

3100 Series

Automatic Liquid Handling Workstation



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Analytical Technologies Limited

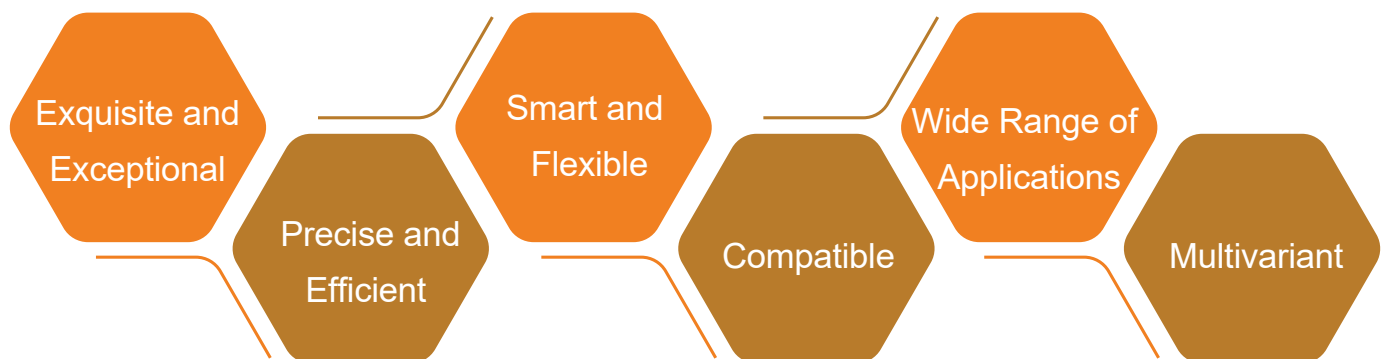
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3100 Series automatic liquid handling workstation is a flexible and customizable platform designed for open pipetting applications. They are developed to adapt to the development trends of “higher throughput, greater intelligence, and more integration”, while also taking into account accuracy, flexibility, and sustainability. In the future, with breakthroughs in fields such as synthetic biology and personalized medicine, the workstation will be indispensable for enhancing scientific research efficiency and reliability, and will become one of the core nodes of “smart laboratories”.

Features

- **Simplify** -Get rid of tedious and boring operations, and eliminate the interference of human factors
- **Efficient** -A variety of pipette specification and volume combinations improve liquid transfer efficiency
- **Stable** -Support modular maintenance calibration for long-term maintenance-free and stable operation
- **Expand** -Open table layout and program editing reserved for more application scenarios



3100 Series Models and Configurations

3100A Automatic Liquid Handling Workstation	1×8-channel pipette 8C-200/8C-3100	Basic pipetting work such as reagent dispensing and sample transfer	7×SBS basic plate racks (for placing SBS standard consumables like tip boxes and PCR plates), 4×80mL reagent reservoirs, 24×1.5mL centrifuge tube carriers, 1×waste box + 1×waste liquid tank
3100B Automatic Liquid Handling Workstation	2×single-channel pipette SC-3100B	Basic pipetting work such as library normalization and sample mixing	7×SBS basic plate racks (for placing SBS standard consumables like tip boxes and PCR plates), 4×80mL reagent reservoirs, 24×1.5mL centrifuge tube carriers, 1×waste box + 1×waste liquid tank
3100C Automatic Liquid Handling Workstation	2×single-channel pipette, 3100B; 1×8-channel pipette 8C-200/8C-3100	PCR setup, and can also be used for reagent distribution before various tests	7×SBS basic plate racks (for placing SBS standard consumables like tip boxes and PCR plates), 1×cooling module (12×1.5mL cryotubes + 6×PCR strip tubes), 12×1.5mL centrifuge tubes+ 6×PCR strip tube carriers, 1×waste box + 1×waste liquid tank
3100D Nucleic Acid Purification System	1×8-channel pipette; plate gripper, 8CG-3100	96-sample magnetic bead downward aspiration nucleic acid extraction, including sample lysis, washing, and elution	6×SBS basic plate racks (for placing SBS standard consumables like tip boxes and deepwell plates), 1×heating and mixing module, 1×basic magnetic rack, 12×1.5mL centrifuge tubes+2×80mL reagent reservoir carriers, 1×waste box + 1×waste liquid tank
3100G Sample Dispensing and Processing System	2×single-channel pipette 3100B, 2×cap opening manipulators 100	Manipulators DG-3100 96-sample cap opening, closing, and dispensing	6×16-well sample racks, 1×2-tube position tube clamping module, 1×24-well centrifuge tube rack, 1×waste box, 1×SBS basic plate rack (for placing tip boxes), 1×transfer robot

Optional Pipettes and Manipulators

Name	Compatible consumables	Pipette specifications	Pipetting range	Accuracy	Precision
 8-Channel Pipette	50µL Tips	200µL	1µL~200µL	1µL: ±8% 100µL: ± 1%	1µL: <5% 100µL: <1%
	200µL Tips			20µL: ±2% 200µL: ± 1%	20µL: <2% 200µL: <1%
 24-Channel Pipette	50µL Tips	200µL	1µL~200µL	1µL: ±10% 5µL: ±4%	20µL: <2% 100µL: <1% 1µL: <5%
	200µL Tips			100µL: ± 1% 200µL: ± 1% 20µL: ±2%	100µL: <1% 200µL: <1% 5µL: <4%

Single-Channel 1000 µL Pipette

Pipetting range

Accuracy

Precision



Tip/(µL)	Aspirate once and dispense once/µL	Aspirate once and dispense multiple times/µL	Aspirate once and dispense once/µL	Aspirate once and dispense multiple times/µL	Aspirate once and dispense once/µL	Aspirate once and dispense multiple times/µL
20	1~20	/	1µL: ±10% 10µL: ±5% 20µL: ±1.5%	1µL: ≤5% 10µL: ≤3% 20µL: ≤1%	/	/
50	1~50	20~50	1µL: ±10% 5µL: ±5% 25µL: ±2% 50µL: ±2%	1µL: ≤8% 5µL: ≤2.5% 25µL: ≤1% 50µL: ≤1%	/	/
200	2~200	20~200	2µL: ±5% 20µL: ±3% 100µL: ±2% 200µL: ±1%	2µL: ≤4% 5µL: ≤1.5% 100µL: ≤1% 200µL: ≤0.5%	10µL: ±5%	10µL: ≤2%
1000	5~1000	30~1000	5µL: ±10% 100µL: ±1% 500µL: ±1% 1000µL: ±1%	5µL: ≤4% 100µL: ≤0.75% 500µL: ≤0.5% 1000µL: ≤0.5%	20µL: ±3%	20µL: ≤3%

Single-Channel 5000 µL Pipette

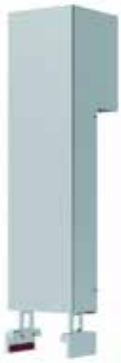
Pipetting range

Accuracy

Precision



Tip/(µL)	Aspirate once and dispense once/µL	Aspirate once and dispense multiple times/µL	Aspirate once and dispense once/µL	Aspirate once and dispense multiple times/µL	Aspirate once and dispense once/µL	Aspirate once and dispense multiple times/µL
1000	30~1000	100~1000	30µL: ±5% 500µL: ±2% 1000µL: ±1.5%	50µL: ±3%	30µL: <2.5% 500µL: ≤1.5% 1000µL: ≤1%	50µL: ≤3%
4000	50~4000	200~4000	1000µL: ±1.5%	100µL: ±5% 500µL: ±3%	1000µL: ≤1%	100µL: ≤3.5% 500µL: ≤2.5%
5000	50~5000	200~5000	1000µL: ±1.5%	100µL: ±5% 500µL: ±3%	1000µL: ≤1%	100µL: <3.5% 500µL: ≤2.5%



Wrencher

It supports SBS standard, and the width of about 85 mm can be transferred, and the consumable board can be grabbed up to 500g



Cap Opening Manipulator

It is used for the transfer and opening / closing of sample tubes.

Optional Racks

Plate - Type Racks



Standard Plate Rack
8 mm



Standard Plate Rack
55 mm



Standard Plate Rack
66 mm



Standard Plate Rack
73 mm



Standard Plate Rack
79 mm



Magnetic Rack
66 mm



Magnetic Rack
72 mm

Stacking Racks



Stacking Plate Rack
103.5 mm

Trough - Type Racks



Waste Box Rack
5 L



Waste Box Rack
4 L



Waste Box Rack, Tilted
1.5 L

Functional Modules



Mixing Module



Mixing Module



Heating and Mixing
Module



Liquid - Cooling and
Refrigerating Mixing Module



Heating Module



Cooling Module



Cooling Module



Mini Mixing Module



Mini Mixing Module



Bar - Shaped
Heating Module



Fluorometer Module



Lifting Magnetic
Rack Module



2 - Position Tube -
Clamping Module

Specification:

Instrument Name	Automatic Liquid Handling Workstation
Model	3100 Series
Function	Equipped with different - specification pipettes, various functional modules and consumable racks to meet all kinds of liquid handling requirements
Mainframe Specification	Adopting F1000 mainframe framework, 12 standard plate positions on the bench (18 standard graduations in the X - direction)
Manipulator Arm	Configured with composite manipulator arm as required
Motion Precision	±0.1 mm (X / Y / Z axis)
Liquid Detection	PLLD / CLLD function and its derivative application technologies, such as anti - splash, coagulation detection, and viscosity detection
Operating System	Windows
Tablet Computer	10.1 - inch touch screen tablet computer
Software Configuration	Including instrument configuration, platform configuration, consumables and liquid library, program editing, operation and log recording functions
Overall Dimensions	610×680×755 mm (L×D×H), with the height of instrument feet being 25 mm
Input Power Supply	AC100-240, 50/60 Hz

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Automated Prep-Flash
Chromatography system



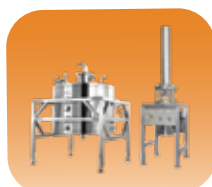
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Optima Gas
Chromatograph



Flash
Chromatograph



DAC
Column



GCMS
3068



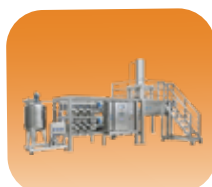
UHPLC



HPTLC



Ion Chromatograph



Production
HPLC



HPLC



Column



DLS



Water purification
system

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