GLOVE BOX/CHAMBER APPLICATIONS

ANAEROBIC CHAMBER

VINYL ANAEROBIC CHAMBER

Over the past 30 years Coy Labs has expanded its product line and chamber choices, but the heart and soul of the company remains the Anaerobic Chamber, the original design application for Coy Chambers.

The chamber maintains a strict anaerobic (0-5 ppm) environment through a hydrogen gas mix reacting with a palladium catalyst to remove oxygen by forming a water molecule. The hydrogen is consumed in this process.

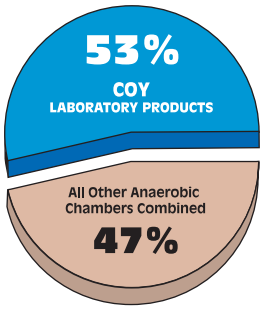
Durable and economical Coy Anaerobic Chambers come complete with the following:

- **Airlock (manual or automatic)**
- **Gas Regulators with tubing and fittings**
- **Fan Box(s) (heated or unheated)**
- **Work Pad**
- **Palladium Catalyst (2 per fan box)**
- **Gas Leak Detector**
- **Vacuum Pump**
- **Plug Strip**
- **Set Up and Care Kit**

It's everything you need to set up an anaerobic environment using a hydrogen/catalyst reaction to remove oxygen.

Vinyl Anaerobic Chamber Advantages:

- Larger available workspace & larger interior volume
- More economical to operate. The vinyl chambers flexibility allows it to expand, compensating for any extra/fresh gas that is introduced. All rigid chambers expel the gas to the lab wasting expensive anaerobic gas mix
- Stricter control of anaerobic conditions. The specific blend of air flow catalyst and chamber volume maintains strict anaerobic conditions.
- Larger interior volume means less oxygen, ratio-wise, entering through the airlock during daily operation.
- More comfortable working environment, Again the flexible nature of the chamber allows the user to rest their elbows on the padded base rather that the narrow rigid entry port of glove box
- At the end of the chambers life span a new chamber can be attached to the old airlock at a fraction of the cost of a brand new chamber.
- The user does not have to fight the gloves to enter the chamber due to the vinyl's flexible nature reducing operator fatigue.



The #1 Choice in Anaerobic Microbiology

Anaerobic Chamber Citations (%)
in All American Society of Microbiology Journals
From January 1998-January 2001

See pages 13 through 16 for accessories that may be used with any glove box/chamber.

CHAMBER DETAILS

- The chamber front is made of 20 mil pressed polished clear vinyl with 40 mil vinyl bottom extending 2" (51 mm) up on all sides. It is mounted on a 3/4" (19 mm) plywood base covered with a 1/4" (6 mm) foam pad and heavy vinyl. A 1" (25 mm) aluminum tubular frame supports the chamber. All chambers come with a large equipment entry installed opposite the entry lock. This entrance consists of a 28" (71 cm) entry cap that is taped in place after installing large equipment in the chamber.

- Glove ports, 10" x 17" oval opening (25 x 43 cm) on 19" (48 cm) centers, are constructed of a special highly flexible vinyl frosted to prevent cracking and gas leakage at bend points.

  Two 1 1/2" (38 mm) I.D. nipples are attached for electrical wiring input. (Additional nipples may be ordered at the time of purchase.)

  Also included as standard with all chambers is a six receptacle electric outlet.

- Medium gloves are supplied with the chamber - (replacements or other sizes are available from Coy Laboratory Products).

- The latex gloves are placed over a special cuff and then placed in the permanently attached sleeves and taped in place. This system provides a means of replacing damaged gloves without affecting the atmosphere of the chamber. Additional glove ports can be ordered mounted in most positions if requested at the time of purchase.

- Standard equipment supplied with each chamber:

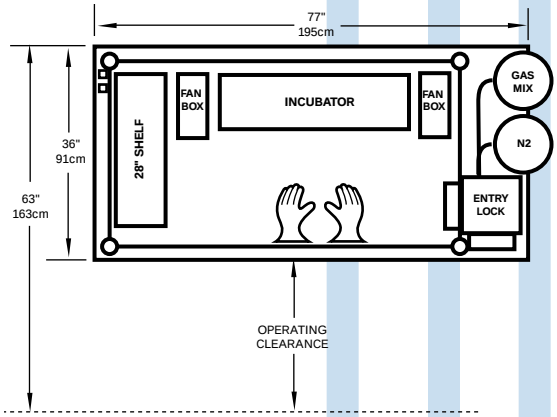
  Vacuum Pump
  Padded Base with Frame
  Large Equipment Entry
  Receptacle Strip
  Gas Regulators (2)
  Canvas Gloves
  Fan Boxes with 2 Catalyst Stak Paks
  Work Pad
  Gas Leak Detector
  Extra Vinyl Tape
  Extra Glove with Cuff
  Care Kit

DIMENSIONS

Pictured below are the floor plans for the three standard chamber types. Please note that the dimensions given represent the overall size of the base as well as required clearances for operating the chamber. Also shown are typical placements of the catalyst boxes (standard equipment), as well as the typical placement of shelves, incubator and gas cylinders.

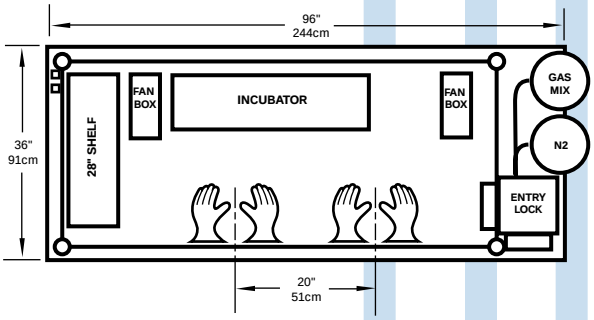
MODEL A

Supplied with:
One pair gloves
One airlock
Two fan boxes
Chamber size:
59"L x 32"W x 40"H
(150cm x 81 cm x 102cm)
Base size:
77"L x 36"W
(195 cm x 91 cm)



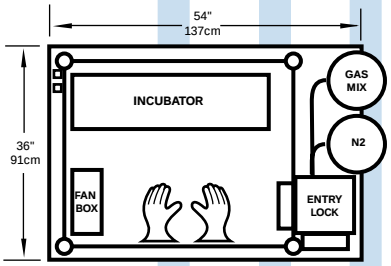
MODEL B

Supplied with:
Two pair gloves
One airlock
Two fan boxes
Chamber size:
78"L x 32"W x 40"H
(198cm x 81 cm x 102cm)
Base size:
96"L x 36"W
(244 cm x 91 cm)



MODEL C

Supplied with:
One airlock
One fan box
One pair gloves
Chamber size:
36"L x 32"W x 40"H
(91 cm x 81 cm x 102cm)
Base size:
54"L x 36"W
(137cm x 91 cm)



See pages 13 through 16 for accessories that may be used with any glove box/chamber.

GLOVELESS ANEAROBIC CHAMBER

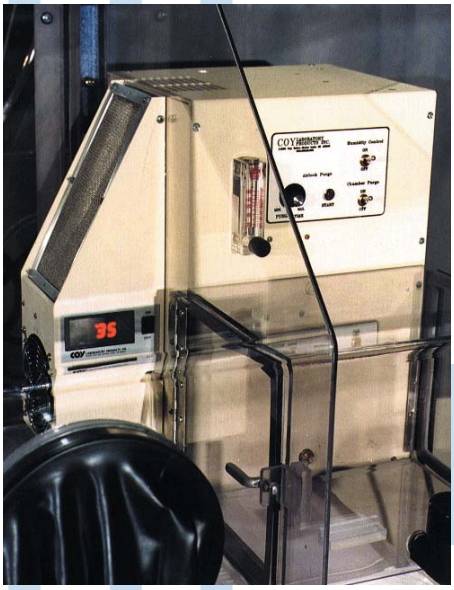
GLOVELESS POLYMER ANAEROBIC CHAMBER

Gloveless Anaerobic Chambers, using the same hydrogen gas mix reacting with a palladium catalyst as the vinyl anaerobic chambers, offer the operator a convenient glove-free ability to handle and inspect samples. Some added features built into the system are a solid state dehumidifier to remove and control the excess humidity that may be present in a gloveless system, a gas injection system to maintain proper hydrogen gas levels to ensure anaerobic conditions, and a circulation fan and temperature controller.

From the three Polymer Glove Box sizes or the 2 Aluminum Glove Box sizes, choose the design which suits your laboratory volume.

- 3 ft. polymer = 10 cubic ft.
- 4 ft. Polymer = 14.5 cubic ft.
- 5 ft. polymer = 17.5 cubic ft.
- 3 ft. Aluminum = 16 cubic ft.
- 6 ft. Aluminum = 31 cubic ft.

A special cuff and sleeve-vacuum system allows the operator to work barehanded (or with surgical gloves) inside the Chamber. After the operator inserts their arms into the sleeves, a foot operated sleeve-vacuum system creates an inert atmosphere in the sleeves prior to removing the Arm Port Plugs. This permits the operator's arms to enter the Chamber without compromising the Chamber atmosphere. Tactile efficiency is improved (see page 16 for more information).



The Arm Port Plugs, when in place, maintain the atmosphere when the chamber is not in use and allow the sleeves to be changed easily to accommodate correct fit of the latex cuff, or replace damaged sleeves without allowing oxygen into the Chamber.

As with all gloveless systems, this design is primarily for clinical and high volume testing labs where microaerophillic applications take place. For the far more stringent applications involving strict anaerobes, the COY flexible vinyl chamber with gloves is the product of choice around the world.

ATMOSPHERE CONTROL SYSTEM

Included in the system is the circulation fan, gas purging mechanism for the airlock, and gloveless sleeve system, solid-state dehumidification system, gas injection system and tray for the catalyst Stak-Pak.

See pages 18 through 19 for anaerobic accessories

Wolf Laboratories
Tel: 01759 301142 Fax: 01759 031143 Email: sales@wolflabs.co.uk Website: www.wolflabs.co.uk

Polymer Anaerobic Glove Box

This polymer glove box can be adapted to control a wide range of environments and atmospheres. The anaerobic unit is provided with the same accessories as the vinyl chambers.

8307025: 2 ft. Glove Box
8307030: 3 ft. Glove Box (pictured)
8307040: 4 ft. Glove Box
8307050: 5 ft. Glove Box (2 person unit)

These glove boxes are an economical way to perform and maintain a wide range of atmospheres and functions, including use as a dry glove box, inert gas (nitrogen) glove box, isolation glove box, anaerobic chambers, oxygen and humidity control glove boxes. Used with a variety of accessories and available in polycarbonate or UV resistant plastic, this glove box is easy and affordably customized for your needs.

DETAILED DESCRIPTION

Coy Laboratory Products Polymer Glove Boxes can provide your desired environment for critical operations in such industries as semiconductor and pharmaceutical testing and manufacturing. Hermetically sealed enclosures provide a controlled atmosphere for a wide range of manufacturing and testing operations. Their modular design lets you select the options you need for your operation.

Select from materials to suit your requirements. Use polycarbonate for operations that involve thermal stress or UV-Resistant Acrylic which permits the use of UV light inside the chamber without damage to the integrity of the plastic.

All glove boxes are fabricated to meet rigorous standards for cleanliness and durability. Solvent welding ensures a strong, airtight structure that won't leak. The gaskets on the side doors provide a safe, positive seal without interfering with full access to the internal chamber. The 45deg front slope allows the operator an uninterrupted view of work in progress.

The patented diaphragm top increase the ease with which the operators hands enter and exit the glove box and increase cost savings as less glove box gas is expelled to the lab atmosphere.

Wolf Laboratories

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For applications involving large equipment, request the optional, fully gasketed 32" x 20" (81 cm x 51 cm) removable back wall or oversize door in the side wall. Dual 8" (20 cm) round arm ports come equipped with flanges for easy connection of gloves or gloveless sleeve, which may be ordered as desired. The optional Arm Port Plugs maintain an airtight chamber while gloves are changed.

Applications

- *HUMIDITY CONTROL*
- *OXYGEN CONTROL*
- *ISOLATION, CONTAINMENT*
- *AEROSOL OR SPLASH CONTAINMENT*
- NITROGEN DRY GLOVE BOX
- *CONTROLLED PACKAGING*
- *SMALL ANIMAL CONTAINMENT*
- *TISSUE CULTURE*
- *TEMPERATURE CONTROL*
- *DRY GLOVE BOX*

AIRLOCKS ALLOW CONVENIENT ACCESS

The Glove Box can be attached to an Airlock to maintain the integrity of the controlled environment without sacrificing convenience. Choose from 3 standard styles

- Pass-Thru
- Manual Purge
- Automatic Purge

Purge and Pass-Thru Airlocks mount on the right side of the glove box (left-mounting available on request). They minimize glove box atmosphere loss and contamination when parts are moved in and out. Connecting Airlocks can extend system flexibility by mounting to either the right or left side of the glove box; a double flange design allows several glove boxes to be connected in series. All airlocks include a 1/4" NPT pipe tapped opening for connection of purge gas, and a 3/4" NPT outlet to accommodate a safety relief/bleed valve.

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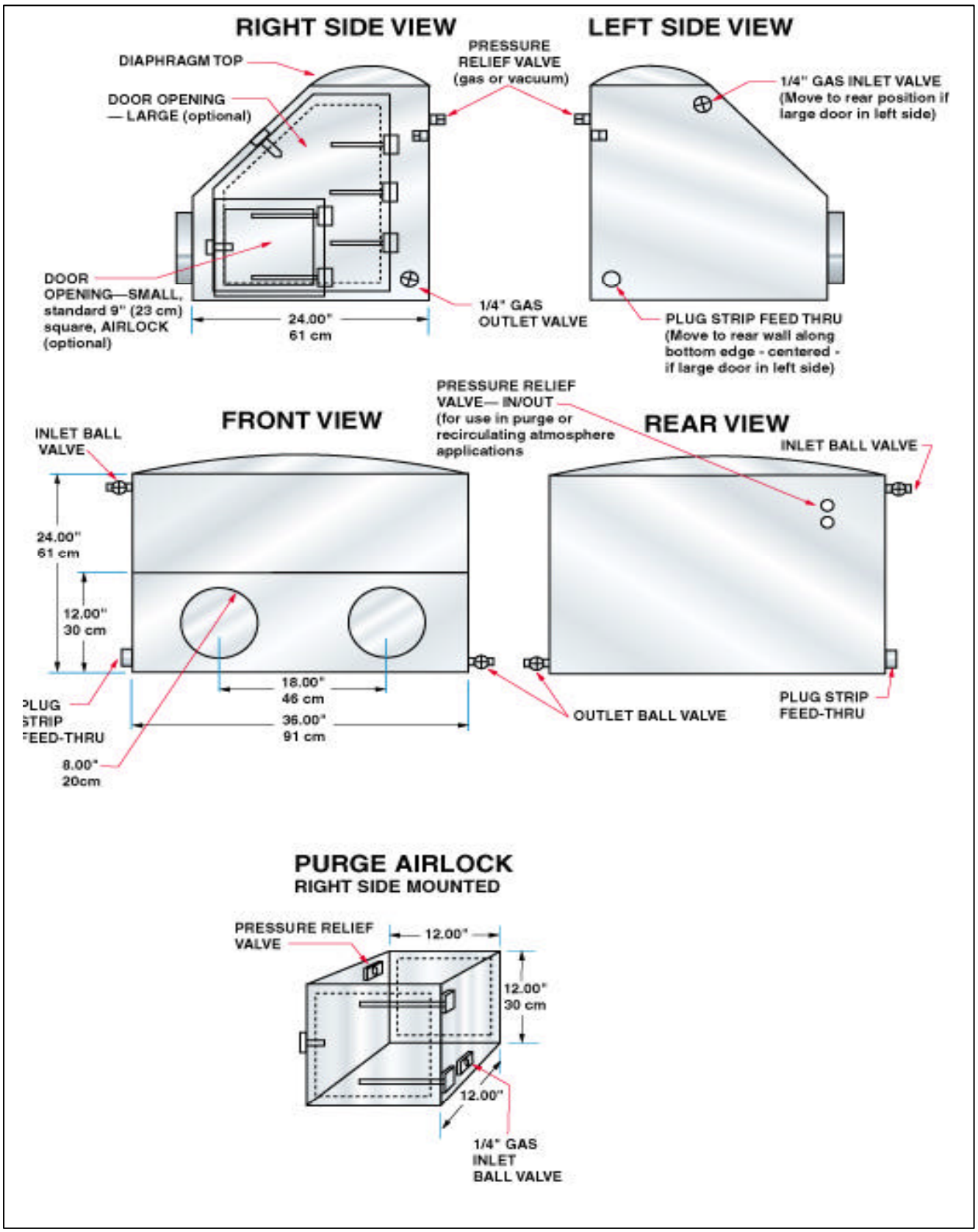

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SPECIFICATIONS

NOTE: These glove boxes are not designed for vacuum or pressure applications.

CHAMBER SIZE*	36" wide x 24" deep x 24" high (91cm x 61cm x 61cm)	**ARM PORT PLUGS**	(Option) Gasketed to create air-tight seal
DOOR OPENINGS	9" x 9" (23cm x 23cm) with fully gasketed doors	**GAS PORTS**	1/4" (6.5mm) NPT inlet and outlet ball valves
AIRLOCK (option)*	12" x 12" x 12" (30cm x 30cm x 30cm)	**MATERIALS**	Polycarbonate or UV Resistant
ARM PORTS	8" (20 cm) round with flange for connecting glove.	**WEIGHT**	Approximately 48 lbs. (22kg)

*** Please inquire about other sizes available**

Standard Equipment

- **Glove Box, 36" w x 24" d x 24" h (91cm x 61cm x 61cm), polycarbonate or UV resistant acrylic**
- **Gasketed (sealed) door openings, 9" x 9" (23cm x 23cm)**
- **Arm ports to accept 8" x 30" gloves**
- **5-outlet plug strip**
- **1/4" NPT inlet/outlet ball valves**
- **Diaphragm top**
- **Pressure Relief Valve**

Optional Accessories

- **Humidity control <5% - 100% Rh**
- **Oxygen control <5% - 60% (100%)**
- **Temperature control 13 degrees C -- 65 degrees C**
- **Airlock or pass-thru**
- **Polycarbonate or UV-Resistant Acrylic**
- **Clean, filtered atmosphere**
- **Removable, gasketed rear wall for large equipment entry 32" x 19" (80 cm x 47.5 cm)**
- **Arm port plugs**
- **Large Side Doof 18" x 18" (45 cm x 45 cm)**