HAMILT⊕N®

Microlab® Prep™
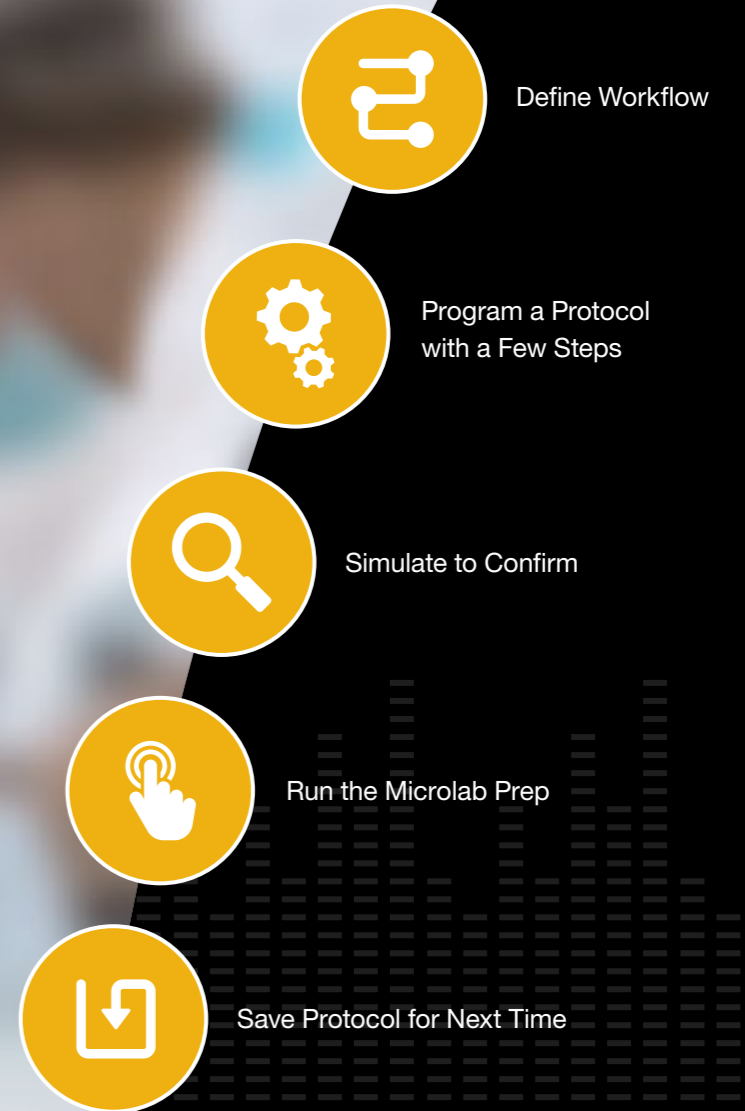
Your New Lab Partner

How Do You Prep?

Laboratory automation can revolutionize the work in any lab, bringing speed and consistency to pipetting work that is often monotonous and prone to error. Trading the hand pipettes for automation is often a huge investment for a lab, taking money to get started and automation engineering to properly set up workflows. The affordable and user-friendly solution is the Hamilton® Microlab® Prep.™

microLAB Prep

The Prep is automation that easily fits onto a lab bench, is built for ease of use and speed, and all at a price that's affordable for any lab. Plus, it's backed by Hamilton's quality engineering, with the same precise liquid handling and robust hardware that you can find in even the largest automation solutions. Whether you are getting started with lab automation or just need automation to relieve the hand pipetting in your lab, the Microlab Prep is your answer.

Define Workflow

Program a Protocol with a Few Steps

Simulate to Confirm

Run the Microlab Prep

Save Protocol for Next Time

When to Use Hand Pipetting

- Only a few samples in use
- Small plates or a small number of tubes

When to Use Automation

- Many samples in use
- Full plates or tube racks
- Ergonomic issues are a concern
- A need to increase reproducibility while decreasing errors

SINCE 1953

HAMILTON COMPANY: HELPING INNOVATE THE JOURNEY OF DISCOVERY

Classic Hamilton Quality, Tiny Footprint

Hamilton has earned a reputation for top-quality automation with solutions that support science in labs around the world again and again. The Microlab Prep takes Hamilton's workhorse automation and boils it down into a 3 square foot footprint. With the reliable automation features Hamilton is known for, plus a few new innovations, the Microlab Prep is ready to revolutionize the repetitive work in your lab.

Superior Liquid Handling Technology: CO-RE®

Automated liquid handling applications require precise tip attachment and positioning. To ensure this precision, all Hamilton liquid handling workstations including the Microlab Prep offer proprietary Compressed O-Ring Expansion (CO-RE) technology. CO-RE technology attaches disposable tips or CO-RE Paddles to the pipetting channels with a robust lock-and-key style mechanism. The system requires no vertical force for tip attachment or tip ejection, eliminating mechanical stress and improving overall system reliability, pipetting speed, positional accuracy, and dexterity.

Built-in Labware Detection for Speed

Every Microlab Prep features a camera mounted to the top of the workstation that detects and identifies the labware placed on the deck. Camera-identified labware makes programming new protocols easy to breeze through, without reading through long lists of choices. It also enables proper verification of labware on the deck when running a protocol that has already been programmed, double checking that the deck is filled with the right labware in the right places.

Air Displacement Pipetting

The Microlab Prep uses air displacement technology, which is similar technology to using a hand pipette, without the issues associated with liquid-filled automated pipetting systems. Air displacement allows for high pipetting accuracy and precision with a dynamic pipetting range of 0.5 μL to 1000 μL. Take advantage of the precision, with less maintenance and reduced risk of contamination or sample dilution.

Simple Touchscreen Programming

Say hello to minimal and modern software that's as easy to use as your smartphone. Build and simulate new protocols using thoughtfully designed wizards for common pipetting actions. With a library of protocols at the ready, tap and run any protocol. It's as low fuss as using a hand pipette, except you'll never have to worry about carpal tunnel.

Build the Prep for Your Lab

At Hamilton, we don't believe that one size fits all. Even with the small footprint of the Microlab Prep, you can choose what tools and features you need to get the most out of automation for your lab.
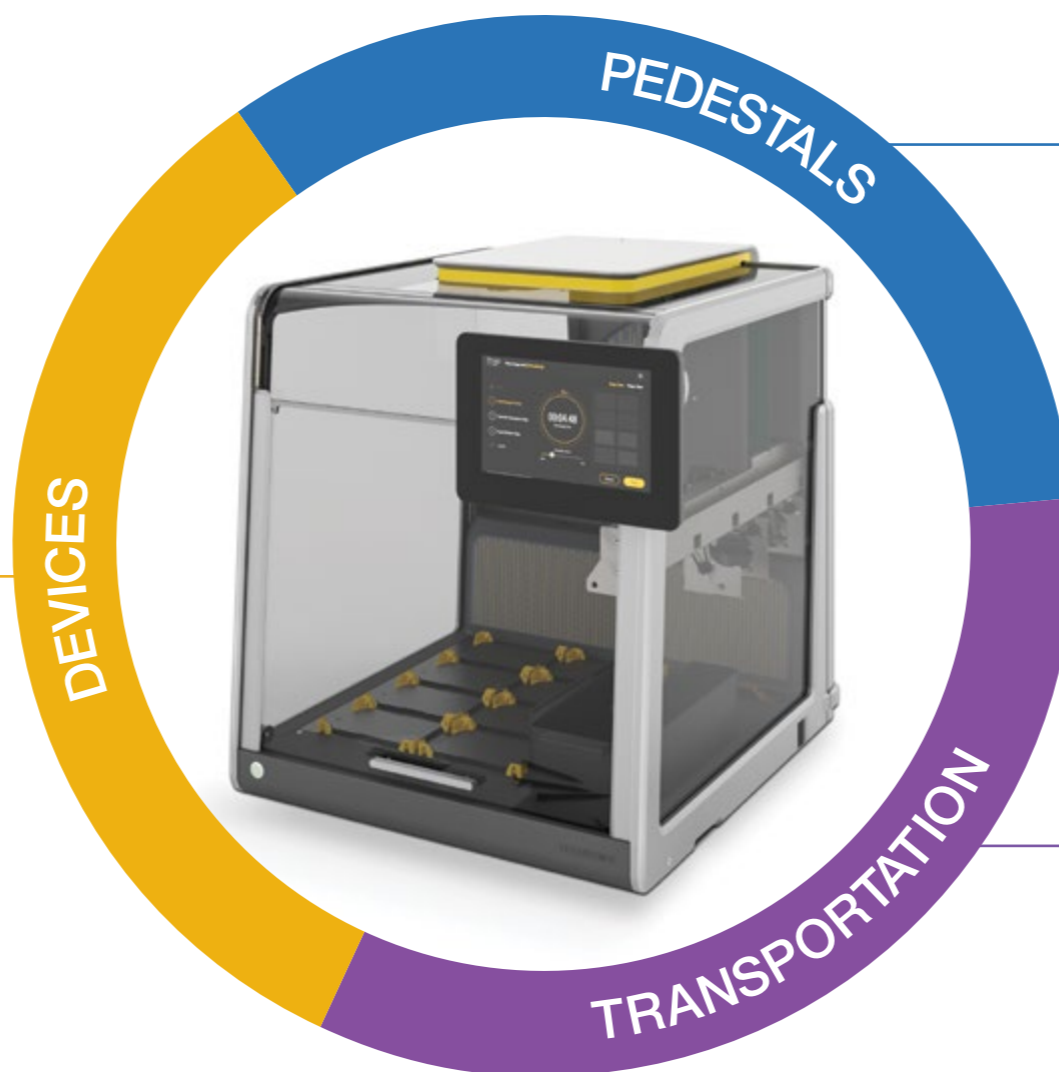
PEDESTALS

DEVICES

TRANSPORTATION

Reagent Reservoir Pedestal

Framed Tip Rack Pedestal

Tube Pedestal

Small Tube Pedestal

Microlab Prep Liquid & Solid Waste

included in all Microlab Prep systems

Hamilton Heater Shaker
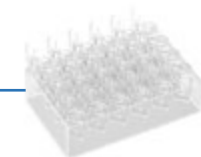
CO-RE™ Paddles

Pipetting Options

The Microlab Prep features three possible configurations for pipetting automation.

2 Channels

This configuration features two Hamilton CO-RE channels. Channels can move independently and are compatible with a wide range of Hamilton CO-RE tips. This standard configuration provides the most flexibility for pipetting to different labware types, including reagent reservoirs, tubes, and plates.

8 Multi-Probe Head

This configuration features a set of eight Hamilton CO-RE channels that operate together and are compatible with a wide range of Hamilton CO-RE tips. This standard configuration is optimized for pipetting speed across ANSI/SLAS standard 96-well plates.

2 Channels + 8 Multi-Probe Head

This configuration features two independently operable Hamilton CO-RE channels in addition to the eight channels that operate together. This upgraded configuration offers the most versatility overall, with independent channels for labware flexibility and the 8 MPH for stamping speed.

Quickly Compare

	2 Channels	8 Multi-Probe Head	2 Channels + 8 Multi-Probe Head
Number of pipetting actions that can take place at one time	2	8	2 or 8
Compatible with ANSI/SLAS 96-well plates	Yes	Yes	Yes
Compatible with ANSI/SLAS 384-well plates	Yes	Yes	Yes
Compatible with reagent reservoirs	Yes	Yes	Yes
Compatible with tubes	Yes	No	Yes
Additional Information	Flexibly works with all labware types	Optimized to complete pipetting tasks quickly and in bulk for compatible labware types	Features both configurations to ensure flexibility and expedience for all pipetting tasks

Programming with a Few Easy Taps

Most automation software is designed for a clunky desktop computer with interfaces so complicated that it seems like you need a software engineer to get the most from it. Not with the Microlab Prep. With a mounted touchscreen interface, you can design a new protocol with a few taps of your finger. The software interface was designed to be as easy to use as your smartphone, with step-by-step wizards for set up, runtime, and maintenance. Stepping away from the hand pipette was never as easy as it is now.

1. Quickly Launch Your Favorite Protocols

Once you make a protocol, mark it as a favorite and get to it easily next time from the home page. You can run it again with just a tap or two.

2. Combine Steps to Make the Protocol You Need

Programming a protocol is as simple as putting together a few different steps. Select what you need and chain them together to replace your hand pipette with quick automation.

3. Clearly See Information About Your Run

The run page shows you exactly what is happening during your run when critical samples are on the deck. You can see how much time is left, which action is underway, and what steps are remaining.

4. Receive Notifications Immediately when an Error Occurs

Unfortunately, pipetting issues occur with automation just like with hand pipettes. However, whenever an error pops up on the Microlab Prep you will be immediately notified and shown how to fix it.

5. Be Confident that Your Microlab Prep is Working Perfectly

Hamilton provides programmed maintenance guides so you can always be sure that your Prep is running as good as new.

Pick Your Pipetting Tips

Hamilton provides a wide range of CO-RE tips that support a diversity of volumes and automation activity. CO-RE tips are designed to fit together with the O-Rings in each Hamilton pipetting channel, meaning better precision for your liquid handling and less wear and tear on your hardware in the long run.

CO-RE® Tips (50 µL)

Available Options	P/N	Case
50 µL Conductive Non-Sterile Filter Tips	235948	Case of 5760 tips (Blister 5 x 96 tips per rack)
50 µL Conductive Non-Sterile Non-Filter Tips	235966	Case of 5760 tips (Blister 5 x 96 tips per rack)
50 µL Conductive Sterile Filter Tips	235979	Case of 5760 tips (Blister 5 x 96 tips per rack)
50 µL Conductive Sterile Non-Filter Tips	235978	Case of 5760 tips (Blister 5 x 96 tips per rack)
50 µL Clear Non-Sterile Non-Filter Tips	235836	Case of 5760 tips (Blister 5 x 96 tips per rack)
50 µL Clear Sterile Non-Filter Tips	235837	Case of 5760 tups (Blister 5 x 96 tips per rack)
50 µL Clear Non-Sterile Filter Tips	235829	Case of 5760 tips (Blister 5 x 96 tips per rack)
50 µL Clear Sterile Filter Tips	235831	Case of 5760 tips (Blister 5 x 96 tips per rack)

CO-RE® Tips (300 µL)

Available Options	P/N	Case
300 µL Conductive Non-Sterile Filter Tips	235903	Case of 5760 tips (Blister 5 x 96 tips per rack)
300 µL Conductive Non-Sterile Non-Filter Tips	235902	Case of 5760 tips (Blister 5 x 96 tips per rack)
300 µL Conductive Sterile Filter Tips	235938	Case of 5760 tips (Blister 5 x 96 tips per rack)
300 µL Conductive Sterile Non-Filter Tips	235937	Case of 5760 tips (Blister 5 x 96 tips per rack)
300 µL Clear Non-Sterile Non-Filter Tips	235834	Case of 5760 tips (Blister 5 x 96 tips per rack)
300 µL Clear Sterile Non-Filter Tips	235835	Case of 5760 tips (Blister 5 x 96 tips per rack)
300 µL Clear Non-Sterile Filter Tips	235830	Case of 5760 tips (Blister 5 x 96 tips per rack)
300 µL Clear Sterile Filter Tips	235832	Case of 5760 tips (Blister 5 x 96 tips per rack)

CO-RE® Tips (1000 µL)

| Available Options	P/N	Case
1000 µL Conductive Non-Sterile Filter Tips	235820	Case of 5760 tips (Blister 5 x 96 tips per rack)
1000 µL Conductive Non-Sterile Non-Filter Tips	235822	Case of 5760 tips (Blister 5 x 96 tips per rack)
1000 µL Conductive Sterile Filter Tips	235821	Case of 5760 tips (Blister 5 x 96 tips per rack)
1000 µL Conductive Sterile Non-Filter Tips	235823	Case of 5760 tips (Blister 5 x 96 tips per rack)
1000 µL Clear Non-Sterile Non-Filter Tips	235905	Case of 5760 tips (Blister 5 x 96 tips per rack)
1000 µL Clear Sterile Non-Filter Tips	235904	Case of 5760 tips (Blister 5 x 96 tips per rack)
1000 µL Clear Non-Sterile Filter Tips	235940	Case of 5760 tips (Blister 5 x 96 tips per rack)
1000 µL Clear Sterile Filter Tips	235939	Case of 5760 tips (Blister 5 x 96 tips per rack)

Specifications

24 in
(609.6 mm)

21 in (533.4 mm)
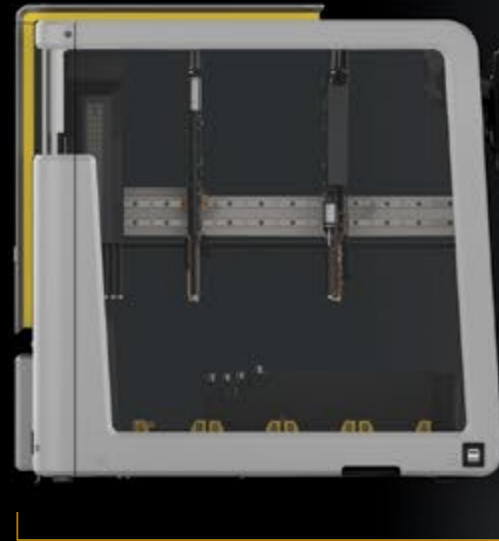
24 in (609.6 mm)

Size and Weight

Size W x H x D	21 in (533.4 mm) x 24 in (609.6 mm) x 24 in (609.6 mm) (32 in height with door open)
Weight	85 lbs (38.6 kg)

Operation

Deck Capacity	8 Positions
Communication	Ethernet, USB
Operating Temperature	15ºC to 35ºC
Operating Humidity	15% to 85% R.H. non-condensing

Storage

Storage Temperature	-20ºC to 70ºC
Storage Humidity	10% to 90% R.H. non-condensing

Power Supply and Procurement Requirements

Input Specs	Power supply must accept input between 100 VAC to 240 VAC +/- 10% at 50 to 60 hz
Output Specs	500 W @ 48 VDC

Work Accessibility

8 ANSI/SLAS microplate footprint deck positions	

Pipetting Specifications for Independent Channels

Nominal Tip Size	Pipetted Volume	Trueness	Precision
50 µL	1 µL	5.00%	5.00%
50 µL	5 µL	2.50%	2.00%
50 µL	50 µL	2.00%	1.00%
300 µL	30 µL	2.00%	1.50%
300 µL	300 µL	1.00%	1.00%
1000 µL	100 µL	2.00%	1.00%
1000 µL	1000 µL	1.00%	1.00%

About Hamilton
THE MEASURE OF EXCELLENCE®

Hamilton Company specializes in the development, manufacturing, and customization of precision measurement devices, automated liquid handling workstations, and sample management systems.

Hamilton's processes are optimized for quality and flexibility. Whether it's a custom needle with a quick delivery timeframe, a special length pH sensor, or a comprehensive solution to fully automate your assay workflow, trust that Hamilton's products will always meet your needs.

Our Complete Portfolio

Laboratory Products

Hamilton Laboratory Products manufactures Microliter™ and Gastight® syringes that set the standard for analytical fluid measurement. Other products include custom needles, semi-automated diluters and dispensers, polymeric HPLC columns, pH electrodes, pipettes, and more.

Robotics

Hamilton Robotics provides automated liquid handling workstations and laboratory automation technology for the scientific community. With a focus on innovative design, our products incorporate Hamilton's patented liquid handling technologies for fully automated solutions. In addition to liquid handling platforms, we also offer application-specific solutions, small devices, and consumables.

Storage

Hamilton Storage offers ultra-low temperature automated sample management systems for storage of a variety of labware. Hamilton's line of biobanking and compound management systems, benchtop devices, and consumables are designed for sample integrity, flexibility, and reliability.

Process Analytics

Hamilton Process Analytics includes innovative solutions for the on-line measurement of pH, dissolved oxygen, conductivity, ORP, viable cell density, and total cell density. Hamilton's proprietary Arc® intelligent sensor technology eliminates the need for transmitters and moves the functionality to your smartphone or tablet.

OEM Solutions

Many of the world's top manufacturers utilize Hamilton products and expertise to get their innovations to market faster with lower development and manufacturing costs. As an OEM partner, we offer the ability to integrate our proven syringe pumps or pipetting channels, customize our proven liquid handling platforms, or design a complete system to automate your novel chemistry.

Hamilton Company has been a leading global manufacturer for more than 60 years, with headquarters in Reno, Nevada; Franklin, Massachusetts; Timișoara, Romania; and Bonaduz, Switzerland; and subsidiary offices throughout the world.

Supporting You in the Lab

Hamilton is here for you to make sure your Microlab Prep keeps running in great condition after it's set up in your lab. Hamilton has been in business stocking labs with quality equipment since 1953, and we're here to support you and your workstation for the long haul.

Getting Help from Hamilton
Visit us at www.hamiltoncompany.com/prephelp to browse the help center or file a ticket.

Ordering Replacement Parts
To perform maintenance and replace parts on the Prep, contact us by visiting hamiltoncompany.com/prephelp. Hamilton support wants to make sure you get the right parts for your device and will help guide your selection before you make a purchase.

Keeping Stocked with Consumables
Tips and other consumables are a regular part of liquid handling, and Hamilton has the supplies you need. Visit us at www.hamiltoncompany.com/consumables to browse the online catalog.

HAMILTON®

To find a subsidiary or distributor in your area,
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