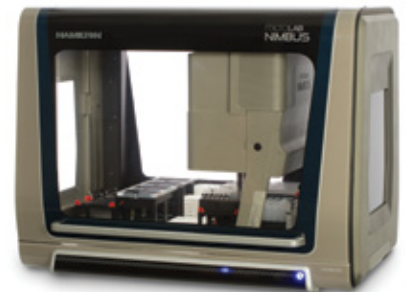


Automation Solutions for the Cannabis Industry

Addressing the Needs and Challenges of a Growing Industry

The challenge for cannabis producers and regulators is to provide safe and quality controlled substances to a rapidly expanding and relatively new market. Consumers demand specialized products with desirable cannabinoid profiles while also expecting safety from chemical agents (pesticides), as well as biological agents (fungus, bacteria, etc.). In order to satisfy these requirements, and at higher throughputs as demand grows, automation will play a fundamental role.

Hamilton is a leader in automated solutions for genomics workflows, sample preparation for downstream analysis via mass spectrometry and other analytical methods. Our products offer reliability, performance, and the flexibility to automate your assays, all with industry leading quality and service.



Microlab® NIMBUS®



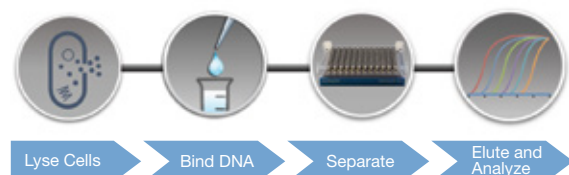
Microlab STARlet

Genomics Solutions

With extensive expertise in genomics assays, Hamilton offers automation solutions for nucleic acid extraction, purification, and preparation for characterization. We work collaboratively with industry leaders to automate a variety of processes needed for genomics and proteomics including:

- ▶ Magnetic bead based workflows
- ▶ PCR setup for endpoint, real-time, or multiplex methods
- ▶ ELISA methods
- ▶ DNA size selection and quantification
- ▶ NGS library preparation

Genomics Sample Prep Workflow



Easily Integrate Small Devices

Automate your complete workflow with integrated devices. The On Deck Thermal Cycler (ODTC) offers high heating and cooling rated for PCR workflows. For extraction protocols, the Hamilton Heater Shaker (HHS) offers the ability to heat and vortex samples both in plates and tubes.

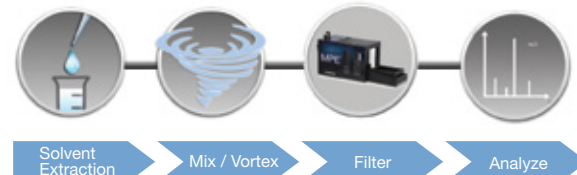


ODTC



HHS

LC/MS Sample Prep Workflow



Advantages of Automation

Let the tedious and laborious tasks be handled with our automation solutions, leaving you to focus on your science. With an industry leading reputation for quality, performance, and service, be confident that your Hamilton liquid handling platform will be a valuable addition to your laboratory.

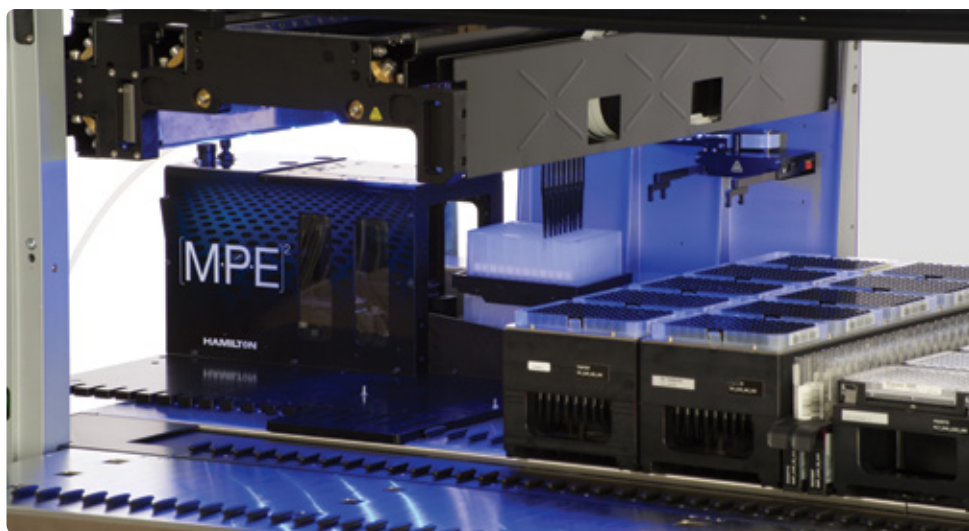
- ▶ Process security with sample tracking within the software.
- ▶ Proprietary pipetting technologies ensure reliability and repeatability.
- ▶ Eliminate droplet formation when pipetting volatile fluids using built-in pressure sensors with our patented Anti-Droplet Control (ADC™).
- ▶ Multiple workstation sizes to fit your throughput requirements.
- ▶ Full flexibility to automate your assays with device integrations for complete, walk-away solutions.

Automation Highlights

- ▶ Manipulation of tubes, microplates, and custom labware with grippers and channel tools
- ▶ Optical analysis via an imaging channel
- ▶ Mass based aliquoting with integrated balance
- ▶ Solid phase extraction and filtration in one compact device
- ▶ Temperature control and mixing positions on-deck

Analytical Sample Preparation Solutions

Sample preparation for downstream analytical techniques like mass spectrometry can be automated on all Hamilton liquid handling platforms. This is especially relevant for pesticide analyses via QuEChERS methods, as well as cannabinoid profiling via LC/MS. Utilizing the [MPE]², our cost-effective solution for positive pressure SPE and evaporation in one compact device, fully automated solid phase extraction and cleanup is possible.



Deck with Integrated MPE²

Contact us today! Work with our experienced scientists and application specialists to find the best solutions for your lab.

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