Agilent Vertical Pipetting Station

Data Sheet

Applications

1. General Liquid Handling
2. Plate Replication and Reformatting
3. PCR Preparation and Cleanup
4. Serial Dilutions and more...

Introduction

The Agilent Vertical Pipetting Station delivers industry-leading speed and unparalleled performance for sample handling and liquid-transfer applications.

The Vertical Pipetting Station is the fastest precision pipettor on the market. The Vertical Pipetting Station features a choice of interchangeable 8-, 16-, 96-, and 384-channel heads. Eight sliding shelves are arranged on either side of the pipetting head permitting access to the microplates while conserving deck space. The Vertical Pipetting Station's head is fitted with a two-axis positioning stage, providing access to all quadrants of 96-, 384-, and 1536-well microplates. The shelves can be custom fitted with vacuum manifolds (to position warped PCR microplates), autofilling reagent shelves, or a tip-washing station. An intuitive user interface allows the operator to create and run complex pipetting protocols with ease. Available either as a stand-alone unit or integrated into a larger robotic platform, the Vertical Pipetting Station will significantly reduce cycle time for your most demanding pipetting protocols.

Agilent VWorks Automation Control software

The Vertical Pipetting Station is powered by the proven Agilent VWorks Automation Control software, whose outstanding dynamic scheduling, easy-to-use interface, and innovative error recover technology allows complete control that is easy for all levels of operators. Users have control over volume calibration factors, pipetting speeds and accelerations, tip touching as well as fine control over the motion of the head and tips into and out of labware as required.

Pipetting Performance

When the power of VWorks software is coupled with the precision engineering of Agilent fixed or disposable pipette tips, the result is industry-leading pipetting performance. Agilent pipette tips are built to exacting standards, providing users with confidence in their liquid transfer precision and accuracy. The following tables highlight the performance you can expect from a Vertical Pipetting Station.

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Features & Benefits

Performance

- Cycle Time
  10-second microplate transfer CRW (load tips, aspirate 40 µL from microplate 1, dispense 40 µL into microplate 2, eject tips)
- Precision
  ± 0.025mm X/Y/Z positioning
- Capacity
  8 shelf positions

Labware Compatibility

- Microplates
  ANSI-compliant microplates and reservoirs, PCR microplates, tube racks, and septum tubes in 96-, 384-, and 1536-well.
- Pipette Tips
  Agilent certified thin-walled, low-retention tips in 96- and 384-formats

Additional Information

Pipetting

Disposable Tips

Head	Tip Type	Range	Min. Certified Volume*
96LT	200 µL	1 µL - 200 µL	2 µL
96ST	10 µL	300 nL - 10 µL	300 nL
	30 µL	300 nL - 30 µL	500 nL
	70 µL	750 nL - 70 µL	750 nL
384ST	10 µL	300 nL - 10 µL	300 nL
	30 µL	300 nL - 30 µL	500 nL
	70 µL	750 nL - 70 µL	750 nL

Fixed Tips

Head	Tip Type	Range	Min. Certified Volume*
96F200	Fixed	50 nL - 200 µL	500 nL
96F50	Fixed	20 nL - 50 µL	100 nL
384F50	Fixed	20 nL - 50 µL	100 nL

*Wet transfer of an aqueous solution measured by absorbance with <5% CV. Smaller volumes at higher CVs are possible.

Available Head Types

Disposable Tip Heads

Head	Max. Vol.	Format
8LT	200 µL	8 and serial dilution
16ST	70 µL	16 and serial dilution
96LT	200 µL	96 and 384
96ST	70 µL	96 and 384
384ST	70 µL	384 and 1536

Fixed Tip Heads

Head	Max. Vol.	Format
8F200	200 µL	8, 96 and 384
96F50	50 µL	96 and 384
96F200	200 µL	96 and 384
384F50	50 µL	384 and 1536

*LT heads utilize LT style pipette tips, ST heads utilize ST style pipette tips

Specifications

Operating Requirements

Electrical: 110–240 VAC, 50/60 Hz, 5A

Operating Temperature: 4–40 °C

Air: 28 Lpm at 6.2–6.9 bar
[1 cfm at 90–100 psi]

Vacuum: 63.5 cm Hg at 14 Lpm [25 in Hg at >0.5 cfm] (for vacuum shelves only)

Software: VWorks Automation Control software, ActiveX control

Controller: Windows 2000 or Windows XP Interface RS-232 serial port with DB9 pin connector

Certification: CE certified and built to meet UL standards

Machine Specifications

Width: 38.1 cm [15.0 in]
Depth: 25.9 cm [10.2 in]
Height: 78.7 cm [31.0 in]
Weight: 37.2 kg [82 lbs]

Part No.	Description
G5401A	Agilent Vertical Pipetting Station

Tip Type	Part Number	Min. Certified Value*
96LT 60 µL	06879-102	2.0 µL
96LT 200 µL	06880-102	2.0 µL
384ST 10 µL	10734-202	0.3 µL
384ST 30 µL	11484-202	0.5 µL
384ST 50 µL	06881-102	1.0 µL
384ST 70 µL	19133-102	0.75 µL

*Typical data utilizing optimized conditions with DMSO and tartrazine dye during dry dispensing

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