



Lab2000 Integrated Single Side Glove Box System For Lithium ion Battery Fabrication

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: MRBEST
- Certification: CE
- Model Number: MR-Lab2000
- Minimum Order Quantity: 1 Set
- Price: Negotiable
- Packaging Details: Standard Export Wooden Packing
- Delivery Time: 7-30 working days
- Payment Terms: T/T, Western Union, MoneyGram
- Supply Ability: 500 sets per month



Product Specification

- Name: Glove Box System
- Application: For Lithium-ion Battery Fabrication
- Leakage Rate Of Box: 0.05 Vol /h
- Environment Of Box Inside: H₂O <1 Ppm O₂ <1 Ppm
- Antechamber: Φ360mm (Dia.)x 600mm(length)
- Mini Chamber Size: Φ150 Mm(Dia.) X 300mm(L)
- Work Station: One Work Station
- Material: Stainless Steel Type 304, Thickness 3mm
- Highlight: **Integrated Glove Box System,
Single Side Glove Box System**

Lab2000 Single Station Integrated Single-sided Glove Box








Lab2000 Inert Controlled 2 Glove Glovebox System are complete standalone systems integrated with entire functional components. They are able to create an inert environment with less than 1 ppm of H₂O and O₂. The systems are modulated with antechambers, removable windows, adjustable trays, lighting units, adjustable shelves, and gloves, which meet most of the operational needs in the glovebox. The systems are made of welded stainless steel and are equipped with highest-quality components. We also provide optional components to meet your special requirements.

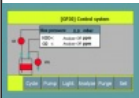










Features

- Glove box with all-welded stainless steel design
- All stainless steel pipework
- Removable front window as an entry for large equipment
- Purifier regeneration frequency once per year
- Automatic antechamber control
- Main antechamber plus mini antechamber
- Vacuum pump for antechambers
- Oxygen Analyzer and Moisture Analyzer
- Auto purge function
- User friendly and simple operation: Color LCD touch panel and PLC controller
- Energy-Save mode, automatically reducing power consumption by up to 90% during idle periods
- Automatic regenerable H₂O/O₂ purifier
- Attainable purity O₂<1 ppm, H₂O<1 ppm (dew point also available for moisture reading)
- Industry leading low leak rate of <0.05% Vol/hour at -10 mbar condition
- Stainless steel encapsulated blower with frequency converter
- Circulation capacity more than 84 m³/h (50 cfm) at ΔP = 60 mbar (60 Hz)
- Compatible with world-wide voltage standards
- Integrated high vacuum feedthrough

Specifications:

Structure	Integrated structure (Purification System integrated under the box)	
Power Supply	110 - 220V AC, 50/60Hz, Single-phase	
Glove box Box	Box Material: 304 Stainless Steel (Type 304), thickness 3mm Box Size(excluded antechamber and support): 1200mm(L) x 750mm(W) x 900mm(H) Box Support height: 900mm(35.43")	
	Standard Layout 	Two layers in box.

Tray	<p>Option/Add: tool boxes or other</p>  <p>Various tool boxes, can be placed according to user needs.</p>	
Front window	<p>Tilt design operating window, removable safety toughened glass front window, 8mm thickness, Wear resistance, corrosion resistance, good light transmission, sealing ring using 3/8 inch thick OMEGA sealing ring.</p> <p>Option: Window Open</p>  <p>The front window can be designed to open instead of fix, in order to put in a variety of instruments (custom function).</p>	
Environment of Box inside	<p>H₂O <1 ppm (20°C/68 , 1 atm) O₂ <1 ppm (20°C/68 , 1 atm)</p>	
Antechamber	<p>Control way: manual Design: two circular antechambers Main chamber size: Φ360mm (Dia.)x 600mm(length)(location: right-side of box) 14.17 "(Dia.) x 23.62" (L) Mini chamber size: Φ150 mm(Dia.) x 300mm(L)(location: right-side of box) 5.9 "(Dia.) x 11.8" (L) Vacuum degree: ≤ 0.1MPa(right side antechambers included main chamber and mini chamber, all of that are need vacuum and display. The vacuum pressure gauge brand is German WIKA.</p> <p>Option/add auto control way</p>  <p>It will automatically control the antechamber by time setting and the number of times for gas exhaust and filling.</p> <p>Option/Add: heating mode</p>  <p>Max temperature: 200 / 392 Control accuracy: ±2 / ±3.6 The main chamber and mini chamber are both can adding the heating function (compared with standard antechamber the size is a little different)</p>	
Working gas and regeneration gas	<p>Working gas: 99.999% high pure N₂, Ar, He and other inert gas Control gas: 99.999% high pure inert gas Regeneration gas: mixing gas of working gas and H₂, hydrogen(H₂) Volume accounted for 5-10% If the pure system only has moisture removal function, the regeneration gas is the same with working gas</p>	
Gas purification system	<p>Single Column Gas Purification System included: German BASF Oxygen removal material, US UOP high moisture absorb material. The regeneration process of purification system is auto control and automatic moisture and oxygen removal function. Gas purity can be sustained and keep long-term: H₂O <1ppm, O₂ <1ppm.</p> <p>Option: Double Columns Purification System (one in use and the other is reserve) Why Choose Double Column? 1. The Pure column need to be regenerated after saturated by absorbing the oxygen and moisture. The regeneration time is 16 hours. If there is no reserved column, it may stop working. (we recommend double column purification system to factory or other unit which need glove box working Continuously); 2. The pure capacity of double pure columns is two times as much as single column</p>	
Pressure control system	<p>Box pressure can be auto controlled by PLC touch screen Control accuracy: ±1Pa Can also be manually controlled by foot switch</p>	
Filter system	<p>The ends of inlet and outlet both are provided with filter The filter precision is: 0.3 μm</p>	
Closed circulating fan	<p>High speed frequency conversion fan, flow 0-100m³/h, microprocessor control, Stainless steel device for pressure testing. With water cooling device (can equipped with water cooler and external refrigeration equipment)</p>	

Control system	 SIEMENS colors touch screen (6 inches), PLC control system, Bilingual in Chinese and English can be switched Pressure sensor: -2500 2500Pa touch screen, accuracy ± 1 Pa Pressure control: control the box pressure to one setting point (scope can be set)	
measurements 	Moisture analyzer: US Avcray brand, 0 500ppm touch screen display, precision 0.1ppm	
	Oxygen analyzer: US Avcray brand, 0 1000ppm touch screen display, precision 0.1ppm	
Vacuum Pump 	Britain Brand EDWARDS, pumping speed 8.4-12m ³ /h, Model: RV12 Extreme pressure 2×10^{-3} mbar/ 1.5×10^{-3} Torr Inlet flange NW25 Outlet flange NW25 Noise level: 50 Hz 48 dBA	
Glove 	Brand: US GUARDIAN Material: Butyl	
illumination system	Equipped with Fluorescent lamp. Brand: PHILIP	
Solvent removal system	Efficient adsorption of activated carbon, can effectively remove trace organic solvents;	
Spare KF40 standard joint	Special design to KF40 Joint, you can lead the water into the box 	
Can be connected to other devices (low temperature refrigerator, film coating machine, microscope, solvent purification system, low temperature cold trap, heating furnace, etc.)	low temperature refrigerator	 
	microscope	
	Solvent Purification System	
	Coating machine	Inside connection(one door of Coating machine is inside of glove box)  Outside connection 
Equipment size and room requirements	Overall size	1850mm(L) x 1000mm(W) x 1950mm(H) 72.83" x 39.37" x 76.77"
	Room size	2200mm(L) x 1500mm(W) x 2000mm(H) 86.6" x 59" x 78.74"
Wooden Package size and weight	2185mm(L) x 1145mm(W) x 2300mm(H)	
	86" x 45" x 91" (5.8M3) 650 kg (1400 lbs)	
Notice	When the gas is circulating, must ensure that the piping of the circulation system is clear and cannot be blocked (if the color of the filter is changed from white to black, the filter should be replaced timely). No corrosive gas in the glove box. It needs to regenerate the column when the moisture and oxygen indicators cannot meet the work requirements. If the corrosive gas is released from inside of glove box.(such as LiPF ₆ electrolyte), please do not use. you must put the bottle filled with liquid seal. Vacuum pump needs to be checked the oil level and maintain in regular time.	



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