

Precise™ HEPA-Filtered Glove Boxes & XPert® Weigh Boxes

FEATURES & BENEFITS

 **One-piece, molded 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.

Built-in blower with speed control, capable of airflows from 13 CFM to 100 CFM, pulls room air through the inlet HEPA filter and discharges HEPA-filtered air back into the laboratory through the top of the box. This negative pressure operation ensures that all internally-contaminated air passes through the exhaust HEPA filter before returning to the laboratory.

Ducting options. These glove boxes are designed to return filtered air to the laboratory. If desired, an optional FilterMate Portable Exhauster may be installed via ductwork downstream of the exhaust to adsorb low levels of organic fumes, formaldehyde or ammonia gases. Alternatively, these glove boxes may be thimble ducted and exhausted to the outside using a remote-mounted blower.

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

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

Inlet and outlet HEPA filters, 99.99% efficient on 0.3 micron particulates, prevent contaminants from entering or leaving the glove box chamber.

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

 **Transfer chamber**, 11.0" nominal ID x 12.0" long, includes interlocking flat shelf of dry powder-coated epoxy steel to allow objects to stand upright.

 **Leak-tight.** Each box is 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^{-3} ml/sec.

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.

Main chamber static pressure gauge monitors HEPA filter loading.

Anti-static ionizer fan, mounted on the interior ceiling, reduces static charge during weighing operations. The fan comes standard with XPert Weigh Boxes and may be added as an accessory to any Precise Glove Box.

Balance vibration isolator, consisting of a 13.4" w x 20.4" d x 2.7" thick marble slab with isolator pads and type 304 stainless steel cover, provides a stable platform for sensitive weighing applications. The isolator comes standard with XPert Weigh Boxes and may be added as an accessory to any Precise Glove Box.

Performance tested to ASHRAE 110-1995.

Particulate-free ISO Class 3 air. Particulate counts in the work area conform to ISO 14644-1, providing ISO Class 3 conditions at both minimum and maximum operational airflow volumes (35 particulates at 0.5 micron size per cubic meter of air volume).

 **Excellent stability.** The glove box produces less than 1.5×10^{-5} inches vibration displacement measured at the work surface at both minimum and maximum airflow volumes. Balance stability test results indicate no detectable instability of an analytical balance to five decimal places.

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™ HEPA-Filtered Glove Boxes

ORDERING INFORMATION



Precise HEPA-Filtered Glove Box 5220200 on Mobile Stand 5235500.

All models feature:

- One-piece, molded, 1/4" thick 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 interior 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.
- Built-in blower with speed control capable of airflow from 13 CFM to 100 CFM.
- Fluorescent lamp, 22 watts, accessible from the top for bulb replacement.

- Switches for light, blower and inner-most interior electrical receptacle.
- Inlet and outlet HEPA filters, 99.99% efficient on 0.3 micron particulates, and test port for challenging HEPA filter integrity.
- Main chamber static pressure gauge for monitoring HEPA filter loading.
- 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.
- Transfer chamber interior interlocking shelf of dry-powder epoxy-coated steel.
- 0.05 ppm average tracer gas levels or less detected during perimeter scan testing (surpasses ASHRAE 110 standards).
- Airborne particulate cleanliness (measured under positive and negative pressures per ISO 14644-1 test method) exceeds ISO Class 5 conditions (equivalent to Class 100) and achieved ISO Class 3 conditions (equivalent to Class 1) at both minimum and maximum operational airflow volumes.
- Vibration less than 1.5×10^{-5} inches displacement measured at the work surface at all airflow volumes.
- Balance stability to five decimal places on an analytical balance.
- Factory leak-tested with a mass spectrometer while pressurized with helium at 1 inch of water gauge. No detectable leaks greater than 1×10^{-3} ml/sec.
- Particulate containment data independently confirmed by SafeBridge Consultants Inc.
- ETL listing, UL 61010-1 and CAN/CSA C22.2 No. 1010.1 conformity (115 volt, 60 Hz 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.

Optional Accessories include:

See pages 11-13 for ordering information on accessories for HEPA-filtered glove boxes.

- Positive Pressure Conversion Kit, Recirculation Kit and Blower Foot Switch for airflow control.
- ULPA Filter, DOP Test Kit and other filter replacement accessories.
- Waste Port.
- Transfer Chamber Pressure Gauge Kit.
- Thimble Exhaust Duct Connectors, Hard Duct Exhaust Connector and Remote Wall-Mount Blower Kit for ducting.
- FilterMate Portable Exhauster and Carbon Filters to adsorb low levels of organic fumes, formaldehyde or ammonia gases.

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

- Add-A-Valve Kit.
- Electrical Power Strips and Electrical and Mechanical Pass-Through Kits.
- Acrylic Viewing Window.
- Anti-Static Ionizer Fans and Balance Vibration Isolator for weighing applications.
- Vacuum Aspirator Kits.
- Interior and Exterior Shelves and accessories.
- Glove Port Covers, Gloves, Sleeves and Hands.
- Remote Blowers.

Ordering Information

Catalog Number	Electrical Configuration	Shipping Wt. (lbs./kg)
5220200	115 volts, 60 Hz, 8 amps	280/127
5220220*	230 volts, 50 Hz, 4 amps	280/127
5220221	230 volts, 60 Hz, 4 amps	280/127
5220230*	100 volts, 50 Hz, 8 amps	280/127
5220231*	100 volts, 60 Hz, 8 amps	280/127

• Exclusive Feature

*International electrical configuration

Blower Speed Control Dial Setting	Air Volume Changes Per Minute	Exhaust Volume (CFM)	Noise Pressure db(A)	Static Pressure in Glove Box (in. of H ₂ O)	Total System Static Pressure (in. of H ₂ O)
Min. Dial	1.0	13	44	0.14	0.34
20 Dial	1.5	20	48	0.17	0.51
40 Dial	3.3	43	48	0.45	1.32
50 Dial	4.7	61	65	0.68	1.81
60 Dial	6.2	80	68	0.80	2.14
80 Dial	7.2	93	70	0.89	2.38
Max. Dial	7.7	100	71	0.91	2.42

XPert® Weigh Boxes

ORDERING INFORMATION



XPert Weigh Box 5220300 on Stationary Stand 5235501.

All models feature:

- One-piece, molded 1/4" thick 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.
- Built-in blower with speed control capable of airflow from 13 CFM to 100 CFM.
- Fluorescent lamp, 22 watts, accessible from the top for bulb replacement.

- Switches for light, blower and inner-most interior electrical receptacle.
- Inlet and outlet HEPA filters, 99.99% efficient on 0.3 micron particulates, and test port for challenging HEPA filter integrity.
- Main chamber static pressure gauge for monitoring HEPA filter loading.
- 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.
- Transfer chamber interior interlocking shelf of dry-powder epoxy-coated steel.
- 0.05 ppm average tracer gas levels or less detected during perimeter scan testing (surpasses ASHRAE 110 standards).
- Airborne particulate cleanliness (measured under positive and negative pressures per ISO 14644-1 test method) exceeds ISO Class 5 conditions (equivalent to Class 100) and achieved ISO Class 3 conditions (equivalent to Class 1) at both minimum and maximum operational airflow volumes.
- Vibration less than 1.5×10^{-5} inches displacement measured at the work surface at all airflow volumes.
- Balance stability to five decimal places on an analytical balance.
- Factory leak-tested with a mass spectrometer while pressurized with helium at 1 inch of water gauge. No detectable leaks greater than 1×10^{-3} ml/sec.
- Particulate containment data independently confirmed by SafeBridge Consultants Inc.
- Anti-static ionizer fan, for mounting on the interior ceiling, to reduce static charge.
- Balance vibration isolator, consisting of a 13.4" w x 20.4" d x 2.7" thick marble slab with isolator pads and type 304 stainless steel cover.
- ETL listing, UL 61010-1 and CAN/CSA C22.2 No. 1010.1 conformity (115 volt, 60 Hz 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.

Optional Accessories include:

See pages 11-13 for ordering information on accessories for HEPA-filtered glove boxes.

- Positive Pressure Conversion Kit, Recirculation Kit and Blower Foot Switch for airflow control.
- ULPA Filter, DOP Test Kit and other filter replacement accessories.
- Waste Port.
- Transfer Chamber Pressure Gauge Kit.
- Thimble Exhaust Duct Connectors, Hard Duct Exhaust Connector and Remote Wall-Mount Blower Kit for ducting.
- FilterMate Portable Exhauster and Carbon Filters to adsorb low levels of organic fumes, formaldehyde or ammonia gases.

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

- Add-A-Valve Kit.
- 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.

Ordering Information

Catalog Number	Electrical Configuration	Shipping Wt. (lbs./kg)
5220300	115 volts, 60 Hz, 8 amps	350/159
5220320*	230 volts, 50 Hz, 4 amps	350/159
5220321	230 volts, 60 Hz, 4 amps	350/159
5220330*	100 volts, 50 Hz, 8 amps	350/159
5220331*	100 volts, 60 Hz, 8 amps	350/159

Exclusive Feature

*International electrical configuration

Blower Speed Control Dial Setting	Air Volume Changes Per Minute	Exhaust Volume (CFM)	Noise Pressure db(A)	Static Pressure in Glove Box (in. of H ₂ O)	Total System Static Pressure (in. of H ₂ O)
Min. Dial	1.0	13	44	0.14	0.34
20 Dial	1.5	20	48	0.17	0.51
40 Dial	3.3	43	48	0.45	1.32
50 Dial	4.7	61	65	0.68	1.81
60 Dial	6.2	80	68	0.80	2.14
80 Dial	7.2	93	70	0.89	2.38
Max. Dial	7.7	100	71	0.91	2.42

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DIMENSIONAL DATA

