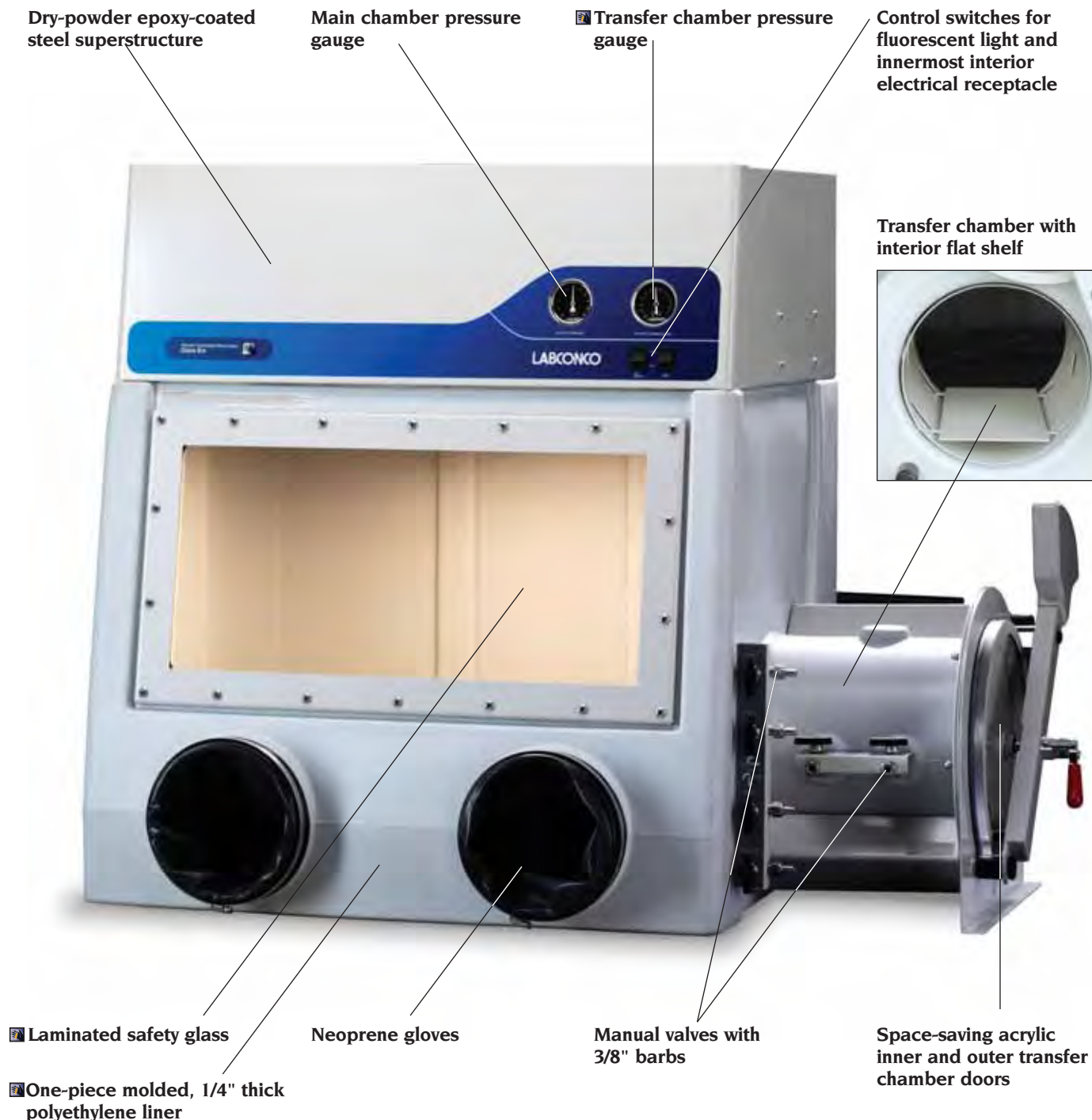


Precise™ Basic & Controlled Atmosphere Glove Boxes

INTRODUCTION

Precise Basic and Controlled Atmosphere Glove Boxes provide a leak-tight environment for work with contamination-sensitive materials. Precise Basic Glove Boxes are simple, economical boxes that provide a draft-free environment with a physical barrier and may be customized with accessories to meet specific applications.

Precise Controlled Atmosphere Glove Boxes have valves for evacuating and filling the chambers as well as drying train connections to achieve low oxygen levels for work with organometallics, alternative energy cells or hydrophilic chemicals. Oxygen levels as low as 5 ppm and moisture levels as low as 50 ppm may be achieved.



 Exclusive Feature

Precise™ Basic & Controlled Atmosphere Glove Boxes

FEATURES & BENEFITS

■ **One-piece molded, medium-density polyethylene** liner provides a durable surface resistant to chemical corrosion and physical damage while simplifying cleaning with its coved interior corners.

Dry-powder epoxy-coated steel superstructure, located above the glove box shell for utility placement, has superior corrosion resistance.

Laminated safety glass, 1/4" thick, with powder-coated steel frame and neoprene gasket for tight seal. Large access opening, 26.4" w x 12.5" high with removable window, allows for placement of large equipment.

Space-saving acrylic inner and outer transfer chamber doors pivot upward to save space and are counterbalanced and equipped with quick latches for easy operation.

■ **Black, chemical-resistant phenolic core work surface** prevents chemicals from staining the glove box floor, provides for easy clean-up and increases visibility of chemical powders.

■ **Interior ceiling-mounted electrical duplex receptacle**, with 5 amp maximum (100/115 volt models) or 2 amp maximum (230 volt models) circuit load, provides power for instruments inside the box.

Neoprene gloves, size 9 3/4, 30" long, are impermeable to water vapor, gases and toxic chemicals.

22 watt-fluorescent lamp illuminates the interior and is easily accessible from outside of the chamber.

Control switches for fluorescent light and innermost interior electrical receptacle are conveniently located on the exterior control panel.

Large internal work area offers approximately 13 cubic feet of interior space in main chamber.

Six manual valves with 3/8" compression fittings and 3/8" hose barbs. Two valves are located both on the main chamber and transfer chamber for evacuating and re-filling the chambers via a vacuum pump and inert gas. The remaining two valves on the main chamber can be connected to a continuously recirculating oxygen and moisture removal system — creating and preserving levels of 1 to 5 ppm oxygen. Six manual valves come standard on Precise Controlled Atmosphere Glove Boxes and may be added to Precise Basic Glove Boxes.

■ **Main chamber pressure gauge** monitors pressures between -5 to +5 inches of water gauge. The gauge comes standard on Precise Controlled Atmosphere Glove Boxes and may be added to Precise Basic Glove Boxes.

Pressure relief valve activates at +/-6 inches water gauge, preventing damage to the window should internal pressure exceed operational limits. The relief valve comes standard on Precise Controlled Atmosphere Glove Boxes and may be added to Precise Basic Glove Boxes.

■ **Transfer chamber**, 11.0" nominal ID x 12.0", includes interlocking flat shelf of dry powder-coated epoxy steel to permit objects to stand upright. Precise Controlled Atmosphere Glove Boxes include an epoxy-coated steel high vacuum sleeve to allow transfer chamber evacuation without distortion. The sleeve is an optional accessory for Precise Basic Glove Boxes.

■ **Transfer chamber pressure gauge** monitors pressure/vacuum from 0 to -29 inches of mercury. The gauge comes standard on Precise Controlled Atmosphere Glove Boxes and may be added to Precise Basic Glove Boxes.

Low oxygen and moisture levels maintained. Oxygen levels as low as 5 ppm and moisture levels as low as 50 ppm may be achieved and maintained. A variety of oxygen and moisture removal accessories are offered to achieve the levels desired.

■ **Leak-tight**. Each box has been factory-tested with a helium mass spectrometer while pressurized with helium at 5 inches of water gauge and found to have no detectable leaks greater than 1×10^{-4} ml/sec.

Meets Class 1 atmosphere containment conditions for oxygen leak rates per ISO 10648-2 test method.

ETL-listed. All 115 volt, 60 Hz and 230 volt, 60 Hz models carry the ETL mark signifying that they are certified to UL 61010-1 and CAN/CSA C22.2 No 1010.1.

CE mark. All 230 volt, 50 Hz models conform to the CE (European Community) requirements for electrical safety and electromagnetic compatibility.

Full one-year warranty on parts and labor.

Over 70 optional accessories allow the glove box to be customized for individual applications. Accessories may be added as needs change and budgets allow.

Precise™ Basic Glove Boxes

ORDERING INFORMATION



Precise Basic Glove Box
5220000 on Mobile
Stand 5235500.



Optional Accessories include:

See pages 19-21 for ordering information on accessories for Precise Basic and Controlled Atmosphere Glove Boxes.

- Rotary Vane Vacuum Pumps, Automatic Pressure Controllers, Tubing, Valve Kits, Pressure Gauges and Transfer Chamber High Vacuum Sleeve for evacuating and filling operations.
- Pressure Relief Valve and Vent Kits.
- Column, Stand and Tubing for low oxygen and moisture level removal.
- Moisture Monitors and Hygrometer.
- Oxygen Monitors.
- Traps, Tubing, Flowmeter, Diaphragm Pumps and other drying train accessories.

See pages 21-24 for ordering information on accessories for all glove boxes.

- Electrical Power Strips and Electrical and Mechanical Pass-Through Kits.
- Acrylic Viewing Window.
- Vacuum Aspirator Kits.
- Interior and Exterior Shelves and accessories.
- Glove Port Covers, Gloves, Sleeves and Hands.
- Remote Blowers to exhaust the pressure relief valve.

Ordering Information

Catalog Number	Electrical Configuration	Shipping Wt. (lbs./kg)
5220000	115 volts, 60 Hz, 8 amps	255/116
5220020*	230 volts, 50 Hz, 4 amps	255/116
5220021	230 volts, 60 Hz, 4 amps	255/116
5220030*	100 volts, 50 Hz, 8 amps	255/116
5220031*	100 volts, 60 Hz, 8 amps	255/116

All models feature:

- One-piece molded, medium-density polyethylene shell.
- Dry powder epoxy-coated steel superstructure.
- 1/4" thick, laminated safety glass viewing window with powder-coated steel frame and neoprene gasket, removable for loading equipment. Cutout is 26.4" w x 12.5" high.
- Space-saving inner and outer transfer chamber doors that pivot upward, are counterbalanced and equipped with quick-latches.
- Black, chemical-resistant phenolic core work surface sealed to the glove box floor.
- Interior ceiling-mounted electrical duplex receptacle with 5 amp maximum (100/115 volt models) or 2 amp maximum (230 volt models) circuit load.
- Pair of neoprene gloves, 0.15" thick, 30" long, size 9 3/4.
- Fluorescent lamp, 22 watts, accessible from the top for bulb replacement.
- Switches for light and innermost interior electrical receptacle.
- Approximately 13 cubic feet of interior space in main chamber, 33.5" w x 27.5" d maximum x 25.0" high.
- 11.0" nominal ID x 12.0" long transfer chamber.
- Factory leak-tested with a mass spectrometer while glove box is pressurized with helium at 5 inches of water gauge. No detectable leaks greater than 1×10^{-4} ml/sec.
- Meet Class 1 atmosphere containment conditions for oxygen leak rates per ISO 10648-2 test method.
- Transfer chamber interior interlocking shelf of dry powder epoxy-coated steel.
- ETL listing, UL 61010-1 and CAN/CSA C22.2 No. 1010.1 conformity (115 volt and 230 volt, 60 Hz models).
- CE Conformity Marking (230 volt, 50 Hz models).

All models require:

- Supporting base. See pages 25-26 for Adjustable Height Base Stands or Work Surface and Protector Standard Base Cabinet.

 Exclusive Feature

*International electrical configuration

Precise™ Controlled Atmosphere Glove Boxes

ORDERING INFORMATION



Precise Controlled Atmosphere Glove Box 5220100 on Mobile Stand 5235500.



All models feature:

- One-piece molded, medium-density polyethylene shell.
- Dry powder epoxy-coated steel superstructure.
- 1/4" thick, laminated safety glass viewing window with powder-coated steel frame and neoprene gasket, removable for loading equipment. Cutout is 26.4" w x 12.5" high.
- Space-saving inner and outer transfer chamber doors that pivot upward, are counterbalanced and equipped with quick-latches.
- Black, chemical-resistant phenolic core work surface sealed to the glove box floor.
- Pressure relief valve that activates at pressure/vacuum above 6 inches or below -6 inches of water gauge.
- Interior ceiling-mounted electrical duplex receptacle with 5 amp maximum (100/115 volt models) or 2 amp maximum (230 volt models) circuit load.
- Pair of neoprene gloves, 0.15" thick, 30" long, size 9 3/4.
- Fluorescent lamp, 22 watts, accessible from the top for bulb replacement.

- Switches for light and innermost interior electrical receptacle.
- Approximately 13 cubic feet of interior space in main chamber, 33.5" w x 27.5" d maximum x 25.0" high.
- 11.0" nominal ID x 12.0" long transfer chamber.
- Factory leak-tested with a mass spectrometer while glove box is pressurized with helium at 5 inches of water gauge. No detectable leaks greater than 1×10^{-4} ml/sec.
- Performance tested to maintain less than 5 ppm oxygen levels and less than 50 ppm moisture levels.
- Meet Class 1 atmosphere containment conditions for oxygen leak rates per ISO 10648-2 test method.
- Six manual valves with 3/8" compression fittings and 3/8" hose bars. Two on the main chamber and two on the transfer chamber are for purging and filling. The other two on the main chamber are for drying train connections.
- Main chamber pressure gauge with readings from -5 to +5 inches of water gauge.
- Transfer chamber pressure gauge with readings from 0 to -29 inches of mercury.

- Transfer chamber high vacuum sleeve and interior interlocking shelf of dry powder epoxy-coated steel.
- ETL listing, UL 61010-1 and CAN/CSA C22.2 No. 1010.1 conformity (115 volt and 230 volt, 60 Hz models).
- CE Conformity Marking (230 volt, 50 Hz models).

All models require:

- Supporting base. See pages 25-26 for Adjustable Height Base Stands or Work Surface and Protector Standard Base Cabinet.
- Vacuum source for evacuating. See page 19 for Rotary Vane Vacuum Pumps.
- Inert gas for filling. Contact your laboratory supply distributor.

Optional Accessories include:

See pages 19-21 for ordering information on accessories for Precise Basic and Controlled Atmosphere Glove Boxes.

- Pressure Relief Valve Vent Kits.
- Automatic Pressure Controllers, Tubing and Valve Kits for evacuating and filling operations.
- Column, Stand and Tubing for low oxygen and moisture level removal.
- Moisture Monitors and Hygrometer.
- Oxygen Monitors.
- Traps, Tubing, Flowmeter, Diaphragm Pumps and other drying train accessories.

See pages 21-24 for ordering information on accessories for all glove boxes.

- Electrical Power Strips and Electrical and Mechanical Pass-Through Kits.
- Acrylic Viewing Window.
- Vacuum Aspirator Kits.
- Interior and Exterior Shelves and accessories.
- Glove Port Covers, Gloves, Sleeves and Hands.
- Remote Blowers to exhaust the pressure relief valve.

Ordering Information

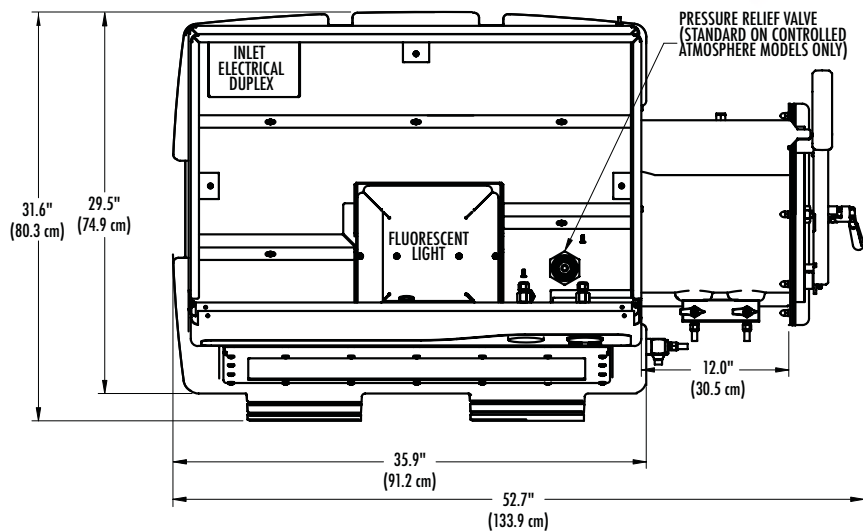
Catalog Number	Electrical Configuration	Shipping Wt. (lbs./kg)
5220100	115 volts, 60 Hz, 8 amps	260/118
5220120*	230 volts, 50 Hz, 4 amps	260/118
5220121	230 volts, 60 Hz, 4 amps	260/118
5220130*	100 volts, 50 Hz, 8 amps	260/118
5220131*	100 volts, 60 Hz, 8 amps	260/118

■ Exclusive Feature

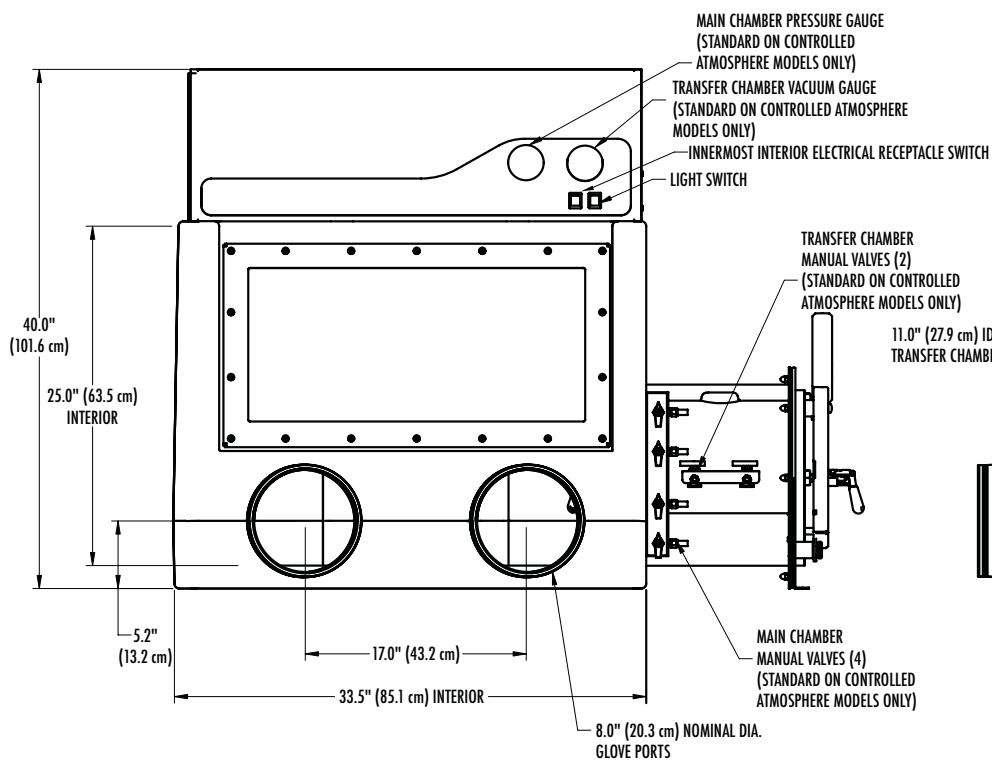
*International electrical configuration

Precise™ Basic & Controlled Atmosphere Glove Boxes

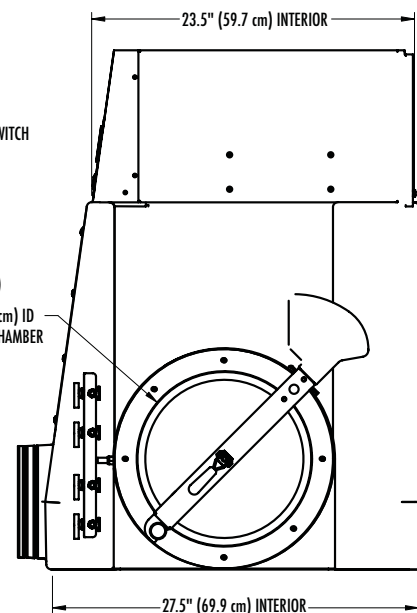
DIMENSIONAL DATA



TOP



FRONT



SIDE