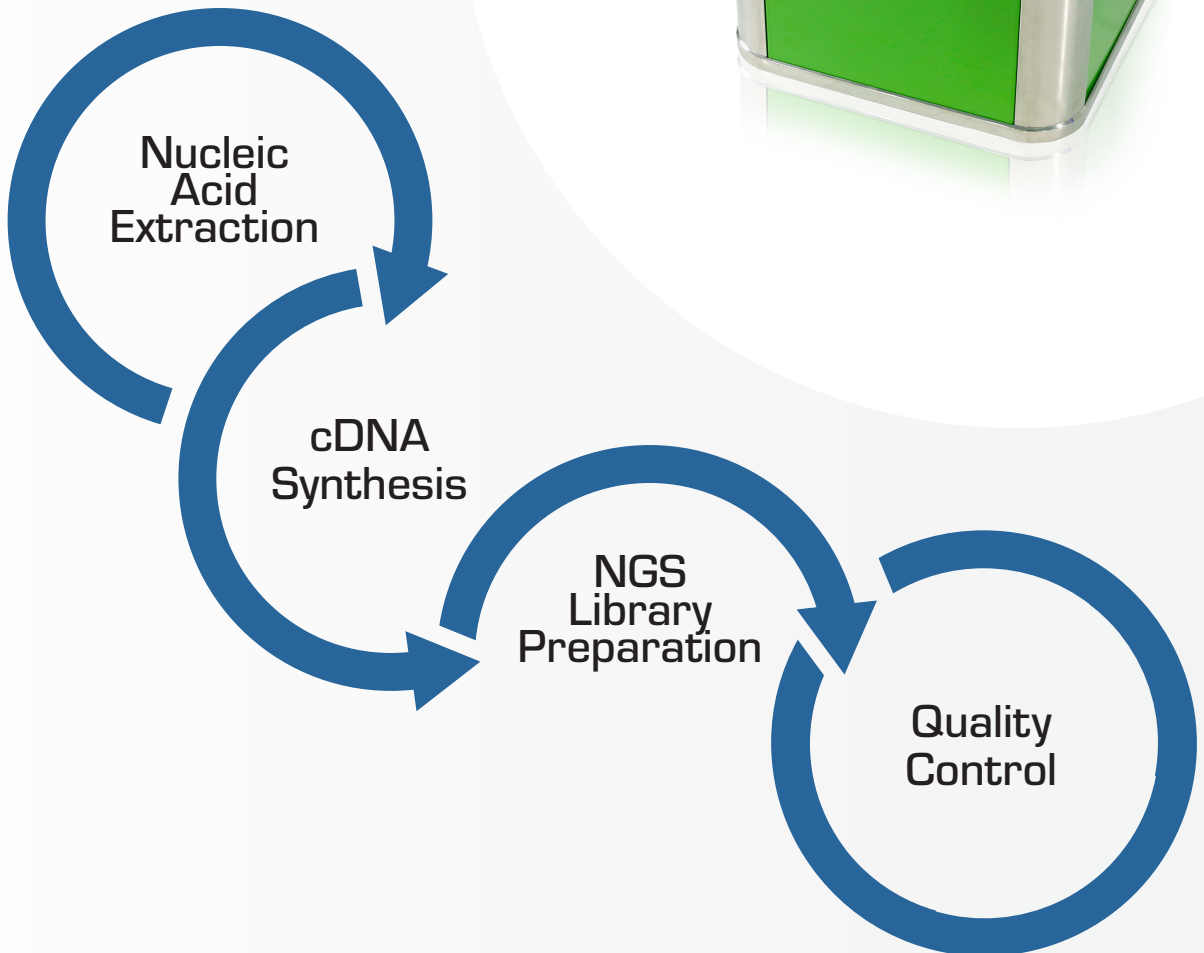


# MANTIS<sup>®</sup>

Liquid Handler



# Optimize Sequencing Sample Prep with the MANTIS® Liquid Handler

## Ideal for Reagent Addition Throughout your Complete NGS

### cDNA Synthesis

For researchers facing 384-well format, low quantities of input RNA, or cost prohibitive throughput requirements, the MANTIS® Liquid Handler reproducibly dispenses down to 100 nL facilitating miniaturized cDNA synthesis reactions, even with limited starting material.



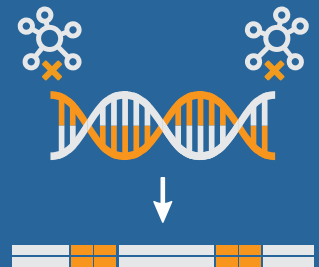
The MANTIS delivers:

- RT mastermix for first-strand Synthesis
- PCR mastermix for amplification of cDNA
- Lysis buffer post amplification
- Beads and buffers for cDNA cleanup

*Ask about validated protocols for common cDNA synthesis kits*

### Tagmentation

Fully automate tagmentation by using the MANTIS to dispense both the tagmentation buffer and enzyme into your sample plate.



### Indexing

The MANTIS has the capacity for over 24 different reagents, allowing for full walkaway automation of indexing steps.

## Optimize Efficiency in your Genetic Analysis

6 µL dead volume conserves precious sequencing reagents



*"The MANTIS® Liquid Handler - A novel approach to microfluidic reagent dispensing."*

Efficient

Precise

Versatile

## Workflow

### Amplification

Efficient and reproducible dispensing of mastermix and primers for both NGS library amplification and quantitative PCR. Whichever the method for your genetic analysis, the MANTIS assists your lab in producing high-quality data and trustworthy results.



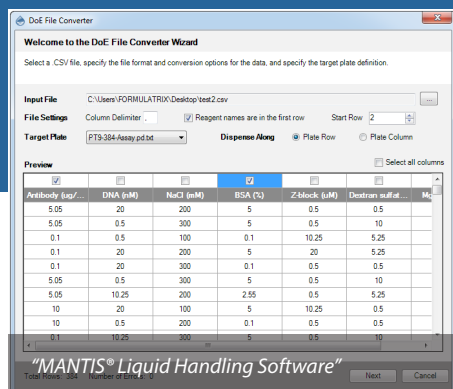
### Nucleic Acid Clean-up

The MANTIS makes magnetic bead extractions easier than ever before by dispensing:

- Magnetic beads
- Wash and elution buffers
- Resuspension buffer

### Normalization

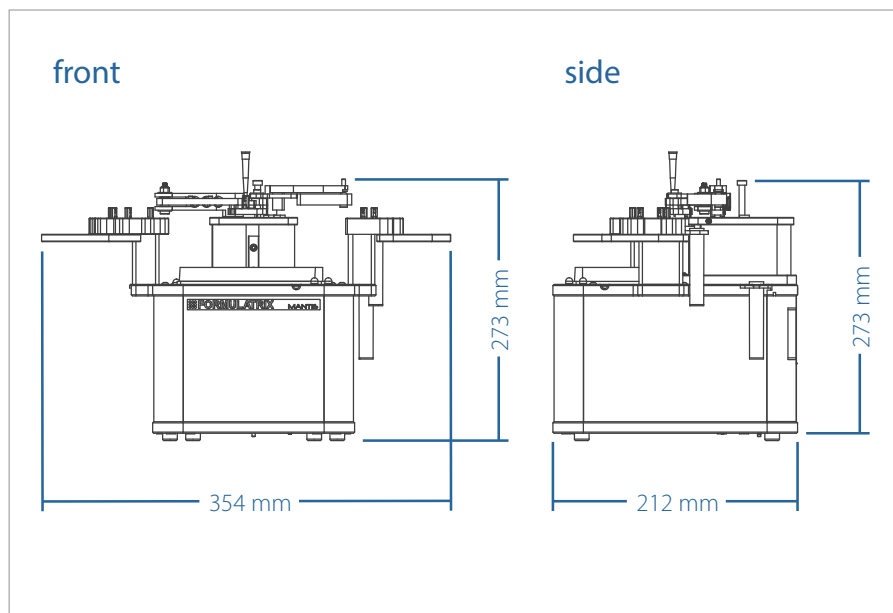
Following quantification, the MANTIS Software can read desired concentrations from an imported CSV and calculate the volume of diluent required to achieve precise normalization.



Quality Libraries with Limited Starting Material

CVs of <3% down to 100 nL

# Specifications



## Physical Dimensions:

- Width: 354 mm max (smaller without ACC or reagent holders)
- Height Full Extension: 273 mm (not including pipette tip adapter)
- Height No Extension: 172 mm (not including pipette tip adapter)
- Depth: 212 mm
- Weight: Approx. 5.2 kg (11.5 lbs)

## Computer Requirements:

- Computer OS: Windows XP SP3 32-bit, Windows 7 64-bit, Windows Vista 32-bit.
- Dual Core 1GHz Processor, 1GB RAM, 1GB of Hard Drive space, 768 pixels vertical minimum screen resolution.

## Electrical Specifications:

- 110-240 V, 50-60 Hz, 50 W typical, 100 W max

The MANTIS can dispense with a variety of chips. Use the table below to learn about the available chips.

| Name                        | Material           | Diaphragm Vol.           | Min Volume  | Max Volume | Diaphragm Vol-Pulses/S              | Dead Volume | CV's               | Part Number    |
|-----------------------------|--------------------|--------------------------|-------------|------------|-------------------------------------|-------------|--------------------|----------------|
| Low Volume                  | Silicone           | 0.1 $\mu$ L, 0.5 $\mu$ L | 0.1 $\mu$ L | $\infty$   | 0.1 $\mu$ L – 10<br>0.5 $\mu$ L – 7 | 6 $\mu$ L   | <3% at 0.1 $\mu$ L | <b>MCLS6*</b>  |
| High Volume                 | Silicone           | 1 $\mu$ L, 5 $\mu$ L     | 1 $\mu$ L   | $\infty$   | 1 $\mu$ L – 10<br>5 $\mu$ L – 4     | 15 $\mu$ L  | <3% at 0.1 $\mu$ L | <b>MCHS6*</b>  |
| Low Volume PFE              | Perfluoroelastomer | 0.1 $\mu$ L, 0.5 $\mu$ L | 0.1 $\mu$ L | $\infty$   | 0.1 $\mu$ L – 3<br>0.5 $\mu$ L – 2  | 6 $\mu$ L   | <3% at 0.1 $\mu$ L | <b>MCLP2**</b> |
| High Volume PFE             | Perfluoroelastomer | 1 $\mu$ L, 5 $\mu$ L     | 1 $\mu$ L   | $\infty$   | 1 $\mu$ L – 5<br>5 $\mu$ L – 4      | 15 $\mu$ L  | <3% at 0.1 $\mu$ L | <b>MCHP2**</b> |
| High Volume Continuous Flow | Silicone           |                          | 5 $\mu$ L   | $\infty$   |                                     | 300 $\mu$ L | <5% at 5 $\mu$ L   | <b>MCFSH6</b>  |

\* These chips are also available graded for molecular biology use, see below.

\*\* Solvent Compatible.

## Molecular Biology Grade Chips

FORMULATRIX® follows manufacturing processes certified to produce molecular biology grade MANTIS chips free of detectable DNA, DNase, RNase and protease. Low volume and high volume chips are available.

For more information about the MANTIS Liquid Handler for genomics work ows visit us at [www.formulatrix.com](http://www.formulatrix.com) or email [info@formulatrix.com](mailto:info@formulatrix.com)