

# Navigating Glove Box Selection

## Introduction

Choosing the right glove box is critical for ensuring safety and efficiency in laboratory environments. A wide range of glove box solutions are available for various applications. This guide aims to assist you in guiding your customers to make informed decisions for their specific laboratory needs.

## Available Glove Box Types:

**Premium Stainless Steel Chassis Glove Boxes:** Glove boxes constructed of stainless steel, tempered glass and premium materials (such as Labconco® Protector® Glove Boxes) are ideal for controlled atmosphere applications like battery research, including hydrogen fuel cell and lithium-ion battery production. These boxes come in different configurations, such as single-width with fiberglass liners or stainless steel liners, and double-width options. This enclosure is defined by its ability to maintain a near zero oxygen and moisture environment.

### Key areas:

- Anaerobic experiments
- Inert atmosphere
- Materials science
- Nuclear research



**Combination Glove Boxes:** Offering versatility, these units function both as filtered and controlled atmosphere glove boxes, suitable for labs with diverse or changing requirements. These labs usually work with materials sensitive to atmospheric conditions and require particulate-free conditions, like semiconductor or pharmaceutical research. The flexibility of switching between a controlled atmosphere and a filtered environment make these glove boxes invaluable for multidisciplinary research labs.

### Key areas:

- Multidisciplinary research
- Pharmaceutical research
- Semiconductor fabrication
- Chemical engineering

**Ample Glove Box Work Area:** Glove Boxes that feature a large internal work area (such as Labconco Precise® Glove Boxes) can provide as much as 13 cubic feet of interior space. This makes them suitable for tasks requiring an ample work area in a high quality and affordable enclosure. Cost conscious customers should look for fully capable, fully featured enclosures constructed with more affordable materials.

**Key areas:**

- Synthesis
- Electronics assembly
- Chemical analysis
- Inert atmosphere



**Accessories for Specific Needs**

With over 70 optional accessories, including drying train accessories, pressure relief vent kits, oxygen monitoring, and ionized air circulation, configuring a glove box can be a daunting task. Here are some key accessories to consider:

**Auto Pressure Controller:** Auto Pressure Controller models automate evacuation and backfill processes for convenience and precision. Essential for controlled atmosphere work.

**AtmosPure™ Re-Gen Gas Purifier:** An essential add-on for achieving ultra-low oxygen and moisture levels, especially if the requirements are to have an environment with 1 ppm Oxygen and 1 ppm Moisture, a necessity for pyrogenic and battery research.

**AtmoSense™ Oxygen and Moisture Monitors:** The oxygen monitor detection in the 0-1,000 ppm range and the moisture monitor provides moisture detection in the 0-12,310 ppm range.

**We're Here for You**

Our customizable glove boxes are crafted to meet a variety of lab needs, creating safe, efficient and controlled workspaces. As always, we will partner with you to help guide customers to the perfect solution for their specific applications.

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