

Min Time
Max Value!



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EQUIPMENT SPECIFICATION

Simplify Lithium ion Battery solution

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SHANDONG
GELON LIB CO., LIMITED

One Side Double Working Station Glove Box



Features

Universal type

For both R & D and small-scale production

From Single to Multiple workstation systems, to be operated either side by-side or face to face. with integrated Gas purification system(1 Purifier), PLC controller and HMI, incl. sealed box, In and outward transfer antechamber, inclined operation sides with replaceable sight glass and vacuum pump etc. Attainable purity, H₂O<1ppm., O₂<1ppm.

Closed loop gas circulation

Inert gas closed loop, gas circulation by blower and purifier, H₂O, O₂ can be removed continuously.

Auto purging

The replacement of atmosphere inside glove box can be achieved automatically by purging valves.

Automatic regeneration

H₂O and O₂ removal material can be regenerated. The regeneration process can be program-controlled.

Pressure control in box

The pressure in glove box is controlled automatically by PLC. Working pressure can be set between +10mbar and -10mbar, in case of pressure over +/- 12mbar the system will be protected automatically.

Automatic vacuum pump control

The vacuum pump will be activated automatically when necessary and will turn off after a period of idle time.

Specifications:

Glove box(Single module box can be flange-connected together)

- * Single Module Dimension,
L*W*H=1220*750*900mm (2-glove system, single side operation);
L*W*H=1220*1000*900mm (4-glove system, face to face operation);
L*W*H=1500*750*900mm (3-glove system, single side operation);
L*W*H=1800*750*900mm (3/4 -glove system, single side operation).
- * Body material, 304 stainless steel, acid resistant, 3mm thickness;
- * Windows, Safety glass;
- * Glove ports POM((Polyoxymethylen), 220 mm dia. O-ring sealed
- * Gloves, Butyl, 8" Cuff Dia. 0.015"thickness ;32"length;
- * Dust Filter: 0.3 um ,1 gas inlet and 1 gas outlet filter;
- * Shelves, Stainless, 2 layers ,mounted inside;
- * External Fluorescent lights, 1 set for each module box;
- * 1 electrical feedthrough, 2~3 blind-flange, KF 40 for each module box.

Main antechamber

- * 1 Big Cylindrical type antechamber, made of stainless steel 304 ;
Dia.360mm, length =600mm, right or left side;
- * With sliding tray inside the antechamber;
- * Spindle lock door, vertical operation with lifting mechanism;
- * Touch screen automatic operation via solenoid.

Mini antechamber

- * 1 Mini Cylindrical type chamber , make of stainless steel 304;
Dia. 150mm, length=300mm(100 mm access into the glove box),
right or left side;
- * Screw-lock door;
- * Manual operation via hand valve.

Gas purification system

- * Removal of H₂O and O₂;
- * Container material: Stainless steel 304;
- * Absorber unit: Copper catalyst: 4.5Kg, Molecular sieve:4.5Kg;
- * Attainable purity: H₂O less than 1ppm, O₂ less than 1ppm;
- * Capsulated blower, 90m³/h, with frequency converter;
- * Regeneration, PLC automatic control all process including heating, filling mix gas (working gas / 5-10%H₂ mixture), etc.

System Control

- * Programmable logic controller(PLC);
- * With features of circulation control, purging control, regeneration control pressure control, as well as self-diagnosis, power failure restart, password protection, etc.;
- * Siemens 7 inch colour touch screen, with Chinese/English operation interface, indicate running status, box pressure, moisture and oxygen value and system record., etc.;
- * The pressure in the glove box can be controlled either by PLC or foot pedal.
The pressure can be set between +/- 10mbar, in case of over +/- 12mbar the system will be protected automatically.
- * Various valves to be integrated into a valve-seat made of stainless steel, less pipe connectors to reduce leakage.

Vacuum Pump

- * 1 Rotary vane pump, with oil mist filter, and gas ballast control;
capacity: 8m³ /h , dual stage, ultimate vacuum 3x10⁻²mbar.

OPTIONS:

- * Customized box sizes;
- * High capacity purifier with 145 m³/h Blower
Copper catalyst: 8 Kg
Molecular sieve:8 Kg
- * Another side antechamber;
- * Big antechamber, Dia. 400 mm, Length 600mm

- * Polycarbonate windows;
- * Antechamber interlocked door;
- * Small chamber with sliding tray;
- * With only antechamber purging, no vacuum;
- * Antechamber refilling from Gas cylinder instead of box;
- * Rectangular antechamber;
- *Flexible shelves, adjustable up & down,
adjustable back & forth;
- * 12m³/h, 16m³/h Rotary pump;
- * Dry scroll pump;
- * Prompt service;
- *Others on request.

