



Product Sampler #3
Glove Box Systems



CLEATECH LLC.
Critical Laboratory solutions

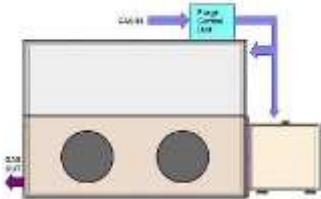
- Manufacture of a complete line of Stainless Steel and Plastic Hoods and Laminar Flow Workstation
- Desiccator , Low-Humidity storage cabinets
- Glove Box Systems
- Cleanroom and Laboratory Accessories



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Basic Glove Boxes 2100 Series

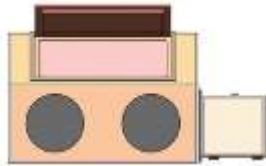
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Cleatech's 2100 Series Isolation Gloveboxes available in 3 ft and 5 ft width in two-port and four-port configurations. They can be used with inert gas or CDA to control RH% and O2 level. They're designed for positive pressure to manipulate objects where a controlled atmosphere is desired.

Portable Mini glove boxes 2200 Series

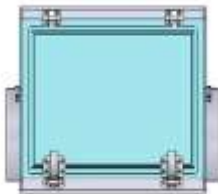
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Portable glove box system (Mini Glovebox) designed for isolating material to be processed; Cleatech Mini Glove boxes are lightweight and portable so it can be moved to where ever you need it to be. User accesses with gloves from the front ports; Lift-up front window for easy access. Available with ESD control & inert-gas options as in 2100 Series.

Compact glove boxes 2500 Series

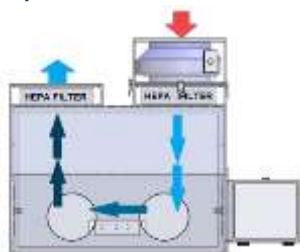
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Compact and lightweight that can be setup anywhere. Glove ports are located on the sides to allow a compact size. They feature a large front tilt-up access door for easy transfer of samples and substances. By adding the gas ports Inert gas such as nitrogen, argon can be used to control the oxygen and humidity level

Open Exhaust Containment Glove Boxes 2300 Series

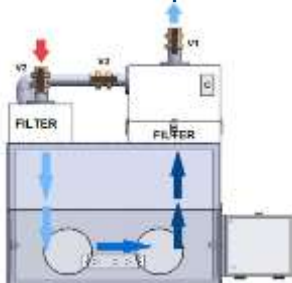
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Open Exhaust Filtration glove boxes can be factory configured as negative or positive pressure. Negative pressure is to protect operators and environment against contamination. Ideal for lab operations such as pharmaceutical powder packaging that generate particle contaminants . Incoming air is passed through Hepa/ Ulpa filter to remove particles.

Closed-Loop Filtration Glove Boxes 2400 Series

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These Closed Exhaust loop glove boxes filter inside atmosphere by continuous recirculation. The valve lets you set the percentage of fresh air entering the chamber. Air recirculates through a 99.97% (@ 0.3µm particles) HEPA filter (or ULPA 99.997% @.12M). The filter removes particulate and other contaminants to provide a clean process environment. RH and oxygen level can be controlled by inert gas.



1- Isolation Glove Boxes 2100 Series

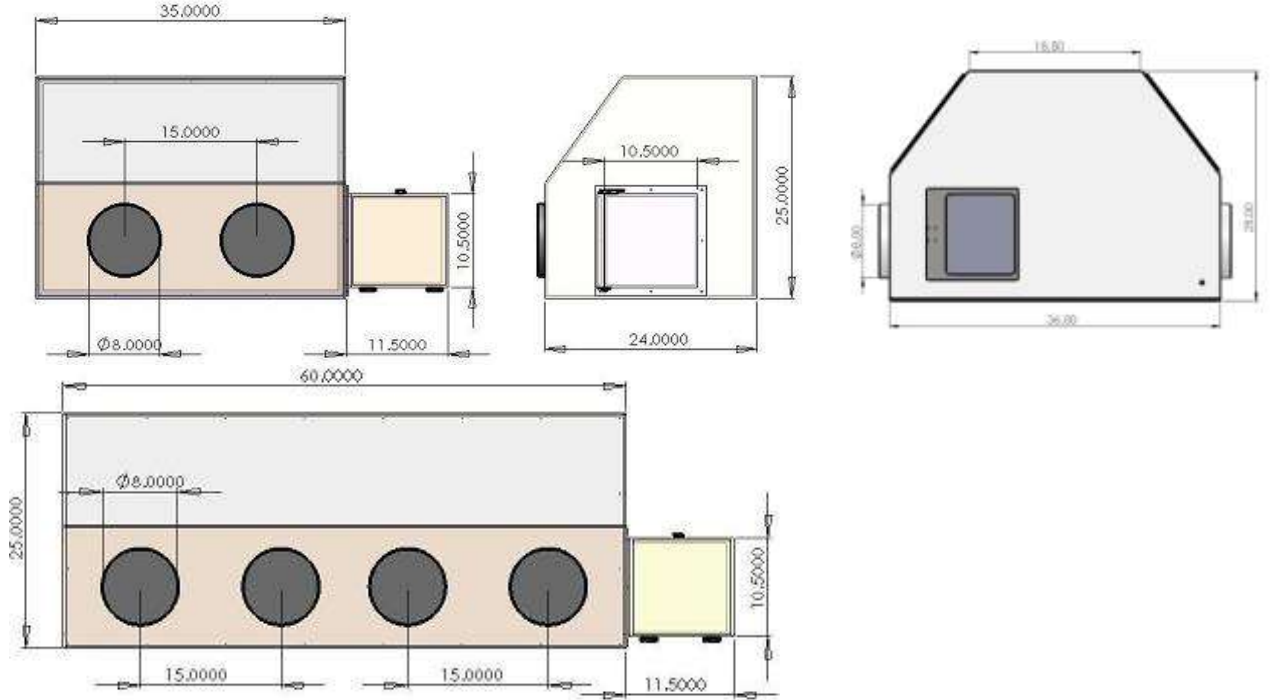


Features & Options

- 1/4" thickness clear Acrylic , Non-Dissipative PVC , Static-Dissipative PVC or polypropylene
 - Stainless Steel Internal access doors open inward to allow easy parts transfer
 - pass-through Transfer Chamber minimize nitrogen loss and contamination inflow while parts are placed or removed
 - Removable fully gasket back wall for operations involving large equipment
-
- Automatic Purge Control Unit with humidity sensor monitors RH% level inside glove box and provides automatic low-humidity measuring and displaying humidity inside the glovebox in the range: 5-100%RH, Accurately Controls Pre-Set Relative Humidity (+/- 2% RH). Available in Single and Double Purge models.
 - Oxygen Analyzer/ Automatic Purge Control Unit with O2 Sensor, 0 to 100% Oxygen level reading range, 115/230 VAC, Stainless Steel enclosure, Bench-top, Alarm Output, RS 232 Service port, Available with 4-20mA negative ground, 0-10VDC range ID and choice of 0-1VDC, 0-5VDC or 0-10VDC analog oxygen signal
 - Oxygen Monitor (oxygen analyzer) with a single range of 0-100% (-/+1%) . The unit is mounted on the foldable bracket on the side wall of the glove box. Input power is 110-240 VAC. It features a 3-1/2 digit LCD. The oxygen sensor is an ambient temperature electrochemical designed with a threaded end is installed on the glovebox.
 - Pressure relief / Bleeding Valve provides safe pressure relief
 - Hospital Grade Power Strip 110VAC/60Hz
 - Stainless Steel Work Surface or spill tray preventing scratching, recommended for static Dissipative PVC gloveboxes to protect Anti-static coating .
 - Chemical Resistance Anti-static Gloves, 15 and 30 -mil thick , 32" length with 8"-dia. cuff opening
 - 30" Height Stand, Cleanroom Compatible Epoxy Powder Coated Steel for Glovebox including caster (two locking). (also Available with 35" Height or custom height)
 - Front tilt-up door with stainless steel frame and Enlarged side door with maximum door opening for the application requires more door clearance



Models & Dimensions



Glovebox Type	Clear Acrylic	Static-Dissipative PVC Transparent	Non-Dissipative Clear PVC	Polypropylene with Tempered Glass Window
Two-Port ports at front side	2100-2-A	2100-2-B	2100-2-C	2100-2-D
Four-Port ports at front side	2100-4-A	2100-4-B	2100-4-C	2100-4-D
Four-Port ports at opposite sides	2100-4-F	2100-4-G	2100-4-H	2100-4-I
Airlock Type	Clear Acrylic	Static-Dissipative PVC	Non-Dissipative PVC	Polypropylene w/Clear PVC door
Transfer Chamber (Airlock)	2150-2-OP2	2150-2-OP1	2150-2-OP3	2150-2-OP4
Option Code	Description			
A21-HM-H	Automatic Purge Control Unit with Humidity Sensor –Humodule Type H			
A21-HM-OA	Automatic Purge Control Unit with Oxygen Sensor (O2 Analyzer)			
A21-GP_FM20	Flowmeter, range 2-20 SCFH air. with Valve-External Mount			
A21-GP-IN/BV	Gas-in Port and pressure relief / Bleeding Valve			
A21-MT-OM	Oxygen monitor, Digital Display, 0-100% Oxygen reading, W/ sensor			
A10-PO-HS4	Hospital Grade Power Strip 110VAC/60Hz			
A21-GL	Gloves One-piece or two-piece with accordion Sleeve hand size S, M, L, XL			
A21-BE-P08	Bel-Art Bare Hand Entry (Iris port) with Optional cover			
A21-WS-S	Stainless Steel Work Surface For Single / Twin models			
A21-WS-ST	Stainless Steel Spill tray For Single / Twin Models			
A21-ST-P	30"Height Stand, Powder Coated Steel with two locking Casters. (Also available in 35" H)			
A21-FD	Front tilt-up access door, 22"x11" opening			
A21-SD	Upgrade left side access door to maximum opening (open outwards)			



2- Compact Glove Boxes 2500 Series



Picture shown Portable glove box without
Airlock (Transfer chamber)



Picture shown Portable glove box with
optional Airlock

- Portable Glove boxes available in four materials: 1/4" Acrylic, 1/4" Static-dissipative PVC, 1/4" Non-dissipative PVC and Polypropylene
- Overall Dimension 27"Wx18.25"Dx18.25"H
- Lift-up front window allow easy parts transfer from inside the Glove box. The door opening is 18"x 8"
- 8" Diameter glove port with Stainless Steel clamp can be used with any 8" standard glove
- Removable fully gasket back wall for operations involving large equipment
- Optional Transfer chamber - Airlock

3- Compact Glove Boxes 2500 Series



Glove ports are located on the sides to allow a compact size. Compact glove box is an enclosed chamber with large front access door. The tilt-up window provides convenient viewing and accessibility.

Available with and without gas ports. Inert gas such as nitrogen, argon can be used to control the oxygen and humidity level.

They're portable and lightweight that can be setup anywhere.

- Material construction: Choice of Clear Acrylic, polycarbonate, Static and Non static PVC
- Nominal size 16"x16"x16"
- Overall dimensions: 18.25"Wx 17.75"Dx 16"H
- Door opening: 14.5"Wx 12.75"H
- 8" Diameter glove port with Stainless Steel clamp

Available Models 2200 Series:

Portable Glovebox 2200 Series	Clear Acrylic	Static-Dissipative PVC Transparent	Non-Dissipative PVC Transparent	White Polypropylene
Two-Port Portable Glovebox	2200-2-A	2200-2-B	2200-2-C	2200-2-D

Airlock Type	Clear Acrylic	Static-Dissipative PVC	Non-Dissipative PVC	Polypropylene
Transfer Chamber (Airlock)	2250-2-OP2	2250-2-OP1	2250-2-OP3	2250-2-OP4

Available Models 2500 Series:

Compact Glovebox 2500 Series	Clear Acrylic	Static-Dissipative PVC Transparent	Non-Dissipative PVC Transparent	Clear Polycarbonate
Two-Port Portable Glovebox	2500-2-A	2500-2-B	2500-2-C	2500-2-D

Options and Accessories:

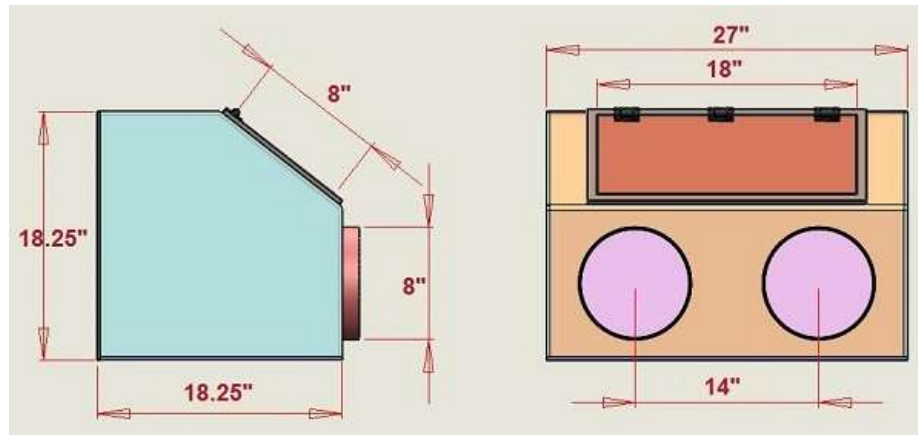
- Automatic Purge Control Unit with humidity sensor monitors RH% level inside glove box and provides automatic low-humidity measuring and displaying humidity inside the glovebox in the range: 5-100%RH, Accurately Controls Pre-Set Relative Humidity (+/- 2% RH). Available in Single and Double Purge models.
- Oxygen Analyzer/ Automatic Purge Control Unit with O2 Sensor, 0 to 100% Oxygen level reading range, 115/230 VAC, Stainless Steel enclosure, Bench-top, Alarm Output, RS 232 Service port, Available with 4-20mA negative ground, 0-10VDC range ID and choice of 0-1VDC, 0-5VDC or 0-10VDC analog oxygen signal
- Oxygen Monitor (oxygen analyzer) with a single range of 0-100% (-/+1%) . The unit is mounted on the foldable bracket on the side wall of the glove box. Input power is 110-240 VAC. It features a 3-1/2 digit LCD. The oxygen sensor is an ambient temperature electrochemical designed with a threaded end is installed on the glovebox.
- Digital Hygrometer / Thermometer 15% to 99% RH , 14° F to 140° F Temp.
- Pressure relief / Bleeding Valve provides safe pressure relief
- Flowmeter, range 2-20 SCFH air. with Stainless Steel Valve-External Mount
- Hospital Grade Power Strip 110VAC/60Hz
- Air-tight Cord grips / Feedtroughs for 1, 3, 4, 7 or 10 multi-diamtere cord(s)
- Stainless Steel Work Surface or spill tray preventing scratching, recommended for static Dissipative PVC gloveboxes to protect Anti-static coating .
- Chemical Resistance Anti-static Gloves, 15 and 30 -mil thick , 32" length with 8"-dia. cuff opening
- Bel-Art Bare Hand Entry (Iris port) with optional cover
- 30" Height Stand, Cleanroom Compatible Epoxy Powder Coated Steel for Glovebox including caster (two locking). (also Available with 35" Height or custom height)



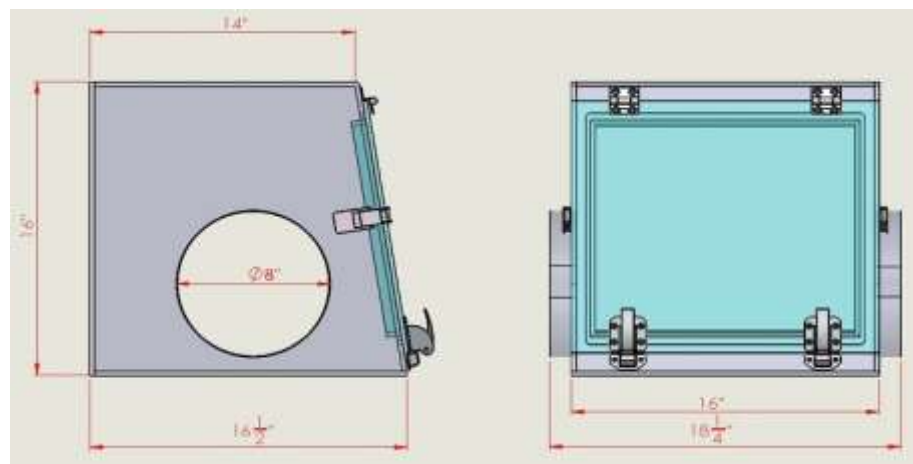
Option Codes:

Option Code	Description
A21-HM-H	Automatic Purge Control Unit with Humidity Sensor –Humodule Type H
A21-HM-OA	Automatic Purge Control Unit with Oxygen Sensor (O2 Analyzer)
A21-GP_FM20	Flowmeter, range 2-20 SCFH air. with Valve-External Mount
A21-GP-IN/BV	Gas-in Port and pressure relief / Bleeding Valve
A21-MT-OM	Oxygen monitor, Digital Display, 0-100% Oxygen reading, W/ sensor
A21-MT-DHS	Digital Hygrometer / Thermometer 15% to 99% RH , 14° F to 140° F Temp
A10-PO-HS4	Hospital Grade Power Strip 110VAC/60Hz
A21-GL	Gloves One-piece or two-piece with accordion Sleeve hand size S, M, L, XL
A21-BE-P08	Bare Hand Entry (Iris port) with Optional cover
A21-WS-S	Stainless Steel Work Surface For Single / Twin models
A21-WS-ST	Stainless Steel Spill tray For Single / Twin Models
A21-ST-P	30"Height Stand, Powder Coated Steel with two locking Casters. (Also available in 35" H)

Dimensions:



Overall Dimensions: 2200 Series Portable Glovebox



Overall Dimensions: 2500 Series Compact Glovebox



Some Glove Box Accessories:



Two types of gloves are available. Chemical Resistance Anti-static BUTADYL Gloves in white & Neoprene in black. Dry box gloves are in one-piece ore two-piece style 32" long. Two-Piece is a set of gloves and Accordion Sleeve 24"-28" Flexible Length, black rubber sleeve & white Butadyl glove. See all available options for [Dry box gloves](#)



Oxygen Analyzer/ Automatic Purge Control Unit with O2 Sensor, 0 to 100% Oxygen level reading range, including external sensor, 115/230 VAC, Stainless Steel enclosure, Bench-top, Alarm Output, RS 232 Service port. Available with 4-20mA negative ground, 0-10VDC range ID.



"Humodule-H", Automatic Purge Control Unit **Type-S** Single and **Type-D** Double purge mode: Used with CDA and inert gas such as Nitrogen and Argon. Capable of measuring and displaying humidity inside the glovebox in the range: 5-100%RH, Accurately Controls Pre-Set Relative Humidity (+/- 2% RH). [Read more about Purge control units.](#)



Oxygen Monitor with a single range of 0-100% (-/+1%) mounted on the foldable bracket on the side wall of the glove box. Input power is 110-240 VAC. It features a 3-1/2 digit LCD.



30"Height Stand, Cleanroom Compatible epoxy Powder Coated Steel for Glovebox including caster (two locking). Also Available with 35" Height or other custom height.



Stainless Steel Work Surface or Spill tray prevents from scratching, recommended for static Dissipative PVC gloveboxes to protect Anti-static coating. Spill tray also protect from spilling liquid. Stainless steel is a good chemical resistant material. It's recommended for transparent glove boxes if stand is chosen as option



4- Open Exhaust Containment Glove Boxes – 2300 Series



Standard Features

- Gloveboxes available in three materials: 1/4" Acrylic, 1/4" Static-dissipative PVC, 1/4" Non-dissipative PVC or Polypropylene.
- Two side access doors open outwards in negative pressure configuration. (airlock side opens inwards if available). Side doors using stainless steel frames that increase the structural rigidity of the door. They feature one-piece non-adhesive gasket.
- Standard and pass-through Transfer Chamber minimize nitrogen loss and contamination inflow while parts are placed or removed.
- Removable fully gasketed back wall for operations involving large equipment
- Primary HEPA Filter 99.97% efficient at trapping particles as small as 0.3 microns. Filter media is ultrafine glass fiber, Maximum temperature is 180° with 5 7/8" thick meet UL Class 2 flame retardance requirements.
- Polypropylene Model has a tempered glass front window. It also features a built-in fluorescent light.
- Blower Module, Adjustable Speed, Backward curved impeller 480-CFM, Permanently lubricated, Automatic reset thermal overload protection, 120VAC, 60Hz

Standard Options

- Exhaust filter choice of HEPA Filter 99.97% efficient at 0.3 microns, ULPA 9.999% efficient at 0.12 microns or Activated carbon removes contaminants from the exhaust air to make it safe for indoor release
- Intake / exhaust PVC valve or duct port
- Hospital Grade Power Strip Four Outlets, 110VAC/60Hz
- Stainless Steel Work Surface or Spill Tray preventing scratching.
- Two types of gloves are available. Chemical Resistance Anti-static Butadyl gloves in white & Neoprene in black. Dry box gloves are in one-piece or two-piece style. Two-Piece is a set of gloves and Accordion Sleeve 24"-28" Flexible Length, black rubber sleeve & white Butadyl glove.
- 30"Height Stand, Powder Coated Steel for Single model Glovebox with two locking Casters

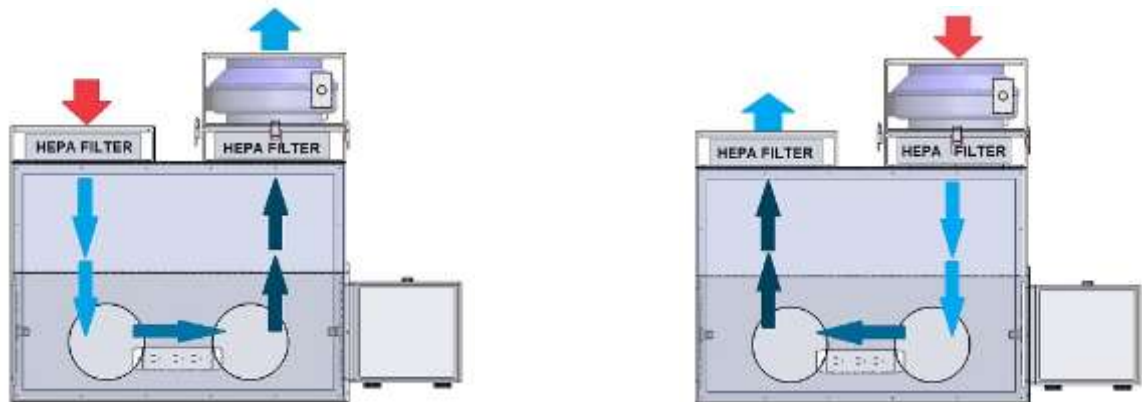


Type	Clear Acrylic	Static-Dissipative PVC	Non-Dissipative PVC	White Polypropylene
Two-Port Containment Glovebox	2300-2-A	2300-2-B	2300-2-C	2300-2-D
Four-Port Containment Glovebox	2300-4-A	2300-4-B	2300-4-C	2300-4-D

Airlock Type	Clear Acrylic	Static-Dissipative PVC	Non-Dissipative PVC	White Polypropylene
Transfer Chamber (Airlock)	2150-2-OP2	2150-2-OP1	2150-2-OP3	2150-2-OP4

Option Codes:

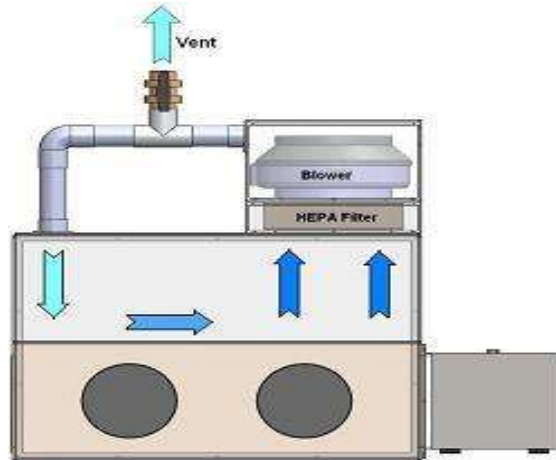
Option Code	Description
A23-FI-HE	Exhaust (Secondary) HEPA Filter Unit with Housing, 99.97% @ .3M
A23-FI-UE	Exhaust (Secondary) ULPA Filter Unit with Housing, 99.997% @ .12M
A23-FI-CE	Exhaust Carbon Filter Refillable tray filled with activated carbon coconut shell, including Polypro. Housing. (negative pressure config. only)
A23-DU-PV	Intake / exhaust PVC two-way valve for 2" pipes
A23-DU-P	Intake / exhaust PVC duct port for 4", 6" or 8" Duct Diameter
A10-PO-HS4	Hospital Grade Power Strip 110VAC/60Hz
A21-GL	Gloves One-piece or two-piece with accordion Sleeve hand size S, M, L, XL
A21-BE-P08	Bare Hand Entry (Iris port) with Optional cover
A21-WS-S	Stainless Steel Work Surface For Single / Twin models
A21-WS-ST	Stainless Steel Spill tray For Single / Twin Models
A21-ST-P	30"Height Stand, Powder Coated Steel with two locking Casters. (Also available in 35" H)
A21-FD	Front tilt-up access door, 22"x11" opening
A21-SD	Upgrade left side access door to maximum opening (open outwards)



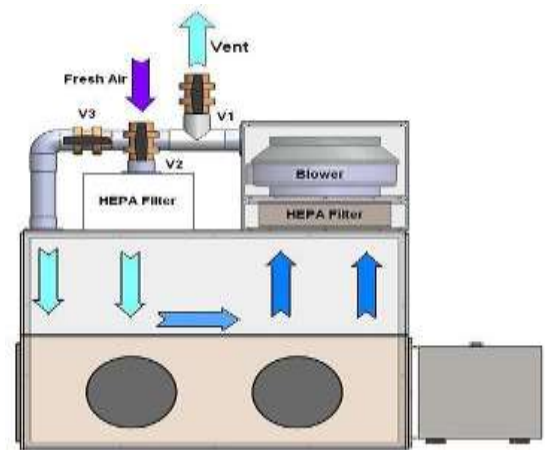
These Open Exhaust loop glove boxes provide **Negative** pressure (Left picture) to protect operators against contamination. They can also be factory configured to **Positive** pressure (Right picture) to protect samples against airborne particles. 2300 glove boxes include a intake HEPA filter and an adjustable speed 480-CFM impeller blower unit, mounted in a Polypropylene housing.



5- Closed-Loop Filtration Glove Boxes 2400 Series



Simple Closed-Loop Glovebox



**Custom Multi-Configure Glovebox
 Open/ Closed Loop**

Standard Features

- Gloveboxes available in four materials: 1/4" Acrylic, 1/4" Static-dissipative PVC, 1/4" Nondissipative PVC & 1/4" Polypropylene.
- Two side access doors open outwards in negative pressure configuration. (airlock side opens inwards if available). Side doors using stainless steel frames that increase the structural rigidity of the door. They feature one-piece non-adhesive gasket.
- Pass-through Transfer Chamber (ordered separately) minimize nitrogen loss and contamination inflow while parts are placed or removed.
- Removable fully gasketed back wall for operations involving large equipment
- Primary HEPA Filter 99.97% efficient at trapping particles as small as 0.3 microns. Filter media is ultrafine glass fiber, Maximum temperature is 180° with 5 7/8" thick meet UL Class 2 flame retardance requirements.
- Blower Module , Backward curved impeller 480-CFM, Permanently lubricated, Automatic reset thermal overload protection, 120VAC, 60Hz, UL Listed; CSA Certified in a Acrylic Housing.

Standard Options

- Automatic Purge Control Unit with humidity sensor monitors RH% level inside glove box and provides automatic low-humidity measuring and displaying humidity inside the glovebox in the range: 5-100%RH, Accurately Controls Pre-Set Relative Humidity (+/- 2% RH). Available in Single and Double Purge models.
- Oxygen Analyzer/ Automatic Purge Control Unit with O2 Sensor, 0 to 100% Oxygen level reading range
- Hospital Grade Power Strip Four Outlets, 110VAC/60Hz
- Stainless Steel Work Surface or Spill Tray preventing scratching.
- Two types of gloves are available. Chemical Resistance Anti-static Butadyl gloves in white & Neoprene in black. Dry box gloves are in one-piece ore two-piece style. Two-Piece is a set of gloves and Accordion Sleeve 24"-28" Flexible Length, black rubber sleeve & white Butadyl glove.
- 30"Height Stand, Powder Coated Steel for Single model Glovebox with two locking Casters





These Closed Exhaust loop glove boxes filter inside atmosphere by Continuous Recirculation. The valve lets you set the percentage of fresh air entering the chamber.

Air recirculates through a 99.97% (@ 0.3µm particles) HEPA filter (or ULPA 99.997% @.12M). The filter removes particulate and other contaminants to provide a clean process environment.

It includes a 480-CFM adjustable speed impeller blower unit, mounted in a Polypropylene housing. Material available in Clear Acrylic, non-dissipative PVC and Static Dissipative PVC (ESD Safe)

Type	Clear Acrylic	Static-Dissipative PVC Transparent	Non-Dissipative PVC Transparent	White Polypropylene Non-Transparent body with tempered glass
Two-Port Simple Closed-Loop Glovebox	2400-2-A	2400-2-B	2400-2-C	2400-2-J
Four-Port Simple Closed-Loop Glovebox	2400-4-A	2400-4-B	2400-4-C	2400-4-J
Two-Port Multi-Config. Glovebox	2400-2-D	2400-2-E	2400-2-F	2400-2-K
Four-Port Multi-Config. Glovebox	2400-4-D	2400-4-E	2400-4-F	2400-4-K

Airlock Type	Clear Acrylic	Static-Dissipative PVC	Non-Dissipative PVC	White Polypropylene with Clear PVC door
Transfer Chamber (Airlock)	2150-2-OP2	2150-2-OP1	2150-2-OP3	2150-2-OP4

Option Code	Description
A23-FI-HE	Secondary (Exhaust) HEPA Filter Unit with Housing, 99.97% @ .3M
A23-FI-UE	Secondary (Exhaust) ULPA Filter Unit with Housing, 99.997% @.12M
A21-GP-INV/BV	Gas-in Port and Adjustable pressure relief Valve
A21-HM-HS	Automatic Nitro Purge Control Unit with Humidity Sensor
A10-PO-HS4	Hospital Grade Power Strip 110VAC/60Hz
A21-GL	Gloves One-piece or two-piece with accordion Sleeve hand size S, M, L, XL
A21-BE-P08	Bare Hand Entry (Iris port) with Optional cover
A21-WS-S	Stainless Steel Work Surface For Single / twin Models
A21-WS-ST	Stainless Steel Spill tray For Single / twin Models
A21-ST-P	30"Height Stand, Powder Coated Steel with two locking Casters. (Also available in 35" H)
A21-FD	Front tilt-up access door, 22"x11" opening
A21-SD	Upgrade left side access door to maximum opening (open outwards)

