MANTECH

OPTIMIZE YOUR RESULTS. PROTECT OUR ENVIRONMENT.

MANUAL & AUTOMATED ENVIRONMENTAL ANALYSIS SOLUTIONS

AUTOMAX 400 & 430 SERIES

MANTECH's Next Generation Autosamplers

Sounds Like an EV

So quiet that if you're not looking at it, you don't know it's running.

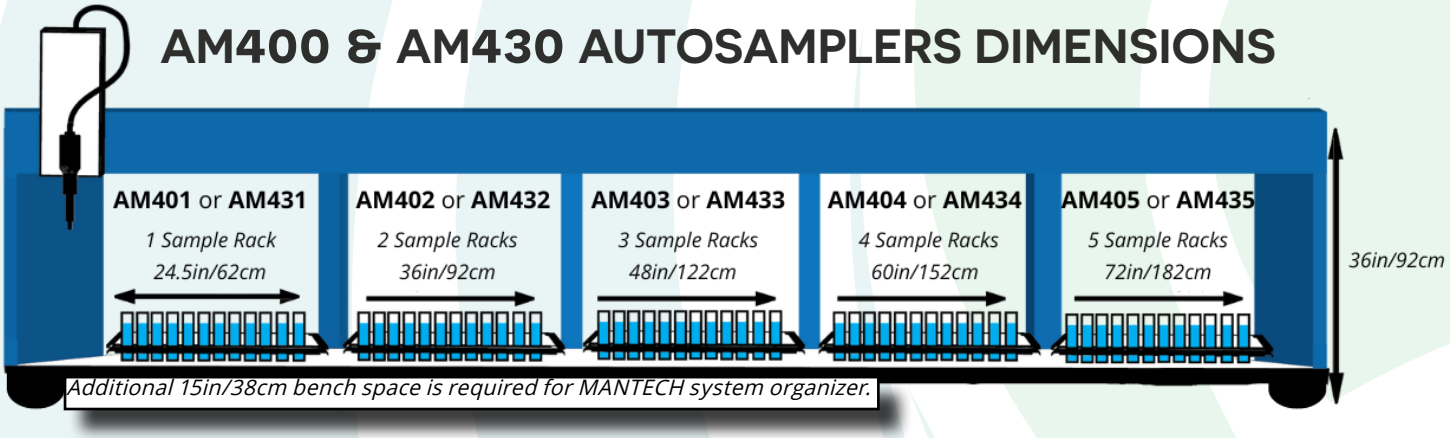
Runs Like an F1

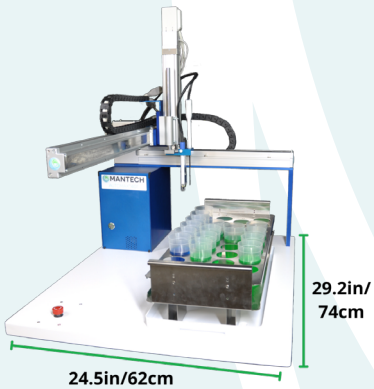
Fast analysis time reduces run times and improves efficiency.

Stops on a Line

Accuracy of probe placement within a millimeter.

AM400 & AM430 AUTOSAMPLERS DIMENSIONS





Fits comfortably on lab benches of 24-inch depth!

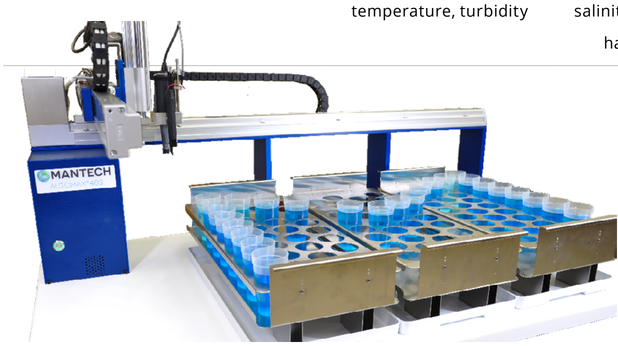
STANDARD RACK CAPACITIES

	15mL Tubes	50mL Tubes	125mL Cups	300mL Beakers
AM400	144 positions	112 positions	32 positions	18 positions
AM430	99 positions	68 positions	20 positions	12 positions

Custom rack size options available to accomodate any vessel.

TITRATION ANALYSIS SYSTEM FEATURES

MODEL	MT3	MT5	MT10	MT30	MT100
Automated Capacity	Manual Probe Dip	Manual Probe Dip	32 - 560	32 - 560	32 - 720
MANTECH Pro™ Software	✓	✓	✓	✓	✓
DualProbe			✓	✓	✓
IntelliRinse™			✓ Static and Dip Multiple Stations	✓ Dynamic	✓ Dynamic
SampleProtect™			✓	✓	✓
Temperature Compensation	Automated with Manual Temperature Entry (Thermistor Optional)	Automated with Manual Temperature Entry (Thermistor Optional)	Automated with Manual Temperature Entry (Thermistor Optional)	Automated with Thermistor	Automated with Thermistor
PeCOD® Analyzer Add-on (10min BOD/COD and 5min 'Optimized TOC')	✓	✓	✓	✓	✓
BOD 5 Day DUO Add-on	✓	✓	✓	✓	✓
2 or more titration methods	✓ In different sample cups	✓ In different sample cups	✓ In different sample cups	✓ In different sample cups	✓ From a single sample cup
Sample cup size	125mL	125mL	50mL & 125mL	50mL & 125mL	15mL, 50mL & 125mL
Customer-Supplied Vessels	✓	✓	✓	✓	✓
RapidDuo™ e.g. alkalinity & hardness in 2 different vessels					✓
TitraSip™ Gen2					✓
IntelliVOL™*	✓	✓	✓	✓	
Automated Pipetting					✓
Buret**		✓	✓	✓	✓
Parameters	Ammonia, chloride, color, conductivity, fluoride, nitrate, oxidation-reduction potential (ORP), oxygen, pH, salinity, temperature, turbidity	Acidity, alkalinity, ammonia, chloride, color, conductivity, fluoride, nitrate, oxidation-reduction potential (ORP), oxygen, pH, salinity, temperature, total hardness, turbidity	Acidity, alkalinity, ammonia, chloride, color, conductivity, fluoride, nitrate, oxidation-reduction potential (ORP), oxygen, pH, salinity, temperature, total hardness, turbidity	Acidity, alkalinity, ammonia, chloride, color, conductivity, fluoride, nitrate, oxidation-reduction potential (ORP), oxygen, pH, salinity, temperature, total hardness, turbidity	Acidity, alkalinity, ammonia, chloride, color, conductivity, fluoride, nitrate, oxidation-reduction potential (ORP), oxygen, pH, salinity, temperature, total hardness, turbidity



**Aspiration of sample to a known volume via extraction pump. Accurate sample volume allows for titration directly in 125 mL cup or 50 mL tube.*

***For every model, up to 20 burets , 30 IntelliPeri™ pumps, 30 IntelliDose™ pumps can connect to the same analyzer.*

Optional enclosure with a protective cover for the sides and front doors ensuring easy access to samples (view photo).

MANTECH

MANTECH PRO™ SOFTWARE

Our user-friendly and customizable centralized software package provides reliable results with automated quality control checks, linear and multi-line calibrations.

FEATURES

1. Shortcut buttons for simplified operations
2. Real time analysis results display on screen
3. Manage and prioritize samples during analysis
4. Easily reference historical data and transfer results to LIMS

LEARN MORE

SYSTEM BENEFITS

- Automates 18 - 520 samples in a single batch
- Customizable user interface for simplified operation
- Non-destructive sample preparation allows for up to 5 parameters on a single sample
- Eliminates potential for human error with automated pipetting using MANTECH's Titrasip™
- IntelliRinse™ prevents cross contamination between samples

PARAMETER	METHODOLOGY	CONFORMS TO:	RANGE OF MEASUREMENT*	CALCULATED METHOD DETECTION LIMIT (MDL)**	RSD SPECIFICATIONS***
Acidity	Potentiometric Titration	EPA 305.1, 305.2; SM 2310 B; ASTM D 1067	1 - 2500ppm	0.42	0.97% @ 100ppm
Alkalinity (P&M, bicarbonate, carbonate, hydroxide)	Potentiometric Titration	EPA 310.1; SM 2320 B; ASTM D 1067; ISO 9963-2	0.3 - 2500ppm	0.18	0.48% @ 200ppm
Ammonia	Ion Selective Electrode	EPA 350.3; SM 4500-NH3 D; ASTM D 1426 (B)	0.1 - 17,000ppm	0.05	2.41% @ 1ppm
	Ion Selective Electrode (Standard Addition)	SM 4500-NH3 E	0.5 - 200ppm	0.1	4.24% @ 2ppm
Chloride	Potentiometric Titration	SM 5400-Cl- D; Variation of ASTM D 512 (B); ISO 9297	1 - 1000ppm	0.28	0.24% @ 100ppm
	Ion Selective Electrode	Variation of ASTM D 512 (C)	0.05 - 35,500ppm	0.01	1.55% @ 100ppm
Color	Colorimetric	EPA 110.2; SM 2120 B	2 - 500CU	0.19	1.7% @ 5CU
Conductivity	Conductivity cell	EPA 120.1; SM 2510 B; ASTM D1125; ISO 7888	<1 - 199,999uS	0.65	0.18% @ 1413uS
Fluoride	Ion Selective Electrode	EPA 340.2; SM 4500-F- C; ASTM D 1179 (B); ISO 10359-1	0.02 - Saturated	0.005	1.57% @ 1ppm
Nitrate	Ion Selective Electrode	SM 4500-NO3- D	0.14 - 62,000ppm	0.05	0.87% @ 100ppm
Oxidation-Reduction Potential (ORP)	Redox Electrode Measurement	SM 2580; ASTM D 1498	-2000 - 2000mV	N/A	0.10% @ 220mV
Oxygen	Dissolved Oxygen Probe Measurement	EPA 360.1; SM 4500-O G; ASTM D 888 (B); ISO 5814	0 - 19.99ppm	N/A	N/A
pH	pH Electrode Measurement	EPA 150.1, 150.2; SM 4500-H+ B; ASTM D 1293; ISO 10523	1 - 14	N/A	+/- 0.05
Salinity	By Calculation	SM 2520 B	0.1 - 42	0.002	0.15% @ 10
Temperature	Thermometric	EPA 170.1; SM 2550 B	N/A	N/A	N/A
Total Hardness	Potentiometric EDTA Titration	Adapted from EPA 130.2, SM 2340 C, ASTM D 1126	1.09 - 1500ppm	0.43	1.63% @ 94ppm
Turbidity	Nephelometric	EPA 180.1; SM 2130 B; ASTM D 1889; ISO 7027	0.1 - 2000NTU	0.05	2.95% @ 1NTU

Please note that in order to obtain the above MDLs, proper analytical techniques and MANTECH recommended procedures including sample volume and reagent concentrations are to be used. Varying sample matrices may generate different results.

**Data for these measuring ranges were obtained using laboratory prepared standards. Some measuring ranges may be increased by using larger capacity analysis vessels, auto-dilution and/or sample spikes. The Reporting Limits (RL) were determined based on data obtaining a coefficient of variance better than 30%. Results may differ depending on laboratory practices and sample matrices*

***MDLs differ from RLs in that they refer to the minimum concentration of a substance that can be measured with 99% confidence that the analyte concentration is greater then zero. The MDL calculation procedure was obtained from US EPA 40 CFR Appendix B to part 136 - Definition and Procedure for the Determination of the Method Detection Limit. MDL = Standard Deviation x T-Value. T-values obtained from reference tables, 99% confidence, n-1 degrees of freedom.*

****The RSDs listed are stated for a particular measurement range. As the MDL is approached, the value will increase as described above.*

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