



Lab2000 Series One-sided Single-Sided Gloveboxes

The Lab2000 Glovebox is a high-performance, high-quality, closed-circuit working system that automatically absorbs water and oxygen molecules to purify the working environment, providing an inert atmosphere of $\leq 1\text{ppm O}_2$ and H_2O that can be applied to meet your specific cleaning requirements. The system is designed to be an economical recirculating purification system for customer research and development.

The Lab2000 system consists of a hermetically sealed chamber, a set of transition chambers (large and small), a rotary vane vacuum pump and a recirculation purification system with integrated microcontroller operator panel. The standard Lab2000 system is equipped with an inert gas purification system with a set of purge columns (fully automated and renewable) to purify and maintain the atmosphere inside the glove box chamber.



Performance Characteristics

- Stainless steel cabinet design with tempered glass or polycarbonate front window (optional) ;
- Indicator: Water, oxygen ≤ 1 ppm;
- Leakage rate: ≤ 0.05 vol%/h ;
- Solenoid valves with modular design, reduced leakage rate, easy to replace ;
- Large transition hatch with sliding tray and uniquely designed transition hatch that is lightweight and easy to open ;
- GP-20 purification system for inert gases ;
- SIEMENS Microcontrollers ;
- SIEMENS operating touch screen for easy access to functions ;
- Data memo: automatic recording of system data ;
- Closed gas circulation, oil and vacuum free ;
- Foot pedal instead of manual adjustment of pressure control ;
- All stainless steel gas flow piping and fittings ; EDWARDS RV12 vacuum pump ;
- HEPA High Efficiency Filter ;
- Automatic pressure control, working air pressure can be set in the range of ± 12 mbar ;
- Height Adjustable Bracket ;
- Adjustable casters for easy mobility ;
- Lampshade with anti-reflective film ;

Technical Advantages

1. Glove box has a beautiful design, compact structure and fine workmanship ;
2. The inert gas in the glove box is continuously absorbing oxygen and water through the closed circulation of the circulating fan and purifier ;
3. The water-oxygen removal material can be regenerated, and the regeneration process is automatically controlled by the program ;
4. Adopting the latest European technology, all key components are imported from Europe and come from world famous manufacturers ;
5. Control system includes self-diagnostics, power failure self-start characteristics, with pressure control and adaptive functions, password protection, control unit using Siemens PLC touch screen ;
6. Water analyzer corrosion resistance, wide range of applications, especially for lithium manufacturing and metal organic and other users, can be 3 times free cleaning and reuse, to avoid a pollution that is the end of the problem ;
7. Oxygen analyzer with ZrO_2 sensor avoids short fuel cell life and constant exposure to air ;
8. The use of integrated valve structure, reduce and optimize the system piping arrangement, reduce the leakage point, simplify the leakage detection link, the use of products more stable and reliable ;
9. Equipment operation is stable, can be continuous $7 \times 24h$ long-term operation ;
10. Automatic control, simple operation, low operation and maintenance costs ;
11. Each part of the glove box specialization, standardization, large-scale production ;
12. Products for a wide range of special requirements ;
13. All parts are carefully audited and controlled ;
14. Extensive design and control experience ;
15. The production process is carried out in strict accordance with ISO9001 standards ;
16. High-precision modernized testing means, helium quality park leakage detection of key links in the production process, to ensure product quality is foolproof. ;
17. Sophisticated technical team to realize the continuous improvement and perfection of products ;
18. Perfect after-sales service system and rich after-sales service experience, in Beijing, Shanghai, Guangzhou, Wuhan, Chengdu, Xi'an, Changchun and other places to set up service organizations, can realize fast, 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 ³
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 ₂ O and O ₂ ; 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 ₂ , Ar, He (purity ≥ 99.999%); regeneration gas: H ₂ 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 ³ /h (7 cfm), vacuum < 2 x 10 ⁻³ mbar (dry pump optional)
Recurrent unit	Oil-free high speed fan; airflow: 0 - 100 m ³ /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.
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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℃, 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℃ and a temperature control of ±1℃.	
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 ₂ O, O ₂ ≤ 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 :

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

②E-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!

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