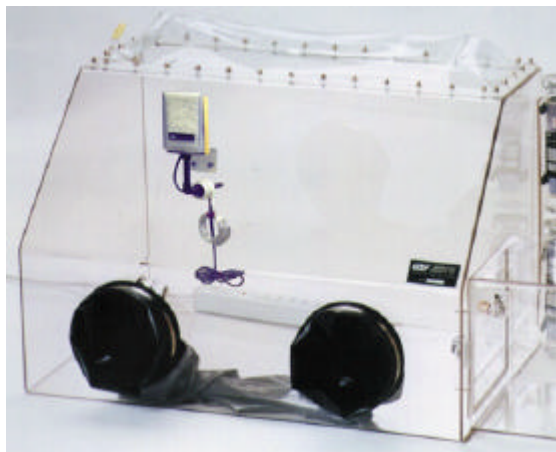


Humidity Control Glove Boxes



3 ft. Humidity Control Glove Box Part #: 8350-220
Pictured with optional Pass Through Airlock (part # 8400-026)

The Coy Humidity Control Glove Box is designed for applications where there is a need to control the humidity either below or above ambient conditions, or both. The control of the Glove Box humidity is achieved by using either a manual system or an automatic system connected to the COY Humidity Controller, all in a gloveless environment (gloved units are available.)

Dehumidification Apparatus: A recirculating pump draws the glove box atmosphere through two drying capsules filled with desiccant mounted on the outside rear of the glove box until the desired humidity level is achieved and the pump is shut off (either manually or automatically by the controller.) The desiccant has an indicator to show when rejuvenation is needed.

NOTE: An optional Dry Gas Purge system (nitrogen/argon) is now available. If desired you may use a manually controlled dry nitrogen purge instead of desiccant capsules.



Humidification Apparatus, Ultra Sonic



Dehumidification Apparatus



Dry Nitrogen Purge System

Humidification Apparatus: A Fan Assembly with an absorbent wick is mounted to the inside rear wall of the glove box, while the water reservoir and recirculating pump are outside. This system may also be controlled manually or automatically.

Safety: The glove box comes equipped with safety relief valves that provide pressure relief with the control system and also function as check valves, ensuring no moisture or contaminants enter the chamber in the event of a system failure causing negative pressure.

Manual Control: The manual control humidity glove box includes a hygrometer as an accessory which the operator has to periodically check to be sure the humidity is at the desired level. The turning of the appropriate equipment pump switch "ON" or "OFF" will control the level of humidity in the chamber.

Available in Polymer Glove Box (pictured) and Aluminium Glove Box (see last page)

Automatic Controller: The Humidity Controller provides automatic monitoring and control of the relative humidity. It activates the necessary system (dehumidification for humidification) when the moisture level deviates from the adjustable set point. Flow rates, sensor position circulation, and orifice positions were all considered in the design to maximize control capabilities and humidity uniformity across the glove box. Since this is a closed loop circulation system, an inert gas environment can be maintained in the glove box while controlling the humidity.

Accuracy: Humidity sensors have traditionally been unstable, show large measurement hysteresis and dramatic changes in accuracy with small temperature changes. The design of this advance sensor has addressed all of these shortcomings.

- Long terms stability is better than 0.5% Rh/year in normal conditions.
- Hysteresis is less than 0.5% Rh over an excursion of 20 to 90 to 20% Rh.
- No Damage is caused by condensation on the sensing element.
- Temperature coefficient is minimal at +0.04% Rh degree C.



MEASUREMENT/CONTROL RANGE:	3-100% Rh
SENSOR ACCURACY:	+/- 2% Rh from 0-90%. +/- 3% Rh above 90%
RESOLUTION (PRECISION):	0.1%
CONTROL TOLERANCE:	+/- 0.5% to 1% of Set Point

Note: All Humidity Specs assume ambient Temperature (21-25 deg. C)

Factory test data and efficiency of the Coy Humidity Control Glove Boxes is available upon request. Ask your Coy Representative.

This aluminium glove box can be adapted to control a wide range of environments and atmospheres.



Aluminium Glove Box Part #:
8307-060 (3 ft. length) 1 person unit
8307-070 (6 ft. length) 2 person unit

Affordable, modular, Aluminium Glove Boxes provide isolation, containment, humidity, temperature, oxygen control, and anaerobic (complete removal of oxygen) atmospheres. These epoxy-coated, aluminium glove boxes are designed to your individual needs by selecting components from numerous interchangeable *COY* parts and accessories.

ALUMINUM GLOVE BOX FEATURES:

- Available in 6' and 3' lengths (182 cm and 182 cm). 24" depth (61 cm) and 36" height (91 cm)
- All construction is from the following durable materials:
 - Epoxy-coated aluminium (1/8", 3.2mm thick),
 - Clear polycarbonate or acrylic (1/4", 6.4mm thick),
 - Optically clear flexible PVC, polyvinyl chloride, (20-30 mils, 0.5--0.8mm thick),
 - EPDM rubber gaskets,
 - Advanced silicone adhesives and sealants,
 - Leakproof self sealing fasteners.
- To maximize interior work area and ease of maintenance, many accessories are mounted to the exterior of the glove box.
- Quick disconnect fittings have been used wherever possible.
- Many of the accessories can be used together to simultaneously control multiple aspects of the glove box environment, such as humidity and oxygen control, or temperature, humidity, and inert gas atmosphere.
- The viewing screen is designed to provide good interior shadow-free ambient light.
- For applications where complete isolation of the chamber environment is required, hermetic seals can be added.
- All sealed airtight systems are pressure checked at the factory for leaks. An inexpensive gas leak detector can be purchased for field testing.
- GFI power lines are installed in humidified systems.
- Any accessories which involve the flow of gas in or out of the chamber have relief valve(s) installed to prevent accidental evacuation or pressurization of the glove box.
- Patented Diaphragm Top for easy of operation and cost savings under anaerobic conditions.