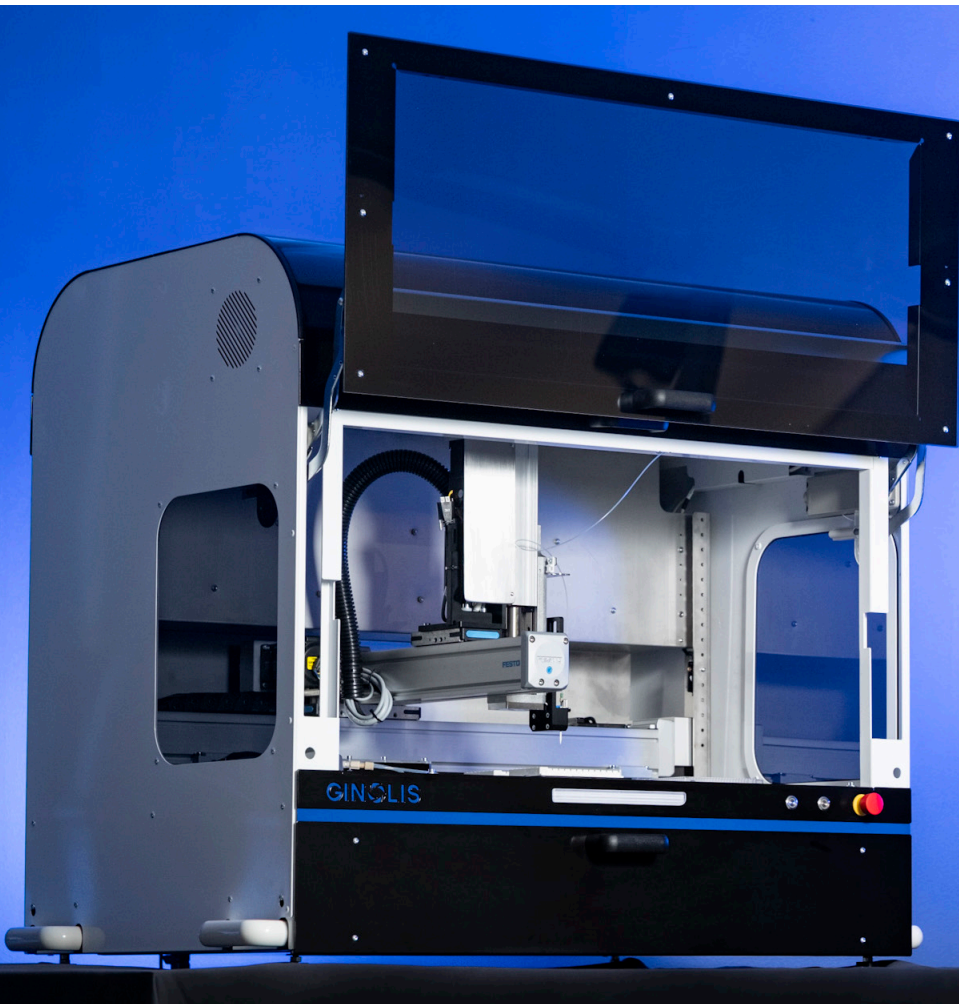# Ginolis Kaste Lab

High PrecisionAutomated Liquid Dispensing System

Kaste Lab is a high precision, fully automatic liquid handling system for labs that need production grade dispensing performance in a compact benchtop format. It delivers accurate and repeatable dosing of reagents, samples, and buffers from 2 nL to 10 mL into microplates, tubes, and custom cartridges, making it ideal for clinical diagnostics, pharmaceutical R&D, environmental analysis, and point of care assay development.
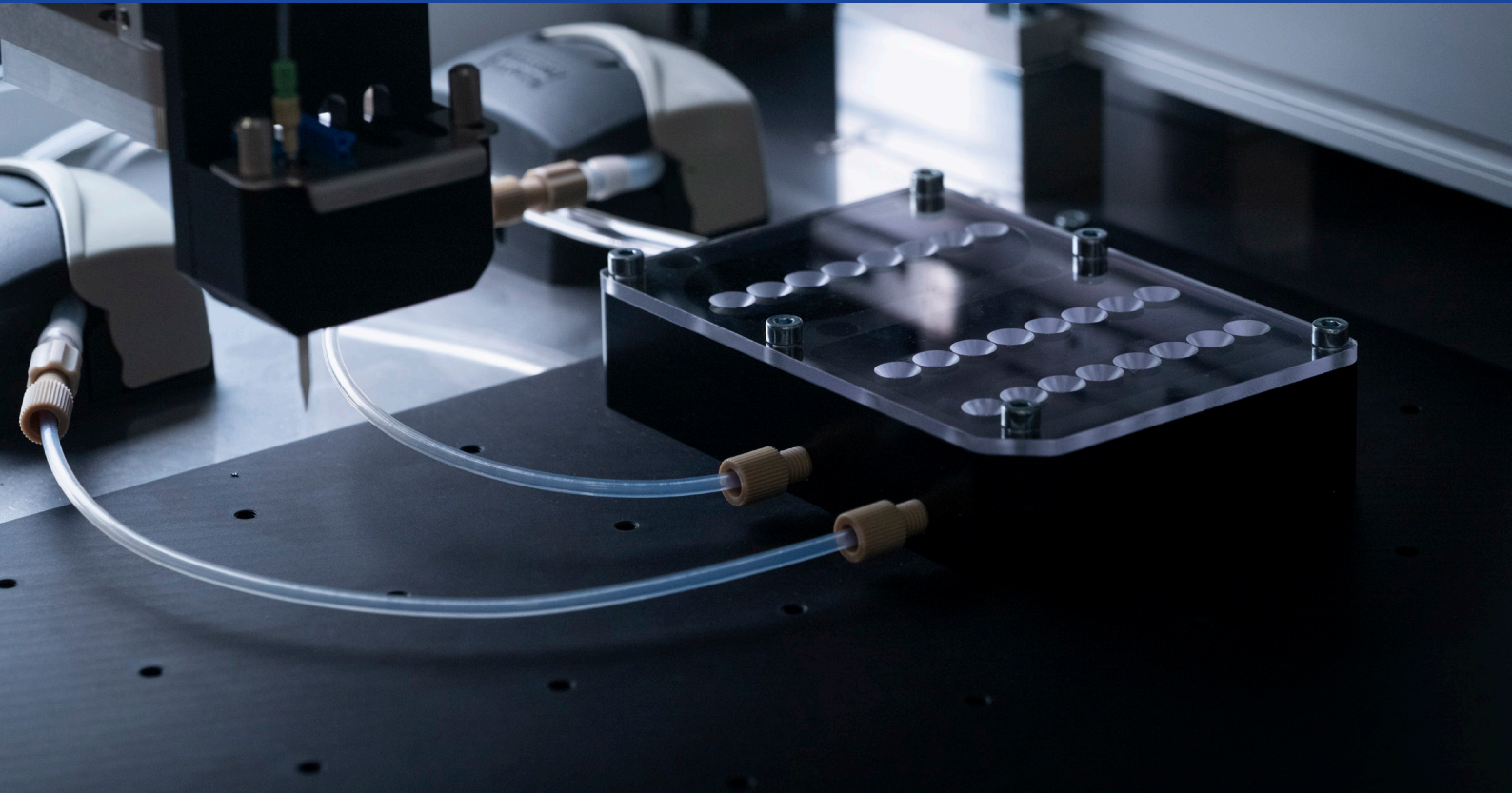
Key Features

- Precision dispensing: 2 nL to 10 mL (module-dependent)
- Multi-channel head: 1–8 configurable channels
- Compatible with microplates, tubes, slides, and custom carriers
- Integrated barcode tracking for samples and cassettes
- Touchscreen interface with recipe-based protocol design
- Automated cleaning, priming, and calibration
- Compact benchtop footprint

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What are the benefits

Assay Grade Precision and Repeatability

Kaste Lab combines rigid mechanics, stable motion control, and closed-loop monitoring to lock down volume consistency across diverse pumps and assay formats. Whether you choose Ginolis Kaste or qualified third-party dispensers, the platform ensures tight end-to-end performance.

- Clinical & POC: Nanoliter-milliliter dosing reduces conjugate and buffer variability, cutting invalid runs and verification cycles.

- Pharma R&D: Reproducible dispensing into microplates and microfluidic cartridges supports dose-response curves and screening without manual recalibration.

- Diagnostics Manufacturing: Lot-to-lot consistency in coating, dispensing, and assembly workflows translates directly to higher yield and faster time-to-clinic.
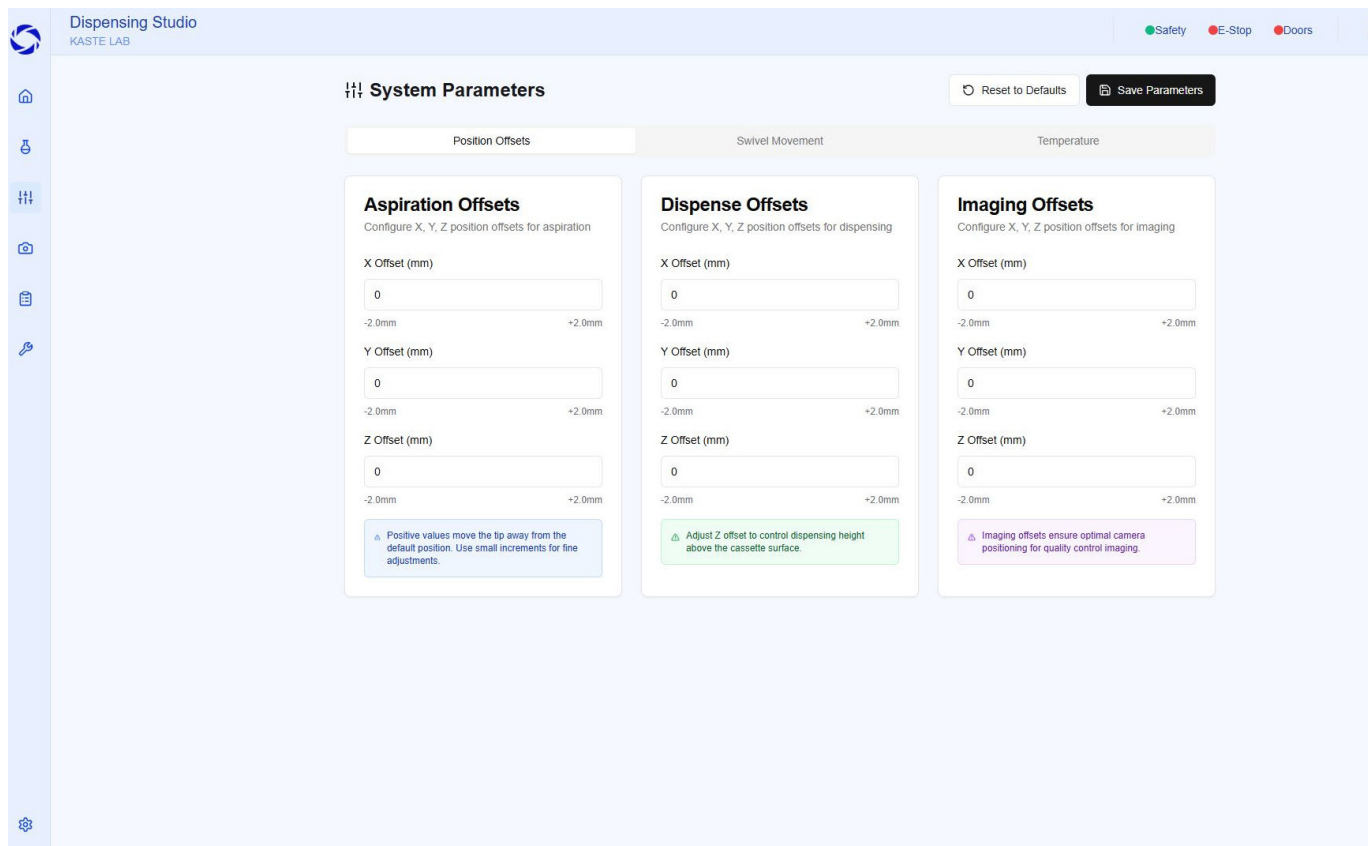
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Software and Control

Ginolis Dispensing Studio

Kaste Lab is powered by Kaste Dispensing Studio, the primary control and monitoring interface for the benchtop system. Through a touchscreen optimized UI, users can:

- Design and execute protocols via drag-and-drop
- Monitor system status and environmental conditions in real time
- Track reagents, consumables, and cassette positions
- Adjust temperature, movement, and pressure setpoints on the fly
- Verify dispenses with integrated vision control
- Access logs and images for QC and troubleshooting

Kaste Dispensing Studio also supports real time data logging, optional remote access and diagnostics, and integration with lab automation systems where required.

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Technical Specification

Dispensing performance:
- Dispensing volume range: 2 nL – 10 mL (depending on dispensing module)
- Accuracy: ±1% (module and volume dependent)
- Repeatability: CV < 1% (module and volume dependent)
- Supported liquids: Aqueous solutions, solvents, and common assay reagents

Environment and mechanics:
- Operating temperature: 15–30 °C
- Dimensions (W × D × H): 1000 × 730 × 880 mm (typical configuration)
- Weight: 80 kg (depending on options)

Electrical and connectivity:
- Power supply: 100–240 V AC, 50/60 Hz
- Connectivity: Ethernet (LAN) for control and system integration

Applications

- Clinical diagnostics
- Pharmaceutical R&D
- Environmental analysis
- Food and beverage testing
- Academic research

Options & Accessories

- Disposable tips or fixed nozzles
- Sample racks and holders for plates, tubes, and custom cartridges
- HEPA filtered or custom safety enclosure (optional)
- Customizable dispensing modules, including Ginolis Kaste Nano pumps
- Integrated washing station
- Camera/vision inspection modules
- Additional barcode readers and rocker function for gentle mixing
- Consumables incl. tips, collection boxes, tubing kits

Compliance & Safety

- CE marked
- RoHS compliant
- ISO 9001 compatible
- Built-in safety sensors and emergency stop

Software & Control

- Protocol editor with drag-and-drop interface
- Real-time monitoring and logging
- Integration with LIMS and lab automation systems (optional)
- Remote access and diagnostics (optional)

Ordering Information

- Product Code: GMA101570
- Available Models: Single channel and multi channel configuration
- Lead Time: 12 weeks

Contact

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