BIOTEK BREW

India Most Advanced Glove Box Workstation

Why Choose BB Glove Box Work Station?

- ❖ Most Cost Effective
- ❖ Highest Level of Reliability & Safety
- ❖ Stainless steel enclosure with polycarbonate window
- ❖ Easy locking and transferring system
- ❖ Best controlled environment for Chemical Studies and storing
- ❖ Microprocessor/PLC based controlling and Display of parameter

Key Features

- ➢ Automatic maintenance of oxygen and moisture level in main chamber
- ➢ Microprocessor based Controlling for antechamber and main chamber
- ➢ Digital Touch Screen Display
- ➢ User friendly Interface for data Input
- ➢ Negative and positive pressure operation using foot Paddle switch
- ➢ Proprietary algorithm to maintain moisture and O2 conc. less < 1 PPM.
- ➢ Solid state sensor, Digital Vacuum/Pressure sensors and PT100 sensors.
- ➢ Particle removal, Charcoal and moisture and HEPA filters,
- ➢ Florescence light for general purpose.
- ➢ Power Electric Switch and Shelves

Technical Specification

Item		Parameter
Glove Box	Box	Box size:(L x W x H) 1220×750×900 mm Box material: stainless steel 304, thickness 3 mm Inner surface: Mat finishing with coating Outside surface: Powder coating white, Opening to transfer large materials: L x H: 1150 x 850 mm
	Front window	12 mm Front panel is Sapphire Coated Polycarbonate/acrylic material/toughen glass
	Glove ports	Two glove ports of POM Material, Glove port diameter: 220 mm (8"); Vitron O ring seal
	Gloves	One pair of Butyl rubber, thickness 0.4mm, diameter 8", length 32"
	Filter	0.3 microns, a gas inlet and a gas outlet
	Shelf	Stainless steel, 2-3 Layers
	Lighting	LED lights, installed in front of each glass window
	Connector	Stand by interface 4pcs, DN40 KF, Power interface 1pc (220V)
	Leak rate	Less than 10-5 mbar L/s for Inert gas
Bigger Ante-chamber	Chamber	Size: Diameter 400 mm, length 600 mm Material:304 stainless steel Surface: inner surface wire drawing process, outer surface powder coating, Leak rate: Less than 10-5 mbar L/s,
	Accessory	Sliding tray: 304 stainless steel Door : double door, anodized aluminium material, thickness 12mm, vertical operation, with lifting mechanism Pressure gauge: Analog display
	Control	Solenoid valve touch screen automatic operation
Small Ante-Chamber	Chamber	Size: Diameter 150 mm, length 350 mm length into the glove box, Material: 304 stainless steel, Surface: inner: wire drawing process, outer: Powder coating Leak rate: Less than 10-5 mbar L/s,
	Accessory	Double door, buckle type compression Pressure gauge: Analog display 304 stainless steel tray
	Control	Manual valve manual operation
	Purification column	Function: gas sealed, remove water, remove oxygen Container material: 304 stainless steel Purification materials: copper catalyst: 8kg, molecular sieve: 8 kg Purification capacity: oxygen: 60L, water: 2Kg Water and oxygen indicators: less than 1ppm

Gas purification circulation system	Circulatory system	Working gas: nitrogen, argon, helium Recycling capacity: integrated fan flow 90m3 / h, install frequency conversion
	Regeneration	Operation: PLC automatically controls the regeneration process Regeneration gas: working gas mixed with hydrogen gas, (hydrogen 5-10%)
	Vacuum pump	12m3 / h, rotary vane pump, with oil mist filter, air vibration control, make Edward: RV 12
	Valves	Main valve: DN 40 KF, electrically operated angle valve Control valve: electromagnetic integrated valve
Control System	Function	Including self-diagnosis, power-off self-starting characteristics, with pressure control and adaptive function Automatic control, cycle control, password protection
	Pressure control	PLC Auto control, cabinet working pressure +/- 15mbar can be set freely, beyond +/- 16mbar system automatic protection
	Pedal	Control the box pressure, easy to operate boost and buck
Display system		Using Siemens PLC touch screen, display running status, box pressure, system records etc
Vacuum system control		Vacuum pump, can be manually or through the PLC to start, flow 12m3/h, vacuum of the transition chamber, and keep the box pressure balance, vacuum pump limit vacuum ≤ 2x10-1pa
Basic components	Moisture Analyser	Measuring range: 0~1000ppm platinum electrode structure with accuracy: +/- 1 ppm, Make: GE
	Oxygen Analyser	Measuring range: 0 ~ 1000ppm with accuracy: +/- 1 ppm. The use of ZrO2 sensor, to avoid the fuel cell life is short, and avoid the problem of it cannot be exposed in the air
	Organic solvent absorber	Size: diameter 238mm, height 407mm, 3mm thickness304 stainless steel Filled with 10kg of activated carbon. Connected with the main circulation pipeline, the circulating gas can first flow through the organic solvent adsorb-er device to absorb the organic solvent in the gas. Quick and convenient replacement of adsorbent materials. After replacing the activated carbon, the adsorption column can be vacuumed to eliminate air and avoid contaminating the high-purity atmosphere inside the box.

Deliverable Items List of Glove Box

- 1 set 304 stainless steel box, acid-resisting, thickness: 3mm
- 1stainless steel vacuum transitional chamber, 400 *600mm, right side
- 1small stainless steel transitional chamber, 150*350mm., right side
- 1front window with 2 glove ports.
- 3 pairs of butyl rubber gloves.
- 1set of lighting system
- 1set of high-performance circulating fan with frequency conversion
- 1set PLC control and touch screen control operating system
- 1set of purification system
- 1set vacuum pump
- 1set Oxygen analyzer
- 1set Moisture analyzer
- 1 set Quick change organic solvent adsorber
- 1power interface inside the box
- 4pcs Blind flange
- 1set bracket and trundle
- 1pcs foot pedal

List of Major Component with Make

Parts	Make
Vacuum Pump	Edwards RV 12
Moisture sensors	GE Varydry
Zirconia oxygen sensors	Senz-TX, Ntron
Pressure sensors for ante chamber	Vacuum sensors, smc- PSE-533
Pressure sensors for main chamber	Wika A-10, -25 to +25 mbar
Purification system	BASF、UOP（Germany, USA）
PLC and touch screen	SIEMENS
Solenoid valve	SMC

G-303, GIDC, Vapi, Valsad
Gujarat 396195
support@biotekbrew.com
+919354055609
www.biotekbrew.com