



VIGOR GLOVEBOXES LG Series



- Fully equipped workstations, plug and work
- Low leak rate
- Wide range of options to be selected from our "toolbox"
- **Vigor Smart Box APP:** Remote control by mobile phone or PC

Our Toolbox:

Optional Items			
Purification System		Pictures	
Upgrade to Dual Column Gas Purification System			
Upgrade to Regenerable Solvent Vapor Removal			
Vigor Smart Box			
Heated Antechamber with PLC Integrated Control			
Large Antechamber(150 C)			
Large Antechamber(200 C)			
Mini Antechamber(150 C)			
Freezer with PLC Integrated Control			
Freezer (Minimum temperature: -35 C)			
Box Cooling System with PLC integrated control & Heat Exchanger			
Box Cooling System (Between 22-25 C)			
Heat Exchanger on circulation (Water Chiller required)			
Cold Well			
Cold Well			
Dewar for Cold Well			
		Feedthrough	
		Electrochemical Feedthrough	
		Electrochemical Feedthrough with Alligator Clips or Banana Connector	
		BNC Feedthrough	
		Electrical Power Feedthrough (Single phase 220-230 VAC, 50 Hz, 230 VA max)	
		Fiber Optics Feedthrough	
		USB Feedthrough(Micro USB)	
		USB Feedthrough(Type-C)	
		Gas/Liquid/Vacuum Feedthrough	
		Analyzer	
		Moisture Analyzer (-100 to 20 C)	
		Oxygen Analyzer (0-10, 100, 1000 ppm)	
		Spin Coater & Hot plate	
		Sawatec SM-150 Spin Coater	
		Sawatec HP-150 Hot Plate	
		Nikon Microscope	
		Edwards XDS10i Dry Vacuum Pump	

Please refer to individual leaflets for details

Vigor Gas Purification Technologies (Suzhou) Co., Ltd

58 Tingtao Road, Suzhou Industrial Park, Jiangsu, China

+86-400-888-1210

info@vigorgb.com

www.vigorgb.com

Vigor Gas Purification Technologies (Europe) GmbH

Jahnstraße 5
D-97828 Markttheidenfeld Germany

+49-9391-9137-802

info-europe@vigorgb.com

www.vigorgb.com

Workstations LG-Series

Description	Material	Dimensions	Specification
I. Glove Box			
1) Box enclosure	Stainless steel (US 304; EU 1.4301) Thickness 3mm	Please see page 2 for all available dimensions	Inside surface brushed; Outside surface white painted
2) Extension modules	Stainless steel (US 304; EU 1.4301) Thickness 3mm	Please see page 2 for all available dimensions	Inside surface brushed; Outside surface white painted
3) Detachable front window(s)	Safety glass	Thickness 8mm	Patented vacuum gasket (no-leak seal) for the interface with the box body
4) Glove ports	Anodised aluminium alloy	Φ8" / 203mm	Patented vacuum gasket (no-leak seal) for the interface with the window and the glove
5) Gloves	Butyl rubber	Φ200mm, Length 810mm	Ambidextrous (both hand use) gloves
6) Supporting frame(s)	Square steel tubing, height 900mm, 4 castors for easy moving and 4 leveling feet for placing and leveling the box		Complete frame painted in white
7) Integrated KF-flanges for feedthrough's	Stainless steel (US 304; EU 1.4301)	KF40, outside length 20mm	Welded on the box body, single sided to the outside, blind flanged (including flange and clamp)
8) Height adjustable shelves	Stainless steel (US 304; EU 1.4301)	800mm(W)X170mm(D)	Adjustable or fix installed on demand
1 Pneumatic purge valve		DN25	Outside connection, open KF40 on the top of the valve (possibility to connect to exhaust)
II. Technical Specification			
1) Leak Rate			< 0.02 %vol/hr
2) Purity Level of the Atmosphere			O ₂ < 1 ppm, H ₂ O < 1 ppm
3) Working Gases			Nitrogen, Argon, Special gas on request
III. Antechambers			
1) 1 Large antechamber	Stainless steel (US 304; EU 1.4301),	Φ370X600mm	Welded on the side panel of the box enclosure, leak free, auto-evacuation function controlled by the PLC, 1 removable sliding tray
2) 1 Mini ante-chamber	Stainless steel (US 304; EU 1.4301),	Φ150X300mm	Welded on the side panel of the box body, leak free, manually operated by 3-way valve, 1 removable tray
IV. Gas Purification System			
1) 1 Gas purification column, containing copper catalyst and molecular sieve			Absorption capacity: O ₂ = 60 liter and H ₂ O = 2 kg The column is regenerable and the regeneration is automatically controlled by the PLC
2) 1 Organic solvent adsorber			Activated carbon, pre-dried
3) 1 Gas tight circulation blower			Flow rate 60 m ³ /h, (110V: 45 m ³ /h)
4) Valves for circulation, regeneration and box pressure control			PLC controlled valves, enabling automatic control of the circulation, regeneration, and box pressure
5) 1 Vacuum Pump: RV 12 (Edwards)			Pumping speed 12 m ³ /h (Including oil mist filter)
V. System Control			
1) Power supply			Single phase 220-230 VAC, 50 Hz, 230 VA max
2) 1 Foot-switch			For individual adjustment of the box pressure by the user
3) Touch screen panel, color, 7"			Interface language: English or Chinese
4) 1 Electrical feedthrough and power strip installed in the box			Inside / outside connection with country specific plugs
5) Programmable logic controller			Siemens SIMATIC S7-200 SMART
6) Automatic evacuation of the large antechamber			Unattended operation, number of cycles settable by the user
7) Gas purification system works on demand controlled by oxygen and/or moisture analyzer			It typically works 5 minutes every hour. Saves energy and extend the blower lifetime
8) Fully integrated control of heated antechamber, freezer and box cooling			User settable target values
9) Automatic leak rate testing			Alerting users of damaged gloves or gaskets
10) Automatic box pressure control, working pressure user settable, range +10 to -10mbar			The PLC will automatically control the box pressure within the set range
11) Automatic purge			Activates the purge valve
12) Display of warning messages, alarms and error messages			Active messages and message log available
13) Recording and displaying of historical data			On screen for visual inspection, data export possibility
14) All operations are conditional			Preventing hazardous actions and damages on the glovebox

For options like antechamber on the left hand side panel, heated antechambers, T-antechambers, rectangular antechambers, extended antechambers, dual column gas purification systems and a wide range of feed-throughs, please see the related specific datasheets or contact your Vigor representative.

LG Series

Workstation LG series					
Model	Dimensions	Side	Glove port No.	Technical Specification	Included Items
LG1200/750TS	1200mm(L)x750mm/(D)x900mm(H)	Single	2	Leak Rate: < 0.02 %vol/hr Purity Level of the Atmosphere: O ₂ < 1 ppm, H ₂ O < 1 ppm	Large Antechamber & Mini Antechamber Gas Purification System Edwards RV12 Vacuum Pump System Control -Glove Port Cover -Electrical Power Strip Feedthrough
LG1500/750TS	1500mm(L)x750mm/(D)x900mm(H)	Single	3		
LG1800/750TS	1800mm(L)x750mm/(D)x900mm(H)	Single	4		
LG2000/750TS	2000mm(L)x750mm/(D)x900mm(H)	Single	4		
LG2400/750TS	2 x 1200mm(L)x750mm/(D)x900mm(H)	Single	4	Leak Rate: < 0.05 %vol/hr Purity Level of the Atmosphere: O ₂ < 1 ppm, H ₂ O < 1 ppm	
LG1200/1000TS	1200mm(L)x1000mm/(D)x900mm(H)	Double	4		
LG1500/1000TS	1500mm(L)x1000mm/(D)x900mm(H)	Double	6		
LG1800/1000TS	1800mm(L)x1000mm/(D)x900mm(H)	Double	8		
LG2000/1000TS	2000mm(L)x1000mm/(D)x900mm(H)	Double	8		
LG1200/1200TS	1200mm(L)x1200mm/(D)x900mm(H)	Double	4		
LG1500/1200TS	1500mm(L)x1200mm/(D)x900mm(H)	Double	6		
LG1800/1200TS	1800mm(L)x1200mm/(D)x900mm(H)	Double	8		
LG2000/1200TS	2000mm(L)x1200mm/(D)x900mm(H)	Double	8		

Note: All LG workstation series can be extended via related LG series extension module.

Extension Module LG series					
Model	Dimensions	Side	Glove port No.	Technical Details	
LG1200/750E	1200mm(L)x750mm/(D)x900mm(H)	Single	2	For left or right modules: One side panel on left or right side of enclosure One box connection flange	
LG1500/750E	1500mm(L)x750mm/(D)x900mm(H)	Single	3		
LG1800/750E	1800mm(L)x750mm/(D)x900mm(H)	Single	4		
LG2000/750E	2000mm(L)x750mm/(D)x900mm(H)	Single	4		
LG1200/1000E	1200mm(L)x1000mm/(D)x900mm(H)	Double	4	For center modules: Two box connection flanges	
LG1500/1000E	1500mm(L)x1000mm/(D)x900mm(H)	Double	6		
LG1800/1000E	1800mm(L)x1000mm/(D)x900mm(H)	Double	8		
LG2000/1000E	2000mm(L)x1000mm/(D)x900mm(H)	Double	8		
LG1200/1200E	1200mm(L)x1200mm/(D)x900mm(H)	Double	4	Box Connection Flanges: With removable gasket patented no-leak seal for the interface between the two box bodies.	
LG1500/1200E	1500mm(L)x1200mm/(D)x900mm(H)	Double	6		
LG1800/1200E	1800mm(L)x1200mm/(D)x900mm(H)	Double	8		
LG2000/1200E	2000mm(L)x1200mm/(D)x900mm(H)	Double	8		

Note: All LG extension module series can be connected with related LG series extension module.