



## liquid handling

making the essential exceptional



www.ttplabtech.com





# liquid handling making the essential exceptional









## mosquito® HTS

## mosquito® HV

mosquito® X1

## dragonfly®

TTP Labtech's liquid handling portfolio provides you with accurate and repeatable nanolitre to microlitre pipetting, every time, irrespective of liquid viscosity or environmental conditions. Each of TTP Labtech's disposable micropipettes has its own individual piston – not an air gap or system liquid – offering true positive-displacement pipetting with no risk of cross-contamination.

sample tips

- range of low volumes robust performance from nanolitres to microlitres
- accurate and precise using positive-displacement pipetting technology
- cost savings from optimised sample use and reduced waste
- zero cross contamination using disposable pipettes
- **minimal dead volumes** optimising reagent use
- more than just dispensing our instruments are true pipettors, able to aspirate, dispense and even mix
- ease-of-use proven in multiple-user labs; just walk up and use it

### cost-saving miniaturisation

mosquito HTS offers an accurate and easy to use solution to miniaturising any assay within an automated, high throughput setting. Volume range is  $25~\text{nL}-1.2~\mu\text{L}$ , which can be expanded to cover  $25~\text{nL}-5~\mu\text{L}$  in conjunction with mosquito HV. This can lead to significant savings on precious reagents and time, especially as dead volumes are minimised to under  $0.3~\mu\text{L}$ .

- preparation of "assay ready" plates for compound screening
- serial dilutions in miniaturised volumes
- plate reformatting, including transfer between different microplate types (96-, 384- and 1536-well plates)
- plate replication
- molecular biology applications such as: next generation sequencing (NGS), DNA, RNA extraction and PCR/qPCR preparation

#### effortless serial dilution

mosquito HV bridges the gap between nanolitre and microlitre pipetting. It provides highly accurate liquid handling for low volume serial dilutions and assay plate preparation across the intermediate volume range of 500 nL–5 µL.

- serial dilutions for the determination of concentration response curves
- assay ready plates can be stamped directly from compound dilution plates
- acoustic source plate creation
- molecular biology applications including rtPCR/qPCR set-up, RNAi screening and SNP genotyping
- compound and small molecule screening and hit picking
- cell or bead-based assays
- enzyme kinetic assays
- ELISAs

## automated low volume hit picking

mosquito X1 is single tip nanolitre hit picking system designed for hit confirmation and secondary profiling. It offers true walk-away cherry picking from any individual well in any type of plate with high throughput. Researchers can quickly select 25 nL–5 µL volumes of hits from primary screening plates and transfer them directly to the next stage without further dilution.

- rapid, automated hit picking for validation and secondary profiling
- integration into larger screening systems to offer true walk-away hit selection at high throughput
- cherry picking onto glass slides or chips for microarray assays

## flexible microlitre digital pipetting

dragonfly combines non-contact, positive displacement pipetting with disposable tips (ensuring zero cross-contamination) to automate the the assay development and optimisation process. Each pipette can dispense any volume (from 500 nL-4 mL) of any liquid into any well of the plate, allowing complex assay gradients or optimisation screens to be rapidly prepared.

- biological assay development
- formulation development
- design of experiment
- lead optimisation screening

|                             | mosquito <sup>®</sup> HTS   | mosquito® HV   | mosquito® X1  | dragonfly <sup>®</sup>  |
|-----------------------------|---|--|---|---|
| pipetting range             | 25 nL-1.2 μL  | 500 nL-5 μL  | 25 nL-1.2 μL or<br>500 nL-5 μL  | 0.5 μL–4 mL   |
| primary SBS<br>plate format | 96, 384, 1536   | 96, 384, 1536  | any type including slides   | 24, 48, 96, 384   |
| applications                | miniaturises screening<br>applications e.g.<br>assay-ready<br>plate preparation,<br>reformatting and serial<br>dilutions, PCR, qPCR | serial dilution, creation<br>of acoustic source<br>plates, reformatting,<br>PCR, qPCR, NGS | provides walk-away "hit picking" from any individual well or location, assays on slides | assay development<br>and optimisation<br>screening without<br>contamination or liquid<br>classification |
| throughput                  | 2 mins/ 96-well plate,<br>3 mins/ 384 well copy<br>5 mins/ 4 x 384 plate<br>stamp out   | 2 mins/ 96-well plate,<br>3 mins/ 384 well copy<br>5 mins/ 4 x 384 plate<br>stamp out      | 6 seconds average cycle time to: aspirate, move, dispense, change tip                   | 4-6 ingredient, 96-well plate in 4-8 mins, irrespective of viscosity                                    |
| accessories                 | active humidity<br>chamber, plate<br>processor integration<br>(MoPP)  | active humidity<br>chamber, plate<br>processor integration<br>(MoPP)                       | fully integrated 'Cherry Picker' plate processing system                                | MXone automated in-well mixer   |
| consumables                 | Visit ttplabtechstore.com for more information on our consumables range!  |  |   |   |

#### **TTP Labtech Ltd**

Melbourn Science Park Melbourn Hertfordshire SG8 6EE United Kingdom

Tel: +44 (0)1763 262626 Fax: +44 (0)1763 261964

sales@ttplabtech.com

#### **TTP Labtech Inc**

One Kendall Square Suite B2303 Cambridge MA 02139 **United States** 

Tel: +1 (617) 494 9794 Fax: +1 (617) 494 9795 sales@ttplabtech.com



TTP Labtech is proudly represented in Australia and New Zealand by AXT Pty. Ltd. 1/3 Vuko Pl., Warriewood NSW 2102 Australia T. +61 (0)2 9450 1359 F. +61 (0)2 9450 1365 W. www.axt.com.au E. info@axt.com.au

www.ttplabtech.com

