liquid handling
making the essential exceptional
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.

**mosquito® HTS**
- **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 nL–1.2 µL, which can be expanded to cover 25 nL–5 µL 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 µL.
  - 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

**mosquito® HV**
- **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, RNA screening and SNP genotyping
  - compound and small molecule screening and hit picking
  - cell or bead-based assays
  - enzyme kinetic assays
  - ELISAs

**mosquito® X1**
- **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.
  - 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

**dragonfly®**
- **flexible microlitre digital pipetting**
  - 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.
  - 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

**Making the Essential Exceptional**

- **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 pipettes, able to aspirate, dispense and even mix**
- **ease-of-use - proven in multiple-user labs; just walk up and use it**
<table>
<thead>
<tr>
<th></th>
<th>mosquito® HTS</th>
<th>mosquito® HV</th>
<th>mosquito® X1</th>
<th>dragonfly®</th>
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<tbody>
<tr>
<td><strong>pipetting range</strong></td>
<td>25 nL–1.2 µL</td>
<td>500 nL–5 µL</td>
<td>25 nL–1.2 µL or 500 nL–5 µL</td>
<td>200 nL–4 mL</td>
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<tr>
<td><strong>primary SBS plate format</strong></td>
<td>96, 384, 1536</td>
<td>96, 384, 1536</td>
<td>any type including slides</td>
<td>15, 24, 48, 96, 384, 1536</td>
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<tr>
<td><strong>applications</strong></td>
<td>miniaturises screening applications e.g. assay-ready plate preparation, reformatting and serial dilutions, PCR, qPCR</td>
<td>serial dilution, creation of acoustic source plates, reformatting, PCR, qPCR, NGS</td>
<td>provides walk-away “hit picking” from any individual well or location, assays on slides</td>
<td>assay development and optimisation screening without contamination or liquid classification</td>
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<tr>
<td><strong>throughput</strong></td>
<td>2 mins/ 96-well plate, 3 mins/ 384 well copy 5 mins/ 4 x 384 plate stamp out</td>
<td>2 mins/ 96-well plate, 3 mins/ 384 well copy 5 mins/ 4 x 384 plate stamp out</td>
<td>6 seconds average cycle time to: aspirate, move, dispense, change tip</td>
<td>high speed dispensing (fill 96, 384 or 1,536 well plate in &lt; 3min) irrespective of viscosity</td>
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<td><strong>accessories</strong></td>
<td>active humidity chamber, plate processor integration (MoPP)</td>
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<td>fully integrated 'Cherry Picker' plate processing system</td>
<td>MXone automated in-well mixer</td>
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<td><strong>consumables</strong></td>
<td>Visit ttplabtechstore.com for more information on our consumables range!</td>
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**get in touch**

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