

Glovebox Solutions

for inert and vacuum environment



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GLOVEBOX WITH GAS PURIFICATION SYSTEM



- Oxygen and Moisture Level less than 1ppm
- Ultra low leak rate meeting ISO requirements
- Inert Environment Workstations suitable for Thermal Evaporator, Lithium Batteries, Laser Welding, Titanium Powder Handling, OLED, Chemical Synthesis and R&D etc
- Standard Models available with 2, 3 & 4 glove ports.

CUSTOMISATION

Bespoke Glovebox solutions for:

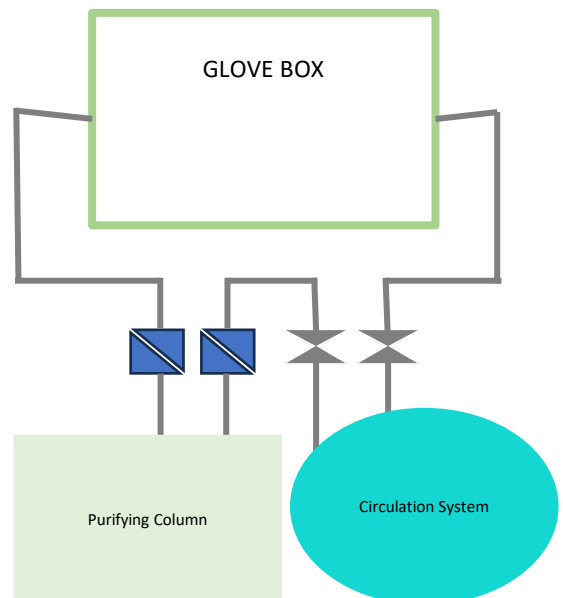
- Multi glovebox assembly
- Vacuum Oven and Refrigerators
- Leak-free double vacuum seals
- Openable Front Observation Window (For loading of large instruments)
- Custom System Integrations



SMART GLOVEBOX CONTROLS AND IOT FUNCTIONS

- 1) Automatic control for:
 - i. System Pressure
 - ii. System Purge State
 - iii. System Circulation
 - iv. Regeneration Process
- 2) Alarm functions and automatic prompts
- 3) System Control parameter settings
- 4) Record system parameters
- 5) System Password Protection
- 6) Automatic daily pressure self-checking and alarm for leakage
- 7) Automatic water & oxygen adsorption capacity in real time

Mobile application to log in to control system for remote real-time control and monitoring.



► Part 1. Glove Box

Main Chamber	Material: Stainless steel SUS304, thickness 3mm External Surface: Powder coated Internal Surface: Brushed Stainless Steel Length: 1200mm, Depth: 750mm, Height: 900mm
Sight Window	Inclined, Safety Glass, thickness 8mm (Polycarbonate available)
Glove Ports	Aluminum Alloy, double O-ring seal, 220mm Diameter (POM Available)
Gloves	Butyl Gloves, thickness 0.4mm, cuff dia. 8"
HEPA Filters	HEPA 0.3µm, one gas inlet, one gas outlet
Shelves	Stainless Steel SUS304, two adjustable shelves (Fixed shelves available)
Box Lighting	Installed in the main chamber, top panel
Feedthroughs	KF40, One Power cord feedthrough, 4 standby blind flanges (BNC, USB, VGA, Liquid/Gas feedthrough etc. available)

► Part 2. Main Antechamber & Mini Antechamber

Main Antechamber	Antechamber body	Size: Diameter:380mm, length 600mm (Other sizes available) Material: Stainless Steel SUS304 External Surface: White powder coated; Internal Surface: Brushed Stainless Steel
	Accessories	Sliding tray: Stainless Steel SUS304 Double door: Anodized Aluminum, 10mm thickness, Vertical Operation Manometer: Analog display
	Operation	Touch screen (Automatic operation via solenoid valves)
Mini Antechamber	Antechamber Body	Size: Diameter:150mm, length 300mm (Other sizes available) Material: Stainless Steel SUS304 External Surface: White powder coated; Internal Surface: Brushed Stainless Steel
	Accessories	Double door: Hinged; Manometer: Analog display
	Operation	Manual operation via hand valve

► Part 3. Gas Purification System

Single Purifier Column (Double Ones Option)	Function: Airtight Seal, Removal of H ₂ O and O ₂ Purifier Material: BASF Copper catalyst, UOP Molecular sieve Capacity: 60L Oxygen, 2Kg Moisture Attainable purity: Less than 1ppm moisture and oxygen
Solvent Absorber System	Filled up with 21L active carbon, for removing the solvents (Option)
Gas Circulation	Working gas: Nitrogen, Argon or Helium; Circulation blower: 90m ³ /h
Regeneration	Operation: PLC automatically controlled; Regeneration Gas: Working gas mixed with Hydrogen (5-10%)
Vacuum Pump	4L/S Rotary vane pump with oil mist filter and gas ballast control unit (Dry Pump is available)
Valves	Main valves: Electro-pneumatic angle valves DN40 KF Control
Moisture Analyzer	Measuring range: 0~1000ppm, H ₂ O < 1ppm
Oxygen Analyzer	Measuring range: 0~1000ppm, H ₂ O < 1ppm

ACCESSORIES



Butyl Gloves



HEPA filter



Foot Pedal



Fittings



Vacuum Oven



Gas Purifying System



Moisture Sensor



Electrical Feedthrough