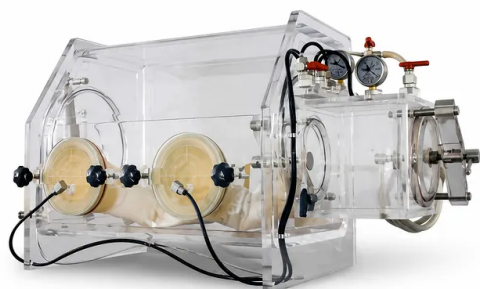


Acrylic Glove Box For Laboratory Use And Inert Atmosphere Material Processing

Item Number: ST03



Introduction

Engineered for advanced laboratory research, this high-transparency acrylic glove box provides reliable inert gas isolation, low-energy radiation shielding, and vacuum-sealed material handling. Built with premium PMMA, dual gas ports, and modular power pass-throughs, it optimizes chemical, battery, and biological workflows.

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Application	Description	Key Benefit
Battery Material Synthesis	Encapsulation and handling of moisture-reactive lithium, sodium, and solid-state electrolyte chemistries under dry inert gas.	Prevents rapid oxidation and moisture degradation, ensuring optimal electrochemical testing performance.
Radiological Research	Containment and manipulation of low-energy alpha- and beta-emitting radioactive compounds and tagged tracers.	PMMA walls shield ionizing radiation, providing direct operator safety without requiring heavy leaded glass.
Anaerobic Microbiology	Aseptic inoculation, culture incubation, and biological sample preservation under zero-oxygen conditions.	Prevents airborne contamination and oxygen toxicity, ensuring repeatable microbiological assay growth.
Electronic & Magnetic Materials	Assembly and packaging of sensitive semiconductor components, magnetic powders, and moisture-critical thin films.	Eliminates electrostatic dust adhesion and atmospheric degradation during critical assembly steps.
Quantitative Chemical Analysis	Weighing, titrating, and synthesizing volatile, hygroscopic, or air-sensitive organic and inorganic reagents.	Built-in electrical connections allow in-situ micro-balance measurement in an undisturbed environment.
Food & Pharmaceutical Packaging R&D	Controlled modified atmosphere packaging (MAP) testing, hermetic seal validation, and stability evaluations.	Allows real-time visual inspection through crystal-clear walls while maintaining strict gas ratios.

Parameter	ST03-012C	ST03-011C	ST03-008C
Main Chamber Dimensions (W x D x H)	700 x 450 x 500 mm	800 x 550 x 600 mm	900 x 600 x 700 mm
Antechamber Dimensions (W x D x H)	240 x 240 x 240 mm	240 x 240 x 240 mm	240 x 240 x 240 mm
PMMA Wall Thickness	20 mm	25 mm	30 mm
Left Main Chamber Access Door	Round Door, Ø 300 mm	Round Door, Ø 350 mm	Round Door, Ø 300 mm
Right Antechamber Access Door	Round Door, Ø 160 mm	Round Door, Ø 160 mm	Round Door, Ø 160 mm
Glove Specifications (Diameter x Length x Thickness)	145 x 600 x 1.1 mm or 145 x 800 x 0.3 mm	145 x 600 x 1.1 mm or 145 x 800 x 0.3 mm	145 x 600 x 1.1 mm or 145 x 800 x 0.3 mm
Operating Chamber Ultimate Vacuum	0 to -0.1 MPa (Grade 2.5 Gauge)	0 to -0.1 MPa (Grade 2.5 Gauge)	0 to -0.1 MPa (Grade 2.5 Gauge)
Antechamber Ultimate Vacuum	0 to -0.1 MPa (Grade 2.5 Gauge)	0 to -0.1 MPa (Grade 2.5 Gauge)	0 to -0.1 MPa (Grade 2.5 Gauge)
Pressure Retention Duration	≥ 12 Hours	≥ 12 Hours	≥ 12 Hours

Parameter	ST03-012C	ST03-011C	ST03-008C
Applicable Inert Gases	Argon, Helium, Nitrogen (Purity $\geq$ 99.95%)	Argon, Helium, Nitrogen (Purity $\geq$ 99.95%)	Argon, Helium, Nitrogen (Purity $\geq$ 99.95%)
Standard Hardware Included	2x Vacuum Gauges, 6x Vacuum Valves, 1x Power Socket, 1x Gas Hose Set	2x Vacuum Gauges, 6x Vacuum Valves, 1x Power Socket, 1x Gas Hose Set	2x Vacuum Gauges, 6x Vacuum Valves, 1x Power Socket, 1x Gas Hose Set
Approximate System Weight	~110 kg	~110 kg	~110 kg
Optional Integrated Equipment	Vacuum Pump (2L/4L), Dew Point Meter, Oxygen Analyzer, Balance, Electric Furnace	Vacuum Pump (2L/4L), Dew Point Meter, Oxygen Analyzer, Balance, Electric Furnace	Vacuum Pump (2L/4L/6L/8L), Dew Point Meter, Oxygen Analyzer, Balance, Electric Furnace

Model Identifier	Main Chamber Dimensions (mm)	Type A PMMA Thickness	Type B PMMA Thickness	Type C PMMA Thickness	Antechamber Dimensions (mm)	Vacuum Evacuation Capability	Material	Left Door Diameter
ST03-012	700 x 450 x 500	10 mm	10 mm	20 mm	Type A: None / Type B & C: 240 x 240 x 240	Type A & B: No / Type C: Yes	Imported PMMA	350 mm
ST03-011	800 x 550 x 600	10 mm	10 mm	25 mm	Type A: None / Type B & C: 240 x 240 x 240	Type A & B: No / Type C: Yes	Imported PMMA	300 mm
ST03-010	1000 x 500 x 500	10 mm	10 mm	25 mm	Type A: None / Type B & C: 240 x 240 x 240	Type A & B: No / Type C: Yes	Imported PMMA	300 mm
ST03-009	1000 x 700 x 500	10 mm	10 mm	30 mm	Type A: None / Type B & C: 240 x 240 x 240	Type A & B: No / Type C: Yes	Imported PMMA	300 mm
ST03-008	900 x 600 x 700	10 mm	10 mm	30 mm	Type A: None / Type B & C: 240 x 240 x 240	Type A & B: No / Type C: Yes	Imported PMMA	300 mm
ST03-007	1000 x 600 x 700	10 mm	10 mm	30 mm	Type A: None / Type B & C: 240 x 240 x 240	Type A & B: No / Type C: Yes	Imported PMMA	300 mm
ST03-006	1000 x 750 x 700	10 mm	10 mm	30 mm	Type A: None / Type B & C: 240 x 240 x 240	Type A & B: No / Type C: Yes	Imported PMMA	300 mm
ST03-005	1200 x 600 x 600	10 mm	10 mm	40 mm	Type A: None / Type B & C: 240 x 240 x 240	Type A & B: No / Type C: Yes	Imported PMMA	300 mm
ST03-004	1200 x 600 x 700	10 mm	10 mm	40 mm	Type A: None / Type B & C: 240 x 240 x 240	Type A & B: No / Type C: Yes	Imported PMMA	300 mm
ST03-003	1200 x 800 x 600	10 mm	10 mm	40 mm	Type A: None / Type B & C: 240 x 240 x 240	Type A & B: No / Type C: Yes	Imported PMMA	300 mm
ST03-002	1200 x 800 x 700	10 mm	10 mm	40 mm	Type A: None / Type B & C: 240 x 240 x 240	Type A & B: No / Type C: Yes	Imported PMMA	300 mm
ST03-001	1094 x 640 x 645	10 mm	10 mm	30 mm	Type A: None / Type B & C: 240 x 240 x 240	Type A & B: No / Type C: Yes	Imported PMMA	300 mm