Galatek

LIQUID HANDLING WORKSTATION

Auflo-P1600 Professional Liquid Handling Workstation

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Flexible 8-channel

Satisfying all application scenarios
of liquid handling
Building a smart and collaborative
laboratory ecology

Platform
-based

Multi-
module

Full-
featured

Custom-
tailored

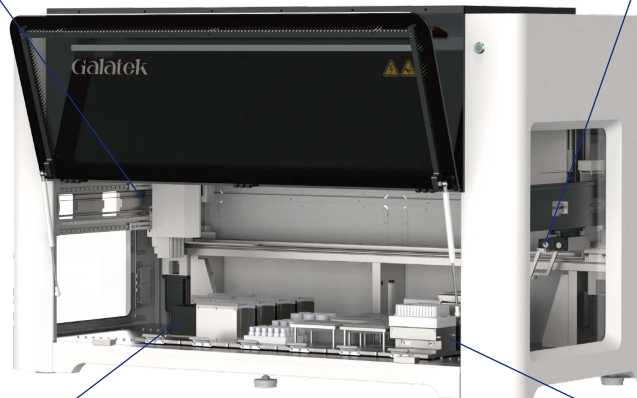# Auflo-P1600 Professional Liquid Handling Workstation

MegaRobo focuses on the research and development of robotics and artificial intelligence technology and deeply integrates it into industrial applications, providing advanced intelligent automation products and solutions for customers. The self-developed 8-channel liquid handling workstation Auflo-P1600 is equipped with 8 independent 1000μL pipetting channels, features independent and adjustable pipetting spacing and pipetting volume. It is compatible with all kinds of sample, reagent consumables and functional modules, and can be freely configured according to different application scenarios and integrated on demand. It features a special and powerful robotic arm expansion ability to support parallel processing of plate handling and pipetting, and can connect and integrate multiple devices to ensure that it fulfills the needs of various complex laboratory automation scenarios. This workstation is widely used in the fields of bio-pharmaceuticals, life sciences, and clinical diagnostics to continuously optimize experimental reliability and automated uptime, greatly improving efficiency.

Flexible pipetting module

8 channels of independent and adjustable spacing and liquid level detection
Fast and high-precision pipetting
Pipetting range of 2μL-1000μL

Upgradeable to dual robotic arms

Optional plate handling robotic arm to meet the needs of automation equirements of experimental analysis

Free configuration for working area

Compatible with different sample tubes:Support blood sampling tube, centrifuge tube, sample tube, etc.Compatible with different consumables: Support deep well plate, cell plate, pipetting tip, etc.

Personalized module integration

Optional modules for shaking, magnetic stand, barcode scanning, temperature control, etc. One platform, unlimited combinations

— USAGE SCENARIOS —

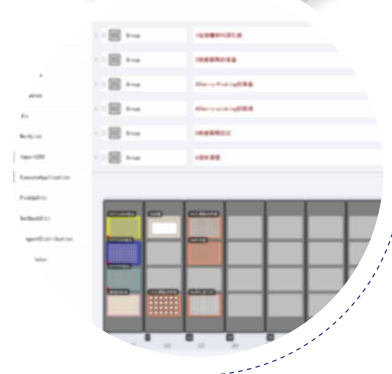|				
General Liquid Handling	PCR Setup	NGS Library Preparation	Blood Dispensing	ELISA Detection
Organoid Culture	High-throughput Drug Screening	Cell Plating and Media Replacement	Plasmid Construction	Enzyme Activity Screening

Flexible Pipetting Channel

- Adjustable channel spacing from 9 mm-18 mm for fast pipetting from tube to plate
- Each channel can independently detect the liquid level and simultaneously aspirate liquid up to different heights
- Independent Z-axis, enabling convenient realization of functions such as cherry picking and pooling

Highly Open Software

- Built-in multiple pipetting modes, drag-and-drop process editing
- Graphical worktable design, free to set the deck layout
- Convenient program management design, one-click to start running
- Supports the upgraded functions such as Liquid Class setting, Work List import, CSV import, etc.

Product Features

Diversified liquid handling modes backed by professional capability

- Support whole-plate replication or dispensing, compatible with loading slots and 96-well plates
- Liquid transfer from any tubes, plate wells
- Accurately perform gradient dilution by row or column
- Easy to realize the functions of one aspiration with one dispensation, one aspiration with multiple dispensation, "pooling" and "cherry picking"
- Support Liquid Class settings such as Air Gap, aspiration delay
- Easy to realize

Capable of integrating multiple modules, freely configuring workspace

- Compatible with all kinds of consumables including SBS plates, sample tubes, loading slots, and tips, support multiple application scenarios
- Multiple functional modules are available, including modules of temperature control, shaking, temperature control shaking, magnetic stand, barcode scanning etc., which can be integrated and customized on demand
- Freely replaceable carriers support operating platform reconfiguration
- 40 standard SBS plate positions to satisfy different throughput requirements

Special expansion ability for the robotic arm to support parallel processing

- According to the different application requirements, a platform can be equipped with up to two robotic arms, including robotic arm for pipetting and handling plate
- The integrated pipetting robotic arm adopts pressure detection to ensure stability and efficiency
- Plate handling robotic arm allows 360° rotation to access the whole deck, transferring consumables among different functional areas

Functional Modules

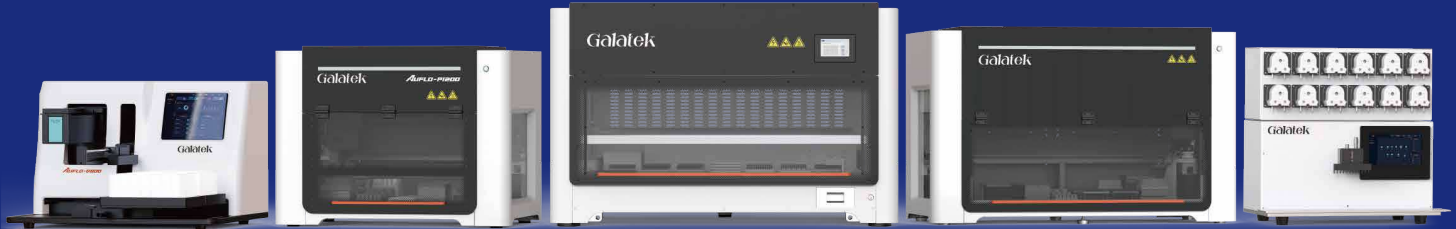| Photo	Name	Functions	Parameters
	PCR machine	Used for enzymatic reactions and PCR reactions in experiments	Temperature range: 4°C to 99°C
	Blood separation module	Used to identify and separate complex blood components	Blood component dispensing features an ultra-high definition CCD camera to achieve accurate stratification definition of the liquid in the tube
	Magnetic stand	Used for magnetic bead separation during experiments	Match SBS well plates
	Heating and shaking module	Used for magnetic bead separation during experiments	Temperature range: RT to 99°C Shaking speed: 50 rpm-2000 rpm
	Temperature control module	To provide shaking and heating function, suitable for SBS microwell plates	Normal temperature control range: 4°C~90°C, extreme temperature control range: 0°C~110°C
	Positive pressure module	Used for solid phase extraction in the sample pretreatment step	Precise regulation of pressure and flow for fast SPE. Software controls the flow rate automatically, eliminating the impact of human factors on SPE extraction
	HEPA module	Basic safety module of the protective barrier for laboratory biosafety	Support positive or negative pressure, depending on demand
	2D code scanning at the bottom of the cryopreservation tube	Used for automatic scanning and identification of the 2D code at the bottom of the whole plate tube in the SBS cryopreservation box	Adaptable to 8*12 or 10*10 cryopreservation box, compatible with various tubes
	Cryopreservation tube capping & uncapping module	Used for fast and automatic capping and uncapping of the whole plate tube in the SBS cryopreservation box	Uncapping time of 96 samples is less than 20 seconds
	Blood sampling tube uncapping module	Automatic uncapping and cap dropping of blood sampling tubes	Uncapping speed less than 3 seconds per tube

Conventional Carriers

Photo	Name	Adaptive Consumables
	16-tube carrier	Capable of placing 16 tubes, suitable for blood sampling tubes and reagent tubes
	20-tube carrier	Capable of placing 20 tubes, suitable for blood sampling tubes and reagent tubes
	6-tube SBS adapter	Capable of placing 6 tubes
	12-tube SBS adapter	Capable of placing 12 tubes
	24-tube SBS adapter	Capable of placing 24 tubes, suitable for 1.5mL, 2mL EP tubes
	48-tube SBS adapter	Capable of placing 48 tubes, suitable for 1mL - 4mL sample tubes
	SBS well plate carrier	Capable of placing 1 plate, suitable for SBS standard well plates, such as 96-well/384-well PCR plate
	SBS well plate carrier	Capable of placing 1 plate, suitable for SBS standard well plates, such as deep-well plate, ELISA plate, cell culture plate, etc.
	Tip carrier	Capable of placing 1 plate, suitable for SBS standard tip boxes
	5-position conventional carrier plate	Capable of placing 5 plates, suitable for SBS standard well plates, loading slots, and tip boxes
	8-strip tube adaptor	Capable of placing 12 columns, suitable for 0.2mL PCR 8-strip tubes
	Others	Support customized carriers based on specific consumables

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AUFLO Liquid Handling Workstation

Multi-level Solutions
Suitable for various application scenarios

Product Model		Auflo-P1600 Professional Liquid Handling Workstation		
Appearance	Dimensions	1550(W)*750(D)*760(H)		
	Weight	170kg		
Power supply	Voltage	220VAC		
	Frequency	50-60Hz		
	Rated power	320W		
Operating environment	Temperature	15°C-32°C		
	Humidity	30%-80% (No condensation)		
Pipetting environment	Temperature	20°C-27°C		
	Humidity	30%-60%RH (No condensation)		
Pipetting performance	Pipetting principle	Air displacement principle		
	Pipetting range	2μL-1000μL		
	Pipetting tip type	Flexible 8-channel, the channel spacing is adjustable from 9 mm to 18 mm		
	Level detection and following	Support		
	Pipetting precision	Tip size	Pipetting volume	Precision
		10μL	2μL	5.00%
		10μL	10μL	3.00%
		200μL	50μL	2.00%
		1000μL	1000μL	0.75%
Quantity of SBS plate position		40		
Robotic arm	Positioning precision	X-Y-Z positioning ±0.2mm		
	Maximum number of robotic arms	2		
	Maximum load of plate handling robotic arm	500g		
	Maximum rotation angle of plate handling robotic arm	360°		