



## Lab2000 Series Split Single-Sided Glove Box

The Lab2000 glove box is a high-performance, high-quality closed-loop working system that automatically absorbs water and oxygen molecules, purifying the working environment. It provides an inert atmosphere with  $O_2$  and  $H_2O$  levels of  $\leq 1\text{ppm}$ , meeting your specific cleanliness requirements. This system is an economical circulating purification system designed to meet customers' scientific research and development needs.

The Lab2000 system includes a sealed enclosure, a set of transition chambers (large and small), a rotary vane vacuum pump, and a circulating purification system integrated with a microcontroller operation panel. The standard Lab2000 system is equipped with an inert gas purification system that installs a set of purification columns (fully automatic and renewable) to purify and maintain the atmosphere inside the glove box.



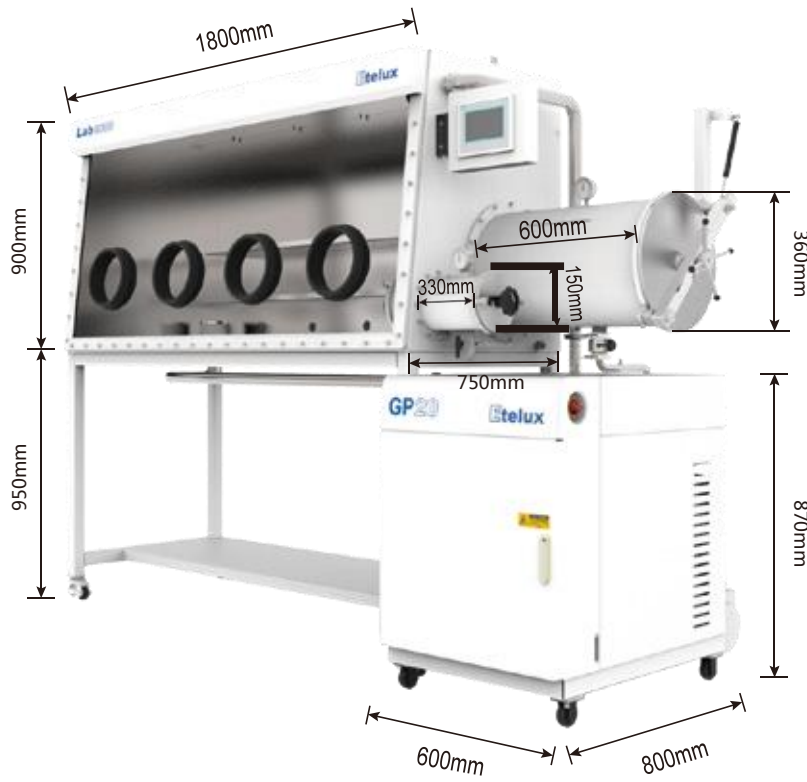
## Performance characteristics

1. Stainless steel box design, tempered glass or polycarbonate front window (optional);
  2. Indicator: Water and oxygen  $\leq 1$ ppm;
  3. Leakage rate:  $\leq 0.05$ vol%/h;
  4. The solenoid valve adopts modular design, which reduces leakage rate and is easy to replace;
  5. Large transition cabin with sliding tray, unique design of transition cabin door, lightweight and easy to open; GP-20 inert gas purification system;
  6. SIEMENS microcontroller;
  7. SIEMENS operation touch screen, easy to access
8. Data memo: Automatically record system data;
  9. Closed gas circulation, oil-free and vacuum free;
  10. Use foot pedals instead of manual pressure control;
  11. All stainless steel gas flow pipes and fittings;
  12. EDWARDS RV12 vacuum pump;
  13. HEPA high-efficiency filter;
  14. Automatic pressure control, the working pressure can be set within a range of  $\pm 12$ mbar;
  15. Adjustable height bracket;
  16. Adjustable casters for easy mobility;
  17. Lampshade with anti reflective film.

## Technical Advantage

1. The glove box has a beautiful design, compact structure, and fine workmanship;
2. The inert gas inside the glove box is circulated in a closed manner through a circulating fan and purifier, continuously absorbing oxygen and water;
3. The material for removing water and oxygen can be regenerated, and the regeneration process is automatically controlled by a program;
4. Adopting the latest European technology, all key components are imported from Europe and sourced from world-renowned manufacturers;
5. The control system includes self diagnosis, power-off self starting characteristics, pressure control and adaptive functions, password protection, and the control unit adopts Siemens PLC touch screen;
6. The water analyzer has strong corrosion resistance and a wide range of applications, especially for users in lithium battery manufacturing and metal organic industries. It can be cleaned three times free of charge and reused, avoiding the problem of being scrapped after one pollution;
7. The oxygen analyzer uses  $ZrO_2$  sensors to avoid the problem of short lifespan and continuous exposure to air in fuel cells;
8. Adopting an integrated valve structure reduces and optimizes the system pipeline layout, reduces leakage points, simplifies the leak detection process, and makes the product more stable and reliable to use;
9. The equipment runs stably and can operate continuously for  $7 \times 24$  hours for a long time;
10. Automatic control, simple operation, low operation and maintenance costs;
11. Specialized, standardized, and large-scale production of various parts of the glove box;
12. Provide products for customers with various special requirements;
13. All components have undergone strict review and control;
14. Rich experience in design and control;
15. The production process strictly follows the ISO9001 standard;
16. High precision modern testing methods are used to conduct helium based leak detection on key links during the production process, ensuring that product quality is foolproof;
17. Excellent technical team to achieve continuous improvement and perfection of products;
18. With a comprehensive after-sales service system and rich after-sales service experience, setting up service agencies in Beijing, Shanghai, Guangzhou, Wuhan, Chengdu, Xi'an, Changchun and other places can achieve fast and thoughtful after-sales service.

## Product Size



## List of accessories

			
Oxygen analyzer *1	Water analyzer *1	Oil Mist Filter *1	Bellows *3
			
Glove *4	Edwards Vacuum Pumps *1	Clamp *7	Glove Seal *8

## Technical Parameters

Cabinet	
Descriptive	Material: Stainless steel 1.4301 (SUS type 304), thickness 3 mm Dimensions: 1800mm(L) x 750mm(W) x 900mm(H)
Volumetric	0.8 m <sup>3</sup>
Front window	Panel: 8 mm thick safety tempered glass or 10 mm thick polycarbonate (optional) Size: 1735mm(L) x 839mm(H)
Glove compartment	Hard Aluminum or Paraformaldehyde (optional) 220 mm, O-Ring Seal
Glove	Material: Butyl rubber Thickness: 0.4 mm or 0.8 mm (optional)
Filter	Outlet and inlet filters, filtration <0.3μm
illumination	LED lighting at the top of the front window
Leak rate	Final acceptance test according to leakage rate < 0.05 vol%/h
GP20 Gas Purification System	
Descriptive	Automatic removal of H <sub>2</sub> O and O <sub>2</sub> ; single purge column system with automatic regeneration (optional GP200 dual purge column); closed gas circulation line
Operating Voltage	AC 230 V / 50-60 Hz, 10 A or AC 115 V / 50-60 Hz, 20 A (optional)
Working gas	Working gas: N <sub>2</sub> , Ar, He (purity ≥ 99.999%); regeneration gas: H <sub>2</sub> accounts for 5-10%, the rest is working gas (purity ≥ 99.999%)
Vacuum pumps	Specifications: rotary vane vacuum pump, with oil mist filter, with gas ballast control; flow rate: 12 m <sup>3</sup> /h (7 cfm), vacuum < 2 x 10 <sup>-3</sup> mbar (dry pump optional)
Recurrent unit	Oil-free high speed fan; airflow:0 - 100 m <sup>3</sup> /h
Valves	Solenoid high vacuum valve
Leak rate	Final acceptance test according to leakage rate < 0.05 vol%/h
Cleaning system	
Descriptive	Set the appropriate time and pressure, the system can automatically gas replacement of the box.

Analyzer		
Volumetric	Size	205 mm ( L ) x 80 mm ( W ) x 60 mm ( H )
	Measurement range	0-1000 ppm
	Other Oxygen Analyzers	GE oxy.IQ™ Oxygen Transmitter
Glove	Size	205 mm ( L ) x 80 mm ( W ) x 60 mm ( H )
	Measurement range	0-500 ppm
	Other Oxygen Analyzers	GE VeriDri™ Dew-Point Transmitter
Solvent purification system		
Leak rate	Material: stainless steel 1.4301 (SUS type 304), thickness 3 mm ;  Internal dimensions. 220mm(Φ) x 450mm(H) ; High quality activated carbon;	
Optional equipment		
Freezer cabinet	Independent control system, integrated in the side panel of the box, temperature -35°C, volume 18L or 32L optional ;  Main body 304 stainless steel plate, 5 variable compartments ; R404 environmentally friendly refrigerant, original imported ;	
Heated cabin	The large transition chamber is equipped with a heating system with a temperature of 200°C and a temperature control of ±1°C.	
Other notes		
Product Certification	ISO9001 certification, CE certification, UL certification	
warranty period	One year warranty, lifetime maintenance	
Application Notes	For details, refer to the Danger, Warning, Caution, etc. section of the manual.	

## Ordering Information

E	*	1	2	3	4	instruction
Standard Case	1200					Box length 1200mm (L) x 750mm (W) x 900mm (H)
	1500					Box length 1500mm (L) x 750mm (W) x 900mm (H)
	1800					Box length 1800mm (L) x 750mm (W) x 900mm (H)
	2400					Box length 2400mm (L) x 750mm (W) x 900mm (H)
Structure Configuration		U				Standard one-piece glove box
		S				Standard Split Glovebox
		D				Equipped with an operable double-sided glove box
Function Options			P			With automatic cleaning function, can quickly replace the gas in the box
			G			Trace H <sub>2</sub> O, O <sub>2</sub> ≤ 1ppm in rapid absorption chamber (with water-oxygen analyzer)
			O			With organic solvent adsorption system, equipped with high-quality activated carbon
Transition module				A0		Large transition chamber φ360mm×600mm(L)
				A1		Large transition chamber φ390mm×600mm(L)
				A2		Small transition bin φ150mm×330mm(L)
				A3		Square cabin 400mm (L) x 300mm (W) x 300mm (H)
Other Functional Options					FW	With openable front window
					18F	With refrigerator volume 18L, temperature -36°C.
					32F	With refrigerator volume 32L, temperature -36°C.

\* No. is the basic mandatory, 1, 2, 3, 4 is optional ordering number, can be configured according to the needs of their own.

If you have special requirements for ordering, you can contact us at Example of ordering number :

1.E-1200UPGO , Indicates one-piece single-station 1200mm long glove box with automatic cleaning, water-oxygen purification system and solvent adsorption system ;

2.E-1800SDPG-A3, denotes a split 1800mm double-sided four-station glove box with automatic cleaning, water-oxygen purification system, and a square transition chamber.

## After-sales service

Etex "365 Worry-Free" , Value Extended Warranty Service

"365 Worry-Free" Extended Warranty Service Value Extended Warranty Service Value All-weather, All-process, More cost-saving, More timely, More peace of mind, More convenient, Controllable repair cost, Professional maintenance service.

★The whole process: one-stop repair, maintenance, training services, the establishment of a complete user profile.

★ Save more money :

- 1 ) With the purchase of an extended warranty, you do not have to pay any additional fees for the repair of your equipment (except for consumables). ;
- 2 ) Free value-added services, timely replacement of parts you usually do not pay attention to the repair report, to eliminate hidden dangers, to ensure that the equipment has been in a good state of use! ;
- 3 ) More favorable hardware upgrades to meet the higher demands of your equipment ;
- 4 ) Buy supplies at a better price.

★ More timely :

After you choose the extended warranty service, the company will be able to stock commonly used modular parts with engineers, who can efficiently and timely replace the faulty modules, shorten the maintenance cycle, make your production work smoother and more efficient, and create higher profits for you.

★ More secure :

Equipment in the past 1 year of free warranty period, will no longer enjoy the full warranty service, and the purchase of extended warranty service, you can continue to enjoy the free warranty, we will regularly visit the use of equipment, to provide you with high-quality, perfect equipment warranty service, free of your worries.

★ More convenient

You only need to call the Etex unified customer service hotline: 400-086-8156. 400 call center will serve you 24 hours a day, all your needs we can instantly meet.

★ Maintenance costs are manageable:

Without the purchase of extended warranty services, maintenance costs will be charged according to the faulty equipment and failure, the enterprise is not controllable on the cost of equipment maintenance; the purchase of extended warranty services, the cost of maintenance will be controllable, into a budgetary system of inputs, which can significantly reduce the risk of increased equipment maintenance costs.

★ Professional Maintenance Service: Let our service team provide you with more professional support and work together to create a better future!