

# Single Station Vacuum Glove Box System For Lithium ion Battery Fabrication

### **Basic Information**

Place of Origin: ChinaBrand Name: MRBESTCertification: 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

Work Station: One Work Station

Material: Stainless Steel Type 304, Thickness 3mm

Highlight: Vacuum Glove Box System,
 Single Station Glove Box System

## Single Side One Station Vacuum Glovebox with H2O & O2 Purification System



Lab 2000: Standard features of this system include a large main antechamber, a rotary vane vacuum pump and a microcontroller with operation panel.

Glovebox system meets your specific application requirements for clean environments.

## **Glovebox Specification:**

- 1. Stainless steel 1.4301 (US Type 304) construction 2. High vacuum, KF 40 inserts 220V Power (24V optional)
- 3. Circulation system: air inlet and outlet all with HEPA filter
- 4. Scratch resistant polycarbonate or tempered glass window
- 5. 0.4mm Glovebox gloves (optional glove sizes and material are available)
- 6. aluminium alloy or POM 220mm diameter glove ports
- 7. Fluorescent front mounted lamp
- 8. Adjustable stainless steel shelving (1000mm (W) x 220mm (D))
- 9. Leak rate <0.05 vol%h (acc. ISO 10648-2)

### **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")  |  |  |  |
| Tray          | Standard Layout Two layers in box.   |  |  |  |
|               | Option/Add: tool boxes or other Various tool boxes, can be placed according to user needs.   |  |  |  |
|               | Tilt design operating window, removable safety toughened glass fron window, 8mm thickness, Wear resistance, corrosion resistance, good light transmission, sealing ring using 3/8 inch thick OMEGA sealing ring. |  |  |  |
|               |  |  |  |  |

| ront window                   | The front window can be designed to open instead of fix, in order to put in a variety of instruments                                 |  |  |
|-------------------------------|--|--|--|
|                               | (custom function).   |  |  |
|                               | Option: Window Open  |  |  |
|                               | Орен   |  |  |
|                               |  |  |  |
| Thuirenment of Day            | 1120 .1 ppm (20%C/6% 1 otm)  |  |  |
| Environment of Box            | H2O <1 ppm (20°C/68 , 1 atm)<br>O2 <1 ppm (20°C/68 , 1 atm)  |  |  |
|                               | 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.) x11.8" (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.                   |  |  |
| Antechamber                   | Option/add auto  |  |  |
|                               | control way  It will automatically control the antechamber by time   |  |  |
|                               | setting and the number of times for gas exhaust and  |  |  |
|                               | filling.   |  |  |
|                               | Ophica (Add)   |  |  |
|                               | Option/Add: heating mode  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)   |  |  |
|                               | Working gas: 99.999% high pure N2, Ar, He and other inert gas  |  |  |
| Norking gas and               | Control gas:99.999% high pure inert gas Regeneration gas: mixing gas of working gas and  |  |  |
| regeneration gas              | 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 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.   |  |  |
| One musification              | Option: Double Columns Purification System   |  |  |
| Gas purification system       | (one in use and the other is reserve) Why Choose Double Column?  |  |  |
|                               | 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  |  |  |
|                               | Box pressure can be auto controlled by PLC touch screen  |  |  |
| Pressure control              | Control accuracy:±1Pa  |  |  |
| system                        | Can also be manually controlled by foot switch   |  |  |
| ilter system                  | The ends of inlet and outlet both are provided with filter The filter precision is: 0.3 mu m   |  |  |
|                               | High speed frequency conversion fan, flow 0-100m3/h,   |  |  |
| Closed circulating fan        | microprocessor control, Stainless steel device for pressure testing.   |  |  |
| Ciosed circulating fall       | With water cooling device (can equipped with water cooler and external refrigeration equipment)                                      |  |  |
| Control system                | SIEMENS colors touch screen (6 inches), PLC control system,  |  |  |
| (CFSE) Comband operation      | Bilingual in Chinese and English can be switched   |  |  |
| Tool Rose Light basis Prop Se | Pressure sensor: -2500 2500Pa touch screen, accuracy±1Pa  Pressure control: control the box pressure to one setting point (scope)    |  |  |
|                               | Pressure control: control the box pressure to one setting point (scope can be set)   |  |  |
|                               | Moisture analyzer: US Avcray brand, 0 500ppm touch screen display,   |  |  |
|                               | bracision O 1 nnm  |  |  |
|                               | precision 0.1ppm   |  |  |
|                               | Oxygen analyzer: US Avcray brand, 0 1000ppm touch screen   |  |  |
| neasurements                  |  |  |  |

| N/ D  | 1   |  |  |  |
|---|---|--|--|--|
| Vacuum Pump   | Britain Brand EDWARDS, pumping speed 8.4-12m3/h, Model: RV12 Extreme pressure 2 x 10-3 mbar/1.5 x 10-3 Torr Inlet flange NW25 Outlet flange NW25 Noise level: 50 Hz 48 dBA  |  |  |  |
| Glove   | Brand: US GUARDIAN<br>Material: Butyl   |  |  |  |
| illumination system   | Equipped with Fluorescent lamp. Brand: PHILIP   |  |  |  |
| Solvent removal   | Efficient adsorption of activated carbon, can effectively remove trace  |  |  |  |
| system  | organic solvents;   |  |  |  |
| Spare KF40 standard<br>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<br>refrigerator   |  |  |  |
|   | microscope  |  |  |  |
|   | Solvent<br>Purification<br>System   |  |  |  |
|   | Coating<br>machine  | Inside connection(one door of Coating machine is inside of glove box)  Outside connection          |  |  |
| Equipment size and room requirements  | Overall size  | 3050mm(L) x 1000mm(W) x 1950mm(H)<br>120.08" x39.37" x 76.77"<br>2200mm(L) x 1500mm(W) x 2000mm(H) |  |  |
|   | Room size   | 133.86" x59" x 78.74"  |  |  |
| Wooden Package 3385mm(L) x 1145mm(W) x 2300mm(H) 133.27" x 45" x 91" (5.8M3)  |   | 45mm(W) x 2300mm(H)  |  |  |
| size and weight   | 1020 kg (2197 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 LiPF6 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. |  |  |  |



## Shenzhen Meirui Zhida Technology Co., Ltd.







