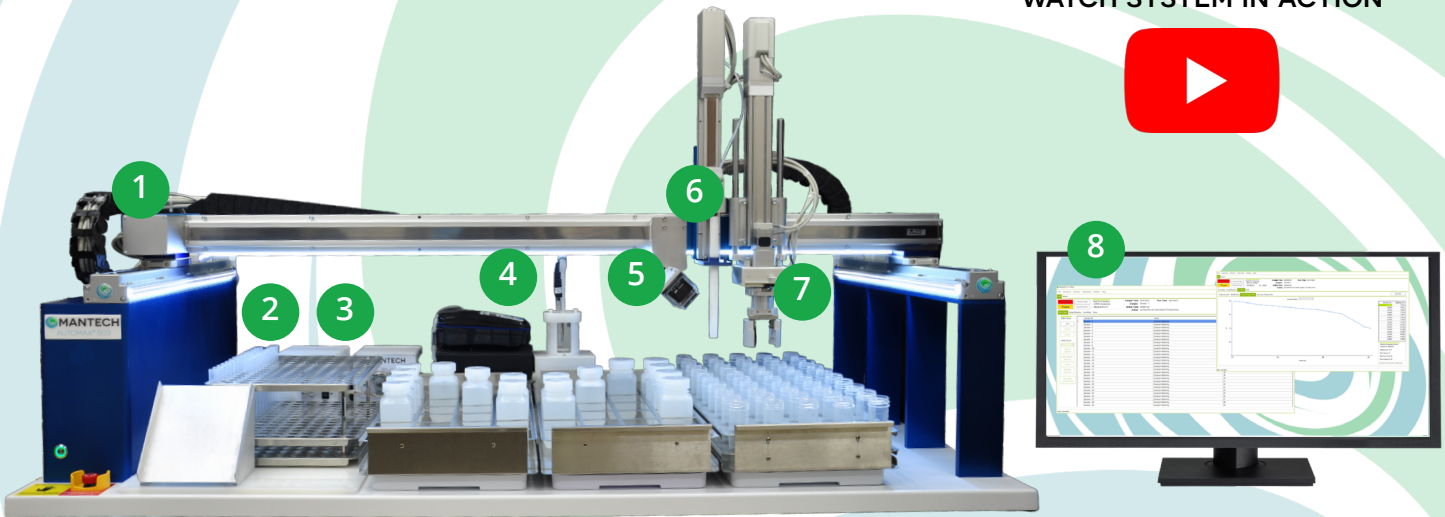
AM500 SERIES ANALYZER

FOR METALS DIGESTION SCREENING & SAMPLE SPLITTING

Increase Automation, Reduce Ailments from Manual Tasks

MANTECH's AM500 series analyzers take automation to the next level by eliminating tedious, repetitive aliquoting and analysis steps required for metals digestion screening & other routine analyses.

WATCH SYSTEM IN ACTION

AM500 SERIES ANALYZER FEATURES

1 H-Frame Autosampler
Includes two z-arms for analysis. Maintenance free with fully sealed, self-lubricating axes.

2 IntelliRinse Station
Cleans all wetted analysis vessels and sample lines with fresh water before proceeding to next sample to eliminate cross-contamination.

3 Intelligent Pumps
Used to deliver fresh water for rinsing and aliquots sample into external vessels. Communicate directly with software.

4 External Analysis Vessels
Analysis occurs within a TitraSip™ vessel and a T10 turbidty meter so the remaining sample can be used for other tests.

5 Barcode Scanner
Scans barcodes regardless of position on bottle (upside down, sideways, etc.). Pulls key information from LIMS. Ensures correct pipette tip, bottle or lid is picked up.

6 Pipette Tip Pickup & Ejector
Disposable or reusable pipettes available. Built-in sensor ensures pipette has been picked up or ejected. Pipette is ejected into an external disposal bin after analysis.

7 Rotating Gripper
Grips and rotates lids to cap and uncap field bottles. Built-in sensor ensures cap is removed or placed on.

8 MANTECH Pro Software
User-frendly interface for reviewing current and historical data, generating reports, sending email alerts and more.

Automate Additional Parameters
Conductivity, Fluoride, ORP, Sulfide and More!

Request a quote: info@mantech-inc.com

Metals Digestion Screening Cycle Time ~ 3 Minutes
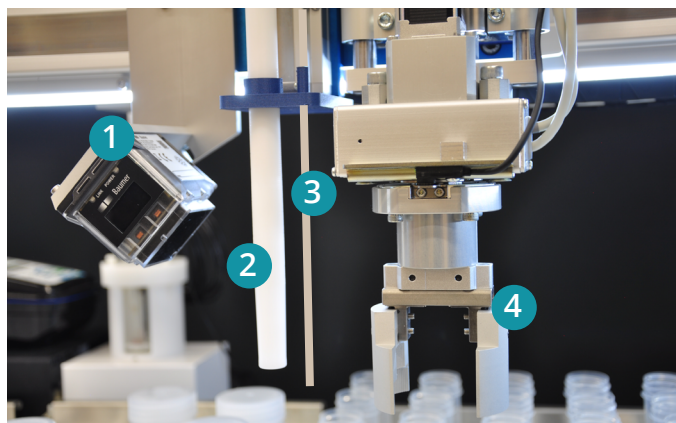
In this time, the AM500 series analyzer:
- Scans barcodes
- Unscrews caps
- Transfers sample to external analysis vessels
- Measures pH and turbidity
- Adds HNO3 if needed
- Performs cleaning procedures
- Records results in software

Add Sample Splitting and the Total Cycle Time ~ 7 minutes

ANALYSIS COMPONENTS

The AM500 series analyzers includes intelligent modules that communicate bi-directionally with MANTECH Pro software.

ARM COMPONENTS

1. **Barcode Scanner** scans barcodes and ensures pipette tips, bottles and lids are picked up correctly.
2. **Pipette Pickup and Ejector** picks up a unique pipette tip and ejects it after analysis.
3. **Reagent Dispense Tip** dispenses HNO3 into sample as needed.
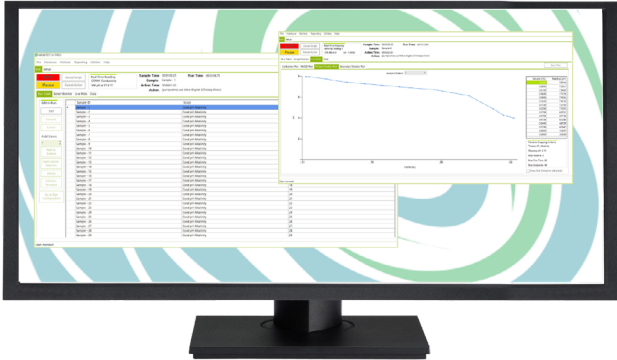4. **Rotating Gripper** uncaps and caps field bottle lids.

PUMPS & EXTERNAL ANALYSIS VESSELS

IntelliPeri™ Pumps delivers rinse water and drains vessels.	IntelliDose™ Pump Class A pipetting for aliquoting samples.	100,000 Step Buret delivers precise volume of reagents.	TitraSip™ Vessel houses pH electrode & stirrer for analysis.	T10 Turbidity Meter measures turbidity with 30mL of sample.

Software & External Components

MANTECH Pro Software

- Built for Windows 10 & 11 Pro OS
- Allows auto-security updates
- Shortcut buttons
- Import/export capability to LIMS
- Live view of data
- Historical data search
- Email alerts
- User account permissions
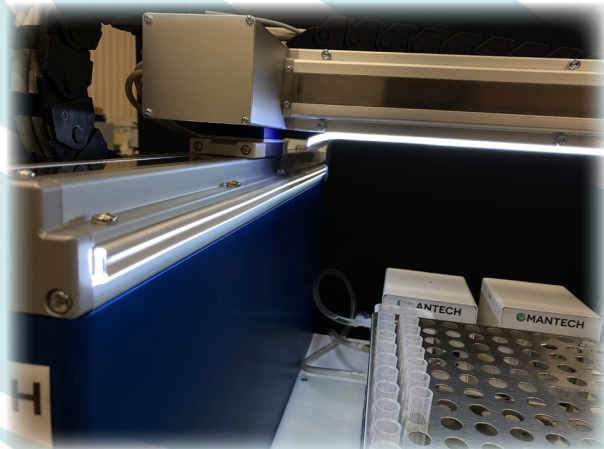- Context sensitive Help Menu

External Component Options

Safety Shield with Safety Interlock shields the exterior of the autosampler.
Signal Light includes three colors. The signification of each color can be customized to indicate system ready for analysis, run in progress, run ended, etc.
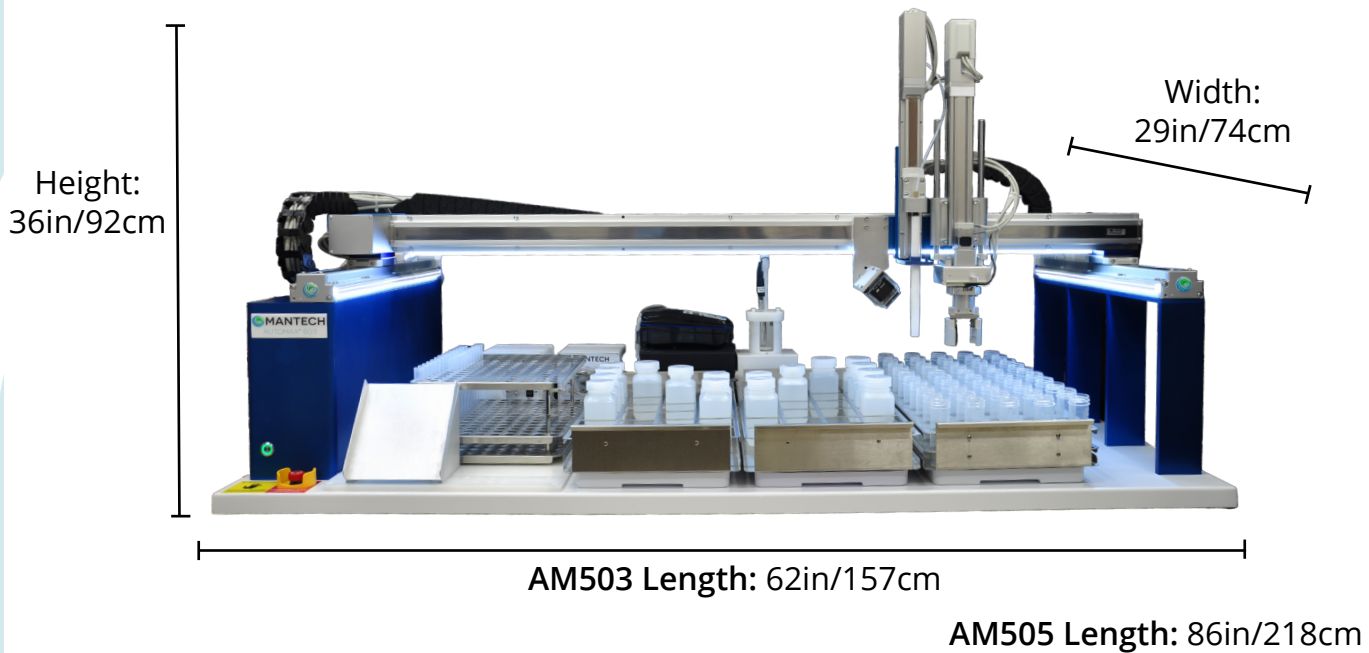**LED Light Strips** illuminate the autosampler.
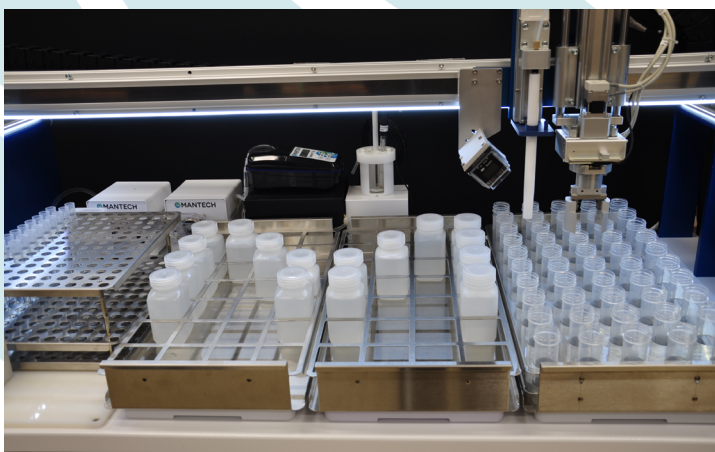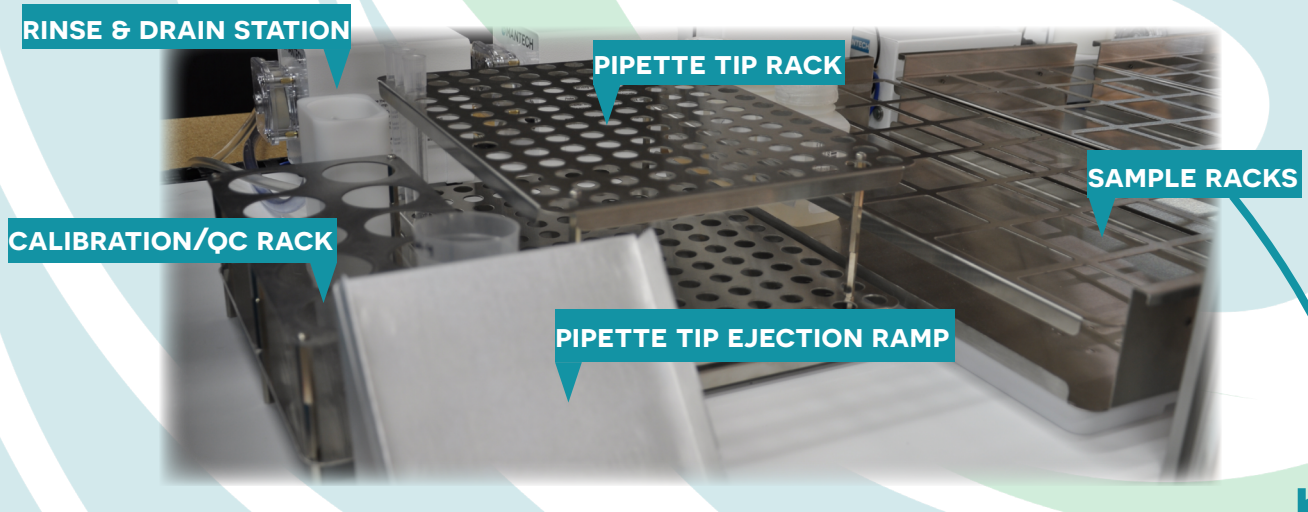**Table with Casters** includes storage space on lower shelf.

Request a quote: **info@mantech-inc.com**

AM500 SERIES DIMENSIONS

There are two autosampler sizes available for the AM500 series, differing in sample rack capacity, the AM503 can hold 3 sample racks while the AM505 can hold 5.

Height: 36in/92cm

Width: 29in/74cm

AM503 Length: 62in/157cm

AM505 Length: 86in/218cm

Note: Enclosure adds 4" to the length and width of the autosampler.

RINSE & DRAIN STATION

PIPETTE TIP RACK

SAMPLE RACKS

CALIBRATION/QC RACK

PIPETTE TIP EJECTION RAMP

CAPACITIES PER RACK

1L Bottles	14 positions
500mL Bottles	20 positions
250mL Bottles	28 positions
50mL Tubes	55 positions
15mL Tubes	242 positions

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