



α -650A Acrylic Glovebox



Acrylic Atmospheres Glovebox

Acrylic Atmospheres Gloveboxes offer a cost-effective solution for inert atmosphere applications. The systems are modulated with antechambers, removable windows, adjustable trays, lighting units, adjustable shelves, and gloves, which meet most of the operational needs in the glovebox. The highly clear and transparent acrylic chamber not only allows UV transmission and excellent visibility, but also maintains impermeable to ambient air. Standard Butyl rubber-gloves provide excellent resistance to abrasion and chemicals. The systems are equipped with highest-quality components. They are able to create an inert environment with less than 1 ppm of H_2O and O_2 . Customizable configurations are offered to meet your special requirements in either research or production. The standard models include two glovebox chamber lengths, 650 mm and 1500 mm.

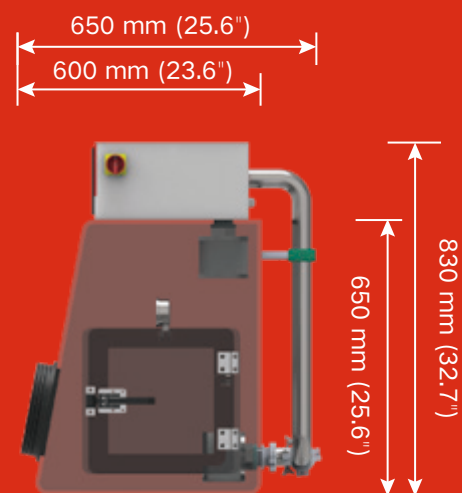
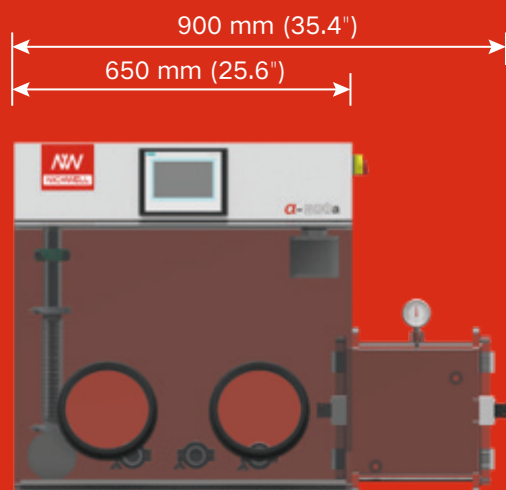
KEY FEATURES

All glovebox chamber made of Acrylic
All stainless steel pipework
Purifier regeneration frequency once per year
Automatic antechamber control
NVD-4 vacuum pump
Oxygen Analyzer and Moisture Analyzer
Auto purge function
User friendly and simple operation: Color LCD touch panel and PLC controller
Energy-Save mode, automatically reducing power consumption by up to 90% during idle
Automatic regenerable H₂O/O₂ purifier
Attainable purity O₂<1 ppm , H₂O<1 ppm (dew point also available for moisture reading)
Industry leading low leak rate of <0.05% Vol/hour at -10 mbar condition
Stainless steel encapsulated blower with frequency converter
Circulation capacity more than 20 m³/h (12 cfm) at ΔP = 60 mbar (60 Hz)
Compatible with world-wide voltage standards
Integrated high-vacuum feedthroughs
Conform to CE
One year limited warranty, and lifetime technical support

MAIN APPLICATIONS

Create oxygen-free and moisture-free environment for organometallic chemistry, organic synthesis, hydrophilic chemical handling, medical devices, electronic component handling, lithium battery handling, solar cell assembly, hemoglobin and metabolic research, catalyst handling, medicine synthesis, nuclear industry, membrane of organic EL preparation, etc.





Package List

Part Description	Quantity	Part Image
Quick Clamp KF 25	3 pcs	
Bellows Metal KF 25	1 pcs	
Glovebox Glove	2 pcs	
Oxygen Analyzer	1 pcs	
Moisture Analyzer	1 pcs	
Oil Mist Filter	1 pcs	
NVD-4 Vacuum Pump	1 pcs	

Configuration Options

	Acrylic	Mini	Vacuum	Standard
25.6" 650 mm		Customizable	Customizable	Customizable
31.5" 800 mm	Customizable			Customizable
39.4" 1000 mm	Customizable			Customizable
47.3" 1200 mm	Customizable			
59.1" 1500 mm				
70.8" 1800 mm	Customizable			
94.5" 2400 mm	Customizable	Customizable	Customizable	

α-650A Acrylic Glove Box With Auto Purging System

External Structure				
Chamber Capacity		Approximately 8.8 cu. F.t (0.25 m³)		
Overall Dimensions		35.4" L x 25.6" W x 32.7" H, 900 mm (L) x 650 mm (W) x 830 mm (H)		
Overall Weight		440 lbs (200 kg)		
Electrical Voltage		• 230 VAC/50-60 Hz, 10 A • 115 VAC/50-60 Hz, 20 A • 100 VAC/50-60 Hz, 20 A		
Glovebox Chamber				
Description	Material	Acrylic , 10 mm in thickness		
	Internal Dimensions	25.6" L x 23.6" W x 25.6" H, 650 mm (L) x 600 mm (W) x 650 mm (H)		
Glove Ports	Tekaform	8.6"(220 mm) in diameter, O-ring sealed		
Gloves	Material	Butyl rubber		
	Thickness	0.4 mm (standard) 0.8 mm upon request		
HEPA Filters		Inlet and outlet filters eliminate particles with the size > 0.3µm		
Lighting	Fluorescent lamp, Top mounted			
Leakage Rate	Typically <0.05vol%/hr at -10 mbar, • By oxygen leak decay test method according to ISO 10648-2: 1994 • By Pressure Change Test Method according to ISO 25412			

Antechamber

Main Antechamber	Material	Acrylic , 20 mm in thickness
	Internal Dimensions	9.8"(L) x 9.8"(W), 250 mm (L) x 250 mm (W)
	Vacuum	1 x 10 ⁻² mbar

Purging System

Function	By setting up the purging time and pressure, the system automatically purges the chamber O ₂ level, timer or manually controlled
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Analyzers

 O ₂ -Analyzer	Dimensions	8" L x 3.1" D x 2.4"H, 205 mm (L) x 80 mm (W) x 60 mm (H)	 
	Measurement Range	0 to 1000 ppm	
	Other Analyzer	GE oxy.IQ™ Oxygen Transmitter upon request	
 H ₂ O-Analyzer	Dimensions	8" L x 3.1" D x 2.4" H, 205 mm (L) x 80 mm (W) x 60 mm (D)	 
	Measurement Range	0 to 500 ppm	
	Other Analyzer	GE VeriDri™ Dew-Point Transmitter	

Optional Components

Vacuum feedthrough with two valves	Special design to KF40 joint, you can lead the water or gas into the box
Electrochemical signal feedthrough	4 or 8 pins, Stainless steel 304
Organic Solvent Absorber	Regenerable, more efficient to purify organic solvent
Cooling Fan	Accelerate the gas flow in the glovebox chamber

Other Information	
Compliance	UL , ISO9001 , CE
warranty	• One year limited warranty, with lifetime support • Rusting or damage due to improper storage condition or maintenance are not covered by this warranty • consumable items including gloves and oxygen sensors are not covered by this warranty
Application Notes & Warnings	• The interconnections between the glove-box chamber and the gas purification system must be unimpeded during the purification cycles • The use of corrosive gases is prohibited because they will damage the water and oxygen sensors • Regularly perform regeneration to maintain the optimum purification efficiency • The O₂ removing rate is largely dependent on the type of purging gas used. For faster chamber purging process, Nitrogen is preferred over Argon due to its lighter mass • Corrosive liquid (such as LiPF₆ electrolyte) must be sealed in a container inside the glove box. Otherwise, liquid vapour may condense and corrode the steel chamber and purification pipeline

Order Information

α	*	1	2	3	Description
Acrylic Glovebox	650				Dimensions 31.5" L $\times$ 23.6" W $\times$ 25.6" H
	1500				Dimensions 59.1" L $\times$ 23.6" W $\times$ 25.6" H
Structure configuration		A			One Glovebox
		S			Split Glovebox
Function option			P		Purging System
			G		Gas Purification System, H ₂ O、O ₂ $\leq$ 1ppm
Other function options				A6	Square Antechamber 11.8" L $\times$ 11.0" W $\times$ 11.0" H

* The chamber length number is basically required, while 1, 2, 3, or 4 are optional depending on the specific needs by users. Please contact us if special requirements are needed.

Example of Ordering Code:

α -650APG, indicates a single glovebox with 650 mm in chamber length, integrated with an auto-purging system, a water/oxygen purification system, and a square transitional antechamber.

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