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# mosquito<sup>®</sup> LV

## make high throughput assay miniaturization simple

### mosquito<sup>®</sup> facts&figures

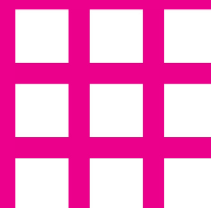
**Globally**  
utilized in  
1000s of labs



**Trusted**  
in pharma,  
biotech &  
academia



Established  
**2003**



**True  
Positive  
Displacement**  
Accurate low-volume  
transfers, regardless  
of viscosity



Performs at a fraction of the volume  
**Nanolitre Precision**



**High Speed**  
pipetting  
and spotting

**Unique**



liquid  
handling  
technology



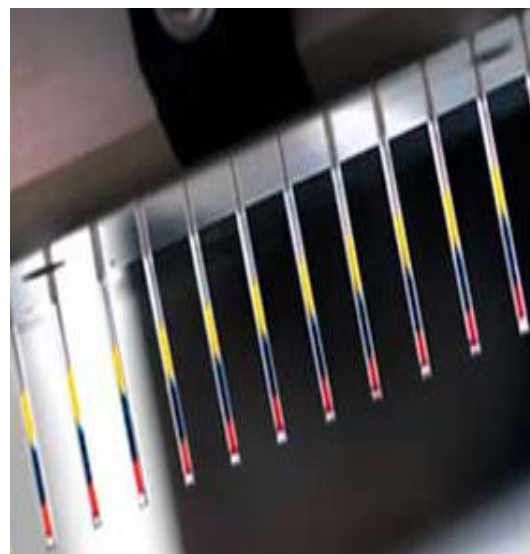
### product benefits

- **Transfer accurately low and high viscosity liquids** including DMSO, master mixes, ethanol, plasma and slurries, thanks to true positive displacement technology
- **Increase throughput and reduce experimental costs** by miniaturizing your assays in high density plates
- **Ensure sample and assay integrity** with disposable low-cost pipettes
- **Conserve your starting material and reduce waste** with dead volumes as low as 0.3  $\mu$ L
- **Quickly implement protocols or develop new methods** with intuitive hardware, UI and unlimited free software licenses proven in multi-user labs
- **Save laboratory space** with a densely packed spool with up to 36,000 tips
- **Extend capabilities and further streamline workflows** by integrating mosquito with robotic plate handlers, stackers, bulk dispensers and liquid handlers, and LIMS

mosquito<sup>®</sup> LV

## applications

<b>Screening</b>	<ul style="list-style-type: none"> <li>• Plate reformatting and replication (96-, 384- and 1,536-well plates)</li> <li>• Preparation of assay-ready plates for compound screening</li> <li>• Serial dilutions of compounds</li> </ul>
<b>Medicinal and organic chemistry</b>	<ul style="list-style-type: none"> <li>• Screening and optimization of reaction conditions</li> <li>• Exploration of chemical space</li> <li>• Direct-to-biology assays</li> <li>• Lead optimization</li> </ul>
<b>Molecular biology</b>	<ul style="list-style-type: none"> <li>• PCR and qPCR setups</li> <li>• Single-cell RNA- and DNA-seq, multiomics</li> <li>• DNA and RNA quantification</li> <li>• High-throughput proteomics (Olink Explore assays, mass spec plate setup)</li> </ul>
<b>Synthetic biology</b>	<ul style="list-style-type: none"> <li>• Cloning</li> <li>• DNA assembly</li> </ul>
<b>Structural biology</b>	<ul style="list-style-type: none"> <li>• Hanging and sitting drop</li> <li>• Additive screening</li> <li>• Microseeding</li> <li>• Microbatch</li> <li>• Bicelles</li> </ul>



## technical specifications

<b>Pipetting range</b>	25 nL – 1.2 µL	<b>Deck variants</b>	2 or 5 plate position deck
<b>Pipetting technology</b>	true positive displacement agnostic to liquid viscosity	<b>Pipetting channels</b>	8 or 16 (depending on the spool installed)
<b>Volumetric performance</b>	accuracy within 5 % of target volume; precision with average of 3 % CVs throughout the volume range	<b>Supported SBS formats</b>	96-, 384- and 1,536-well skirted plates up to 19 mm in height
<b>Dead volumes</b>	as low as 0.3 µL	<b>Throughput</b>	2 min/96-well plate copy, 3 min/384-well copy, 5 min/4 x 384-well plate stamp out
<b>Consumables</b>	<b>9 mm spool</b> with 26,000 disposable, non-sterile or gamma-irradiated tips; <b>4.5 mm spool</b> with 36,000 disposable, non-sterile or gamma-irradiated tips	<b>Accessories</b>	Precise Humidity Chamber, Passive Protective Chamber, spool cover, barcode readers, PCR clamps
<b>Laboratory temperature working range</b>	18°C* - 28°C	<b>Laboratory humidity working range</b>	30% - 60% RH
<b>Dimensions (W x D x H)</b>	<b>mm:</b> 390 (790 '5-plate deck') x 470 x 690; <b>inches:</b> 15.5 (31.1 '5-plate deck') x 18.5 x 27	<b>Weight</b>	<b>2-plate deck:</b> 27 kg <b>5-plate deck:</b> 42 kg

\*mosquito LV able to run at 4°C however the instrument and laptop must stay switched on