

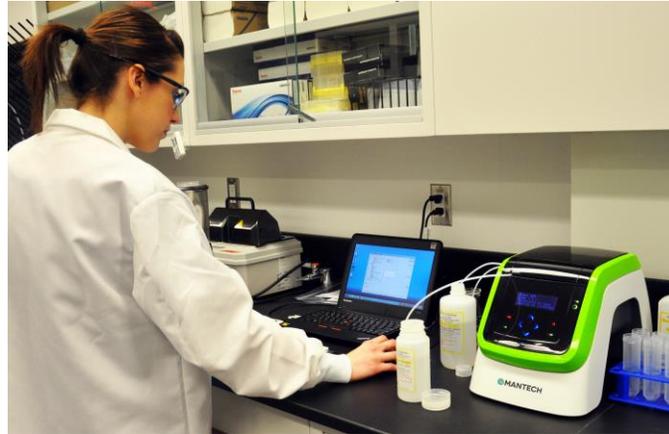
PeCOD[®] Analyzer System Configurations

V1.7 October 2018



Description	Benchtop L100 	Automated L100 	Online L100 
Area for Installation	Minimal bench space	Minimal bench space	Can be installed on a table, rolling cart or in a cabinet
Dimensions (LxWxH)	17" x 13" x 10"	Depending on configuration roughly 32" x 20" x 37"	Depending on configuration roughly 24" x 20" x 37"
Electrical	100V to 240V AC, 45 to 65 Hz and 2 A (max)	100V to 240V AC, 45 to 65 Hz and 2 A (max)	100V to 240V AC, 45 to 65 Hz and 2 A (max)
Operating Temperature	5 - 30°C (40- 85°F)	5 - 30°C (40- 85°F)	5 - 30°C (40- 85°F)
Relative Humidity	Max 90% noncondensing	Max 90% noncondensing	Max 90% noncondensing
Operation Method	Manual	Automated	Automated, manual grab samples
Sample Preparation	Manual	Manual or Automated	Automated
Sample Flowrate	N/A	N/A	> 10 mL/min
Waste Collection	500 mL Beaker	50 L Container	50 L Container
Sample Inlet Line (ID)	N/A	N/A	1/4"
Other Parameters	N/A	Can add all MANTECH supported parameters	Can add all MANTECH supported parameters
Portability	Lithium Ion Battery and Travel Case	Rolling Cart	Rolling Cart
Data Collection	Manual	Manual	4-20 mA Output, Remote Software and Manual
Computer for Operation	Not required but can use software for automated quality control	Required	Required

1.1 Benchtop L100 PeCOD® Analyzer

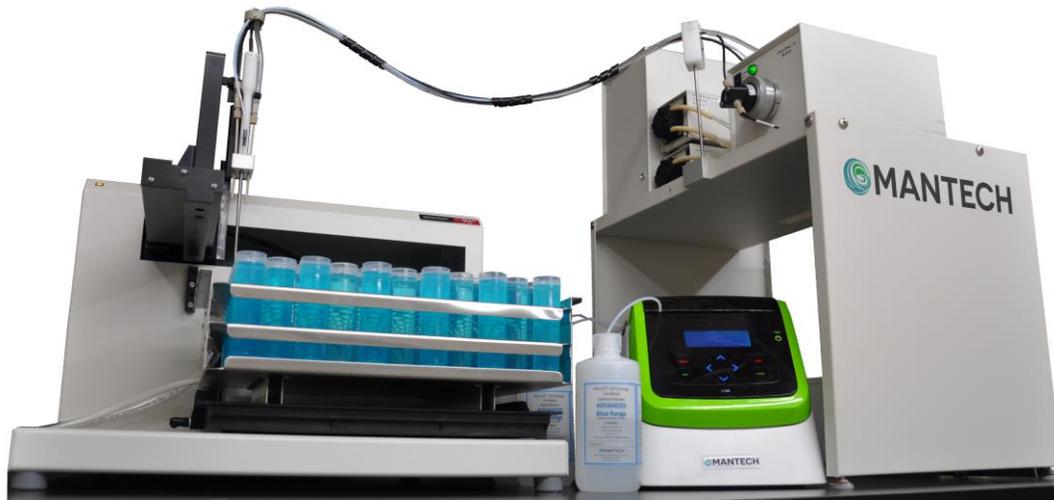


The Benchtop PeCOD® Analyzer is MANTECH's base model for use in industrial, municipal or government and academic lab settings. It has a small footprint (17" x 13") and is very simple to operate with "Click and Go" software. Sample prep requires ~ 20 mL of sample, and manually pipetting sample and electrolyte solution in the appropriate ratio. Replicates can easily be run through the software.

Recommendation: This system is ideal in the laboratory to analyze samples as required and to have direct comparison to other sample analysis methods. It can also be incorporated in a carrying case for portability.



1.2 Automated L100 PeCOD[®] Analyzer



The Automated L100 PeCOD[®] provides unattended analysis for a large number of samples. The system has the capability to auto pipette, calibrate, dilute, pH adjust, and run quality control checks. The system is extremely versatile, allowing for customization, and add-on's to increase automation. Additions to the systems can include other parameters, in addition to COD, such as ISE analysis, turbidity and colour. The minimum sample volume is ~ 10 mL with the auto sampler utilizing 50 mL tubes or 125 mL cups. There is no automated filtration mechanism with the system, so sample composition would need to be free of large particles before being placed in the auto sampler.

Recommendation: This system is ideal in a lab setting to analyze a large number of samples unattended. The automated PeCOD[®] can easily incorporate a wide variety of other parameters for water analysis such as pH, alkalinity, turbidity, chloride, and hardness.

1.3 Online L100 PeCOD[®] Analyzer



The Online L100 is an automated L100 PeCOD[®] Analyzer that allows for continuous sampling at specified time intervals. It can auto calibrate, rinse, run quality control checks and sample analysis. There is the option for pH adjustments if outside the ideal pH range (4-10), and automated dilution if the sample range and composition is outside of the working limits. It can be placed on a cart for mobility or in a cabinet. The requirements are minimal with sample flow > 10 mL/min and access to deionized water containers. There is no automated filter mechanism with the system so sample composition would need to be free of large particles. However, with the addition of a time delay for settling to occur this could be utilized with higher particulate loads.



Recommendation: This system is optimal for online applications where there is low sample flow available and when continuous sample data is advantageous.