



# MANTECH

OPTIMIZE YOUR RESULTS. PROTECT OUR ENVIRONMENT.



## BIOCHEMICAL OXYGEN DEMAND (BOD) SOLUTIONS

# BOD PRO SYSTEM FEATURES

The MANTECH BOD Pro™ system automates the 5-day and 7-day Biological Oxygen Demand (BOD) analysis methods approved for regulatory compliance around the world.

## BOD PRO™ CONFORMS TO THE FOLLOWING REGULATORY NORMS:

- ASTM Standard Methods 5210B, 23<sup>rd</sup> edition
- EPA 405.1
- ISO EN 5815-1
- ISO EN 1899-1, -2



### 1 AM400™ Autosampler

Maintenance- and binding-free autosamplers with varying capacities can fit all system components on platform.

### 2 YSI MultiLab DO Meter

Single or dual membrane or optical DO probes.

### 3 Sample Preparation

Precise dilution water, seed and/or inhibitor (ATU) addition.

### 4 IntelliRinse™

Dynamic rinse station to clean probe(s) in between each dilution or sample set.

### 5 Racks

12 or 18 position racks to accommodate any bottle size.

### 6 BOD Pro™ Software

MANTECH coded software with intuitive user interface.



**PLAY VIDEO**

# AUTOMAX 400 SERIES

## MANTECH's Next Generation Autosamplers



### QUIET

If you're not looking at it you don't know it's running!



### PRECISE

XYZ motion accuracy +/- 0.02mm.

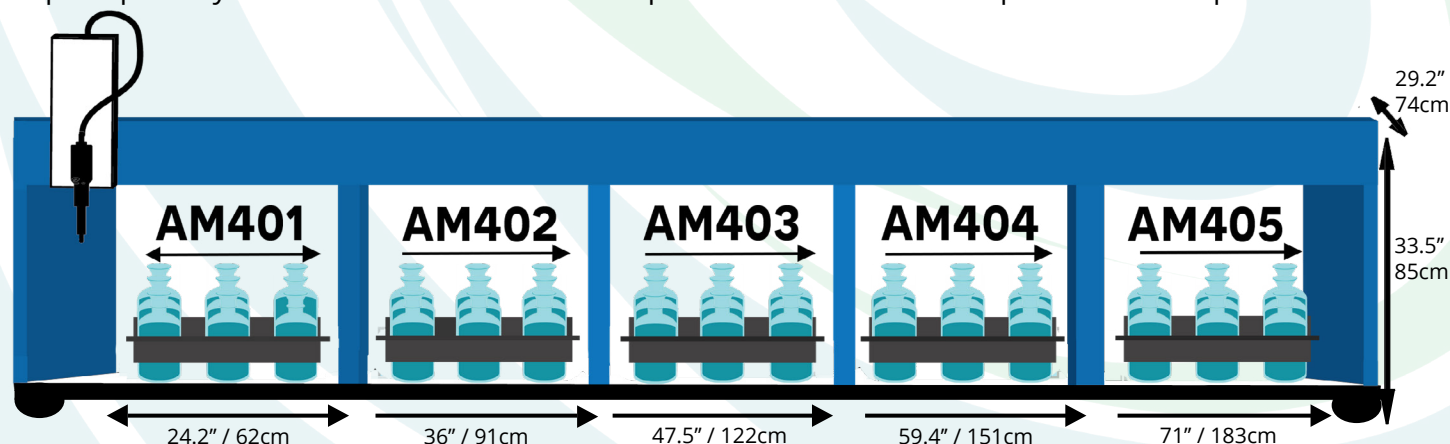


### NO MAINTENANCE

Sealed, self-lubricating axes keeps dust out with a single anchor point to eliminate binding.

## ONE SIZE DOES NOT FIT ALL

Autosamplers range from 18 - 108 300mL bottle capacities with unlimited batch sizes - BOD Pro software will prompt analysts via email notification to swap out racks - with 12 or 18 position racks options available.



12 Place Racks	N/A	36 (3 Racks)	60 (5 Racks)	84 (7 Racks)	108 (9 Racks)
18 Place Racks	18 (1 Rack)	36 (2 Racks)	54 (3 Racks)	72 (4 Racks)	90 (5 Racks)

Customizable racks options available to accommodate any bottle size.

**"...built like a tank!"**

- A MANTECH Customer

# SELECT YOUR AUTOMATION LEVEL

MANTECH systems can be configured to automate as much or as little of the biochemical oxygen demand analysis freeing up analyst's time and generating efficiencies for your laboratory.

## SAMPLE PREPARATION

MANTECH's BOD systems can automate dilution water, seed and/or inhibitor (ATU) addition using

Peristaltic pumps (IntelliPump™)  
for dilution water and inhibitor (ATU) addition

- Software-controlled calibrations and flow rate/direction
- Precision +/-1%
- Flow rate: 12.5 to 860 mL/min (*clockwise & counterclockwise*)

Dosing Pump (IntelliDose™)  
for seed addition

- Precision +/-0.2%



Looking for higher precision?

100,000 step resolution syringe-based pump can deliver precision +/-0.01%!



## pH ADJUSTMENT

As per SM 5210B 23rd edition, if pH is not between 6.0 - 8.0, then sample must be adjusted to pH between 6.5 - 7.5. This system measures and adjusts the pH of the sample while recording all data.

pH METER



pH METER W/ ADJUSTMENT



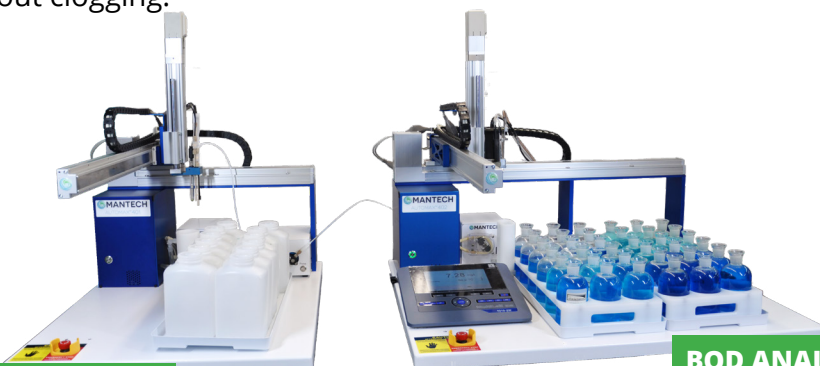
AUTOMATED pH & ADJUSTMENT



## SAMPLE TRANSFER

MANTECH automates pipetting field samples into dilution bottles with IntelliDose™, a patented piston-based pump to deliver precise aliquots without clogging.

- Add automated pH adjustment
- No syringes, valves, sample loops or levelling required
- Flexible configuration
- Use autosampler for additional analysis (pH, alk, EC, etc.) during downtime
- Customizable racks for field bottles



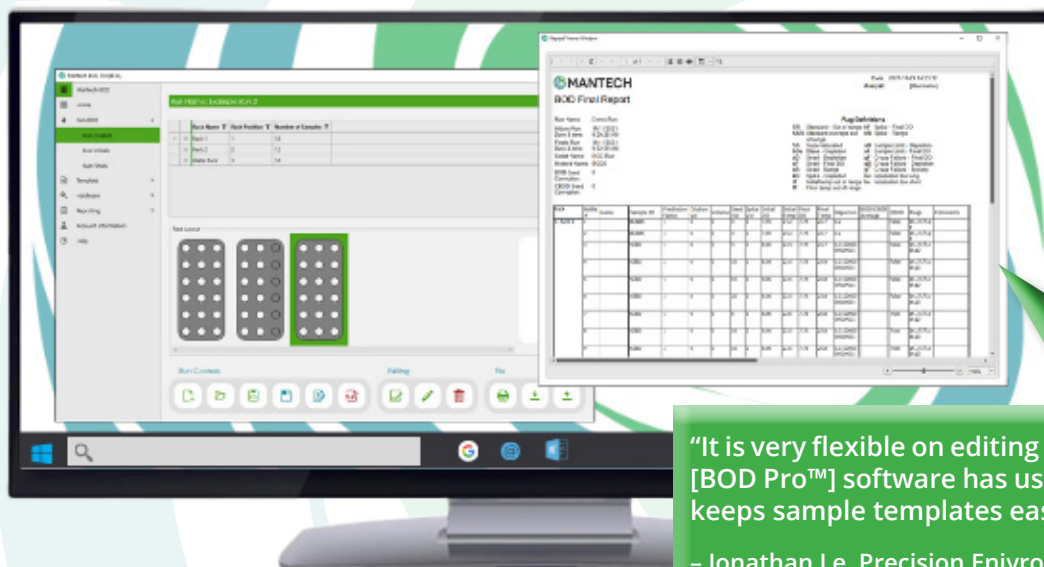
SAMPLE TRANSFER & pH Adjustment

BOD ANALYSIS



# BOD PRO™ SOFTWARE

The MANTECH designed and coded BOD Pro™ software is easy to use and is designed to comply with user protocol requirements, while allowing user-defined flexibility.



One time licensing fee for all updates and new features!

"It is very flexible on editing sample ID's and prep batches. [BOD Pro™] software has user friendly configurations and keeps sample templates easily using the excel function."

- Jonathan Le, Precision Enviro-Tech

## ENSURES COMPLIANCE

- Tracks incubations periods
- Performs all calculations with ability to modify equations and methods

## AGNOSTIC TO ANY LIMS

- Full import and export capabilities
- Report editor add 10 user-defined data columns

## MULTILINGUAL FUNCTIONALITY

- Alternate between any language

## USER-FRIENDLY INTERFACE

- Shortcut buttons for routine runs, PM and more
- Visual rack layout
- Use familiar Excel functionality for run set-up

## SAFEGUARD YOUR DATA

- Designed for WIN 10 & 11 Pro OS
- Account permissions for each analyst

## MULTITASKING CAPABILITY

- Access all functionality during a run

## MANUAL BOD5 FOR ONLY \$1,850<sub>USD</sub>



Manually prepare dilutions and place DO probe in bottles and BOD Pro™ software will take care of the rest!

- Reporting
- Calculations
- Bottle/incubation tracking

# HIGHLY CONFIGURABLE

MANTECH systems are designed to grow with your laboratory's changing demands with additional features and automation to be upgraded at any time.

## MULTIPLE PROBES

Single or dual DO probe options:

- Up to x2 bottles at a time with sample preparation
- Up to x4 bottles at a time with DO read-only system



## QC RACK

Keep your racks available for more dilutions with a separate QC rack for:

- GGA's
- Blanks
- Probe park



## BARCODE SCANNER

Integrate a barcode scanner to BOD Pro software to keep track of your dilutions.



# 10-MINUTE BOD ESTIMATOR

MANTECH's patented BOD estimator delivers results in 10-minutes or less which enables operators to:

- Reduce the number of dilutions for samples with little to no historical data
- Get results back to engineers to make informed treatment decisions with confidence
- Ensure valid final BOD5 results for all samples



# WHY MANTECH

## TRUSTED WORLDWIDE



With 3,000+ analyzers in the market, MANTECH systems are trusted to produce more than 670,000 results every day that protect public health and the environment.

## SUPPORT



MANTECH offers several options:

- Context sensitive GIFs and instructions built into software
- On-Demand virtual support
- In-person visits with MANTECH Technical Representatives or distributors

## END-TO-END MANUFACTURER



MANTECH develops and manufactures all hardware and software as a single source provider.

## IOT CONNECTIVITY



All MANTECH system components feature IoT connectivity via USB or ethernet/IP connection for bi-directional communication with the software.

## DUAL TITRATION CAPABILITY

MANTECH's BOD systems can be configured to add titration and multi-parameter functionality (pH, EC, alkalinity, etc.) in the same platform.

[LEARN MORE](#)

## MODULAR DESIGN



The modular design allows for MANTECH systems to be highly configurable and plug-and-play for system upgrades and troubleshooting.



5473 HIGHWAY 6 NORTH  
GUELPH, ONTARIO, CANADA  
N1H 6J2

[WWW.MANTECH-INC.COM](http://WWW.MANTECH-INC.COM)  
[INFO@MANTECH-INC.COM](mailto:INFO@MANTECH-INC.COM)  
+1 (519) 763-4245  
+1 (866) 763-2122



@mantech\_inc



[linkedin.com/company/mantech-inc](https://www.linkedin.com/company/mantech-inc)

© 2023 MANTECH. All rights reserved.  
PeCOD® is a registered trademark of  
MANTECH.