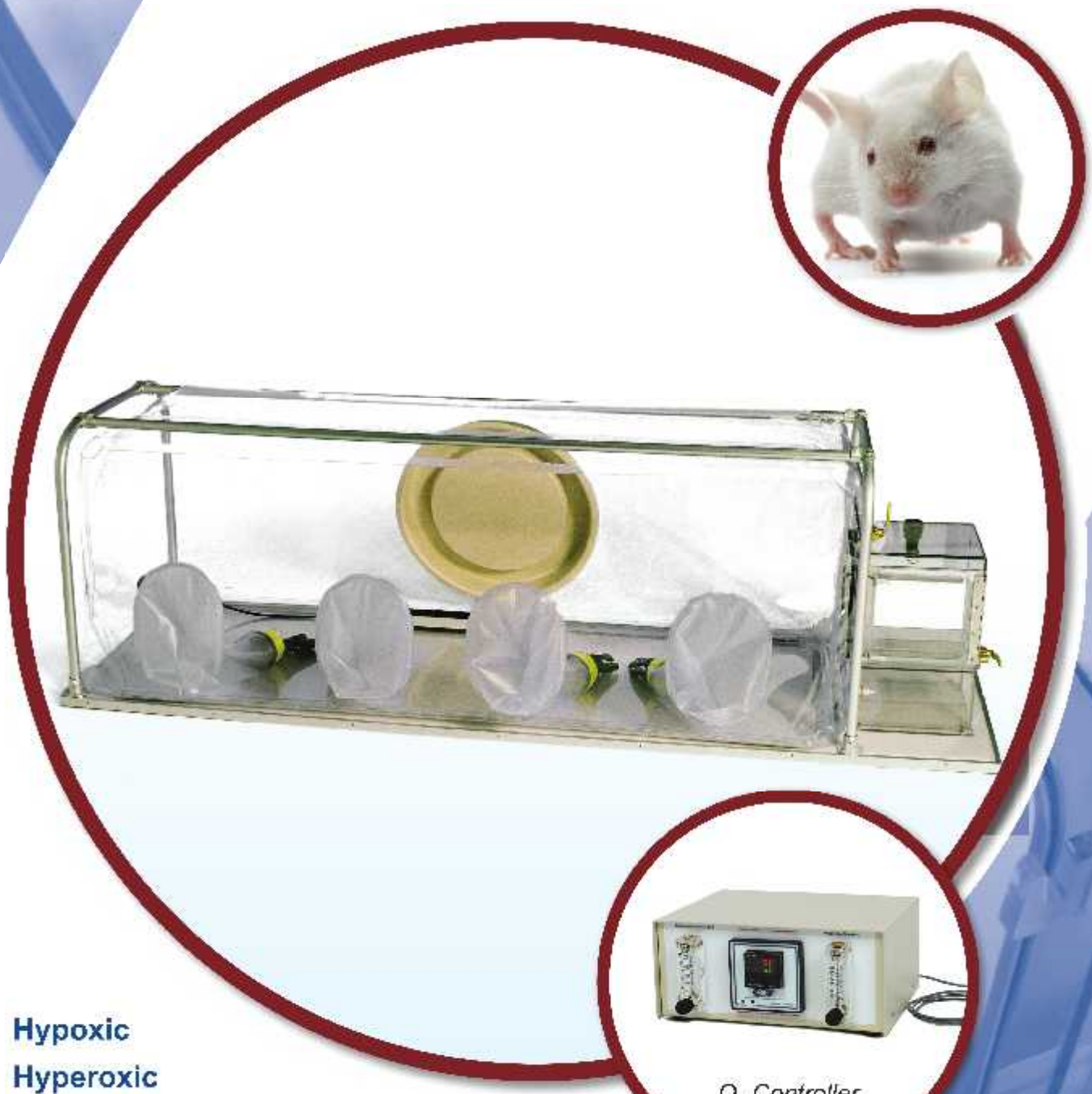
COY LAB PRODUCTS

Flexible Solutions. Reliable Results.

Hypoxic Chambers:

O_2 Control Glove Boxes for InVivo Studies



O_2 Controller

- Hypoxic
- Hyperoxic
- Intermittent Hypoxia
- Pathologic

O_2 Control Glove Boxes for InVivo Studies

Maintain animals for extended periods of time under hypoxic or hyperoxic conditions, without ever exposing them to ambient air.

How the Oxygen Control System Works

With oxygen and nitrogen gas sources connected to the O_2 controller, the microprocessor controls gas purges based on sensor readings and the user-adjustable setpoint. There is a constant digital display of glove box O_2 levels. The controller, glove box and airlock combine to create an environment for long-term exposure to experimental conditions. Required animal care procedures can be performed while consistently maintaining uninterrupted hypoxia or hyperoxia.

Humidity Consideration in Animal Studies

Humidity from respiration should be controlled at least to non-condensing levels to provide an atmosphere that protects equipment and the sensors from condensation and is comfortable for the animals and glove box users. Coy offers an automatic dehumidifier for long-term studies. The dehumidifier is an adjustable, electronic cold plate system that requires only periodic emptying of the reservoir. Dehumidification capacity requirements are dependent on the number and size of animals. The dehumidifier for the vinyl units accommodates experiments with larger animals and larger numbers of animals. The automatic dehumidifier for rigid units is equipped with a digital display and controls, which will only serve experiments with small size and numbers of animals.

How the Airlock Works

Coy O_2 Control Glove Boxes are equipped with a purge-only airlock, which is a transfer chamber that equilibrates O_2 levels by purging excess O_2 or N_2 prior to opening the door into the actual glove box and placing items inside. General purge times based on standard-size glove boxes are provided by Coy for various O_2 levels. Automatic units use a specific preset time for purges based on protocol and desired glove box O_2 levels. Once preset, the airlock is operated with the touch of a button by lab personnel. With manual units, the user operates a valve and times the purge. To accommodate various cage sizes, custom airlock sizing is available. A sliding shelf accessory can be added to the airlock to simplify transfer of larger cages.

Standard Features and Equipment

- Factory calibrated for 0-20.9% O_2 control (field calibration required)
- Oxygen is controlled with user-adjustable setpoints in increments of 0.1% (option available for ramp and cycle)
- Purge-only airlock (which, for optimum efficiency, can be custom-built based on the number and size of the animals as well as their cage-size)
- Hyperoxic atmosphere possible; contact COY for details
- Glove box materials range from flexible vinyl to durable aluminum and polycarbonate
- Interior power supply
- Fan (heated or unheated)

Custom Sizing Options

Coy's modular designs and accessories, along with our 40 years of in-house customization experience, allow us to configure an economical glove box for your lab.

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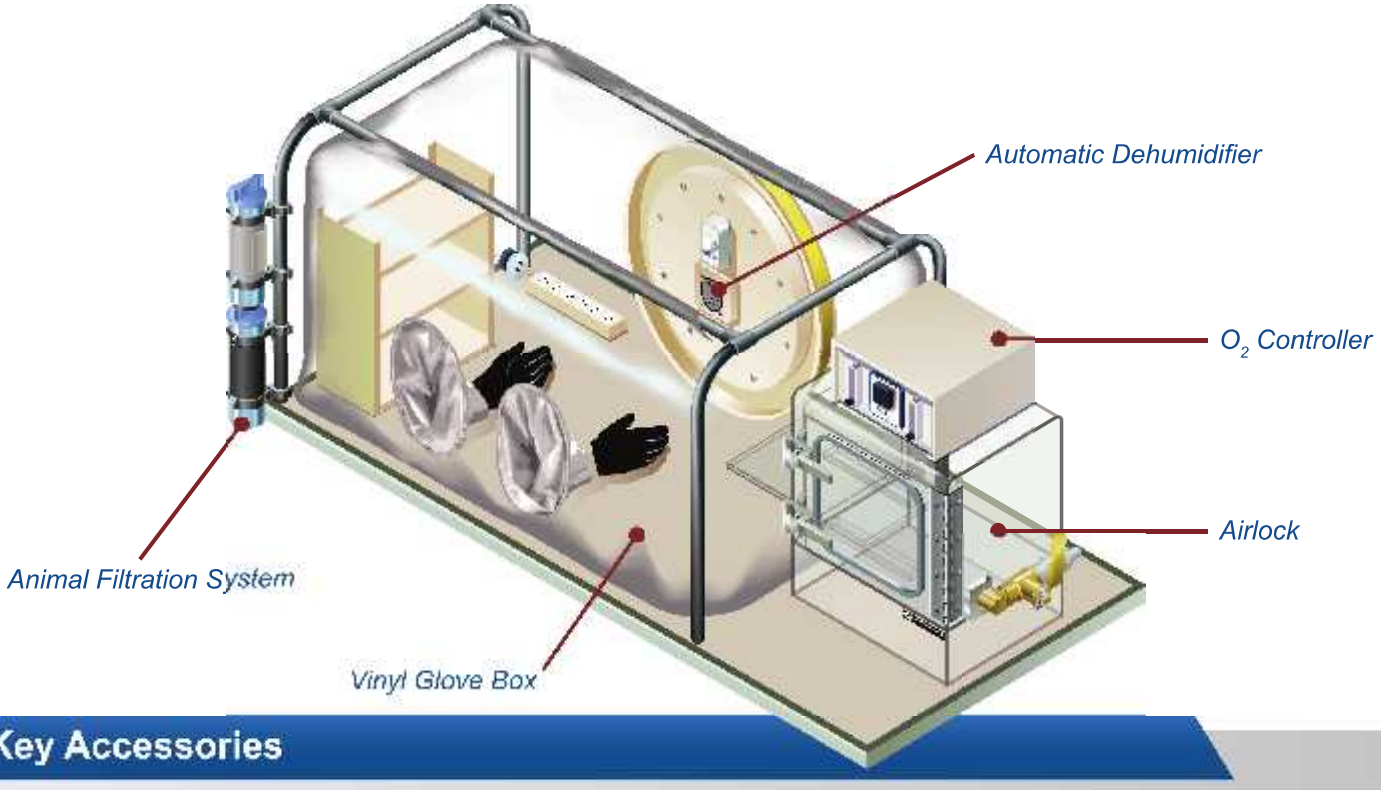
14500 Coy Drive / Grass Lake, MI 49240 / p: 734.475.2200 / f: 734.475.1846 / sales@coylab.com / www.coylab.com



Key Accessories

Adaptable to your specific needs

Animal Filtration System

Long-term animal containment will require the Coy Animal Filtration System to remove gaseous waste. These units can be automatic or manual. Lab personnel turn the manual filtration system off and on, based on lab protocols, while the automatic unit with digital display is governed by the user-defined CO_2 setting. The animal filtration system is a closed-loop circuit with a pump that draws the glove box atmosphere out through the filters (CarbO_2Lime® and activated carbon) and returns it to the glove box.

Added Capacity for Animal Filtration

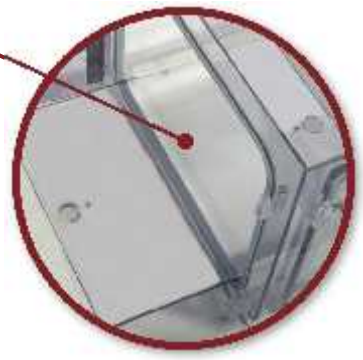
Tell us the numbers of animals you will be housing so we may discuss your need for added capacity for animal filtration. This is simply additional filters to enhance the filtration system and adjust for the number of animals, easing maintenance time for lab personnel. Sealed quick disconnects enable filter changes without compromising the environment.

Large Capacity Dehumidifier

This easy-to-maintain unit provides a way to remove moisture without using a desiccant. The dehumidifier operates as a simple cold plate to condense moisture from the air that is drained from the chamber. Controls allow the user to adjust the amount of humidity for various environmental factors. The unit fits in the equipment entry port and can be added to existing units in the field.

Sliding Airlock Shelf

Reaching into the airlock to slide the animal cage back and forth can be difficult and cumbersome. The sliding airlock shelf is an ergonomic convenience that allows the user to slide the shelf from the airlock into the glove box interior and vice versa.



Temperature Control

If your lab needs temperature control for animal comfort and to maintain experimental conditions, Coy has a number of solutions. Contact one of our specialists to configure a system for your needs.

Recirculating Atmosphere Filtration System (HEPA)

This system filters the box atmosphere and controls contamination through a standard HEPA filter. The external pump-activated system has the filter mounted outside the box. The system draws the internal atmosphere out of the box, through the external filter and back into the box. Equipped with sealed quick-disconnect fittings, the filter is fast and easy to change without compromising filter and glove box integrity. Other types of filters can be added.

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Product Details

MATERIALS

Vinyl glove boxes have inherent advantages that make animal containment more convenient in most cases. However, you should discuss your glove box selection with a Coy specialist relative to your specific lab and experimental needs and thereby ensure a proper match.

Vinyl

- Larger useable interior workspace compared to most rigid glove boxes
- Large glove ports and flexible nature of the vinyl allow the user to reach deeper and higher into the glove box, providing greater ergonomic comfort when handling cumbersome cages
- Removable rear equipment entry port (20" / 508 mm diameter)

Polymer

- Gloveless sleeves allow greater dexterity for fine manipulations
- Side door allows quick access to the glove box interior

QUESTIONS?

Our experts can help you configure a solution that meets your needs. Call (734) 475-2200 or visit www.coylab.com.

Standard Sizes

VINYL SIZES, INTERNAL WORKSPACE

Mini:	30" L x 28" D x 26" H 762 x 711 x 660 mm
1 person:	44" L x 28" D x 26" H 1118 x 711 x 660 mm
2 person:	78" L x 28" D x 26" H 1981 x 711 x 660 mm

POLYCARBONATE SIZES, INTERNAL WORKSPACE

1 person:	41" L x 23" D x 23" H 1041 x 584 x 584 mm
2 person:	59" L x 23" D x 23" H 1499 x 584 x 584 mm

Custom sizing available. Contact us to discuss your needs.

Related Products

For more information on these products or any of our Hypoxic Chambers, please visit www.coylab.com.

Coy O_2 Control Cabinet for InVivo Studies

Coy offers O_2 Control Cabinets for InVivo Studies that provide the same O_2 control of the glove box in a more economical package. Ask your dealer or representative for information or visit www.coylab.com.