Aurora

VERSA 1100

SOLUTIONS FOR LABORATORY AUTOMATION

GENOMICS

IMMUNOLOGY

DIAGNOSTICS

DRUG DISCOVERY

VERSA™ 1100

Liquid Handling Workstation

The VERSA 1100 automated liquid handling workstation revolutionizes research and development in laboratories around the world. This system maximizes accuracy, precision and throughput while minimizing time and consumable costs. It offers flexibility in volume range, liquid handling modules, deck modules and labware adapters for custom applications used in specific protocols.

Industrial Sectors

- Academic
- Government
- Pharmaceutical industry
- Hospital & health care
- Blood banks
- Disease surveillance
- Clinical and molecular diagnostics
- Environmental research
- Agriculture research
- Forensics and security
- Food and nutrition

Features & Benefits

- Large volume range (nL to mL)
- Multi-channel head, with options such as:
  - 8 channel SyringePipettor (one channel can Be used independently for master-mix preparation, cherry picking, etc)
  - 5 - 8 channel ReagentDrop cluster for dispensing reagents
- Disposable tip changer and autoclavable tubes reduce cross-contamination issues
- Compatible with most commercially available reagents
- User friendly drag-and-drop software
- UV / Fluorescent light / HEPA-filter hood option
- Aqueous / Organic solvent compatibility
- Small footprint
- Other deck modules available (see deck modules)
- Integratable with third party equipment

Applications

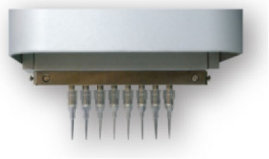
- Nucleic Acid Isolation and Purification (NAP)
- PCR Reaction Setup / Clean up
- DNA / RNA Restriction / Digestion / Ligation
- Next Generation Library Preparation (NGLP)
- Solid Phase Reversible Immobilization (SPRI)
- Sequencing Reaction Setup
- Oligo-Based Gene Synthesis
- Reverse Transcription
- Protein Purification
- Solid Phase Extraction (SPE)
- Liquid Liquid Extraction (LLE)
- Cell-based Assays
- Enzyme-Linked Immunoassay (ELISA)
- Plate Replication
- Cherry Picking
- General Liquid Handling
- General and Serial Dilution

Liquid Handling Modules

Independent Modules

SyringePipettor

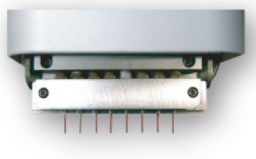
Three optional syringe sizes, 25µL, 250µL or 1000µL afford the SyringePipettor unparalleled volume range, making it ideal for multi-step applications.



8 Channel SyringePipettor

NanoPipettor

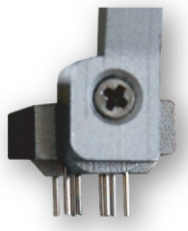
Offering efficient aspirating and dispensing functions ranging from nL to µL ranges, the NanoPipettor module is ideal for generating parallel dilution series and performing array printing.



8 Channel NanoPipettor

ReagentDrop

This dispense-only module is capable of delivering as many as five to eight separate reagents from independent reagent reservoirs. The ReagentDrop delivers fast and reliable bulk dispensing of liquids in the µL to mL range.



5 - 8 Cluster Reagent Drop

Combination Modules

The liquid-handling modules previously listed can be combined in many configurations.

Dual Module Manifold: Combines an eight channel NanoPipettor or SyringePipettor and five to eight ReagentDrop modules.

Triple Module Manifold: Combines an eight channel SyringePipettor with five to eight ReagentDrop modules, and a single channel module.

General Specifications

VOLUME	1µL to 1000µL
PRECISION	CV value <5% at 1µL, <3% at 2µL (SyringePipettor); CV Value <3% at 2µL (Reagent Drop)
DECK CAPACITY	15 Positions
PIPETTE TIPS	20µL, 50µL, 200µL and 1000µL standard (96-well racked)
PIPETTING HEAD MODULE	8-channel SyringePipettor with one independent channel with cluster of five to eight pin ReagentDrop
DIMENSIONS	W 62 x L 93 x H 62 cm
WEIGHT	Approximately 60kg (weight varies depending on deck module options)
SOFTWARE	Customized user-friendly VERSAware software featuring simple on-screen prompts and drop-down menus
COMPUTER SYSTEM	Computer and Windows Operating Software

Deck Modules

To easily automate different applications, the VERSA 1100 workstation can be equipped with a variety of deck modules, including:

Reagent Cooler / Heater Block

Plate Cooler / Heater Block

Plate Shaker

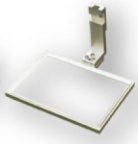
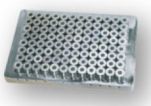
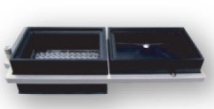


Plate Transporter

Gripper



Magnetic Block

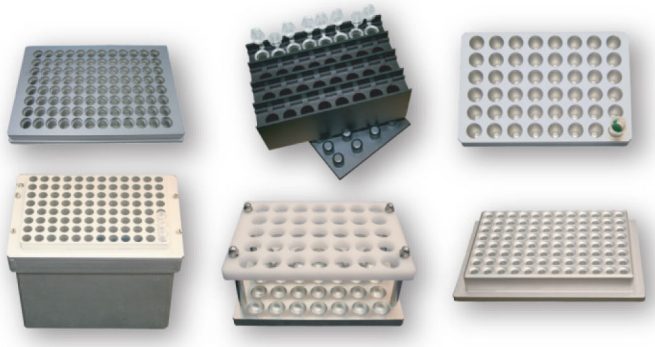


Vacuum Manifold

Barcode Reader

LabWare Adapters

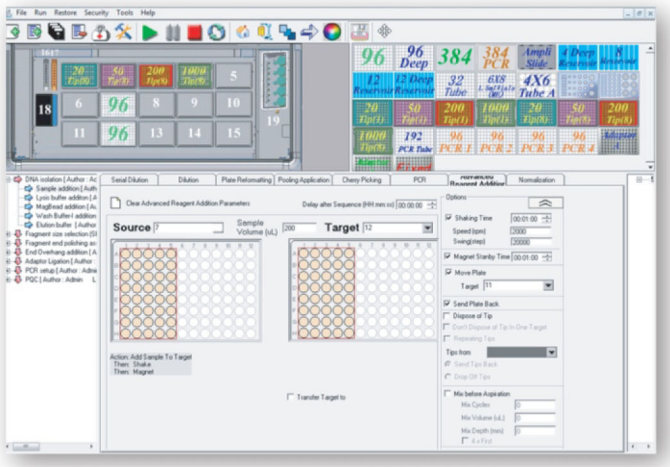
The VERSA 1100 workstation is compatible with a number of labware options: 96 and 384-well plates, PCR tubes and strips and a variety of vial and tube sizes. Aurora's large collection of adaptors ensures that almost any type of labware can be used.



The VERSA 1100 workstation is compatible with validated automation-style disposable tips. Filtered and standard tips are available in a variety of sizes (ie. 10µL, 20µL, 50µL, 100µL, 200µL and 1000µL).

Software & Deck

Various tabs within the VERSAware software window enhance the underlying versatility of the workstation by allowing the user to perform diverse liquid handling functions. Customized methodologies are easy to create, save, edit, rearrange and load into the library of stored protocols using import and export functions within the software. In addition, general liquid handling protocols including reagent addition, dilution, plate reformatting and cherry picking are also available. These features allow complete customization of protocols and push-button operation.



VERSA™ 1100
Application Workstations

The VERSA 1100 workstation can be configured to accommodate protocols with diverse needs. Whether a workflow requires accurate temperature control, precise handling of small volumes, or customized liquid handling, the workstation provides an exceptional solution. The platform has the competence to exceed expectations and the flexibility to handle a wide array of bench work. Numerous methods that are widely used have been automated with different formats of the VERSA 1100 workstation, and the system remains customizable to accommodate unique needs.

Nucleic Acid Purification / PCR Setup / Next Generation Library Prep

The VERSA NAP (Nucleic Acid Purification) / PCR Setup / NGLP (Next Generation Library Prep) workstations offer complete walk–away automation for genomic research needs. This open platform allows researchers to continue using the chemistries they are comfortable with.

Enzyme-Linked Immunoassay / Time Resolved Fluorescence Assay

Both the VERSA ELISA (Enzyme-Linked Immunoassay) and the VERSA TRF (Time Resolved Fluorescence) workstations provide complete automation for labour-intensive proteomic protocols. On-deck plate readers and barcode scanners permit researchers to increase throughput and reduce manual intervention.

Spotting / Microarray

The VERSA Spot Printing workstation aspirates and dispenses sub-microliter volumes for arraying applications in either contact or non-contact printing operations. The workstation is designed to handle genomic, proteomic and biosensor research. By reducing the time, materials and costs related to specimen-based marker validation, the VERSA Spot Printing workstation offers increased efficiency along with consistent results.

Solid Phase Extraction / Liquid Liquid Extraction

The VERSA SPE (Solid Phase Extraction) workstation is outfitted with either positive pressure or negative pressure (vacuum) modules used during the extraction process. With genomic, proteomic, LC/MS, clinical diagnostic, forensic and food and beverage applications in mind, Aurora designed the system to provide efficient and flexible solid phase extraction. Industry standard 1, 3, and 6 mL SPE cartridges and 96 well microplates are all compatible with the workstation. Similarly, the VERSA LLE (Liquid Liquid Extraction) workstation is a small footprint system designed to perform sample addition to aqueous or organic solvents for extraction purposes.

Customization

The VERSA automated liquid handling system employs two types of robotic arm function: liquid handling and plate transport. With these two types of arms, various liquid handling modules, and a diverse range of deck modules, the VERSA liquid handling series specifications can be customized to match the user's application needs.

Aurora

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