HAMILTON®

Tools for Automation

SYSTEM OPTIONS

ARM TOOLS

CHANNEL TOOLS

ON-DECK TOOLS

CONSUMABLES

www.hamiltoncompany.com | 800-648-5950

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Consumables

How to Order:

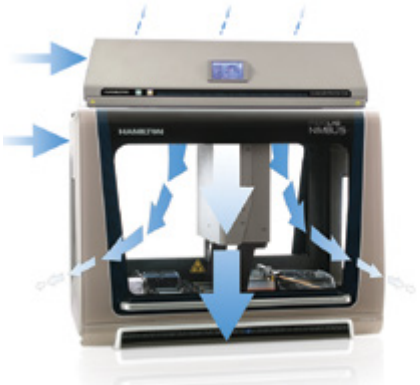
We are happy to assist you at 1-800-648-5950 or by email at marketingrequest@hamiltoncompany.com

HEPA Filter Hood

The form-fitting HEPA Filter Hood is specifically designed for integration onto the NIMBUS®, STAR™, and Microlab VANTAGE Liquid Handling System™ platforms. Room air is drawn in from the top and forced through a one-stage filter. Air is discharged from the filters over the pipetting area to protect the assay from the environment outside the workstation. Hamilton offers the convenience of HEPA filters while meeting ISO 14644-1, Federal Standard 209E. The HEPA Filter Hood is easily controlled through VENUS and INSTINCT software.

UV Light Package

In addition to the HEPA Filter Hood, a UV light is available. The UV Light Package includes clear UV-resistant plexiglass workstation covers and panels.



Available Options	Part Number
HEPA Hood – STARlet	55500-01
HEPA Hood – STARlet UV	55501-01
HEPA Hood – STAR	55495-01
HEPA Hood – STAR UV	55496-01
HEPA Hood – STARplus	55506-01
HEPA Hood – STARplus UV	55507-01
NIMBUS HEPA Standard CAP	92173-01
NIMBUS HEPA Extended CAP	92173-02

Autoload

Autoload is an optional system feature that provides automatic carrier loading and barcode scanning. Acting as a staging area for carriers to be inserted or removed from the workstation, for both loading and unloading of labware, and for all barcode reading, Autoload ensures the correct labware is placed on the correct carriers. If the barcode check fails, the user is immediately alerted.

With the Autoload, the track numbers are imprinted on-deck to guide the user to correctly position the carriers. In addition, back-lit track numbers are mounted on the front safety panel and illuminate green as an indication of the correct tracks to insert each particular carrier when loading the system.

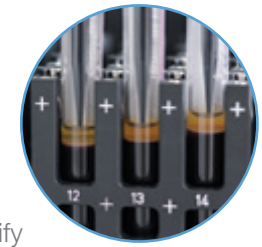
Autoload is paramount for IVD and chain-of-custody compliance.

Available Options	Part Number
STAR Autoload Upgrade Kit	95640-01
STARlet Autoload Upgrade Kit	95641-01

Imaging Solutions

Hamilton offers a variety of imaging solutions that consist of software add-ons to VENUS along with a variety of devices and modules. These include camera channels, mirror carrier, light table, carrier punching head, and magnetic shuttle carrier.

easyPhase

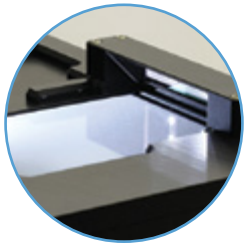


Phase Detection and Separation: Designed to detect and quantify the different phases present in sample tubes, easyPhase is capable of quantifying the volume of each phase, and can separate each phase using aspiration.

easyPunch

Sample Punching and Punching Verification: Designed to identify and punch specimens from an automation-compatible sample card into microplate wells and verify the specimen punch has been placed into the desired well of the plate.

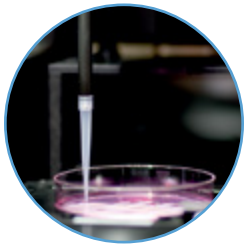
easyCode



Barcode Reading and Labware Identification: Designed to read 1D and 2D barcodes on the bottom of various types of tubes within tube racks. When combined with the Camera Channel, reading upward facing 1D and 2D barcodes from the top of tube caps, plate lids, or labware is possible and provides the added feature to identify the presence and orientation of labware from an aerial view-point.

Imaging Solutions (Cont.)

easyPick



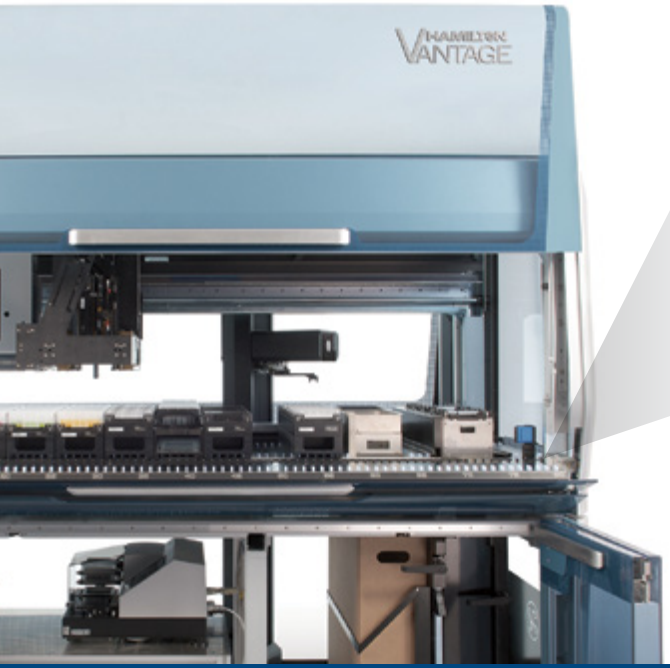
Colony Counting and Picking: Designed to identify, quantify, and pick the number of microbial colonies present within Petri dishes or Omni trays. Picking criteria is specified within easyPick Software based upon parameters such as colony size, colony morphology, colony color, colony proximity, and colony location within the labware.

easySolve

Precipitation Check and Solubility Analysis: An ideal imaging solution for compound dissolution such as active solubility screening, stability testing, compound screening, or reconstitution applications, easySolve is designed to detect undissolved compound, precipitate or turbidity. Color values can be captured for qualitative analysis, providing archived documentation.

Touchscreen Monitor

The Touchscreen Monitor option for all of Hamilton's liquid handling workstations offers increased ease of use and saves lab space. Minimizing the need for a separate keyboard and mouse, users can customize their own graphical user interface with windows that can be moved or scrolled through with finger movements. The Touchscreen Monitor is fully supported in VENUS software.



Available Options	Part Number
19 inch Touchscreen Monitor Kit	188260
19 inch Touchscreen Monitor Kit, Shaded	188250

System Integration Options

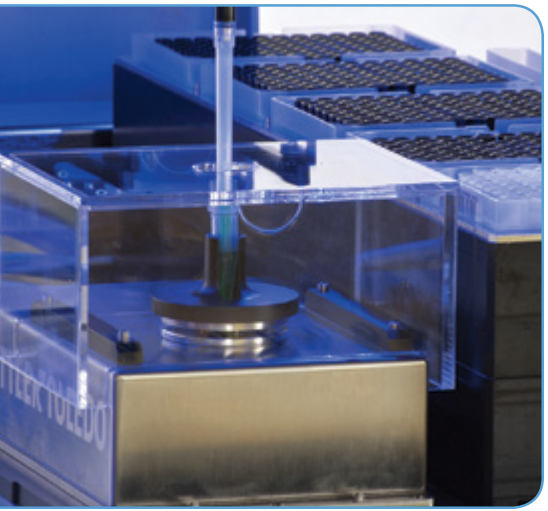
Device Drivers

Hamilton's software driver library includes more than one hundred drivers readily available for communication with devices such as readers, washers, thermal cyclers, incubators, robotic arms, centrifuges, dispensers, cell counters, and other modules. We are continuously working with third-party vendors to expand our driver library and integrate any new devices our customers need to automate their workflow.

Liquid Verification Kit

The Hamilton Liquid Verification Kit (LVK) is a gravimetric balance-based hardware and software kit that enables our customers and applications team to develop, optimize, and verify liquid handling on Hamilton's liquid handling platforms.

- **Liquid class development kit:** The LVK can be used to create customized liquid classes while also providing the means to develop and test volumes and liquids.
- **Liquid class verification kit:** The LVK can be used for verification of the customized liquid classes and to ensure that the liquid handling system is within compliance of your defined lab acceptance criteria.



LVK Includes:

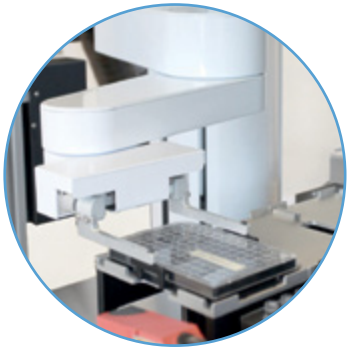
- Graphical user interface – GUI
- METTLER TOLEDO WXS scale
- Base plate for mounting the scale
  - NIMBUS
  - STAR/Microlab VANTAGE
- Balance draft shield that can be used for tubes and/or microplates
- Tube adapter set:
  - 10.8 mm diameter
  - 10.2 mm diameter
  - 18.5 mm diameter
- Microplate adapter
- Thermohygrometer

Available Options	Part Number
Liquid Verification Kit – LVK	95843-01

HMotion

A small footprint robot for benchtop integrations, the HMotion is a flexible robotic arm offering precise plate handling. Integrating perfectly with all Hamilton platforms, HMotion is easy to reconfigure, and offers flexibility to support additional instruments as your workflows change.

- User-friendly setup utilizes easy TeachingMode to teach transport positions manually or by programming the transport steps through VENUS software
- Protect user safety by automatically disabling the motor power if any counterforce is detected



Available Configurations:

- Two height axis options: 400 mm and 750 mm
- Two reach options: Standard reach of 576 mm and extended reach of 731 mm
- Three linear axis integrations options: 1.0 m, 1.5 m, and 2.0 m

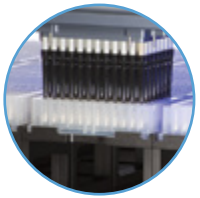
Available Options	Part Number
HMotion	Call for Information

Pipetting Options

Hamilton's patented pipetting technologies are the foundation of precision and reliability for accurate, repeatable pipetting. Our air displacement technology is analogous to using a hand pipette and offers all the benefits that come with system liquid-free pipetting. Offering dual Liquid Level Detection, pressure (pLLD), and capacitive (cLLD), for each individual pipette channel, and cLLD for Multi-Probe Head (MPH) pipetting monitors liquid levels throughout all pipetting steps. Anti-Droplet Control (ADC™) detects and reacts to pressure changes in real time for each pipetting channel that are caused by the high vapor pressure of volatile organic solvents to prevent inadvertent dripping. Monitored Air Displacement (MAD) detects clots or empty wells to deliver a confirmation of the successful aspiration, and real-time tracking of the aspiration performance with MAD offers certainty for your automated assays. During crucial sample transfers, Total Aspiration and Dispense Monitoring (TADM™) allows parameters to be set up for real-time monitoring of each independent pipetting channel during the aspiration and dispensing steps. TADM verifies the sample transfer with a traceable digital audit trail.

1000 µL Channels:
Independent y- and z-movement channels with a dynamic pipetting volume range of 0.5 µL to 1000 µL.

5 mL Channels:
Independent y- and z-movement channels with a dynamic pipetting volume range of 50 µL to 5 mL.



CO-RE 96 MPH:
Offers cLLD (channels A1, B2, G11, and H12) and pipetting volume range of 1 µL to 1000 µL.

CO-RE 384 MPH:
Offers cLLD (channels A5 and P24) and pipetting volume range of 0.5 µL to 50 µL. Using the 300 µL Rocket-tips (4-to-1 adapters), the pipetting volume increases up to 300 µL.

iSWAP®

The iSWAP is a gripper arm tool facilitating access to items on and off deck. This robotic gripper is highly flexible with its vertical and rotary movement capabilities. The iSWAP may be used to automate a wide range of applications including storage, incubation, plate reading, and washing. As with any Hamilton pipetting and gripping tool, there are no positional vectors to teach as the software automatically gives reliable positional accuracy by labware and rack definition.

Available Options	Part Number
NIMBUS4 Gripper Upgrade	93812-01
NIMBUS96 Enclosed Gripper Upgrade	93809-01
iSWAP for STAR	182600
iSWAP Upgrade Kit	199200

Tube Gripper Channel

The Tube Gripper Channel is a dedicated channel for manipulating tubes around the robotic workstation. The channels offer full movement capabilities including independent y- and z-axis movements. The tube gripper channel is an essential addition to the system for transfer of tubes from a tube carrier to a vortexer/mixer and back.

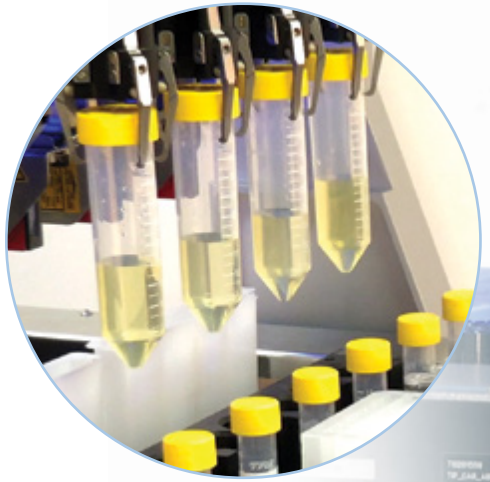
Tube Specifications:

- Diameter: 8 mm – 20 mm
- Height: up to 120 mm
- Transport weight: up to 200 grams

Available Options	Part Number
Tube Gripper Channel	182009
Tube Gripper Channel, Field Upgrade	184097

Twister Channel and Decapper Module

Automated capping and decapping of 15 mL and 50 mL tubes such as TPP TubeSpin® Bioreactor Tubes.* Works with tubes ranging from 15 mm – 38 mm in diameter.



Capabilities:

- Transport of tubes
- Mixing while spinning
- Decapping and recapping
- Barcode reading

**TubeSpin Bioreactor Tubes are a registered trademark of TPP Techno Plastic Products AG*

Available Options	Part Number
Twister Channel	Call for information

AutoLys Channel

The AutoLys Channel offers a complete, walk-away, lysis process automation solution from sample to clear lysate.

- Decapping, holding lid, and recapping of the Hamilton AutoLys tubes
- Transport of the individual tubes to Hamilton Heater Shaker (HHS) for incubation
- Lift-and-locking feature of the AutoLys inner tube in spin position
- The inner tube is removed after centrifugation and holding
- Replace the AutoLys inner tube back into the original tube after transfer of the clear lysate to a fresh tube

2D barcode

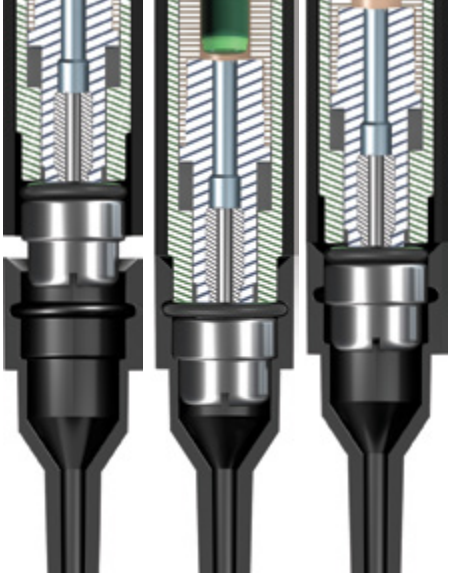
Available Options	Part Number
AutoLys Channel	809002

CO-RE® Technology

Compressed O-Ring Expansion (CO-RE) Technology

Automated liquid handling applications require precision in tip attachment and positioning. To ensure such precision, Hamilton liquid handling workstations offer proprietary CO-RE technology.

- Highly robust lock-and-key mechanism
- Minimal vertical force for attachment or ejection
- Prevents the production of aerosols
- Eliminates mechanical stress
- Ensures tip attachment and eliminates concerns of dropping tips
- Easily switch between disposable tips, washable needles, or transportation tools with no manual intervention or hardware changes required
- Enables design of special tools to dispense, punch, pierce, manipulate, and handle a variety of steps to automate your processes



Patented CO-RE design for forceless pickup

Available Options	Part Number
Customized Pin Punch Tool	Call for information

CO-RE Paddle Gripper

The CO-RE Paddle Grippers can be picked up by two independent channels during a run to facilitate the transport of labware including:

- ANSI/SLAS plates
- Tip trays
- Nested tip racks (NTR)
- Filter-plates and SPE cartridges
- Lids
- Petri dishes
- Tube racks

The CO-RE Paddle Gripper is particularly useful to access items in deep stacks or peripherals. CO-RE Paddle Grippers are sold as a set including two paddle grippers and a park position that can be attached to the waste block or any standard carrier.

Available Options	Part Number
1000 µL CO-RE Paddle Gripper	189089
5 mL CO-RE Paddle Gripper	184099

FlipTube™ Tools

Enabling a fully automated, walk-away solution for 1.5 mL micro tube processing, the FlipTube Tools were specifically designed to open and close Hamilton FlipTubes. Minimizing risk of aerosol formation, the FlipTube Tool applies gentle pressure on the rear of the lid. The contamination-free opening is securely controlled with the automated process.

FlipTube Tools in park position

FlipTubes being opened

FlipTube Carrier

FlipTube Rack with heating/cooling block below

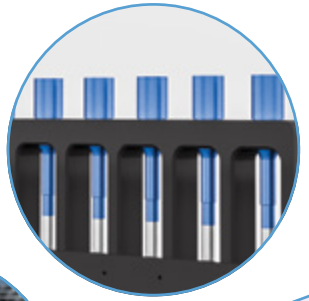
Available Options	Part Number
FlipTube Tool Set with 4 Tools	809306
Sample Carrier with Barcode Windows for 32 FlipTubes	809030
FlipTube Insert for Loading in the Standard Tube Carrier	814165
Single Tool – Spare Part	809032

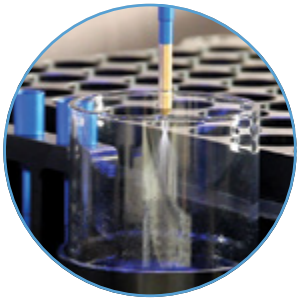
CO-RE Spray Nozzle

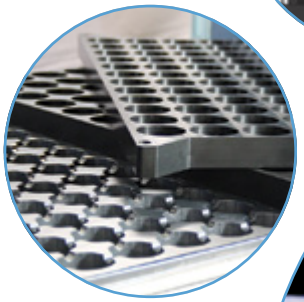
The CO-RE Spray Nozzle brings you an automated atomized liquid handling technology. Spray nozzles are currently in use for agricultural seeding, small plant spray, and a wide variety of applications.

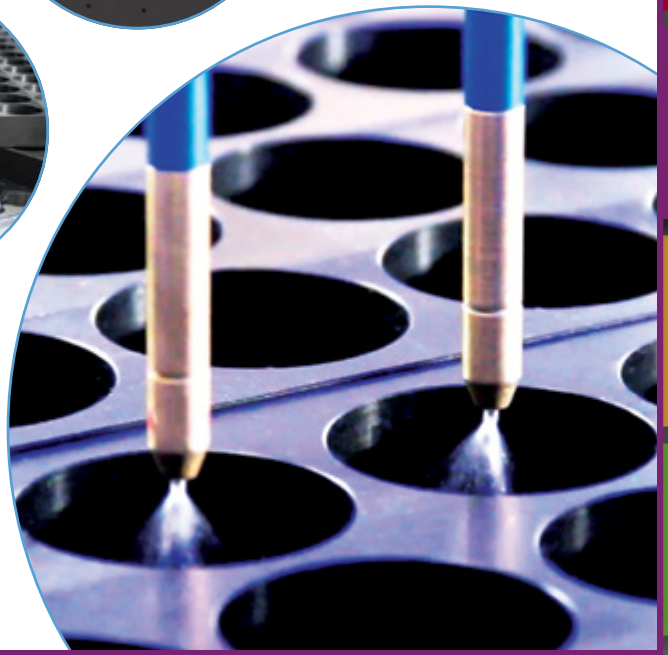
Features:

- 5 mL liquid aspirate/dispense capacity
- Capability to aspirate from most 96 well plates and/or 1 dram vials
- Fixed conical spray pattern of approximately 60°
- Alternate custom spray pattern can be developed
- A medium-to-fine mist quality is generated
- Nozzles can be fabricated to be compatible with most liquid classes
- Nozzles feature an aluminum body with a stainless steel nozzle section





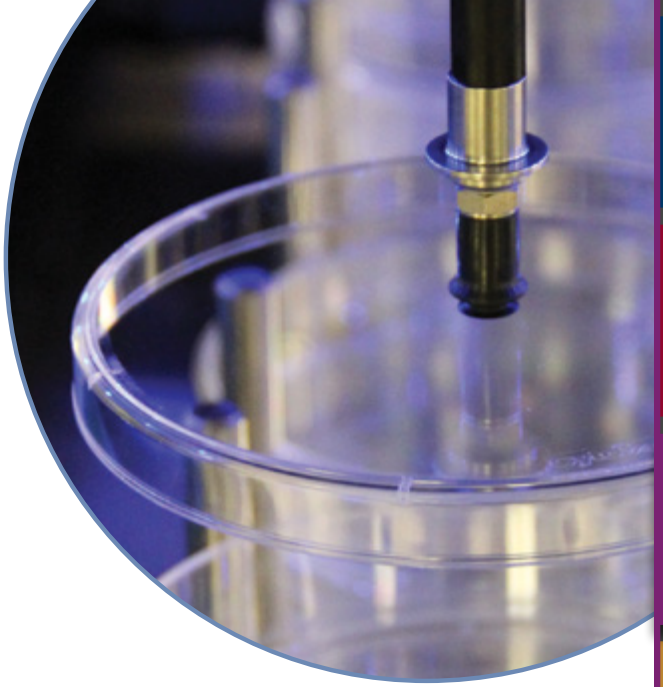




Available Options	Part Number
CO-RE Spray Nozzle	Call for information

CO-RE Suction Tool

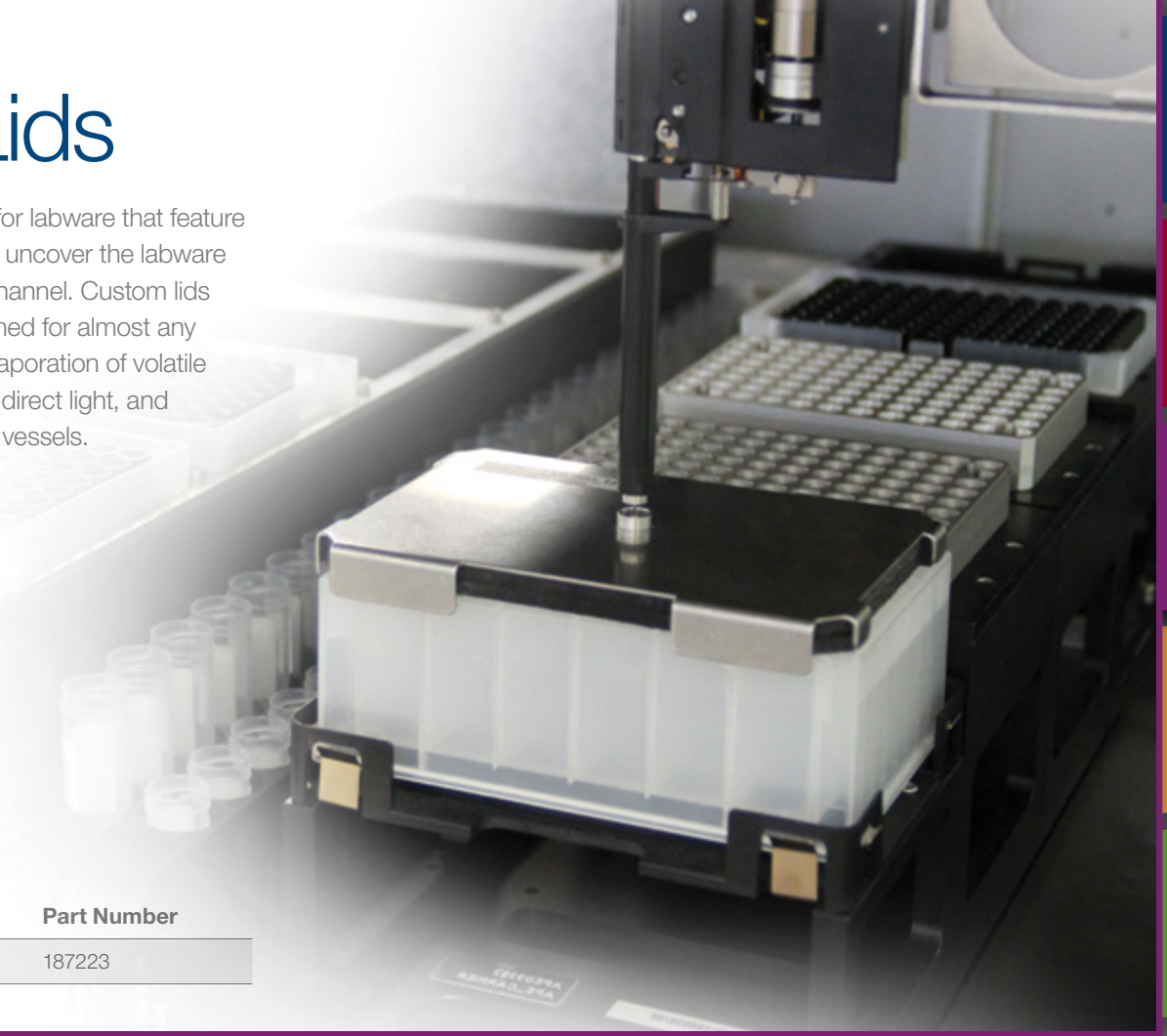
The CO-RE Suction Tool allows on-deck transportation of items with a flat surface and suitable weight. The tool is picked up by a CO-RE channel. The plunger drive generates a negative pressure (vacuum) on the surface of clean, flat labware objects. Compatible labware includes Petri dish lids, microplate lids, cell culture plates, troughs, and reservoir covers, as wells as microscope slides, and cover slides. This tool can also be used to move Hamilton FlipTubes in their closed state.



Available Options	Part Number
CO-RE Suction Tool	188227APE

CO-RE Lids

Hamilton offers a variety of lids for labware that feature a CO-RE interface to cover and uncover the labware using an independent pipette channel. Custom lids with this interface can be designed for almost any labware. CO-RE lids prevent evaporation of volatile solvents, protect reagents from direct light, and prevent contamination of sterile vessels.

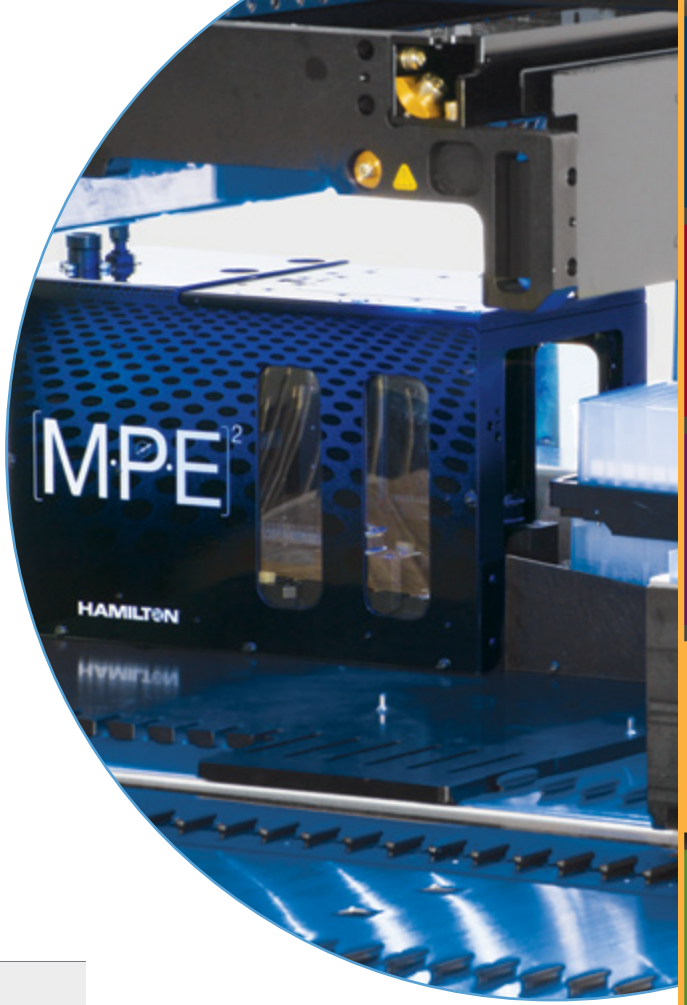


Available Options	Part Number
CO-RE Lid, Microplate	187223

[MPE]^2

The [MPE]^2 is an all-in-one, compact device for automating positive-pressure solid phase extraction (SPE) and evaporation. Designed to easily integrate with all of Hamilton's liquid handling platforms, easy installation of the [MPE]^2 allows for upgrades to existing systems without the need for deck modifications. The patented dual elevator design accommodates most filter/collection plate combinations while the dual circuit even-flow manifold is capable of applying up to 100 psi of pressure to the top of the filter plate/columns while maintaining equal pressure across the plate.

- Cost-effective solution automating SPE and evaporation in one device
- Accommodates filter/collection plate combination heights up to 110 mm
- Maintains equal pressure across the plate eliminating the path of least resistance
- Uses either compressed air or nitrogen
- Pipette directly into plates on the [MPE]^2
- Dual circuit, low and high pressure control up to 100 psi
- Optional air heater
- Evaporator
- Cap mat sealer
- Tip drying station



Available Options	Part Number
[MPE]^2	94043-01

Automated Plate Sealer

The Automated Plate Sealer is specifically designed for integration with Hamilton liquid handling workstations and is capable of sealing a large variety of ANSI/SLAS plates with different adapter options. Plate sealing is fully controlled using VENUS software.

Features:

- Small footprint, occupying as little as one ANSI/SLAS deck position
- Ready for integration on Hamilton instruments
- Easy software control
- Seals temperature range of -80 °C – 100 °C
- Full flexibility of plate type (different adapter options)
- Adhesive, optically-clear, and foil seals available

Available Options	Part Number
Automated Plate Sealer	Call for information

On-Deck Thermal Cycler (ODTC)

The ODTC is a fully automated on-deck thermal cycling solution. Designed for on-deck integration with all Hamilton liquid handling workstations, the on-deck footprint of the ODTC is equivalent to 2.5 ANSI/SLAS positions. Offering fast PCR runs and highest performance guaranteed, the ODTC provides thermal cycling with INHECO's innovative 3D vapor chamber technology (VCM®).

Features:

- Excellent well-to-well temperature uniformity
  - High heating and cooling rates
  - Rapid transition into plateau temperature
- Pipette directly into PCR plates located on the ODTC
- ODTC lid can be opened horizontally at any time during heating/cooling

Available Options	Part Number
Kit, Single ODTC 96 (left exhaust)	96124-01
Kit, Dual ODTC 96 (left & right exhaust)	96124-02
Kit, Single ODTC 96 (rear exhaust)	96740-01
Kit, Single ODTC 96 Supplemental (rear exhaust)	96470-02

easyCode Carrier

Integration friendly, the easyCode Carrier offers high performance 2D barcode reading.

Features:

- Reliable, industrial camera with 5 mega-pixel resolution and advanced optics
- Fast reading — no warm-up time and less than one second read time — whole picture of rack is taken in one shot
- Small footprint on deck saves space
- Secure reading with default definitions provided for all common tube racks and tube codes
- Proven vision and robotics technology ensures complete sample tracking for greater method security

easyCode Carrier PLUS Features:

- Mirror for 1D code of the racks
- 1D and 2D barcodes are projected to a single picture
- Enhanced, bright light makes difficult codes more visible

Available Options	Part Number
easyCode 2D Barcode Reader (6T)	808300
easyCode PLUS 1D/2D Barcode Reader (7T)	808200

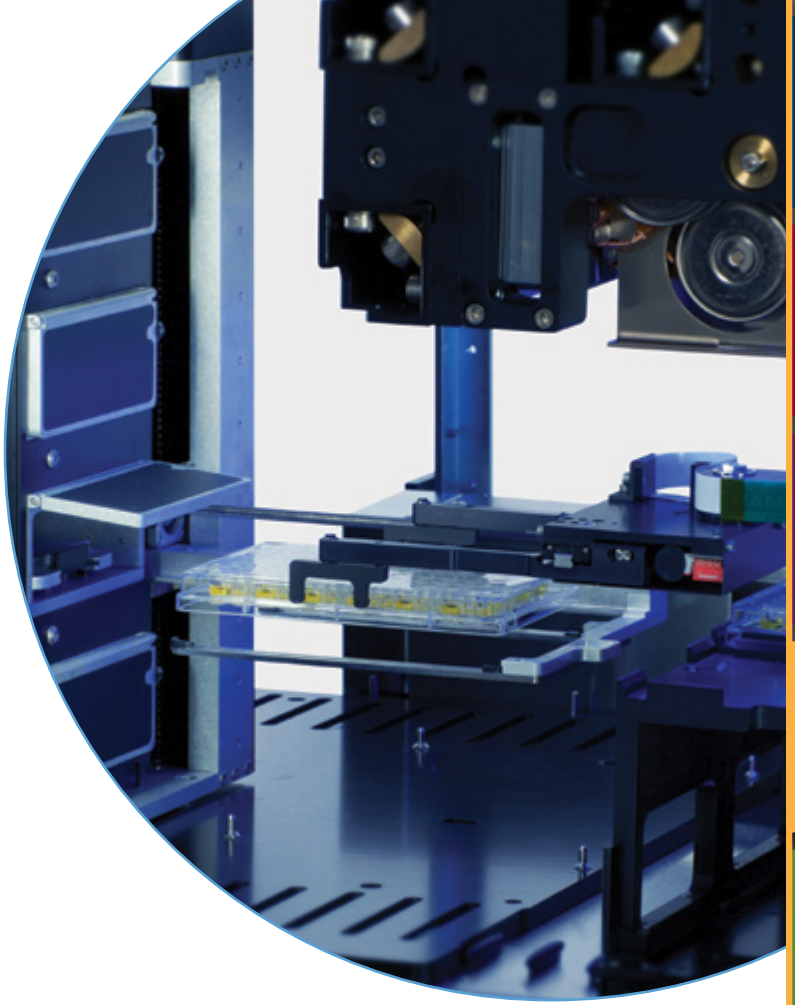
Hamilton Incubator Shaker

The Hamilton Incubator Shaker (HIS) provides fully automated incubation and shaking with on-deck loading and unloading functionality. Offering four independent incubators and full flexibility of ANSI/SLAS plate types, the HIS is completely controlled through VENUS and INSTINCT software.

Features:

- 4 independent heating and shaking sites
- Integration of multiple HIS devices is possible on one platform
- Easy software control
- Shaking range: 40 to 1200 rpm
- Heating range: ambient +3 °C to 60 °C
- Proven accuracy: ±0.3 °C at all temperatures
- Flexible plate type: height maximum of 15.25 mm

Available Options	Part Number
HIS 3mm Orbit	96486-02



Hamilton Heater Shaker

The Hamilton Heater Shaker (HHS) is specifically designed for integration with the NIMBUS, STAR and Microlab VANTAGE platforms. It allows heating and shaking of a large variety of ANSI/SLAS plates, from microplates to deep-well plates, as well as Sarstedt tubes. Loading and unloading, as well as the independent heating and shaking functions of the HHS, are fully controlled by the instrument control software.

Features:

- Shaking up to 2500 rpm
- Heating up to 105 °C
- Sensor temperature control
- Full flexibility of plate type
- Automatic plate lock
- Easy software control
- In Vitro Diagnostic (IVD) device

Available Options	Part Number
HHS 1.5 Nunc DWP 96 2 mL	199037
HHS 2.0 Flat Bottom	199033
HHS 2.0 Nunc DWP 96 2 mL	199038
HHS 3.0 Flat Bottom	199034
HHS 3.0 Flat Bottom APE	188319
HHS 3.0 Nunc DWP 96 2 mL	199039

Hamilton Centrifuge

The Hamilton Centrifuge is an ideal solution for on-deck centrifugation. The centrifuge is designed with two labware positions and accommodates labware up to 60 mm (maximum height).

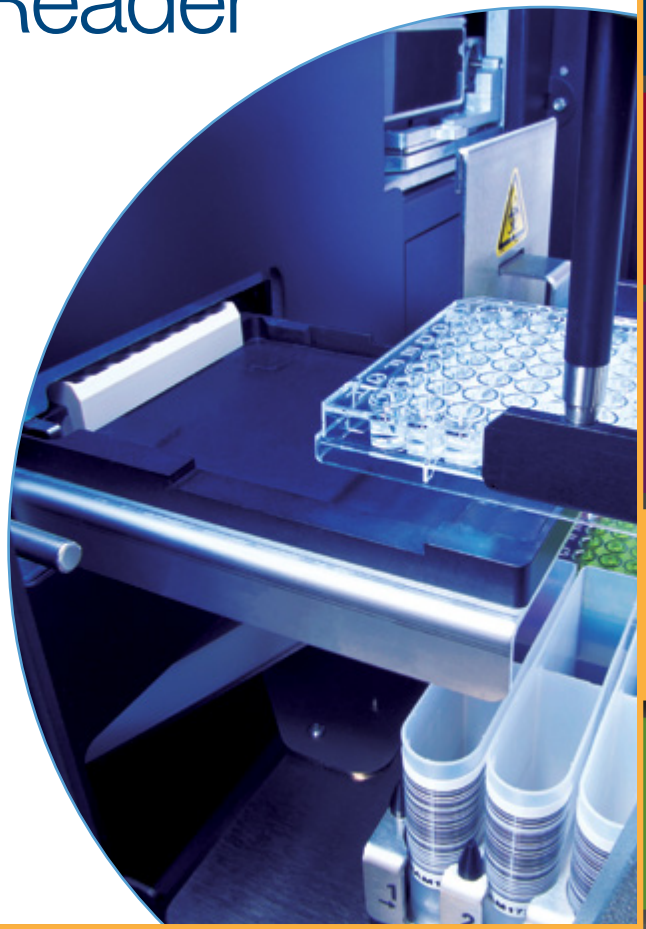
Features:

- Compact design for easy integration
- Maximum g-force: 2000 x g; 4200 rpm
- Automatic homing position for robotic loading access
- Automatic sensor to detection imbalance
- Minimal vibration

Available Options	Part Number
Hamilton Centrifuge	199700

Hamilton Absorbance Reader

Hamilton Robotics and Biomed Dr. Wieser GmbH have partnered to provide an automation friendly, absorbance microplate reader. The compact design is ideal for automated integrations requiring 96-well absorbance reading.



Features:

- Optical system: 8-channel transmission photometer
  - Self-calibrating absorbance reader for 96-well microplates
- Light source: Controlled LED, wavelength specific
- Detector: 8 silicon photodiodes
- Wavelength range: 340 nm – 750 nm
- Maximum number of wavelengths: 8
- Standard wavelengths: 405 nm, 450 nm, 492 nm, 570 nm, 610 nm, 620 nm, 690 nm
  - Other wavelengths available per request
- Preinstalled wavelengths: 405 nm, 450 nm, 492 nm, 620 nm
- Measure Mode: Single/Dual
- Resolution: 0.1 OD
- Precision: < ±1%
- Shaking: Linear, 4 speeds

Available Options	Part Number
Absorbance Reader	93412-01

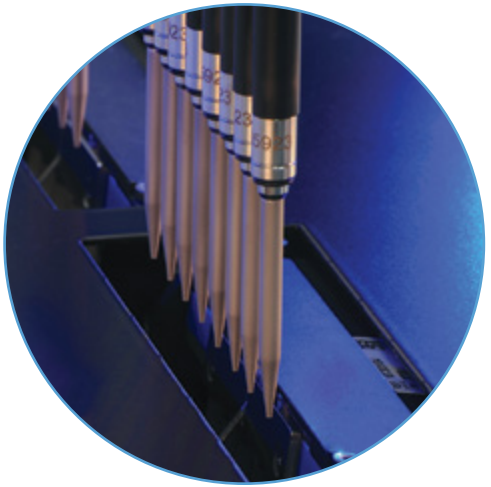
Chemical Resistant Wash Station

The Chemical Resistant (CR) Wash Station has three independent compartments for needle washing, and each compartment accommodates eight needles. The CR Wash Station is capable of handling two different wash liquids while performing needle washing in parallel with channel pipetting.

Features:

- Three independent compartments for eight needles in each
- Compatibility with three needles sizes – 10 µL, 300 µL, and 1000 µL*

**For optimal performance, annual needle replacement is recommended.*



Available Options	Part Number
CR Wash Station	186360
Set of 10 µL Needles	235932
Set of 300 µL Needles	235931
Set of 1000 µL Needles	235930

Wash Station

The Wash Station is available for individual-, 96-, or 384-tips. The individual tip wash chambers eliminate cross-contamination during tip washing.

Wash Station Includes:

- On-deck wash module
- Controller unit
- Bottle kit

Available Options	Part Number
Tip Wash Station for Independent Channels and 96 MPH, STAR	64092-02
Tip Wash Station for 384 MPH, STAR	64093-02
Tip Wash Station for 384 MPH, NIMBUS	64094-02
Tip Wash Station for Independent Channels and 96 MPH, NIMBUS	64879-03

Refillable Reagent Module

The Refillable Reagent Module is available with different reservoir options for independent channels, and 96- and 384-MPH configurations.

Features:

- Source bottle options: 1 L and 4 L
- Pump options: double tub pump module and single tub pump module
- Waste carboys options: 3.5 L, 4 L, and 5.5 L
- Color-coded labeling: tubing is labeled for visual association and easy setup

Available Options	Part Number
Refillable Reagent Module	Call for information

Media Fill Module

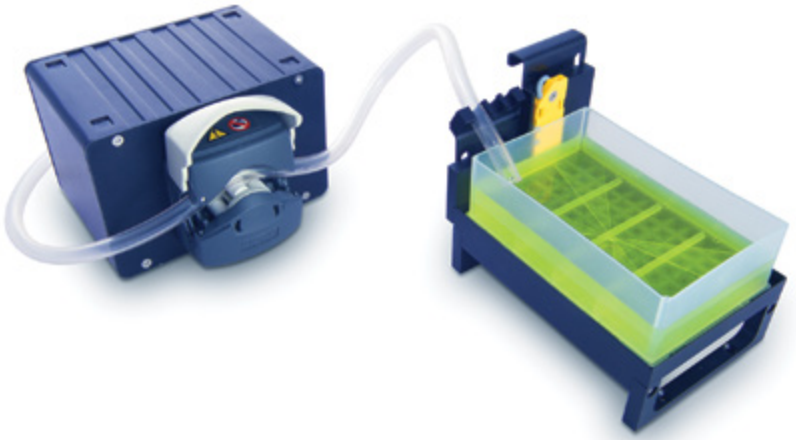
The Media Fill Module is a user-friendly on-deck accessory for supplying bulk reagents onto the liquid handler's deck. This module can be used for any reagent with the exception of volatile and corrosive liquids.

This module can be used with a sterile/disposable fluid path. This option is available for the NIMBUS, STAR, and Microlab VANTAGE platforms with independent and multichannel pipetting access. The startup kits include the control box, pump kit, and deck trough module. The expansion kits include pump kit with the deck trough module.

Available Options	Part Number
Startup Kit, STAR and Microlab VANTAGE	95145-01
Startup Kit, NIMBUS	95146-01
Expansion Kit, STAR and Microlab VANTAGE	95147-01
Expansion Kit, NIMBUS	95148-01

Features:

- Automatic fill sensor
- Compatible with standard ANSI/SLAS format troughs
- Completely disposable sterile fluid path
- Peristaltic pump for filling and for gentle agitation of cells



Spiral Plater

The Spiral Plater provides a uniform distribution of material across the surface of the plate, while featuring adjustment in both the x- and y-directions if the dispensing surface is not level. Designed for integration, the Spiral Plater can fit into a Multiflex Carrier location, or on a flat baseplate.

The Spiral Plater can accommodate standard 55 mm and 90 mm Petri dish plates and ANSI/SLAS plates using an adapter. Custom trays can be made to accommodate other sizes, up to 150 mm.

The device is USB controlled, and requires 110V power. The control boxes are designed for flexibility of running one to four spiral platers on a single Hamilton instrument.

The speed of the Spiral Plater is programmable and can run at a constant rpm, or be programmed to provide a constant linear speed when a channel is dispensing from the center to the edge of the plate.

Available Options	Part Number
Spiral Plater	Call for information

Multiflex Turntable, Tilt, and Seesaw Modules

The **Multiflex Tilt Module** is a must have for cell culture applications requiring removal of all media, or passaging cells from one destination to the next. The Multiflex Tilt Module adjustable range of 0 – 10 can be used to remove residual volume out of large plates with 6 or 12 wells, and Petri dishes with 1-well. If required, a deep-well plate extension can be included.

The **Multiflex Seesaw Module** enables maximum retrieval of reagents and other precious liquids from a reagent trough, microplate, deep-well plate, or any ANSI/SLAS format trough. The module offers a rocking speed of 16, 34, 51, and 59 rpm controlled through the software and an adjustable tilt range of 0 – 15.

The **Multiflex Turntable Module** is designed for transitioning of plate orientation with a rotational range of 0 – 270°. This offers flexibility of target-positioning 0°, 90°, 180°, or 270°, and switching between portrait and landscape orientation.

Available Options	Part Number
Multiflex Tilt Module	188061APE
Multiflex Seesaw Module	188063APE
Multiflex Turntable Module	188055APE

Multiflex Stack Modules

The Multiflex Stack Modules facilitate high density, on-deck storage of plates, and tip racks. The labware can be accessed manually or with CO-RE Paddle Grippers.

Modules	Features	Part Number
Multiflex Plate Stack Module – Portrait	■ Up to three stacks can be mounted on a 6 track wide (6T) Multiflex Carrier Base (P/N 188053) ■ Depending on plate height, stacker capacity is 8 – 10 microplates, 2 – 3 deep-well plates, or 2 – 3 SPE plates	188059
Multiflex Plate Stack Module – Landscape	■ Up to five stacks can be mounted on a 6 track wide (6T) Multiflex Carrier Base (P/N 188039APE) ■ Depending on plate height, stacker capacity is 8 – 10 microplates, 2 – 3 deep-well plates, or 2 – 3 SPE plates	188044
Multiflex Tip Rack Stack Module – Landscape	■ Up to five stacks can be mounted on a 6 track wide (6T) Multiflex Carrier Base (P/N 188039APE) ■ Stores up to 6 low volume, 10 µL tip racks, or 4 standard volume, 300 µL tip racks	188062

Vacuum Station

Hamilton offers a single position, on-deck, automated vacuum station. The vacuum station is controlled through the instrument software and consists of a manifold top, dedicated carrier, vacuum pump, and controller. The manifold top can be handled on-deck with the iSWAP or the CO-RE Paddle Grippers.

Features:

- Programmable pressure monitoring with a control range 1- to 1060-mbar
- Accommodates a wide variety of 96- and 384-format ANSI/SLAS plates and various collection plate heights

Available Options	Part Number
Clear Vacuum Station (CVS), 115V	199021
Clear Vacuum Station (CVS), 230V	199020
NIMBUS Vacuum Station (NVS), 115V	64107-01
NIMBUS Vacuum Station (NVS), 220V	67382-01

Multiflex Piercing Module

Hamilton's Multiflex Piercing Module is designed to hold a plate down to ensure the plate is not lifted during piercing when the needles or tips are retracted. The module mounts on the Multiflex Carrier base for integration with the liquid handling workstation and holds one pierceable ANSI/SLAS format plate. Compatible with seals, foils, and cap mats, the Multiflex Piercing Module can also hold racks of tubes in place and supports labware from manufacturers such as Covaris, MACHEREY-NAGEL, Micronic, and Matrix.

Available Options	Part Number
Multiflex Piercing Module	188095APE
Customized Piercing Module	Call for information

Multiflex Tip Cutter

The Multiflex Tip Cutter is used to cut any Hamilton CO-RE disposable tips in order to provide a wider orifice of a desired diameter. This enables better handling of shear-sensitive samples like cells, as well as suspensions of larger particles such as complex culture media, bead suspensions, disrupted solids, and lysates.

The Multiflex Tip Cutter cuts up to eight CO-RE tips at once and can be tilted on its side to give the tips a pointed edge for piercing applications or colony picking.

Multiflex Tip Cutter Includes:

- 6-track-wide base Multiflex Base Carrier Plate
- Multiflex Tip Cutter mounts to the front position allowing easy access to the waste bucket
- Multiflex Carrier maximizes deck capacity with two additional ANSI/SLAS size Multiflex module positions

Available Options	Part Number
Multiflex Tip Cutter	188222APE
Replacement Blade, Tip Cutter	188299APE

Customized, tilted Multiflex Tip Cutter

Multiflex Tip Feeder

Hamilton offers below-deck tip rack storage accessible using the CO-RE Paddle Grippers. The Multiflex Tip Feeder is a module located below the instrument deck that can be manually or automatically loaded with tip racks.

Features:

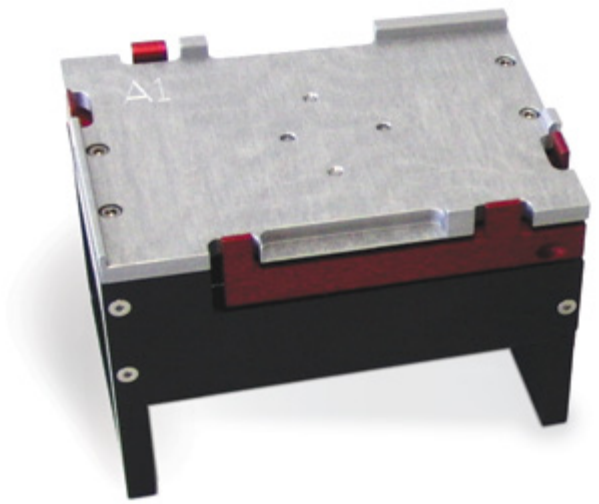
- Manually load Multiflex Tip Feeder using the loading chute
- Automated loading is possible using CO-RE Paddle Grippers to load directly from a tip rack blister pack on an on-deck blister carrier

Available Options	Part Number
Multiflex Tip Feeder	188086

Multiflex Active Plate Nest

The Hamilton Multiflex Active Plate Nest is designed to securely hold compatible ANSI/SLAS labware by grabbing on to the base of the labware. The Multiflex Active Plate Nest can be used when piercing through a seal or to more accurately position 384-well and 1536-well microplates for pipetting.

Compatible with NIMBUS, STAR, and VANTAGE Liquid Handling System platforms, the Multiflex Active Plate Nest uses one position on a Multiflex Base Carrier Plate and is available in two versions for standard microplates or deep-well plates.



Available Options	Part Number
Multiflex Active Microplate Nest	188188APE
Multiflex Active Deep-well Plate Nest	188189APE

Heating and Cooling Modules and Carriers

Temperature-Controlled Module

Hamilton offers a custom-designed module adapter for heating or cooling to fit your labware. The module design offers the ability to set two modules/Multiflex base carrier. The heating module can reach up to 60 °C, while the cooling module temperature ranges from 4 – 15 °C. The heating cooling module temperature ranges from 0 – 99 °C.

Temperature-Controlled Carrier (TCC)

The TCC is a device for heating and cooling with a capacity of five microplate positions. The retractable carriers are used for loading and unloading sample or reagent plates that are fully user-controlled through the VENUS software.

The set temperature is the same on all positions with a maximum temperature of 60 °C and cooling down to 22 °C below ambient temperature. Up to two TCCs can be installed on one STAR instrument. The heating ramp-up time to 60 °C is 20 minutes from room temperature (20 °C), and the cooling ramp-down time to 4 °C is 15 minutes from room temperature (20 °C).

Available Options	Part Number
Multiflex Heating Module – One ANSI/SLAS format labware (up to 60 °C)	188045
Multiflex Cooling Module – One ANSI/SLAS format labware (4 – 15 °C)	188046
Multiflex Heating Cooling Module - One ANSI/SLAS format labware (0 – 99 °C)	808440
Temperature Controlled Carrier (without re-circulator)	188035
Temperature Controlled Carrier (with re-circulator)	182400

CO-RE Tips – 10 µL

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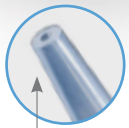
Biological Purity Tested
DNase-/RNase-free Non-pyrogenic

CE IVD



0.3 mm inner diameter of the orifice facilitates precise dosing of micro volumes

Available Options	Part Number	Case
10 µL Conductive Non-Sterile Filter Tips	235901	Case of 5760 tips (Blister 5 x 96 tips/rack)
10 µL Conductive Non-Sterile Non-Filter Tips	235900	Case of 5760 tips (Blister 5 x 96 tips/rack)
10 µL Conductive Sterile Filter Tips	235936	Case of 5760 tips (Blister 5 x 96 tips/rack)
10 µL Conductive Sterile Non-Filter Tips	235935	Case of 5760 tips (Blister 5 x 96 tips/rack)

CO-RE Tips – 50 µL

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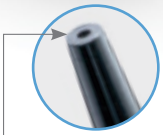
Biological Purity Tested
DNase-/RNase-free Non-pyrogenic

CE IVD



0.4 mm inner diameter of the orifice facilitates precise dosing of micro volumes

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

CO-RE Tips – 300 µL

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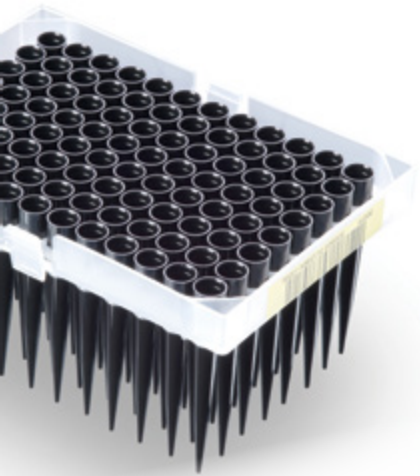
Biological Purity Tested
DNase-/RNase-free Non-pyrogenic

CE IVD



0.4 mm inner diameter of the orifice facilitates precise dosing of micro volumes

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

Piercing CO-RE Tips

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CE IVD

Available Options	Part Number	Case
150 µL Piercing Conductive Non-Sterile Filter Tips	235658	Case of 5760 tips (Blister 5 x 96 tips/rack)
250 µL Piercing Conductive Non-Sterile Non-Filter Tips	235805	Case of 5760 tips (Blister 5 x 96 tips/rack)
150 µL Piercing Conductive Sterile Filter Tips	235649	Case of 5760 tips (Blister 5 x 96 tips/rack)
250 µL Piercing Conductive Sterile Non-Filter Tips	235659	Case of 5760 tips (Blister 5 x 96 tips/rack)

Tip geometry allows pressure compensation while piercing

0.4 mm inner diameter of the orifice facilitates precise dosing of micro volumes

Slim CO-RE Tips

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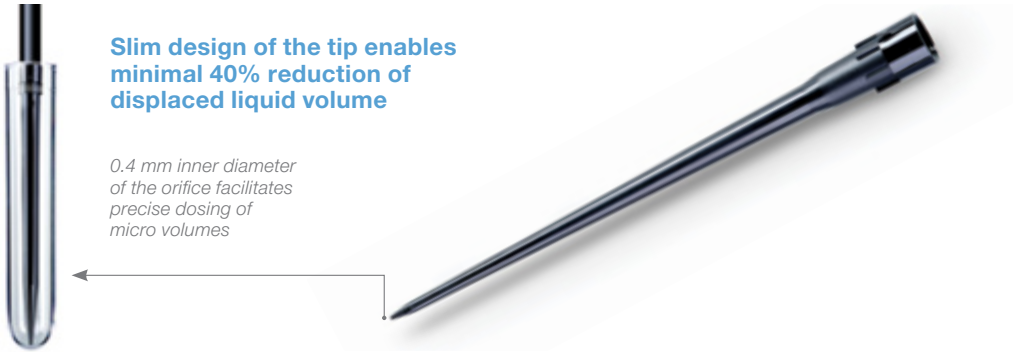
CE IVD

Available Options	Part Number	Case
300 µL Slim Conductive Non-Sterile Filter Tips	235647	Case of 3840 tips (Blister 5 x 96 tips/rack)
300 µL Slim Conductive Non-Sterile Non-Filter Tips	235806	Case of 3840 tips (Blister 5 x 96 tips/rack)
300 µL Slim Conductive Sterile Filter Tips	235646	Case of 3840 tips (Blister 5 x 96 tips/rack)
300 µL Slim Conductive Sterile Non-Filter Tips	235648	Case of 3840 tips (Blister 5 x 96 tips/rack)



Slim design of the tip enables minimal 40% reduction of displaced liquid volume

0.4 mm inner diameter of the orifice facilitates precise dosing of micro volumes

Wide Bore CO-RE Tips – 300 µL

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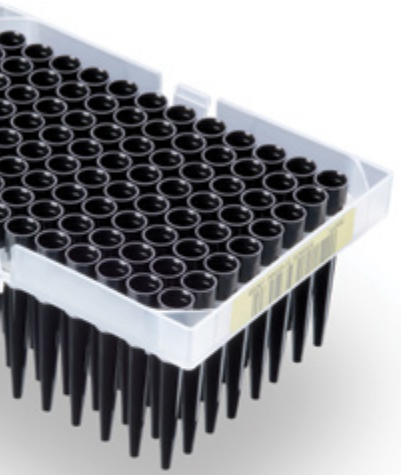
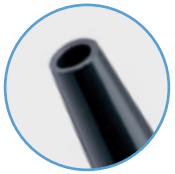
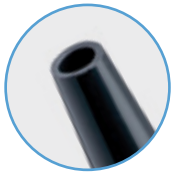
CE IVD



Available Options	Part Number	Case
300 µL Wide Bore (0.71 mm) Conductive Non-Sterile Filter Tips	235452	Case of 5760 tips (Blister 5 x 96 tips/rack)
300 µL Wide Bore (1.55 mm) Conductive Non-Sterile Filter Tips	235449	Case of 5760 tips (Blister 5 x 96 tips/rack)
300 µL Wide Bore (0.71 mm) Conductive Non-Sterile Non-Filter Tips	235688	Case of 5760 tips (Blister 5 x 96 tips/rack)
300 µL Wide Bore (1.55 mm) Conductive Non-Sterile Non-Filter Tips	235451	Case of 5760 tips (Blister 5 x 96 tips/rack)



Orifice 0.71 mm



Orifice 1.55 mm

Wide Bore CO-RE Tips – 1000 µL

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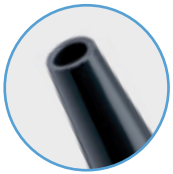
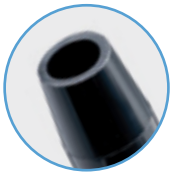
DNase-/RNase-free Non-pyrogenic

CE IVD

Available Options	Part Number	Case
1000 µL Wide Bore (1.2 mm) Conductive Sterile Filter Tips	235677	Case of 3840 tips (Blister 5 x 96 tips/rack)
1000 µL Wide Bore (1.2 mm) Conductive Non-Sterile Filter Tips	235678	Case of 3840 tips (Blister 5 x 96 tips/rack)
1000 µL Wide Bore (1.2 mm) Conductive Non-Sterile Non-Filter Tips	235679	Case of 3840 tips (Blister 5 x 96 tips/rack)
1000 µL Wide Bore (3.2 mm) Conductive Non-Sterile Non-Filter Tips	235444	Case of 3840 tips (Blister 5 x 96 tips/rack)
1000 µL Wide Bore (3.2 mm) Conductive Non-Sterile Filter Tips	235541	Case of 3840 tips (Blister 5 x 96 tips/rack)
1000 µL Wide Bore (3.2 mm) Conductive Sterile Non-Filter Tips	235841	Case of 3840 tips (Blister 5 x 96 tips/rack)
1000 µL Wide Bore (3.2 mm) Conductive Sterile Filter Tips	235842	Case of 3840 tips (Blister 5 x 96 tips/rack)



Orifice 1.2 mm



Orifice 3.2 mm

Rocket CO-RE Tips

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Biological Purity Tested
DNase-/RNase-free Non-pyrogenic

Available Options	Part Number	Case
300 µL Rocket Conductive Non-Sterile Non-Filter Tips 384 to 96 head	235974	Case of 4800 tips (Blister 5 x 96 tips/rack)

0.9 mm inner diameter of the orifice facilitates precise dosing of micro volumes

4-to-1 adapter: Flexible pipetting — no need for a second head or head exchange

CO-RE Tips – 1000 µL

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Biological Purity Tested
DNase-/RNase-free Non-pyrogenic

CE IVD

Available Options	Part Number	Case
1000 µL Clear Non-Sterile Filter Tips	235820	Case of 3840 tips (Blister 5 x 96 tips/rack)
1000 µL Clear Non-Sterile Non-Filter Tips	235822	Case of 3840 tips (Blister 5 x 96 tips/rack)
1000 µL Clear Sterile Filter Tips	235821	Case of 3840 tips (Blister 5 x 96 tips/rack)
1000 µL Clear Sterile Non-Filter Tips	235823	Case of 3840 tips (Blister 5 x 96 tips/rack)
1000 µL Conductive Non-Sterile Filter Tips	235905	Case of 3840 tips (Blister 5 x 96 tips/rack)
1000 µL Conductive Non-Sterile Non-Filter Tips	235904	Case of 3840 tips (Blister 5 x 96 tips/rack)
1000 µL Conductive Sterile Filter Tips	235940	Case of 3840 tips (Blister 5 x 96 tips/rack)
1000 µL Conductive Sterile Non-Filter Tips	235939	Case of 3840 tips (Blister 5 x 96 tips/rack)

0.7 mm inner diameter of the orifice facilitates precise dosing of micro volumes

CO-RE Tips – 4000 and 5000 µL

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Biological Purity Tested
DNase-/RNase-free Non-pyrogenic
CE IVD

Available Options	Part Number	Case
4000 µL Conductive Non-Sterile Filter Tips; 4 Tips/Sheath	194053	Case of 96 tips (4 tips/sheath, individual bagged)
4000 µL Conductive Non-Sterile Filter Tips	184021	Case of 720 tips (Blister 5 x 24 tips/rack)
4000 µL Conductive Sterile Filter Tips	184023	Case of 720 tips (Blister 5 x 24 tips/rack)
5000 µL Conductive Non-Sterile Non-Filter Tips; 4 Tips/Sheath	194050	Case of 96 tips (4 tips/sheath, individual bagged)
5000 µL Conductive Non-Sterile Non-Filter Tips	184020	Case of 720 tips (Blister 5 x 24 tips/rack)
5000 µL Conductive Sterile Non-Filter Tips	184022	Case of 720 tips (Blister 5 x 24 tips/rack)

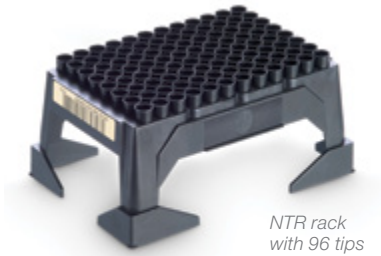
Each tip is physically separated by individual sheaths for contamination-free tip loading.

1.05 mm inner diameter of the orifice facilitates precise dosing of micro volumes

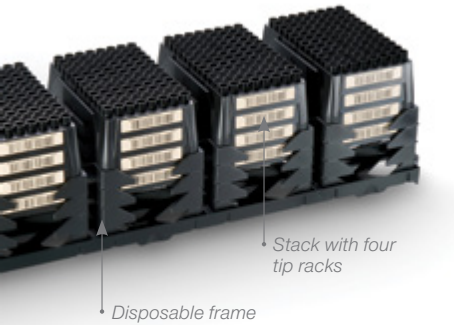
Nested 96 CO-RE Tip Racks

Certified
Biological Purity Tested
DNase-/RNase-free Non-pyrogenic

CE IVD



NTR rack with 96 tips



Stack with four tip racks

Disposable frame

The racks are compatible with iSWAP, CO-RE Gripper and HMotion

Available Options	Part Number	Case
10 µL Nested Clear Non-Sterile Non-Filter Tips	235971	Case of 11520 tips (NTR 5 x 4 stack)
10 µL Nested Conductive Non-Sterile Non-Filter Tips	235949	Case of 11520 tips (NTR 5 x 4 stack)
10 µL Nested Conductive Sterile Non-Filter Tips	235983	Case of 11520 tips (NTR 5 x 4 stack)
50 µL Nested Clear Non-Sterile Non-Filter Tips NTR	235964	Case of 11520 tips (NTR 5 x 4 stack)
50 µL Nested Conductive Non-Sterile Non-Filter Tips NTR	235947	Case of 11520 tips (NTR 5 x 4 stack)
50 µL Nested Conductive Sterile Non-Filter Tips NTR	235987	Case of 11520 tips (NTR 5 x 4 stack)
300 µL Nested Clear Non-Sterile Non-Filter Tips NTR	235965	Case of 11520 tips (NTR 5 x 4 stack)
300 µL Nested Conductive Non-Sterile Non-Filter Tips NTR	235950	Case of 11520 tips (NTR 5 x 4 stack)
300 µL Nested Conductive Sterile Non-Filter Tips NTR	235985	Case of 11520 tips (NTR 5 x 4 stack)

Nested 384 CO-RE Tip Racks

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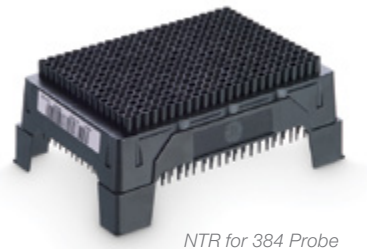
Biological Purity Tested
DNase-/RNase-free Non-pyrogenic

NTR for 384 Probe Head stacked with 96 tips



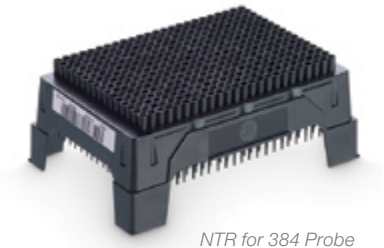
NTR for 384 Probe Head stacked with 384 tips

Available Options	Part Number	Case
50 µL Nested Clear Non-Sterile Non-Filter Tips 384 NTR	235446	Case of 7680 tips (NTR 5 x 4 stack; 384 tips/rack)
50 µL Nested Clear Non-Sterile Non-Filter Tips 384/96 NTR	235447	Case of 1920 tips (NTR 5 x 4 stack; 96 tips/rack)
50 µL Nested Conductive Non-Sterile Non-Filter Tips 384 NTR	235989	Case of 7680 tips (NTR 5 x 4 stack; 384 tips/rack)
50 µL Nested Conductive Non-Sterile Non-Filter Tips 384/96 NTR	235993	Case of 1920 tips (NTR 5 x 4 stack; 96 tips/rack)
50 µL Nested Conductive Sterile Non-Filter Tips 384 NTR	235694	Case of 7680 tips (NTR 5 x 4 stack; 384 tips/rack)
50 µL Nested Conductive Sterile Non-Filter Tips 384/96 NTR	235695	Case of 1920 tips (NTR 5 x 4 stack; 96 tips/rack)

Nested 384 Filtered CO-RE Tip Racks

Certified
Biological Purity Tested
DNase-/RNase-free Non-pyrogenic

NTR for 384 Probe Head stacked with 96 tips



NTR for 384 Probe Head stacked with 384 tips

Available Options	Part Number	Case
50 µL Nested Conductive Non-Sterile Filter Tips 384 NTR	235843	(NTR 10 x 1 stack; 384 tips/rack)
50 µL Nested Conductive Non-Sterile Filter Tips 384/96 NTR	235845	(NTR 10 x 1 stack; 384 tips/rack)
50 µL Nested Clear Non-Sterile Filter Tips 384 NTR	235857	(NTR 10 x 1 stack; 384 tips/rack)
50 µL Nested Clear Non-Sterile Filter Tips 384/96 NTR	235859	(NTR 10 x 1 stack; 96 tips/rack)
50 µL Nested Conductive Sterile Filter Tips 384 NTR	235844	(NTR 10 x 1 stack; 384 tips/rack)
50 µL Nested Conductive Sterile Filter Tips 384 NTR	235846	(NTR 10 x 1 stack; 96 tips/rack)
50 µL Nested Clear Sterile Filter Tips 384 NTR	235585	(NTR 10 x 1 stack; 384 tips/rack)
50 µL Nested Clear Sterile Filter Tips 384/96 NTR	235860	(NTR 10 x 1 stack; 96 tips/rack)

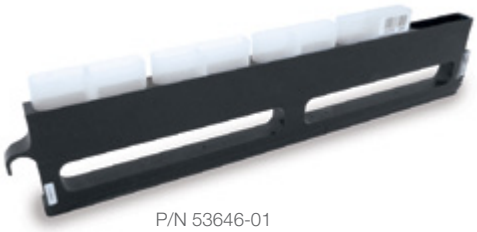
0.4mm inner diameter of the orifice facillitates precise dosing of micro volumes

Reagent Containers – 50/60 mL

Certified
Biological Purity Tested
DNase-/RNase-free Non-pyrogenic
CE IVD

Available Options	Part Number	Packaging	Compatible Reagent Carrier	Max Volume	Material	Dimensions/ Measurements
50/60 mL Black Reagent Trough, Self-Standing with Lid	 56694-03	20 troughs/case	P/N 53646-01 Trough Carrier holds 5 x 50 mL, 1T P/N 61052-01 NIMBUS Reagent Trough Pedestal 5 x 50 mL	60 mL	PP	W: 89.7 mm D: 20.0 mm H: 64.4 mm
50/60 mL Reagent Troughs	 187297	12 troughs/case	P/N 188047 Multiflex Reagent Trough Module P/N 187299 Trough Carrier 5 x 50 mL, 1T	60 mL	PP	W: 89.7 mm D: 20.0 mm H: 60.0 mm

PP = Polypropylene


P/N 53646-01


P/N 61052-01


P/N 188047

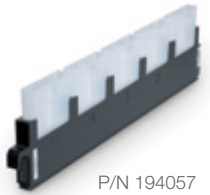

P/N 187299

Reagent Containers – 50/60 mL (Cont.)

Certified
Biological Purity Tested
DNase-/RNase-free Non-pyrogenic
CE IVD

Available Options	Part Number	Packaging	Compatible Reagent Carrier	Max Volume	Material	Dimensions/ Measurements
50/60 mL Reagent Trough, Self-Standing with Lid	 56694-01	Individually wrapped, 28 troughs/ case	P/N 53646-01 Trough Carrier holds 5 x 50/60 mL, 1T P/N 61052-01 NIMBUS Reagent Trough Pedestal 5 x 50/60 mL	60 mL	PP	W: 89.7 mm D: 20.0 mm H: 64.8 mm
50/60 mL Black Reagent Trough, Self-Standing with Lid	 56694-02	Individually wrapped, 28 troughs/ case	P/N 53646-01 Trough Carrier holds 5 x 50 mL, 1T P/N 61052-01 NIMBUS Reagent Trough Pedestal 5 x 50/60 mL	60 mL	PP	W: 89.7 mm D: 20.0 mm H: 64.8 mm
50/60 mL Reagent Trough, Self-Standing without Lid	 194051	Individually wrapped, 28 troughs/ case	P/N 194057 Trough Carrier holds 5 x 50/60 mL, 1T P/N 53646-01 Trough Carrier holds 5 x 50/60 mL, 1T P/N 61052-01 NIMBUS Reagent Trough Pedestal 5 x 50/60 mL	60 mL	PP	W: 89.7 mm D: 20.0 mm H: 64.8 mm

PP = Polypropylene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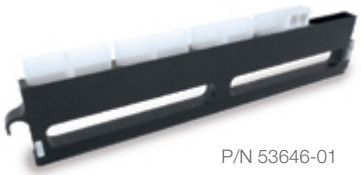

P/N 53646-01

Reagent Containers – 100 mL

Certified
Biological Purity Tested
DNase-/RNase-free Non-pyrogenic

CE IVD

Available Options	Part Number	Packaging	Compatible Reagent Carrier	Volume	Material	Dimensions/ Measurements
100 mL Reagent Trough, without Lid	 137257	20 troughs/case	P/N 182080 Trough Carrier holds 12 x 100 mL, 6T	100 mL	PP	W: 112.2 mm D: 26.0 mm H: 49.0 mm

PP = Polypropylene

P/N 182080

Reagent Containers – 120 mL

Available Options	Part Number	Packaging	Compatible Reagent Carrier	Volume	Material	Dimensions/ Measurements
120 mL Reagent Trough, Self-Standing without Lid	 194052	Individually wrapped, 12 troughs/case	P/N 194058 Trough Carrier, 1T holds 3 x 120 mL	120 mL	PP	W: 142.8 mm D: 19.1 mm H: 80.0 mm
120 mL Reagent Trough, Barcode Label included without Lid	 182703	Individually wrapped, 12 troughs/case	P/N 185290 Trough Carrier, 1T holds 3 x 120 mL	120 mL	PP	W: 155.9 mm D: 21.1 mm H: 91.5 mm

PP = Polypropylene

P/N 185290

P/N 194058

Reagent Containers – 200 mL

Certified
Biological Purity Tested
DNase-/RNase-free Non-pyrogenic

CE IVD

Available Options	Part Number	Packaging	Compatible Reagent Carrier	Volume	Material	Dimensions/ Measurements
200 mL Reagent Trough, Self-Standing with Lid	 56695-01	Individually wrapped, 10 troughs/case	P/N 53645-01 Trough Carrier, 2T holds 4 x 200 mL	200 mL	PP	W: 118.8 mm D: 37.1 mm H: 93.7 mm
200 mL Black Reagent Trough, Self-Standing with Lid	 56695-02	Individually wrapped, 10 troughs/case	P/N 53645-01 Trough Carrier, 2T holds 4 x 200 mL	200 mL	PP	W: 118.8 mm D: 37.1 mm H: 93.7 mm

PP = Polypropylene

P/N 53645-01

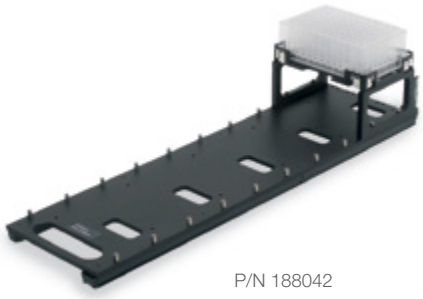
Reagent Containers – 300 and 400 mL

Certified
Biological Purity Tested
DNase-/RNase-free Non-pyrogenic
CE IVD

Available Options	Part Number	Packaging	Compatible Reagent Carrier	Volume	Material	Dimensions/ Measurements
300 mL Reagent Trough ANSI/SLAS	 4750-01	Individually wrapped	Standard ANSI/ SLAS carriers and pedestals	300 mL	HDPE	W: 124.0 mm D: 82.0 mm H: 44.0 mm
300 mL Reagent Trough ANSI/SLAS	 56669-01	Individually wrapped, 5 troughs/case	Standard ANSI/ SLAS carriers and pedestals	300 mL	PP	W: 124.0 mm D: 82.0 mm H: 44.0 mm

PP = Polypropylene
HDPE = High Density Polyethylene


P/N 182065


P/N 188042


P/N 194058

Deep-well Plates (DWP)

Certified
Biological Purity Tested
DNase-/RNase-free Non-pyrogenic
CE IVD

Available Options	Part Number	Packaging	Volume	Material	Dimensions/ Measurements
1.2 mL Deep-well Plate	6471-01	32 plates/case 4 plates/bag	Round wells/1.2 mL	PS Autoclavable	W: 126.3 mm D: 84.7 mm H: 40.6 mm
1.2 mL Deep-well Plate	6472-01	32 plates/case 4 plates/bag	Round wells/1.2 mL	PS Transparent	W: 126.3 mm D: 85.5 mm H: 40.6 mm
1.2 mL Deep-well Plate, with barcode	235655	32 plates/case 4 plates/bag	Round wells/1.2 mL	PS Transparent	W: 126.3 mm D: 85.5 mm H: 40.6 mm

PS = Polystyrene

Autoclavable

Transparent

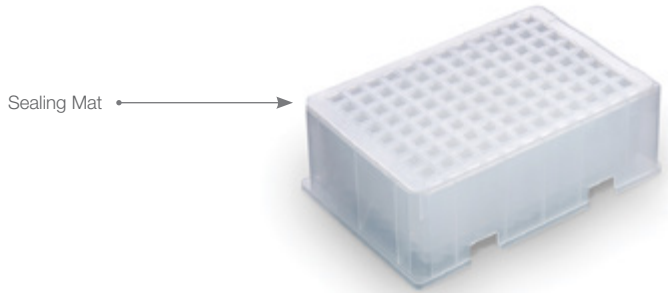
Deep-well Plates (DWP) (Cont.)

Certified
Biological Purity Tested
DNase-/RNase-free Non-pyrogenic

CE IVD

Available Options	Part Number	Packaging	Volume	Material	Dimensions/ Measurements
2.2 mL Deep-well Plate	6473-01	32 plates/case 4 plates/bag	Square wells round bottom/2.2 mL	PP Autoclavable	W: 127.5 mm D: 85.5 mm H: 44.0 mm
2.2 mL Deep-well Plate, with barcode	235656	32 plates/case 4 plates/bag	Square wells round bottom/2.2 mL	PP Autoclavable	W: 127.5 mm D: 85.5 mm H: 44.0 mm
Sealing Mat for 2.2 mL Plates	6474-01	50 mats/case 10 mats/bag	—	EVA	W: 121.5 mm D: 78.8 mm H: 4.7 mm

PP = Polypropylene
EVA = Ethylene Vinyl Acetate



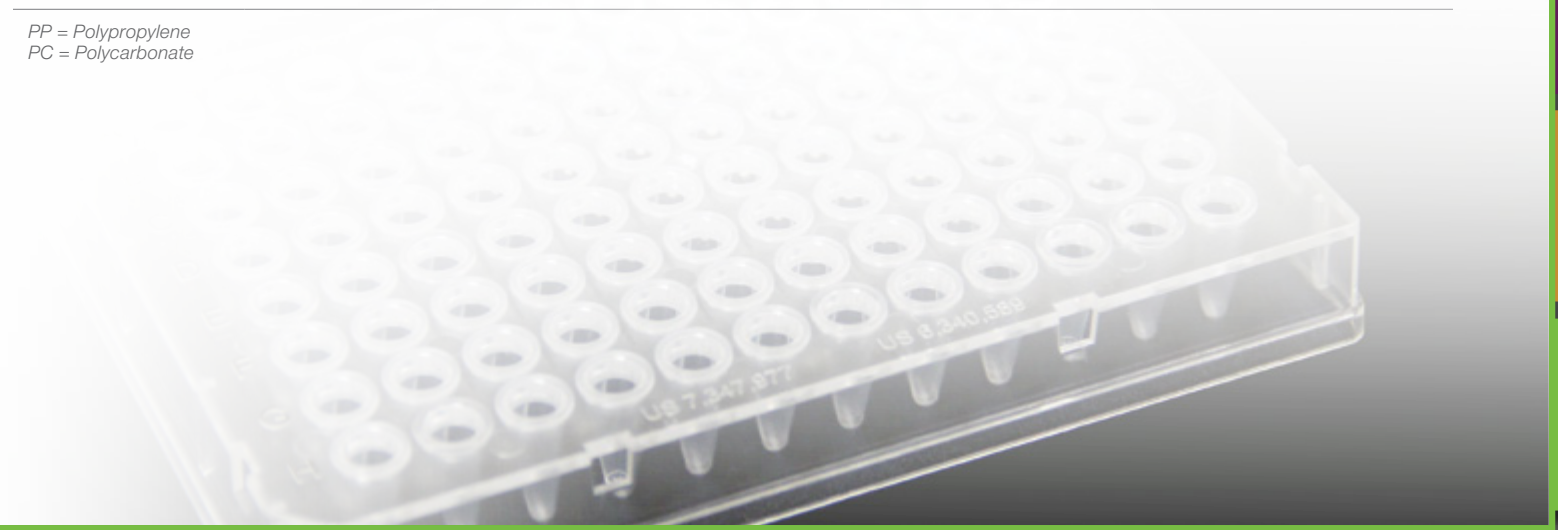
Autoclavable

PCR FramePlate

The rigid design eliminates warping and distortion during PCR, making it ideal for use with robotic devices like the ODTC.

Available Options	Part Number	Packaging	Material	Features	Dimensions/ Measurements
96-well PCR FramePlate	814302	50 plates/case 10 plates/bag	PP plate/PC frame, autoclavable	Full skirted, low profile 200 µL wells	W: 127.8 mm D: 85.5 mm H: 16.1 mm
384-well PCR FramePlate	814305	50 plates/case 10 plates/bag	PP plate/PC frame, autoclavable	Full skirted, low profile 30 µL wells	W: 127.8 mm D: 85.5 mm H: 10.6 mm

PP = Polypropylene
PC = Polycarbonate



FlipTubes

Certified
Biological Purity Tested
DNase-/RNase-free Non-pyrogenic

Certified
Biological Purity PLUS
Human-DNA-free, DNase-/RNase-free, Non-pyrogenic, ATP-free, Sterile

FlipTubes are the first automated microcentrifuge tube that can be used for manual and automation processing.

- Contamination-free manual and automated tube opening
- Unique lid design for automated opening and closing using the FlipTube Tool
- Precise lid sealing to minimizing sample evaporation
- Optical control with graduated lines marked at 0.1, 0.5, 1.0, and 1.5 mL
- Large frosted lid and surface on the side for easy marking

Available Options	Part Number	Case
FlipTube A	235454	500 tubes/bag 2000 tubes/case
FlipTube A Biological purityplus, sterile	235693	100 tubes/bag 2000 tubes/case
FlipTube A Biological purity tested, non-sterile	235692	500 tubes/bag 2000 tubes/case
FlipTube 24-well ANSI/SLAS Rack	814270	5 racks/case

AutoLys Tubes

Certified
Biological Purity PLUS
Human-DNA-free, DNase-/RNase-free, Non-pyrogenic, ATP-free, Sterile

The AutoLys 24-well ANSI/SLAS format rack is available for easy processing. This AutoLys rack is designed as an ideal solution for automated barcode reading from the bottom, while featuring a special design to hold tubes in place during the lift-and-lock automated lysis process.

Proprietary AutoLys Tube with 2D barcode ensures chain-of-custody is maintained.

Available Options	Part Number	Case
AutoLys A Tube for automated processing	235542	25 tubes/bag, 250 tubes/case
AutoLys A Tube for automated processing	235478	100 tubes/bag, 500 tubes/case
AutoLys Rack, 24 wells	235459	20 racks/case

Adhesive Plate Seals

Available Options	Part Number	Case
Foil Plate Seals	67760-01	Pkg of 50, 100/case
Optically Clear Plate Seals	67765-01	Pkg of 50, 100/case

Waste Bags

Description	Part Number	Packaging	Thickness	Material	Dimensions/ Measurements
Waste Bags, NIMBUS and STAR	199202	25 bags/roll	100 µm	PE	L: 500 mm W: 460 mm
Biohazard Waste Bags, NIMBUS and STAR	52892-01	25 bags/roll	100 µm	PE	L: 500 mm W: 460 mm
Waste Bags, NIMBUS Enclosed and NIMBUS4 Open	53686-01	100 bags/roll	80 µm	PE	L: 250 mm W: 200 mm D: 300 mm
Waste Bags, NIMBUS Extended Enclosed Vibratory Waste	68069-01	25 bags/roll	4 MIL	PE	L: 330 mm W: 600 mm
Waste Bags, NIMBUS4 and NIMBUS96 Open	199202	25 bags/roll	1 MIL	PE	L: 100 mm W: 500 mm
Biohazard Waste Bags, STAR	199203	200 bags/roll	4 MIL/Low Density Gusseted	PE	L: 450 mm W: 210 mm D: 370 mm
Clear Waste Bags, STAR, use with waste container (P/N 53873-01)	65803-01	250 bags/roll	4 MIL/Low Density Gusseted	PE	L: 610 mm W: 230 mm D: 380 mm

PE = Polyethylene

Disposable waste bags
P/N 199202

Disposable waste bags
for hazardous waste
P/N 199203

Waste Bags (Cont.)

Available Options	Part Number	Packaging	Thickness	Material	Dimensions/ Measurements
Large Waste Bags, Microlab VANTAGE	92512-01	25 bags	6 MIL	PE	L: 610 mm W: 175 mm D: 580 mm
Large Biohazard Waste Bags, Microlab VANTAGE	92530-01	25 bags	6 MIL	PE	L: 610 mm W: 175 mm D: 580 mm
Small Waste Bags, Microlab VANTAGE	92513-01	25 bags	6 MIL	PE	L: 610 mm W: 175 mm D: 580 mm
Small Biohazard Waste Bag, Microlab VANTAGE	92531-01	25 bags	6 MIL	PE	L: 610 mm W: 175 mm D: 580 mm
Liquid Waste Bag, Microlab VANTAGE	67039-01	1 bag	6 MIL	PE	L: 330 mm W: 175 mm D: 580 mm
Benchtop Waste Bag, Microlab VANTAGE, use with BenchTop Waste (P/N 818029)	818604	25 bags	100 µm	PE	L: 330 mm W: 175 mm D: 580 mm

PE = Polyethylene

Waste Chute Liners

The waste chute liners are open and perforated on both sides.

Available Options	Part Number	Packaging	Thickness	Material	Dimensions/ Measurements
Plastic Chute Liner, STAR, use with Waste Container (P/N 281520)	185319	10 liners/roll	100 µm	PE	L: 700 mm W: 460 mm
BioHazard Plastic Chute Liner, STAR, use with Waste Container (P/N 281521)	199201	10 bags/roll	100 µm	PE	L: 700 mm W: 460 mm
Solid Waste Chute Liner, Microlab VANTAGE	92521-01	10 bags/roll	4 MIL	PE	L: 270 mm

PE = Polyethylene

Waste Container

Available Options	Part Number	Packaging	Thickness	Material	Dimensions/ Measurements
Biohazard Waste Container, NIMBUS, STAR, Microlab VANTAGE	281520	10 boxes/package, interfolded	120 µm/Container Carton in white 1200 g/m² includes disposable yellow bag	PE	W: 300 mm D: 300 mm H: 500 mm Wt: 1.5 kg
Liquid and Tip Waste System Container, STAR	53683-01	1 container	—	HDPE	L: 210 mm W: 215 mm D: 360 mm
Large Waste Container, Microlab VANTAGE	92514-01	10 boxes/package, interfolded	—	Cardboard	L: 610 mm W: 185 mm D: 585 mm
Small Waste Container, Microlab VANTAGE	92515-01	1 container	—	Cardboard	L: 610 mm W: 185 mm D: 290 mm
Liquid Waste Container, Microlab VANTAGE	67036-01	1 container	—	Cardboard	L: 330 mm W: 185 mm D: 290 mm

PE = Polyethylene
HDPE = High Density Polyethylene

Container for hazardous waste P/N 281520

Waste Bottles

Available Options	Part Number	Packaging	Material	Capacity
9 L Liquid Waste Bottle, Microlab VANTAGE	67055-01	1 bottle	HPDE	9 L
6 L Bottle, NIMBUS, STAR, Microlab VANTAGE	68521-01	1 bottle	HPDE	6 L
4 L Waste Bottle Assembly, NIMBUS, STAR, Microlab VANTAGE, includes connectors	281540	1 bottle	HPDE	4 L
2 L Bottle, NIMBUS, STAR, Microlab VANTAGE	68512-01	1 bottle	HPDE	2 L

HDPE = High Density Polyethylene

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

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.

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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.

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Process Analytics includes innovative solutions for the online 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.

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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.

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